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ELEVENTH
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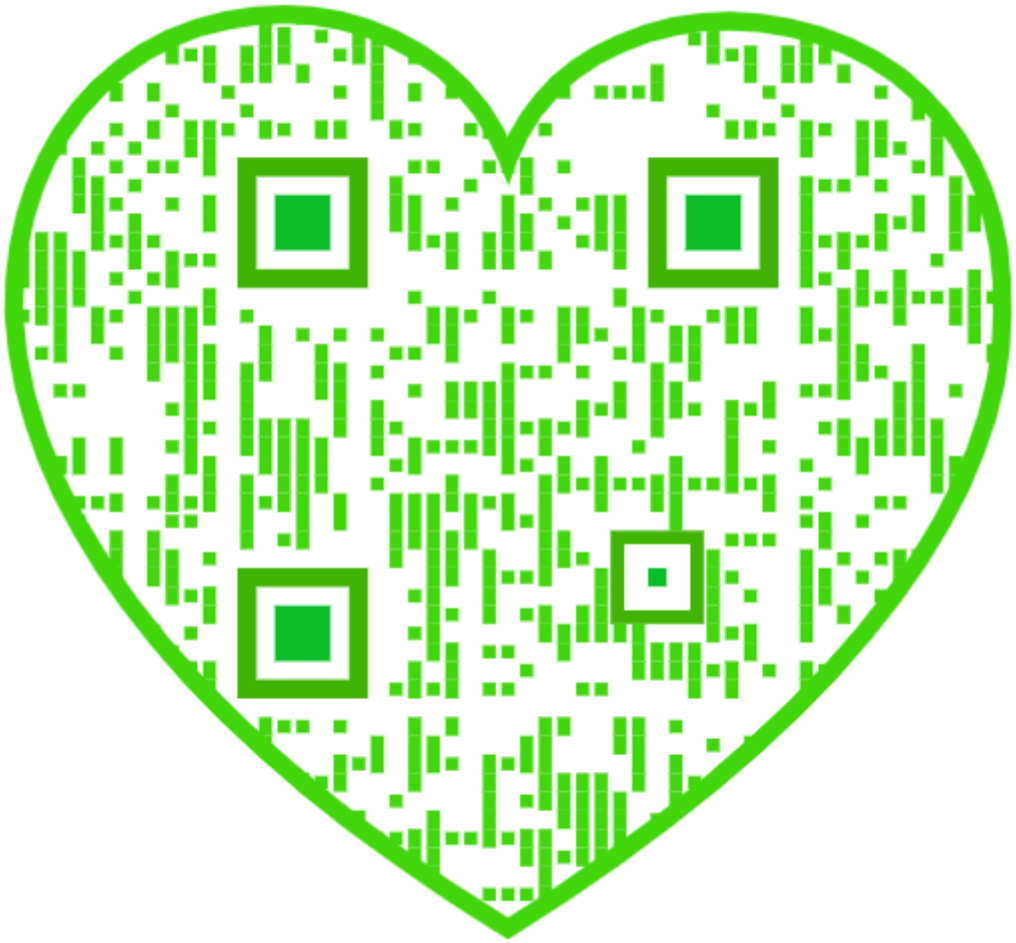

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THE

ENCYCLOPÆDIA BRITANNICA

A

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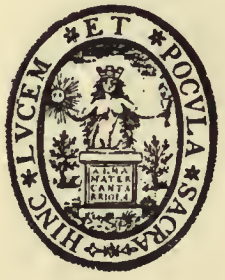
OF

ARTS, SCIENCES, LITERATURE AND GENERAL INFORMATION

ELEVENTH EDITION

VOLUME XV

ITALY to KYSHTYM



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1984

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J. Mt.	JAMES MOFFATT, M.A., D.D. Jowett Lecturer, London, 1907. Author of *Historical New Testament*; &c.	**John, Epistles of.**
J. N. K.	JOHN NEVILLE KEYNES, M.A., D.SC. Registrary of the University of Cambridge. University Lecturer in Moral Science. Secretary to the Local Examinations and Lectures Syndicate. Formerly Fellow of Pembroke College. Author of *Studies and Exercises in Formal Logic*; &c.	**Jevons, William Stanley.**
J. P. P.	JOHN PERCIVAL POSTGATE, M.A., LITT.D. Professor of Latin in the University of Liverpool. Fellow of Trinity College, Cambridge. Fellow of the British Academy. Editor of the *Classical Quarterly.* Editor-in-Chief of the *Corpus Poetarum Latinorum*; &c.	**Juvenal** (*in part*).

J. P. Pe.	Rev. John Punnett Peters, Ph.D., D.D. Canon Residentiary, P. E. Cathedral of New York. Formerly Professor of Hebrew in the University of Pennsylvania. Director of the University Expedition to Babylonia, 1888–1895. Author of *Nippur, or Explorations and Adventures on the Euphrates.*	**Kerbela; Kerkuk; Khorsabad.**
J. R. B.	John Rose Bradford, M.D., D.Sc., F.R.C.P., F.R.S. Physician to University College Hospital. Professor of Materia Medica and Therapeutics, University College, London. Secretary of the Royal Society. Formerly Member of Senate, University of London.	**Kidney Diseases** (*in part*).
J. T. Be.	John Thomas Bealby. Joint-author of Stanford's *Europe*. Formerly Editor of the *Scottish Geographical Magazine*. Translator of Sven Hedin's *Through Asia, Central Asia and Tibet*; &c.	**Kalmuck; Kaluga; Kamchatka; Kara-Kum; Kars; Kazañ; Kerch; Khingan; Khiva; Khokand; Khotan; Kiev; Kronstadt; Kubañ; Kuen-Lun; Kursk; Kutais.**
J. T. S.*	James Thomson Shotwell, Ph.D. Professor of History in Columbia University, New York City.	**Joan of Arc** (*in part*).
J. V.*	Jules Viard. Archivist at the National Archives, Paris. Officer of Public Instruction. Author of *La France sous Philippe VI. de Valois*; &c.	**Jacquerie, The.**
J. W. He.	James Wycliffe Headlam, M.A. Staff Inspector of Secondary Schools under the Board of Education. Formerly Fellow of King's College, Cambridge. Professor of Greek and Ancient History at Queen's College, London. Author of *Bismarck and the Foundation of the German Empire*; &c.	**Kossuth.**
K.	Baron Dairoku Kikuchi, M.A., D.Sc., LL.D. President of the Imperial University of Kyoto. President of Imperial Academy of Japan. Emeritus Professor, Imperial University, Tokio. Author of *Japanese Education*; &c.	**Japan:** *The Claim of Japan.*
K. S.	Kathleen Schlesinger. Editor of the *Portfolio of Musical Archaeology*. Author of *The Instruments of the Orchestra*; &c.	**Jews' Harp; Kettledrum; Keyboard.**
L.	Count Lützow, Litt.D. (Oxon.), D.Ph. (Prague), F.R.G.S. Chamberlain of H.M. the Emperor of Austria, King of Bohemia. Hon. Member of the Royal Society of Literature. Member of the Bohemian Academy, &c. Author of *Bohemia, a Historical Sketch*; *The Historians of Bohemia* (Ilchester Lecture, Oxford, 1904); *The Life and Times of John Hus*; &c.	**Jerome of Prague.**
L. F. V.-H.	Leveson Francis Vernon-Harcourt, M.A., M.Inst.C.E. (1839–1907). Formerly Professor of Civil Engineering at University College, London. Author of *Rivers and Canals*; *Harbours and Docks*; *Civil Engineering as applied in Construction*; &c.	**Jetty.**
L. J. S.	Leonard James Spencer, M.A. Assistant in the Department of Mineralogy, British Museum. Formerly Scholar of Sidney Sussex College, Cambridge, and Harkness Scholar. Editor of the *Mineralogical Magazine.*	**Jarosite.**
L. C.	Rev. Lewis Campbell, D.C.L., LL.D. See the biographical article: Campbell, Lewis.	**Jowett.**
L. D.*	Louis Duchesne. See the biographical article: Duchesne, L. M. O.	**John XIX.; Julius I.**
L. V.*	Luigi Villari. Italian Foreign Office (Emigration Department). Formerly Newspaper Correspondent in east of Europe. Italian Vice-Consul in New Orleans, 1906; Philadelphia, 1907; Boston, U.S.A., 1907–1910. Author of *Italian Life in Town and Country*; *Fire and Sword in the Caucasus*; &c.	**Italy:** *History* (E. *and* G.).
M.	Lord Macaulay. See the biographical article: Macaulay, Baron.	**Johnson, Samuel.**
M. Br.	Margaret Bryant.	**Keats** (*in part*).
M. F.	Sir Michael Foster, K.C.B., D.C.L., D.Sc., LL.D., F.R.S. See the biographical article: Foster, Sir M.	**Kölleker.**
M. M. Bh.	Sir Mancherjee Merwanjee Bhownagree. Fellow of Bombay University. M.P. for N.E. Bethnal Green, 1895–1906. Author of *History of the Constitution of the East India Company*; &c.	**Jeejeebhoy.**
M. O. B. C.	Maximilian Otto Bismarck Caspari, M.A. Reader in Ancient History at London University. Lecturer in Greek at Birmingham University, 1905–1908.	**Justin II.**
M. P.*	Leon Jacques Maxime Prinet. Formerly Archivist to the French National Archives. Auxiliary of the Institute of France (Academy of Moral and Political Sciences).	**Joinville** (*Family*); **Joyeuse; Juge, Boffille de.**
N. M.	Norman McLean, M.A. Lecturer in Aramaic, Cambridge University. Fellow and Hebrew Lecturer, Christ's College, Cambridge. Joint-editor of the larger *Cambridge Septuagint.*	**Jacob of Edessa; Jacob of Serügh; Joshua the Stylite.**

N. V.	JOSEPH MARIE NOEL VALOIS. Member of Académie des Inscriptions et Belles-Lettres, Paris. Honorary Archivist at the Archives Nationales. Formerly President of the Société de l'Histoire de France and the Société de l'École de Chartes. Author of *La France et le grand schisme d'Occident*; &c.	**John XXIII.**
O. H.*	OTTO HEHNER, F.I.C., F.C.S. Public Analyst. Formerly President of Society of Public Analysts. Vice-President of Institute of Chemistry of Great Britain and Ireland. Author of works on butter analysis; *Alcohol Tables*; &c.	**Jams and Jellies.**
O. J. R. H.	OSBERT JOHN RADCLIFFE HOWARTH, M.A. Christ Church, Oxford. Geographical Scholar, 1901. Assistant Secretary of the British Association.	**Java** (*in part*); **Korea** (*in part*).
P. A.	PAUL DANIEL ALPHANDÉRY. Professor of the History of Dogma, École pratique des Hautes Études, Sorbonne, Paris. Author of *Les Idées morales chez les hétérodoxes latines au début du XIIIe siècle.*	**Joachim of Floris;** **John XXII.**
P. A. A.	PHILIP A. ASHWORTH, M.A., DOC.JURIS. New College, Oxford. Barrister-at-Law. Translator of H. R. von Gneist's *History of the English Constitution.*	**Jhering.**
P. A. K.	PRINCE PETER ALEXEIVITCH KROPOTKIN. See the biographical article: KROPOTKIN, P. A.	**Kalmuck; Kaluga;** **Kamchatka; Kara-Kum;** **Kazañ; Kerch; Khingan;** **Khokand; Kiev; Kronstadt;** **Kubañ; Kuen-Lun;** **Kursk; Kutais.**
P. Gi.	PETER GILES, M.A., LL.D., LITT.D. Fellow and Classical Lecturer of Emmanuel College, Cambridge, and University Reader in Comparative Philology. Formerly Secretary of the Cambridge Philological Society. Author of *Manual of Comparative Philology.*	**J.** **K.**
P. G. T.	PETER GUTHRIE TAIT. See the biographical article: TAIT, PETER GUTHRIE.	**Knot.**
P. La.	PHILIP LAKE, M.A., F.G.S. Lecturer on Physical and Regional Geography in Cambridge University. Formerly of the Geological Survey of India. Author of *Monograph of British Cambrian Trilobites.* Translator and Editor of Kayser's *Comparative Geology.*	**Japan:** *Geology.*
P. L. G.	PHILIP LYTTELTON GELL, M.A. Sometime Scholar of Balliol College, Oxford. Secretary to the Clarendon Press, Oxford, 1884–1897. Fellow of King's College, London.	**Khazars** (*in part*).
P. Vi.	PAUL VINOGRADOFF, D.C.L., LL.D. See the biographical article: Vinogradoff, Paul.	**Jurisprudence, Comparative.**
R. A.*	ROBERT ANCHEL. Archivist to the Département de l'Eure.	**Kersaint.**
R. Ad.	ROBERT ADAMSON, LL.D. See the biographical article: ADAMSON, ROBERT.	**Kant** (*in part*).
R. A. S. M.	ROBERT ALEXANDER STEWART MACALISTER, M.A., F.S.A. St John's College, Cambridge. Director of Excavations for the Palestine Exploration Fund.	**Joppa;** **Kerak.**
R. A. W.	ROBERT ALEXANDER WAHAB, C.B., C.M.G., C.I.E. Colonel, Royal Engineers. Formerly H.M. Commissioner, Aden Boundary Delimitation, and Superintendent, Survey of India. Served with Tirah Expeditionary Force, 1897–1898; Anglo-Russian Boundary Commission, Pamirs, 1895; &c.	**Kuwēt.**
R. F. L.	REV. RICHARD FREDERICK LITTLEDALE, M.A., LL.D., D.C.L. (1833–1890). Author of *Religious Communities of Women in the Early Church*; *Catholic Ritual in the Church of England*; *Why Ritualists do not become Roman Catholics.*	**Jesuits** (*in part*).
R. G.	RICHARD GARNETT, LL.D. See the biographical article: GARNETT, RICHARD.	**Kraszewski.**
R. H. C.	REV. ROBERT HENRY CHARLES, M.A., D.D., D.LITT. (Oxon.). Grinfield Lecturer and Lecturer in Biblical Studies, Oxford, and Fellow of Merton College. Fellow of the British Academy. Formerly Senior Moderator of Trinity College, Dublin. Author and Editor of *Book of Enoch*; *Book of Jubilees*; *Assumption of Moses*; *Ascension of Isaiah*; *Testamenis of the XII. Patriarchs*; &c.	**Jeremy, Epistle of;** **Jubilees, Book of;** **Judith, The Book of.**
R. I. P.	REGINALD INNES POCOCK, F.Z.S. Superintendent of the Zoological Gardens, London.	**King-Crab.**
R. J. M.	RONALD JOHN MCNEILL, M.A. Christ Church, Oxford. Barrister-at-Law. Formerly Editor of the *St James's Gazette*, London.	**Jeffreys, 1st Baron;** **Keith:** *Family.*
R. K. D.	SIR ROBERT KENNAWAY DOUGLAS. Formerly Keeper of Oriental Printed Books and MSS. at the British Museum, and Professor of Chinese, King's College, London. Author of *The Language and Literature of China*; &c.	**Jenghiz Khan;** **Julien.**
R. L.*	RICHARD LYDEKKER, F.R.S., F.G.S., F.Z.S. Member of the Staff of the Geological Survey of India, 1874–1882. Author of *Catalogue of Fossil Mammals, Reptiles and Birds in the British Museum*; *The Deer of all Lands*; *The Game Animals of Africa*; &c.	**Jerboa;** **Kangaroo** (*in part*).

R. N. B. ROBERT NISBET BAIN (d. 1909).
Assistant Librarian, British Museum, 1883–1909. Author of *Scandinavia, the Political History of Denmark, Norway and Sweden, 1513–1900*; *The First Romanovs, 1613–1725*; *Slavonic Europe, the Political History of Poland and Russia from 1469 to 1796*; &c.
— **Ivan I.-VI.; Jellachich; John III.: *Sobieski*; Juel, Jens; Juel, Neils; Kármán; Kemeny, Baron; Kisfaludy; Kollontaj; Koniecpolski; Kosciuszko; Kurakin, Prince.**

R. Po. RENÉ POUPARDIN, D. ÈS L.
Secretary of the École des Chartes. Honorary Librarian at the Bibliothèque Nationale, Paris. Author of *Le Royaume de Provence sous les Carolingiens*; *Recueil des chartes de Saint-Germain*; &c.
— **John, Duke of Burgundy.**

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Formerly Master of the Architectural School, Royal Academy, London. Past President of Architectural Association. Associate and Fellow of King's College, London. Corresponding Member of the Institute of France. Editor of Fergusson's *History of Architecture*. Author of *Architecture: East and West*; &c.
— **Jacobean Style.**

R. S. C. ROBERT SEYMOUR CONWAY, M.A., D.LITT. (Cantab.).
Professor of Latin and Indo-European Philology in the University of Manchester. Formerly Professor of Latin in University College, Cardiff; and Fellow of Gonville and Caius College, Cambridge. Author of *The Italic Dialects*.
— **Italy: *History* (A.).**

S. A. C. STANLEY ARTHUR COOK, M.A.
Lecturer in Hebrew and Syriac, and formerly Fellow, Gonville and Caius College, Cambridge. Editor for Palestine Exploration Fund. Examiner in Hebrew and Aramaic, London University, 1904–1908. Author of *Glossary of Aramaic Inscriptions*; *The Laws of Moses and the Code of Hammurabi*; *Critical Notes on Old Testament History*; *Religion of Ancient Palestine*; &c.
— **Jacob; Jehorakim; Jehoram; Jehoshaphat; Jehu; Jephthah; Jerahmeel; Jeroboam; Jews: *Old Testament History*; Jezebel; Joab; Joash; Joseph: *Old Testament*; Joshua; Josiah; Judah; Judges, Book of; Kabbalah (*in part*); Kenites; Kings, Books of.**

St. C. VISCOUNT ST CYRES.
See the biographical article: IDDESLEIGH, 1ST EARL OF.
— **Jansen; Jansenism.**

S. N. SIMON NEWCOMB, D.SC., D.C.L.
See the biographical article: NEWCOMB, SIMON.
— **Jupiter: *Satellites*.**

T. As. THOMAS ASHBY, M.A., D.LITT. (Oxon.).
Director of British School of Archaeology at Rome. Formerly Scholar of Christ Church, Oxford. Craven Fellow, 1897. Conington Prizeman, 1906. Member of the Imperial German Archaeological Institute.
— **Italy: *Geography and Statistics*; *History* (B.); Ivrea.**

T. A. I. THOMAS ALLAN INGRAM, M.A., LL.D.
Trinity College, Dublin.
— **Juvenile Offenders (*in part*).**

T. A. J. THOMAS ATHOL JOYCE, M.A.
Assistant in Department of Ethnography, British Museum. Hon. Sec., Royal Anthropological Institute.
— **Kavirondo.**

T. F. C. THEODORE FREYLINGHUYSEN COLLIER, PH.D.
Assistant Professor of History, Williams College, Williamstown, Mass., U.S.A.
— **Julius III.**

T. H. THOMAS HODGKIN, D.C.L., LL.D.
See the biographical article: HODGKIN, T.
— **Jordanes (*in part*).**

T. H. H.* SIR THOMAS HUNGERFORD HOLDICH, K.C.M.G., K.C.I.E., D.SC., F.R.G.S.
Colonel in the Royal Engineers. Superintendent Frontier Surveys, India, 1892–1898. Gold Medallist, R.G.S. (London), 1887. H.M. Commissioner for the Perso-Beluch Boundary, 1896. Author of *The Indian Borderland*; *The Gates of India*; &c.
— **Kabul; Kalat; Kandahar; Kashmir; Khyber Pass; Kunar; Kushk.**

T. K. THOMAS KIRKUP, M.A., LL.D.
Author of *An Inquiry into Socialism*; *Primer of Socialism*; &c.
— **Julian (*in part*).**

T. K. C. REV. THOMAS KELLY CHEYNE, D.D.
See the biographical article: CHEYNE, T. K.
— **Jeremiah; Joel (*in part*); Jonah.**

Th. N. THEODOR NÖLDEKE, PH.D.
See the biographical article: NÖLDEKE, THEODOR.
— **Koran (*in part*).**

T. Se. THOMAS SECCOMBE, M.A.
Balliol College, Oxford. Lecturer in History, East London and Birkbeck Colleges, University of London. Stanhope Prizeman, Oxford, 1887. Assistant Editor of *Dictionary of National Biography*, 1891–1901. Author of *The Age of Johnson*. Joint-author of *Bookman History of English Literature*; &c.
— **Johnson, Samuel.**

T. Wo. THOMAS WOODHOUSE.
Head of the Weaving and Textile Designing Department, Technical College, Dundee.
— **Jute.**

T. W. R. D. THOMAS WILLIAM RHYS DAVIDS, LL.D., PH.D.
Professor of Comparative Religion, Manchester. Professor of Pali and Buddhist Literature, University College, London, 1882–1904. President of the Pali Text Society. Fellow of the British Academy. Secretary and Librarian of Royal Asiatic Society, 1885–1902. Author of *Buddhism*; *Sacred Books of the Buddhists*; *Early Buddhism*; *Buddhist India*; *Dialogues of the Buddha*; &c.
— **Jains; Jātaka; Kanishka.**

W. An. WILLIAM ANDERSON, F.R.C.S.
Formerly Chairman of Council of the Japan Society. Author of *The Pictorial Arts of Japan*; *Japanese Wood Engravings*; *Catalogue of Chinese and Japanese Pictures in the British Museum*; &c.
— **Japan: *Art* (*in part*).**

W. A. B. C.	Rev. William Augustus Brevoort Coolidge, M.A., F.R.G.S., Ph.D. (Bern). Fellow of Magdalen College, Oxford. Professor of English History, St David's College, Lampeter, 1880–1881. Author of *Guide to Switzerland*; *The Alps in Nature and in History*; &c. Editor of *The Alpine Journal*, 1880–1889.	**Jenatsch, Georg; Jungfrau; Jura.**
W. A. P.	Walter Alison Phillips, M.A. Formerly Exhibitioner of Merton College and Senior Scholar of St John's College, Oxford. Author of *Modern Europe*; &c.	**Jacobins; King; Kriemhild; Krüdener, Baroness von.**
W. B.*	William Burton, M.A., F.C.S. Chairman, Joint Committee of Pottery Manufacturers of Great Britain. Author of *English Stoneware and Earthenware*; &c.	**Kashi** (*in part*).
W. Ba.	William Bacher, Ph.D. Professor of Biblical Studies at the Rabbinical Seminary, Buda-Pest.	**Jonah, Rabbi; Kimhi.**
W. Be.	Sir Walter Besant. See the biographical article: Besant, Sir Walter.	**Jefferies.**
W. F. C.	William Feilden Craies, M.A. Barrister-at-Law, Inner Temple. Lecturer on Criminal Law at King's College, London. Editor of Archbold's *Criminal Pleading*, 23rd ed.	**Jury.**
W. F. D.	William Frederick Denning, F.R.A.S. Gold Medal, R.A.S. President, Liverpool Astronomical Society, 1877–1878. Corresponding Fellow of Royal Astronomical Society of Canada; &c. Author of *Telescopic Work for Starlight Evenings*; *The Great Meteoric Shower*; &c.	**Jupiter.**
W. G.	William Garnett, M.A., D.C.L. Educational Adviser to the London County Council. Formerly Fellow and Lecturer of St John's College, Cambridge. Principal and Professor of Mathematics, Durham College of Science, Newcastle-on-Tyne. Author of *Elementary Dynamics*; &c.	**Kelvin, Lord.**
W. G. S.	William Graham Sumner. See the biographical article: Sumner, William Graham.	**Jackson, Andrew.**
W. H. Be.	William Henry Bennett, M.A., D.D., D.Litt.(Cantab.). Professor of Old Testament Exegesis in New and Hackney Colleges, London. Formerly Fellow of St John's College, Cambridge. Lecturer in Hebrew at Firth College, Sheffield. Author of *Religion of the Post-Exilic Prophets*; &c.	**Japheth.**
W. H. Di.	William Henry Dines, F.R.S. Director of Upper Air Investigation for the English Meteorological Office.	**Kite-flying** (*in part*).
W. H. F.	Sir William H. Flower, LL.D. See the biographical article: Flower, Sir W. H.	**Kangaroo** (*in part*).
W. L. F.	Walter Lynwood Fleming, A.M., Ph.D. Professor of History in Louisiana State University. Author of *Documentary History of Reconstruction*; &c.	**Knights of the Golden Circle; Ku Klux Klan.**
W. L.-W.	Sir William Lee-Warner, M.A., K.C.S.I. Member of Council of India. Formerly Secretary in the Political and Secret Department of the India Office. Author of *Life of the Marquis of Dalhousie*; *Memoirs of Field-Marshal Sir Henry Wylie Norman*; &c.	**Jung Bahadur, Sir.**
W. M. R.	William Michael Rossetti. See the biographical article: Rossetti, Dante G.	**Kneller.**
W. M. Ra.	Sir William Mitchell Ramsay, LL.D., D.C.L. See the biographical article, Ramsay, Sir W. M.	**Jupiter** (*in part*).
W. P. J.	William Price James. Barrister-at-Law, Inner Temple. High Bailiff, Cardiff County Court. Author of *Romantic Professions*; &c.	**Kipling, Rudyard.**
W. R. S.	William Robertson Smith, LL.D. See the biographical article: Smith, William Robertson.	**Joel** (*in part*); **Jubilee, Year of** (*in part*).
W. W. F.*	William Warde Fowler, M.A. Fellow of Lincoln College, Oxford. Sub-rector, 1881–1904. Gifford Lecturer, Edinburgh University, 1908. Author of *The City-State of the Greeks and Romans*; *The Roman Festivals of the Republican Period*; &c.	**Juno; Jupiter** (*in part*).
W. W. R.*	William Walker Rockwell, Ph.D. Assistant Professor of Church History, Union Theological Seminary, New York.	**Jerusalem, Synod of.**
W. Y. S.	William Young Sellar, LL.D. See the biographical article: Sellar, W. Y.	**Juvenal** (*in part*).

PRINCIPAL UNSIGNED ARTICLES

Ivy.
Jamaica.
Janissaries.
Jaundice.
Ju-Jitsu.
Jumping.
Juniper.
Jurisprudence.
Kaffirs.
Kansas.
Kent.
Kentucky.
Kerry.
Ketones.
Kildare.
Kilkenny.
Know Nothing Party.

ENCYCLOPÆDIA BRITANNICA

ELEVENTH EDITION

VOLUME XV

ITALY (*Italia*), the name[1] applied both in ancient and in modern times to the great peninsula that projects from the mass of central Europe far to the south into the Mediterranean Sea, where the island of Sicily may be considered as a continuation of the continental promontory. The portion of the Mediterranean commonly termed the Tyrrhenian Sea forms its limit on the W. and S., and the Adriatic on the E.; while to the N., where it joins the main continent of Europe, it is separated from the adjacent regions by the mighty barrier of the Alps, which sweeps round in a vast semicircle from the head of the Adriatic to the shores of Nice and Monaco.

Topography.—The land thus circumscribed extends between the parallels of 46° 40′ and 36° 38′ N., and between 6° 30′ and 18° 30′ E. Its greatest length in a straight line along the mainland is from N.W. to S.E., in which direction it measures 708 m. in a direct line from the frontier near Courmayeur to Cape Sta Maria di Leuca, south of Otranto, but the great mountain peninsula of Calabria extends about two degrees farther south to Cape Spartivento in lat. 37° 55′. Its breadth is, owing to its configuration, very irregular. The northern portion, measured from the Alps at the Monte Viso to the mouth of the Po, has a breadth of about 270 m., while the maximum breadth, from the Rocca Chiardonnet near Susa to a peak in the valley of the Isonzo, is 354 m. But the peninsula of Italy, which forms the largest portion of the country, nowhere exceeds 150 m. in breadth, while it does not generally measure more than 100 m. across. Its southern extremity, Calabria, forms a complete peninsula, being united to the mass of Lucania or the Basilicata by an isthmus only 35 m. in width, while that between the gulfs of Sta Eufemia and Squillace, which connects the two portions of the province, does not exceed 20 m. The area of the kingdom of Italy, exclusive of the large islands, is computed at 91,277 sq. m. Though

Boundaries.

the Alps form throughout the northern boundary of Italy, the exact limits at the extremities of the Alpine chain are not clearly marked. Ancient geographers appear to have generally regarded the remarkable headland which descends from the Maritime Alps to the sea between Nice and Monaco as the limit of Italy in that direction, and in a purely geographical point of view it is probably the best point that could be selected. But Augustus, who was the first to give to Italy a definite political organization, carried the frontier to the river Varus or Var, a few miles west of Nice, and this river continued in modern times to be generally recognized as the boundary between France and Italy. But in 1860 the annexation of Nice and the adjoining territory to France brought the political frontier farther east, to a point between Mentone and Ventimiglia which constitutes no natural limit.

Towards the north-east, the point where the Julian Alps approach close to the seashore (just at the sources of the little stream known in ancient times as the Timavus) would seem to constitute the best natural limit. But by Augustus the frontier was carried farther east so as to include Tergeste (Trieste), and the little river Formio (Risano) was in the first instance chosen as the limit, but this was subsequently transferred to the river Arsia (the Arsa), which flows into the Gulf of Quarnero, so as to include almost all Istria; and the circumstance that the coast of Istria was throughout the middle ages held by the republic of Venice tended to perpetuate this arrangement, so that Istria was generally regarded as belonging to Italy, though certainly not forming any natural portion of that country. Present Italian aspirations are similarly directed.

The only other part of the northern frontier of Italy where the boundary is not clearly marked by nature is Tirol or the valley of the Adige. Here the main chain of the Alps (as marked by the watershed) recedes so far to the north that it has never constituted the frontier. In ancient times the upper valleys of the Adige and its tributaries were inhabited by Raetian tribes and included in the province of Raetia; and the line of demarcation between that province and Italy was purely arbitrary, as it remains to this day. Tridentum or Trent was in the time of Pliny included in the tenth region of Italy or Venetia, but he tells us that the inhabitants were a Raetian tribe. At the present day the frontier between Austria and the kingdom of Italy crosses the Adige about 30 m. below Trent—that city and its territory, which previous to the treaty of Lunéville in 1801 was governed by sovereign archbishops, subject only to the German emperors, being now included in the Austrian empire.

While the Alps thus constitute the northern boundary of Italy, its configuration and internal geography are determined almost entirely by the great chain of the Apennines, which branches off from the Maritime Alps between Nice and Genoa, and, after stretching in an unbroken line from the Gulf of Genoa to the Adriatic, turns more to the south, and is continued throughout

[1] On the derivation see below, *History*, section A, *ad. init.*

Central and Southern Italy, of which it forms as it were the backbone, until it ends in the southernmost extremity of Calabria at Cape Spartivento. The great spur or promontory projecting towards the east to Brindisi and Otranto has no direct connexion with the central chain.

One chief result of the manner in which the Apennines traverse Italy from the Mediterranean to the Adriatic is the marked division between Northern Italy, including the region north of the Apennines and extending thence to the foot of the Alps, and the central and more southerly portions of the peninsula. No such line of separation exists farther south, and the terms Central and Southern Italy, though in general use among geographers and convenient for descriptive purposes, do not correspond to any natural divisions.

1. *Northern Italy.*—By far the larger portion of Northern Italy is occupied by the basin of the Po, which comprises the whole of the broad plain extending from the foot of the Apennines to that of the Alps, together with the valleys and slopes on both sides of it. From its source in Monte Viso to its outflow into the Adriatic—a distance of more than 220 m. in a direct line—the Po receives all the waters that flow from the Apennines northwards, and all those that descend from the Alps towards the south, Mincio (the outlet of the Lake of Garda) inclusive. The next river to the E. is the Adige, which, after pursuing a parallel course with the Po for a considerable distance, enters the Adriatic by a separate mouth. Farther to the N. and N.E. the various rivers of Venetia fall directly into the Gulf of Venice.

There is no other instance in Europe of a basin of similar extent equally clearly characterized—the perfectly level character of the plain being as striking as the boldness with which the lower slopes of the mountain ranges begin to rise on each side of it. This is most clearly marked on the side of the Apennines, where the great Aemilian Way, which has been the high road from the time of the Romans to our own, preserves an unbroken straight line from Rimini to Piacenza, a distance of more than 150 m., during which the underfalls of the mountains continually approach it on the left, without once crossing the line of road.

The geography of Northern Italy will be best described by following the course of the Po. That river has its origin as a mountain torrent descending from two little dark lakes on the north flank of Monte Viso, at a height of more than 6000 ft. above the sea; and after a course of less than 20 m. it enters the plain at Saluzzo, between which and Turin, a distance of only 30 m., it receives three considerable tributaries—the Chisone on its left bank, bringing down the waters from the valley of Fenestrelle, and the Varaita and Maira on the south, contributing those of two valleys of the Alps immediately south of that of the Po itself. A few miles below Valenza it is joined by the Tanaro, a large stream, which brings with it the united waters of the Stura, the Bormida and several minor rivers.

More important are the rivers that descend from the main chain of the Graian and Pennine Alps and join the Po on its left bank. Of these the Dora (called for distinction's sake Dora Riparia), which unites with the greater river just below Turin, has its source in the Mont Genèvre, and flows past Susa at the foot of the Mont Cenis. Next comes the Stura, which rises in the glaciers of the Roche Melon; then the Orca, flowing through the Val di Locana; and then the Dora Baltea, one of the greatest of all the Alpine tributaries of the Po, which has its source in the glaciers of Mont Blanc, above Courmayeur, and thence descends through the Val d'Aosta for about 70 m. till it enters the plain at Ivrea, and, after flowing about 20 m. more, joins the Po a few miles below Chivasso. This great valley—one of the most considerable on the southern side of the Alps—has attracted special attention, in ancient as well as modern times, from its leading to two of the most frequented passes across the great mountain chain—the Great and the Little St Bernard—the former diverging at Aosta, and crossing the main ridges to the north into the valley of the Rhone, the other following a more westerly direction into Savoy. Below Aosta also the Dora Baltea receives several considerable tributaries, which descend from the glaciers between Mont Blanc and Monte Rosa.

About 25 m. below its confluence with the Dora, the Po receives the Sesia, also a large river, which has its source above Alagna at the southern foot of Monte Rosa, and after flowing by Varallo and Vercelli falls into the Po about 14 m. below the latter city. About 30 m. east of this confluence—in the course of which the Po makes a great bend south to Valenza, and then returns again to the northward—it is joined by the Ticino, a large and rapid river, which brings with it the outflow of Lago Maggiore and all the waters that flow into it. Of these the Ticino itself has its source about 10 m. above Airolo at the foot of the St Gotthard, and after flowing above 36 m. through the Val Leventina to Bellinzona (where it is joined by the Moësa bringing down the waters of the Val Misocco) enters the lake through a marshy plain at Magadino, about 10 m. distant. On the west side of the lake the Toccia or Tosa descends from the pass of the Gries nearly due south to Domodossola, where it receives the waters of the Doveria from the Simplon, and a few miles lower down those of the Val d'Anzasca from the foot of Monte Rosa, and 12 m. farther has its outlet into the lake between Baveno and Pallanza. The Lago Maggiore is also the receptacle of the waters of the Lago di Lugano on the east and the Lago d'Orta on the west.

The next great affluent of the Po, the Adda, forms the outflow of the Lake of Como, and has also its sources in the Alps, above Bormio, whence it flows through the broad and fertile valley of the Valtellina for more than 65 m. till it enters the lake near Colico. The Adda in this part of its course has a direction almost due east to west; but at the point where it reaches the lake, the Liro descends the valley of S. Giacomo, which runs nearly north and south from the pass of the Splügen, thus affording one of the most direct lines of communication across the Alps. The Adda flows out of the lake at its south-eastern extremity at Lecco, and has thence a course through the plain of above 70 m. till it enters the Po between Piacenza and Cremona. It flows by Lodi and Pizzighettone, and receives the waters of the Brembo, descending from the Val Brembana, and the Serio from the Val Seriana above Bergamo. The Oglio, a more considerable stream than either of the last two, rises in the Monte Tonale above Edolo, and descends through the Val Camonica to Lovere, where it expands into a large lake, called Iseo from the town of that name on its southern shore. Issuing thence at its south-west extremity, the Oglio has a long and winding course through the plain before it finally reaches the Po a few miles above Borgoforte. In this lower part it receives the smaller streams of the Mella, which flows by Brescia, and the Chiese, which proceeds from the small Lago d'Idro, between the Lago d'Iseo and that of Garda.

The last of the great tributaries of the Po is the Mincio, which flows from the Lago di Garda, and has a course of about 40 m. from Peschiera, where it issues from the lake at its south-eastern angle, till it joins the Po. About 12 m. above the confluence it passes under the walls of Mantua, and expands into a broad lake-like reach so as entirely to encircle that city. Notwithstanding its extent, the Lago di Garda is not fed by the snows of the high Alps, nor is the stream which enters it at its northern extremity (at Riva) commonly known as the Mincio, though forming the main source of that river, but is termed the Sarca; it rises at the foot of Monte Tonale.

The Adige, formed by the junction of two streams—the Etsch or Adige proper and the Eisak, both of which belong to Tirol rather than to Italy—descends as far as Verona, where it enters the great plain, with a course from north to south nearly parallel to the rivers last described, and would seem likely to discharge its waters into those of the Po, but below Legnago it turns eastward and runs parallel to the Po for about 40 m., entering the Adriatic by an independent mouth about 8 m. from the northern outlet of the greater stream. The waters of the two rivers have, however, been made to communicate by artificial cuts and canals in more than one place.

The Po itself, which is here a very large stream, with an average width of 400 to 600 yds., continues to flow with an undivided mass of waters as far as Sta Maria di Ariano, where it parts into two arms, known as the Po di Maestra and Po di Goro, and these again are subdivided into several other branches, forming a delta above 20 m. in width from north to south. The point of bifurcation, at present about 25 m. from the sea, was formerly much farther inland, more than 10 m. west of Ferrara, where a small arm of the river, still called the Po di Ferrara, branches from the main stream. Previous to the year 1154 this channel was the main stream, and the two small branches into which it subdivides, called the Po di Volano and Po di Primaro, were in early times the two main outlets of the river. The southernmost of these, the Po di Primaro, enters the Adriatic about 12 m. north of Ravenna, so that if these two arms be included, the delta of the Po extends about 36 m. from south to north. The whole course of the river, including its windings, is estimated at about 450 m.

Besides the delta of the Po and the large marshy tracts which it forms, there exist on both sides of it extensive lagoons of salt water, generally separated from the Adriatic by narrow strips of sand or embankments, partly natural and partly artificial, but having openings which admit the influx and efflux of the sea-water, and serve as ports for communication with the mainland. The best known and the most extensive of these lagoons is that in which Venice is situated, which extends from Torcello in the north to Chioggia and Brondolo in the south, a distance of above 40 m.; but they were formerly much more extensive, and afforded a continuous means of internal navigation, by what were called "the Seven Seas" (Septem Maria), from Ravenna to Altinum, a few miles north of Torcello. That city, like Ravenna, originally stood in the midst of a lagoon; and the coast east of it to near Monfalcone, where it meets the mountains, is occupied by similar expanses of water, which are, however, becoming gradually converted into dry land.

The tract adjoining this long line of lagoons is, like the basin of the Po, a broad expanse of perfectly level alluvial plain, extending from the Adige eastwards to the Carnic Alps, where they approach close to the Adriatic between Aquileia and Trieste, and northwards to the foot of the great chain, which here sweeps round in a semicircle from the neighbourhood of Vicenza to that of Aquileia. The space thus included was known in ancient times as Venetia, a name applied in the middle ages to the well-known city; the eastern portion of it became known in the middle ages as the Frioul or Friuli.

Returning to the south of the Po, the tributaries of that river on its right bank below the Tanaro are very inferior in volume and importance to those from the north. Flowing from the Ligurian

Apennines, which never attain the limit of perpetual snow, they generally dwindle in summer into insignificant streams. Beginning from the Tanaro, the principal of them are—(1) the Scrivia, a small but rapid stream flowing from the Apennines at the back of Genoa; (2) the Trebbia, a much larger river, though of the same torrent-like character, which rises near Torriglia within 20 m. of Genoa, flows by Bobbio, and joins the Po a few miles above Piacenza; (3) the Nure, a few miles east of the preceding; (4) the Taro, a more considerable stream; (5) the Parma, flowing by the city of the same name; (6) the Enza; (7) the Secchia, which flows by Modena; (8) the Panaro, a few miles to the east of that city; (9) the Reno, which flows by Bologna, but instead of holding its course till it discharges its waters into the Po, as it did in Roman times, is turned aside by an artificial channel into the Po di Primaro. The other small streams east of this—of which the most considerable are the Solaro, the Santerno, flowing by Imola, the Lamone by Faenza, the Montone by Forlì, all in Roman times tributaries of the Po—have their outlet in like manner into the Po di Primaro, or by artificial mouths into the Adriatic between Ravenna and Rimini. The river Marecchia, which enters the sea immediately north of Rimini, may be considered as the natural limit of Northern Italy. It was adopted by Augustus as the boundary of Gallia Cispadana; the far-famed Rubicon was a trifling stream a few miles farther north, now called Fiumicino. The Savio is the only other stream of any importance which has always flowed directly into the Adriatic from this side of the Tuscan Apennines.

The narrow strip of coast-land between the Maritime Alps, the Apennines and the sea—called in ancient times Liguria, and now known as the Riviera of Genoa—is throughout its extent, from Nice to Genoa on the one side, and from Genoa to Spezia on the other, almost wholly mountainous. It is occupied by the branches and offshoots of the mountain ranges which separate it from the great plain to the north, and send down their lateral ridges close to the water's edge, leaving only in places a few square miles of level plains at the mouths of the rivers and openings of the valleys. The district is by no means devoid of fertility, the steep slopes facing the south enjoying so fine a climate as to render them very favourable for the growth of fruit trees, especially the olive, which is cultivated in terraces to a considerable height up the face of the mountains, while the openings of the valleys are generally occupied by towns or villages, some of which have become favourite winter resorts.

From the proximity of the mountains to the sea none of the rivers in this part of Italy has a long course, and they are generally mere mountain torrents, rapid and swollen in winter and spring, and almost dry in summer. The largest and most important are those which descend from the Maritime Alps between Nice and Albenga. The most considerable of them are—the Roja, which rises in the Col di Tenda and descends to Ventimiglia; the Taggia, between San Remo and Oneglia; and the Centa, which enters the sea at Albenga. The Lavagna, which enters the sea at Chiavari, is the only stream of any importance between Genoa and the Gulf of Spezia. But immediately east of that inlet (a remarkable instance of a deep land-locked gulf with no river flowing into it) the Magra, which descends from Pontremoli down the valley known as the Lunigiana, is a large stream, and brings with it the waters of another considerable stream, the Vara. The Magra (Macra), in ancient times the boundary between Liguria and Etruria, may be considered as constituting on this side the limit of Northern Italy.

The Apennines (*q.v.*), as has been already mentioned, here traverse the whole breadth of Italy, cutting off the peninsula properly so termed from the broader mass of Northern Italy by a continuous barrier of considerable breadth, though of far inferior elevation to that of the Alps. The Ligurian Apennines may be considered as taking their rise in the neighbourhood of Savona, where a pass of very moderate elevation connects them with the Maritime Alps, of which they are in fact only a continuation. From the neighbourhood of Savona to that of Genoa they do not rise to more than 3000 to 4000 ft., and are traversed by passes of less than 2000 ft. As they extend towards the east they increase in elevation; the Monte Bue rises to 5915 ft., while the Monte Cimone, a little farther east, attains 7103 ft. This is the highest point in the northern Apennines, and belongs to a group of summits of nearly equal altitude; the range which is continued thence between Tuscany and what are now known as the Emilian provinces presents a continuous ridge from the mountains at the head of the Val di Mugello (due north of Florence) to the point where they are traversed by the celebrated Furlo Pass. The highest point in this part of the range is the Monte Falterona, above the sources of the Arno, which attains 5410 ft. Throughout this tract the Apennines are generally covered with extensive forests of chestnut, oak and beech; while their upper slopes afford admirable pasturage. Few towns of any importance are found either on their northern or southern declivity, and the former region especially, though occupying a tract of from 30 to 40 m. in width, between the crest of the Apennines and the plain of the Po, is one of the least known and at the same time least interesting portions of Italy.

2. *Central Italy.*—The geography of Central Italy is almost wholly determined by the Apennines, which traverse it in a direction from about north-north-east to south-south-west, almost precisely parallel to that of the coast of the Adriatic from Rimini to Pescara. The line of the highest summits and of the watershed ranges is about 30 to 40 m. from the Adriatic, while about double that distance separates it from the Tyrrhenian Sea on the west. In this part of the range almost all the highest points of the Apennines are found. Beginning from the group called the Alpi della Luna near the sources of the Tiber, which attain 4435 ft., they are continued by the Monte Nerone (5010 ft.), Monte Catria (5590), and Monte Maggio to the Monte Pennino near Nocera (5169 ft.), and thence to the Monte della Sibilla, at the source of the Nar or Nera, which attains 7663 ft. Proceeding thence southwards, we find in succession the Monte Vettore (8128 ft.), the Pizzo di Sevo (7945 ft.), and the two great mountain masses of the Monte Corno, commonly called the Gran Sasso d'Italia, the most lofty of all the Apennines, attaining to a height of 9560 ft., and the Monte della Maiella, its highest summit measuring 9170 ft. Farther south no very lofty summits are found till we come to the group of Monti del Matese, in Samnium (6660 ft.), which according to the division here adopted belongs to Southern Italy. Besides the lofty central masses enumerated there are two other lofty peaks, outliers from the main range, and separated from it by valleys of considerable extent. These are the Monte Terminillo, near Leonessa (7278 ft.), and the Monte Velino near the Lake Fucino, rising to 8192 ft., both of which are covered with snow from November till May. But the Apennines of Central Italy, instead of presenting, like the Alps and the northern Apennines, a definite central ridge, with transverse valleys leading down from it on both sides, in reality constitute a mountain mass of very considerable breadth, composed of a number of minor ranges and groups of mountains, which preserve a generally parallel direction, and are separated by upland valleys, some of them of considerable extent as well as considerable elevation above the sea. Such is the basin of Lake Fucino, situated in the centre of the mass, almost exactly midway between the two seas, at an elevation of 2180 ft. above them; while the upper valley of the Aterno, in which Aquila is situated, is 2380 ft. above the sea. Still more elevated is the valley of the Gizio (a tributary of the Aterno), of which Sulmona is the chief town. This communicates with the upper valley of the Sangro by a level plain called the Piano di Cinque Miglia, at an elevation of 4298 ft., regarded as the most wintry spot in Italy. Nor do the highest summits form a continuous ridge of great altitude for any considerable distance; they are rather a series of groups separated by tracts of very inferior elevation forming natural passes across the range, and broken in some places (as is the case in almost all limestone countries) by the waters from the upland valleys turning suddenly at right angles, and breaking through the mountain ranges which bound them. Thus the Gran Sasso and the Maiella are separated by the deep valley of the Aterno, while the Tronto breaks through the range between Monte Vettore and the Pizzo di Sevo. This constitution of the great mass of the central Apennines has in all ages exercised an important influence upon the character of this portion of Italy, which may be considered as divided by nature into two great regions, a cold and barren upland country, bordered on both sides by rich and fertile tracts, enjoying a warm but temperate climate.

The district west of the Apennines, a region of great beauty and fertility, though inferior in productiveness to Northern Italy, coincides in a general way with the countries familiar to all students of ancient history as Etruria and Latium. Until the union of Italy they were comprised in Tuscany and the southern Papal States. The northern part of Tuscany is indeed occupied to a considerable extent by the underfalls and offshoots of the Apennines, which, besides the slopes and spurs of the main range that constitutes its northern frontier towards the plain of the Po, throw off several outlying ranges or groups. Of these the most remarkable is the group between the valleys of the Serchio and the Magra, commonly known as the mountains of Carrara, from the celebrated marble quarries in the vicinity of that city. Two of the summits of this group, the Pizzo d'Uccello and the Pania della Croce, attain 6155 and 6100 ft. Another lateral range, the Prato Magno, which branches off from the central chain at the Monte Falterona, and separates the upper valley of the Arno from its second basin, rises to 5188 ft.; while a similar branch, called the Alpe di Catenaja, of inferior elevation, divides the upper course of the Arno from that of the Tiber.

The rest of this tract is for the most part a hilly, broken country, of moderate elevation, but Monte Amiata, near Radicofani, an isolated mass of volcanic origin, attains a height of 5650 ft. South of this the country between the frontier of Tuscany and the Tiber is in great part of volcanic origin, forming hills with distinct crater-shaped basins, in several instances occupied by small lakes (the Lake of Bolsena, Lake of Vico and Lake of Bracciano). This volcanic tract extends across the Campagna of Rome, till it rises again in the lofty group of the Alban hills, the highest summit of which, the Monte Cavo, is 3160 ft. above the sea. In this part the Apennines are separated from the sea, distant about 30 m. by the undulating volcanic plain of the Roman Campagna, from which the mountains rise in a wall-like barrier, of which the highest point, the Monte Gennaro, attains 4165 ft. South of Palestrina again, the main mass of the Apennines throws off another lateral mass, known in ancient times as the Volscian mountains (now called the Monti Lepini), separated from the central ranges by the broad valley of the Sacco, a tributary of the Liri (Liris) or Garigliano, and forming a large and rugged mountain mass, nearly 5000 ft. in height, which descends to the sea at Terracina, and

between that point and the mouth of the Liri throws out several rugged mountain headlands, which may be considered as constituting the natural boundary between Latium and Campania, and consequently the natural limit of Central Italy. Besides these offshoots of the Apennines there are in this part of Central Italy several detached mountains, rising almost like islands on the seashore, of which the two most remarkable are the Monte Argentaro on the coast of Tuscany near Orbetello (2087 ft.) and the Monte Circello (1771 ft.) at the angle of the Pontine Marshes, by the whole breadth of which it is separated from the Volscian Apennines.

The two valleys of the Arno and the Tiber (Ital. *Tevere*) may be considered as furnishing the key to the geography of all this portion of Italy west of the Apennines. The Arno, which has its source in the Monte Falterona, one of the most elevated summits of the main chain of the Tuscan Apennines, flows nearly south till in the neighbourhood of Arezzo it turns abruptly north-west, and pursues that course as far as Pontassieve, where it again makes a sudden bend to the west, and pursues a westerly course thence to the sea, passing through Florence and Pisa. Its principal tributary is the Sieve, which joins it at Pontassieve, bringing down the waters of the Val di Mugello. The Elsa and the Era, which join it on its left bank, descending from the hills near Siena and Volterra, are inconsiderable streams; and the Serchio, which flows from the territory of Lucca and the Alpi Apuani, and formerly joined the Arno a few miles from its mouth, now enters the sea by a separate channel. The most considerable rivers of Tuscany south of the Arno are the Cecina, which flows through the plain below Volterra, and the Ombrone, which rises in the hills near Siena, and enters the sea about 12 m. below Grosseto.

The Tiber, a much more important river than the Arno, and the largest in Italy with the exception of the Po, rises in the Apennines, about 20 m. east of the source of the Arno, and flows nearly south by Borgo S. Sepolcro and Città di Castello, then between Perugia and Todi to Orte, just below which it receives the Nera. The Nera, which rises in the lofty group of the Monte della Sibilla, is a considerable stream, and brings with it the waters of the Velino (with its tributaries the Turano and the Salto), which joins it a few miles below its celebrated waterfall at Terni. The Teverone or Anio, which enters the Tiber a few miles above Rome, is an inferior stream to the Nera, but brings down a considerable body of water from the mountains above Subiaco. It is a singular fact in the geography of Central Italy that the valleys of the Tiber and Arno are in some measure connected by that of the Chiana, a level and marshy tract, the waters from which flow partly into the Arno and partly into the Tiber.

The eastern declivity of the central Apennines towards the Adriatic is far less interesting and varied than the western. The central range here approaches much nearer to the sea, and hence, with few exceptions, the rivers that flow from it have short courses and are of comparatively little importance. They may be enumerated, proceeding from Rimini southwards: (1) the Foglia; (2) the Metauro, of historical celebrity, and affording access to one of the most frequented passes of the Apennines; (3) the Esino; (4) the Potenza; (5) the Chienti; (6) the Aso; (7) the Tronto; (8) the Vomano; (9) the Aterno; (10) the Sangro; (11) the Trigno, which forms the boundary of the southernmost province of the Abruzzi, and may therefore be taken as the limit of Central Italy.

The whole of this portion of Central Italy is a hilly country, much broken and cut up by the torrents from the mountains, but fertile, especially in fruit-trees, olives and vines; and it has been, both in ancient and modern times, a populous district, containing many small towns though no great cities. Its chief disadvantage is the absence of ports, the coast preserving an almost unbroken straight line, with the single exception of Ancona, the only port worthy of the name on the eastern coast of Central Italy.

3. *Southern Italy.*—The great central mass of the Apennines, which has held its course throughout Central Italy, with a general direction from north-west to south-east, may be considered as continued in the same direction for about 100 m. farther, from the basin-shaped group of the Monti del Matese (which rises to 6660 ft.) to the neighbourhood of Potenza, in the heart of the province of Basilicata, corresponding nearly to the ancient Lucania. The whole of the district known in ancient times as Samnium (a part of which retains the name of Sannio, though officially designated the province of Campobasso) is occupied by an irregular mass of mountains, of much inferior height to those of Central Italy, and broken up into a number of groups, intersected by rivers, which have for the most part a very tortuous course. This mountainous tract, which has an average breadth of from 50 to 60 m., is bounded west by the plain of Campania, now called the Terra di Lavoro, and east by the much broader and more extensive tract of Apulia or Puglia, composed partly of level plains, but for the most part of undulating downs, contrasting strongly with the mountain ranges of the Apennines, which rise abruptly above them. The central mass of the mountains, however, throws out two outlying ranges, the one to the west, which separates the Bay of Naples from that of Salerno, and culminates in the Monte S. Angelo above Castellammare (4720 ft.), while the detached volcanic cone of Vesuvius (nearly 4000 ft.) is isolated from the neighbouring mountains by an intervening strip of plain. On the east side in like manner the Monte Gargano (3465 ft.), a detached limestone mass which projects in a bold spur-like promontory into the Adriatic, forming the only break in the otherwise uniform coast-line of Italy on that sea, though separated from the great body of the Apennines by a considerable interval of low country, may be considered as merely an outlier from the central mass.

From the neighbourhood of Potenza, the main ridge of the Apennines is continued by the Monti della Maddalena in a direction nearly due south, so that it approaches within a short distance of the Gulf of Policastro, whence it is carried on as far as the Monte Pollino, the last of the lofty summits of the Apennine chain, which exceeds 7000 ft. in height. The range is, however, continued through the province now called Calabria, to the southern extremity or "toe" of Italy, but presents in this part a very much altered character, the broken limestone range which is the true continuation of the chain as far as the neighbourhood of Nicastro and Catanzaro, and keeps close to the west coast, being flanked on the east by a great mass of granitic mountains, rising to about 6000 ft., and covered with vast forests, from which it derives the name of La Sila. A similar mass, separated from the preceding by a low neck of Tertiary hills, fills up the whole of the peninsular extremity of Italy from Squillace to Reggio. Its highest point is called Aspromonte (6420 ft.).

While the rugged and mountainous district of Calabria, extending nearly due south for a distance of more than 150 m., thus derives its character and configuration almost wholly from the range of the Apennines, the long spur-like promontory which projects towards the east to Brindisi and Otranto is merely a continuation of the low tract of Apulia, with a dry calcareous soil of Tertiary origin. The Monte Volture, which rises in the neighbourhood of Melfi and Venosa to 4357 ft., is of volcanic origin, and in great measure detached from the adjoining mass of the Apennines. Eastward from this the ranges of low bare hills called the Murgie of Gravina and Altamura gradually sink into the still more moderate level of those which constitute the peninsular tract between Brindisi and Taranto as far as the Cape of Sta Maria di Leuca, the south-east extremity of Italy. This projecting tract, which may be termed the "heel" or "spur" of Southern Italy, in conjunction with the great promontory of Calabria, forms the deep Gulf of Taranto, about 70 m. in width, and somewhat greater depth, which receives a number of streams from the central mass of the Apennines.

None of the rivers of Southern Italy is of any great importance. The Liri (Liris) or Garigliano, which has its source in the central Apennines above Sora, not far from Lake Fucino, and enters the Gulf of Gaeta about 10 m. east of the city of that name, brings down a considerable body of water; as does also the Volturno, which rises in the mountains between Castel di Sangro and Agnone, flows past Isernia, Venafro and Capua, and enters the sea about 15 m. from the mouth of the Garigliano. About 16 m. above Capua it receives the Calore, which flows by Benevento. The Silarus or Sele enters the Gulf of Salerno a few miles below the ruins of Paestum. Below this the watershed of the Apennines is too near to the sea on that side to allow the formation of any large streams. Hence the rivers that flow in the opposite direction into the Adriatic and the Gulf of Taranto have much longer courses, though all partake of the character of mountain torrents, rushing down with great violence in winter and after storms, but dwindling in the summer into scanty streams, which hold a winding and sluggish course through the great plains of Apulia. Proceeding south from the Trigno, already mentioned as constituting the limit of Central Italy, there are (1) the Biferno and (2) the Fortore, both rising in the mountains of Samnium, and flowing into the Adriatic west of Monte Gargano; (3) the Cervaro, south of the great promontory; and (4) the Ofanto, the Aufidus of Horace, whose description of it is characteristic of almost all the rivers of Southern Italy, of which it may be taken as the typical representative. It rises about 15 m. west of Conza, and only about 25 m. from the Gulf of Salerno, so that it is frequently (though erroneously) described as traversing the whole range of the Apennines. In its lower course it flows near Canosa and traverses the celebrated battlefield of Cannae. (5) The Bradano, which rises near Venosa, almost at the foot of Monte Volture, flows towards the south-east into the Gulf of Taranto, as do the Basento, the Agri and the Sinni, all of which descend from the central chain of the Apennines south of Potenza. The Crati, which flows from Cosenza northwards, and then turns abruptly eastward to enter the same gulf, is the only stream worthy of notice in the rugged peninsula of Calabria; while the arid limestone hills projecting eastwards to Capo di Leuca do not give rise to anything more than a mere streamlet, from the mouth of the Ofanto to the south-eastern extremity of Italy.

The only important lakes are those on or near the north frontier, formed by the expansion of the tributaries of the Po. They have been already noticed in connexion with the rivers by which they are formed, but may be again enumerated in order of succession. They are, proceeding from west to east, (1) the Lago d'Orta, (2) the Lago Maggiore, (3) the Lago di Lugano, (4) the Lago di Como, (5) the Lago d'Iseo, (6) the Lago d'Idro, and (7) the Lago di Garda. Of these the last named is considerably the largest, covering an area of 143 sq. m. It is 32¼ m. long by 10 broad; while the Lago Maggiore, notwithstanding its name, though considerably exceeding it in length (37 m.), falls materially below it in superficial extent. They are all of great depth—the Lago Maggiore having an extreme

Lakes.

depth of 1198 ft., while that of Como attains to 1365 ft. Of a wholly different character is the Lago di Varese, between the Lago Maggiore and that of Lugano, which is a mere shallow expanse of water, surrounded by hills of very moderate elevation. Two other small lakes in the same neighbourhood, as well as those of Erba and Pusiano, between Como and Lecco, are of a similar character.

The lakes of Central Italy, which are comparatively of trifling dimensions, belong to a wholly different class. The most important of these, the Lacus Fucinus of the ancients, now called the Lago di Celano, situated almost exactly in the centre of the peninsula, occupies a basin of considerable extent, surrounded by mountains and without any natural outlet, at an elevation of more than 2000 ft. Its waters have been in great part carried off by an artificial channel, and more than half its surface laid bare. Next in size is the Lago Trasimeno, a broad expanse of shallow waters, about 30 m. in circumference, surrounded by low hills. The neighbouring lake of Chiusi is of similar character, but much smaller dimensions. All the other lakes of Central Italy, which are scattered through the volcanic districts west of the Apennines, are of an entirely different formation, and occupy deep cup-shaped hollows, which have undoubtedly at one time formed the craters of extinct volcanoes. Such is the Lago di Bolsena, near the city of the same name, which is an extensive sheet of water, as well as the much smaller Lago di Vico (the Ciminian lake of ancient writers) and the Lago di Bracciano, nearer Rome, while to the south of Rome the well known lakes of Albano and Nemi have a similar origin.

The only lake properly so called in southern Italy is the Lago del Matese, in the heart of the mountain group of the same name, of small extent. The so-called lakes on the coast of the Adriatic north and south of the promontory of Gargano are brackish lagoons communicating with the sea.

The three great islands of Sicily, Sardinia and Corsica are closely connected with Italy, both by geographical position and community of language, but they are considered at length in separate articles. Of the smaller islands that lie near the coasts of Italy, the most considerable is that of Elba, off the west coast of central Italy, about 50 m. S. of Leghorn, and separated from the mainland at Piombino by a strait of only about 6 m. in width. North of this, and about midway between Corsica and Tuscany, is the small island of Capraia, steep and rocky, and only 4½ m. long, but with a secure port; Gorgona, about 25 m. farther north, is still smaller, and is a mere rock, inhabited by a few fishermen. South of Elba are the equally insignificant islets of Pianosa and Montecristo, while the more considerable island of Giglio lies much nearer the mainland, immediately opposite the mountain promontory of Monte Argentaro, itself almost an island. The islands farther south in the Tyrrhenian Sea are of an entirely different character. Of these Ischia and Procida, close to the northern headland of the Bay of Naples, are of volcanic origin, as is the case also with the more distant group of the Ponza Islands. These are three in number—Ponza, Palmarola and Zannone; while Ventotene (also of volcanic formation) is about midway between Ponza and Ischia. The island of Capri, on the other hand, opposite the southern promontory of the Bay of Naples, is a precipitous limestone rock. The Aeolian or Lipari Islands, a remarkable volcanic group, belong rather to Sicily than to Italy, though Stromboli, the most easterly of them, is about equidistant from Sicily and from the mainland.

Islands.

The Italian coast of the Adriatic presents a great contrast to its opposite shores, for while the coast of Dalmatia is bordered by a succession of islands, great and small, the long and uniform coast-line of Italy from Otranto to Rimini presents not a single adjacent island; and the small outlying group of the Tremiti Islands (north of the Monte Gargano and about 15 m. from the mainland) alone breaks the monotony of this part of the Adriatic.

Geology.—The geology of Italy is mainly dependent upon that of the Apennines (*q.v.*). On each side of that great chain are found extensive Tertiary deposits, sometimes, as in Tuscany, the district of Monferrat, &c., forming a broken, hilly country, at others spreading into broad plains or undulating downs, such as the Tavoliere of Puglia, and the tract that forms the spur of Italy from Bari to Otranto.

Besides these, and leaving out of account the islands, the Italian peninsula presents four distinct volcanic districts. In three of them the volcanoes are entirely extinct, while the fourth is still in great activity.

1. The Euganean hills form a small group extending for about 10 m. from the neighbourhood of Padua to Este, and separated from the lower offshoots of the Alps by a portion of the wide plain of Padua. Monte Venda, their highest peak, is 1890 ft. high.

2. The Roman district, the largest of the four, extends from the hills of Albano to the frontier of Tuscany, and from the lower slopes of the Apennines to the Tyrrhenian Sea. It may be divided into three groups: the Monti Albani, the second highest[1] of which, Monte Cavo (3115 ft.), is the ancient Mons Albanus, on the summit of which stood the temple of Jupiter Latialis, where the assemblies of the cities forming the Latin confederation were held; the Monti Cimini, which extend from the valley of the Tiber to the neighbourhood of Civita Vecchia, and attain at their culminating point an elevation of 3454 ft.; and the mountains of Radicofani and Monte Amiata, the latter of which is 5688 ft. high. The lakes of Bolsena (Vulsiniensis), of Bracciano (Sabatinus), of Vico (Ciminus), of Albano (Albanus), of Nemi (Nemorensis), and other smaller lakes belong to this district; while between its south-west extremity and Monte Circello the Pontine Marshes form a broad strip of alluvial soil infested by malaria.

3. The volcanic region of the Terra di Lavoro is separated by the Volscian mountains from the Roman district. It may be also divided into three groups. Of Roccamonfina, at the N.N.W. end of the Campanian Plain, the highest cone, called Montagna di Santa Croce, is 3291 ft. The Phlegraean Fields embrace all the country round Baiae and Pozzuoli and the adjoining islands. Monte Barbaro (Gaurus), north-east of the site of Cumae, Monte San Nicola (Epomeus), 2589 ft. in Ischia, and Camaldoli, 1488 ft., west of Naples, are the highest cones. The lakes Averno (Avernus), Lucrino (Lucrinus), Fusaro (Palus Acherusia), and Agnano are within this group, which has shown activity in historical times. A stream of lava issued in 1198 from the crater of the Solfatara, which still continues to exhale steam and noxious gases; the Lava dell' Arso came out of the N.E. flank of Monte Epomeo in 1302; and Monte Nuovo, north-west of Pozzuoli (455 ft.), was thrown up in three days in September 1538. Since its first historical eruption in A.D. 79, Vesuvius or Somma, which forms the third group, has been in constant activity. The Punta del Nasone, the highest point of Somma, is 3714 ft. high, while the Punta del Palo, the highest point of the brim of the crater of Vesuvius, varies materially with successive eruptions from 3856 to 4275 ft.

4. The Apulian volcanic formation consists of the great mass of Monte Volture, which rises at the west end of the plains of Apulia, on the frontier of Basilicata, and is surrounded by the Apennines on its south-west and north-west sides. Its highest peak, the Pizzuto di Melfi, attains an elevation of 4365 ft. Within the widest crater there are the two small lakes of Monticchio and San Michele. In connexion with the volcanic districts we may mention *Le Mofete*, the pools of Ampsanctus, in a wooded valley S.E. of Frigento, in the province of Avellino, Campania (Virgil, *Aeneid*, vii. 563-571). The largest is not more than 160 ft. in circumference, and 7 ft. deep.

The whole of the great plain of Lombardy is covered by Pleistocene and recent deposits. It is a great depression—the continuation of the Adriatic Sea—filled up by deposits brought down by the rivers from the mountains. The depression was probably formed during the later stages of the growth of the Alps.

Climate and Vegetation.—The geographical position of Italy, extending from about 46° to 38° N., renders it one of the hottest countries in Europe. But the effect of its southern latitude is tempered by its peninsular character, bounded as it is on both sides by seas of considerable extent, as well as by the great range of the Alps with its snows and glaciers to the north. There are thus irregular variations of climate. Great differences also exist with regard to climate between northern and southern Italy, due in great part to other circumstances as well as to differences of latitude. Thus the great plain of northern Italy is chilled by the cold winds from the Alps, while the damp warm winds from the Mediterranean are to a great extent intercepted by the Ligurian Apennines. Hence this part of the country has a cold winter climate, so that while the mean summer temperature of Milan is higher than that of Sassari, and equal to that of Naples, and the extremes reached at Milan and Bologna are a good deal higher than those of Naples, the mean winter temperature of Turin is actually lower than that of Copenhagen. The lowest recorded winter temperature at Turin is 5° Fahr. Throughout the region north of the Apennines no plants will thrive which cannot stand occasional severe frosts in winter, so that not only oranges and lemons but even the olive tree cannot be grown, except in specially favoured situations. But the strip of coast between the Apennines and the sea, known as the Riviera of Genoa, is not only extremely favourable to the growth of olives, but produces oranges and lemons in abundance, while even the aloe, the cactus and the palm flourish in many places.

Central Italy also presents striking differences of climate and temperature according to the greater or less proximity to the mountains. Thus the greater part of Tuscany, and the provinces thence to Rome, enjoy a mild winter climate, and are well adapted to the growth of mulberries and olives as well as vines, but it is not till after passing Terracina, in proceeding along the western coast towards the south, that the vegetation of southern Italy develops in its full luxuriance. Even in the central parts of Tuscany, however, the climate is very much affected by the neighbouring mountains, and the increasing elevation of the Apennines as they proceed south produces a corresponding effect upon the temperature. But it is when we reach the central range of the Apennines that we find the coldest districts of Italy. In all the upland valleys of the Abruzzi snow begins to fall early in November, and heavy storms occur often as late as May; whole communities are shut out for months from any intercourse with their neighbours, and some villages are so long buried in snow that regular passages are made between the different houses for the sake of communication among the inhabitants. The district from the south-east of Lake Fucino to the Piano di Cinque Miglia, enclosing the upper basin of the Sangro

[1] The actually highest point is the Maschio delle Faete (3137 ft.). (See ALBANUS MONS.)

and the small lake of Scanno, is the coldest and most bleak part of Italy south of the Alps. Heavy falls of snow in June are not uncommon, and only for a short time towards the end of July are the nights totally exempt from light frosts. Yet less than 40 m. E. of this district, and even more to the north, the olive, the fig-tree and the orange thrive luxuriantly on the shores of the Adriatic from Ortona to Vasto. In the same way, whilst in the plains and hills round Naples snow is rarely seen, and never remains long, and the thermometer seldom descends to the freezing-point, 20 m. E. from it in the fertile valley of Avellino, of no great elevation, but encircled by high mountains, light frosts are not uncommon as late as June; and 18 m. farther east, in the elevated region of San Angelo dei Lombardi and Bisaccia, the inhabitants are always warmly clad, and vines grow with difficulty and only in sheltered places. Still farther south-east, Potenza has almost the coldest climate in Italy, and certainly the lowest summer temperatures. But nowhere are these contrasts so striking as in Calabria. The shores, especially on the Tyrrhenian Sea, present almost a continued grove of olive, orange, lemon and citron trees, which attain a size unknown in the north of Italy. The sugar-cane flourishes, the cotton-plant ripens to perfection, date-trees are seen in the gardens, the rocks are clothed with the prickly-pear or Indian fig, the enclosures of the fields are formed by aloes and sometimes pomegranates, the liquorice-root grows wild, and the mastic, the myrtle and many varieties of oleander and cistus form the underwood of the natural forests of arbutus and evergreen oak. If we turn inland but 5 or 6 m. from the shore, and often even less, the scene changes. High districts covered with oaks and chestnuts succeed to this almost tropical vegetation; a little higher up and we reach the elevated regions of the Pollino and the Sila, covered with firs and pines, and affording rich pastures even in the midst of summer, when heavy dews and light frosts succeed each other in July and August, and snow begins to appear at the end of September or early in October. Along the shores of the Adriatic, which are exposed to the north-east winds, blowing coldly from over the Albanian mountains, delicate plants do not thrive so well in general as under the same latitude along the shores of the Tyrrhenian Sea.

Southern Italy indeed has in general a very different climate from the northern portion of the kingdom; and, though large tracts are still occupied by rugged mountains of sufficient elevation to retain the snow for a considerable part of the year, the districts adjoining the sea enjoy a climate similar to that of Greece and the southern provinces of Spain. Unfortunately several of these fertile tracts suffer severely from malaria (*q.v.*), and especially the great plain adjoining the Gulf of Tarentum, which in the early ages of history was surrounded by a girdle of Greek cities—some of which attained to almost unexampled prosperity—has for centuries past been given up to almost complete desolation.[1]

It is remarkable that, of the vegetable productions of Italy, many which are at the present day among the first to attract the attention of the visitor are of comparatively late introduction, and were unknown in ancient times. The olive indeed in all ages clothed the hills of a large part of the country; but the orange and lemon, are a late importation from the East, while the cactus or Indian fig and the aloe, both of them so conspicuous on the shores of southern Italy, as well as of the Riviera of Genoa, are of Mexican origin, and consequently could not have been introduced earlier than the 16th century. The same remark applies to the maize or Indian corn. Many botanists are even of opinion that the sweet chestnut, which now constitutes so large a part of the forests that clothe the sides both of the Alps and the Apennines, and in some districts supplies the chief food of the inhabitants, is not originally of Italian growth; it is certain that it had not attained in ancient times to anything like the extension and importance which it now possesses. The eucalyptus is of quite modern introduction; it has been extensively planted in malarious districts. The characteristic cypress, ilex and stone-pine, however, are native trees, the last-named flourishing especially near the coast. The proportion of evergreens is large, and has a marked effect on the landscape in winter.

Fauna.—The chamois, bouquetin and marmot are found only in the Alps, not at all in the Apennines. In the latter the bear was found in Roman times, and there are said to be still a few remaining. Wolves are more numerous, though only in the mountainous districts; the flocks are protected against them by large white sheep-dogs, who have some wolf blood in them. Wild boars are also found in mountainous and forest districts. Foxes are common in the neighbourhood of Rome. The sea mammals include the common dolphin (*Delphinus delphis*). The birds are similar to those of central Europe; in the mountains vultures, eagles, buzzards, kites, falcons and hawks are found. Partridges, woodcock, snipe, &c., are among the game birds; but all kinds of small birds are also shot for food, and their number is thus kept down, while many members of the migratory species are caught by traps in the foothills on the south side of the Alps, especially near the Lake of Como, on their passage. Large numbers of quails are shot in the spring. Among reptiles, the various kinds of lizard are noticeable. There are several varieties of snakes, of which three species (all vipers) are poisonous. Of sea-fish there are many varieties, the tunny, the sardine and the anchovy being commercially the most important. Some of the other edible fish, such as the palombo, are not found in northern waters. Small cuttlefish are in common use as an article of diet. Tortoiseshell, an important article of commerce, is derived from the *Thalassochelys caretta*, a sea turtle. Of freshwater fish the trout of the mountain streams and the eels of the coast lagoons may be mentioned. The tarantula spider and the scorpion are found in the south of Italy. The aquarium of the zoological station at Naples contains the finest collection in the world of marine animals, showing the wonderful variety of the different species of fish, molluscs, crustacea, &c., found in the Mediterranean. (E. H. B.; T. As.)

Population.—The following table indicates the areas of the several provinces (sixty-nine in number), and the population of each according to the censuses of the 31st of December 1881 and the 9th of February 1901. (The larger divisions or compartments in which the provinces are grouped are not officially recognized.)

Provinces and Compartments.	Area in sq. m.	Population.	
		1881.	1901.
Alessandria	1950	729,710	825,745
Cuneo	2882	635,400	670,504
Novara	2553	675,926	763,830
Turin	3955	1,029,214	1,147,414
Piedmont	11,340	3,070,250	3,407,493
Genoa	1582	760,122	931,156
Porto Maurizio	455	132,251	144,604
Liguria	2037	892,373	1,075,760
Bergamo	1098	390,775	467,549
Brescia	1845	471,568	541,765
Como	1091	515,050	594,304
Cremona	695	302,097	329,471
Mantua	912	295,728	315,448
Milan	1223	1,114,991	1,450,214
Pavia	1290	469,831	504,382
Sondrio	1232	120,534	130,966
Lombardy	9386	3,680,574	4,334,099
Belluno	1293	174,140	214,803
Padua	823	397,762	444,360
Rovigo	685	217,700	222,057
Treviso	960	375,704	416,945
Udine	2541	501,745	614,720
Venice	934	356,708	399,823
Verona	1188	394,065	427,018
Vicenza	1052	396,349	453,621
Venetia	9476	2,814,173	3,193,347
Bologna	1448	464,879	529,619
Ferrara	1012	230,807	270,558
Forlì	725	251,110	283,996
Modena	987	279,254	323,598
Parma	1250	267,306	303,694
Piacenza	954	226,758	250,491
Ravenna	715	218,359	234,656
Reggio (Emilia)	876	244,959	281,085
Emilia	7967	2,183,432	2,477,697
Arezzo	1273	238,744	275,588
Florence	2265	790,776	945,324
Grosseto	1738	114,295	137,795
Leghorn	133	121,612	121,137
Lucca	558	284,484	329,986
Massa and Carrara	687	169,469	202,749
Pisa	1179	283,563	319,854
Siena	1471	205,926	233,874
Tuscany	9304	2,208,869	2,566,307
Ancona	762	267,338	308,346
Ascoli Piceno	796	209,185	251,829
Macerata	1087	239,713	269,505
Pesaro and Urbino	1118	223,043	259,083
Marches	3763	939,279	1,088,763
Perugia—Umbria	3748	572,060	675,352
Rome—Lazio	4663	903,472	1,142,526

[1] On the influence of malaria on the population of Early Italy see W. H. S. Jones in *Annals of Archaeology and Anthropology*, ii. 97 sqq. (Liverpool, 1909).

SWITZERLAND
AUSTRIA-HUNGARY
LOMBARDY
PIEDMONT
EMILIA
TUSCANY
UMBRIA
ROME
MOLISE
Gulf of Venice
Gulf of Genoa
ADRIATIC SEA
Istria
Bosnia
Herzegovina
Dalmatia
Dinaric Alps
Karawanken
Alps
CORSICA
(to France)
Elba
Venice
Milan
Turin
Genoa
Florence
Bologna
Ravenna
Rimini
Ancona
Rome
Naples
Bari
Trieste
Udine
Verona
Padua
Pisa
Leghorn
Nice
Bastia
Ajaccio
Environs of ROME
Rome
Tivoli
Frascati
Castel Gandolfo
Albano
Alban Hills
Velletri
Genzano
Scale. 1:500,000
Railways
Roads
Aqueducts

TYRRHENIAN SEA
MEDITERRANEAN SEA
SARDINIA
BASILICATA
Gulf of Asinara
Gulf of Cagliari
Gulf of Orosei
Gulf of Salerno
Gulf of Taranto
Gulf of Policastro
Gulf of Squillace
Gulf of Gaeta
Bay of Naples
Gulf of Catania
Lipari Islands
Aegadian Is.
Ponza Is.
Pantelleria
Malta (British)
Gozo (British)
Lampedusa
Linosa
Lampeduse
Naples
Palermo
Messina
Catania
Taranto
Syracuse
Vesuvius
Etna
Capua
Caserta
Avellino
Benevento
Potenza
Matera
Cosenza
Catanzaro
Reggio di Calabria
Trapani
Marsala
Agrigento
Caltanissetta
Enna
Ragusa
Modica
Trapani
Foggia
Bari
Brindisi
Lecce
Gallipoli
Crotone
Castrovillari
Sassari
Cagliari
Nuoro
Oristano
Olbia
Tempio Pausania
Iglesias
Carbonia
Porto Torres
Alghero
Posada
Orosei
Tortoli
Lanusei
Jerzu
Muravera
Quartu Sant'Elena
Villacidro
Sanluri
Ozieri
Thiesi
Bosa
Macomer
Nuoro
Dorgali
Urzulei
Teloro
Sorgono
Genargentu
Terralba
Ales
Nurri
Ballao
Mandas
Sinnai
Decimomannu
Portoscuso
Sant'Antioco
Carloforte
Iglesias
Fluminimaggiore
Guspini
Arbatax
Tortoli
Lanusei
Jerzu
Nuoro
Orosei
Posada
Siniscola
Budoni
Olbia
Golfo Aranci
Tempio Pausania
Castelsardo
Sassari
Porto Torres
Alghero
Bosa
Oristano

Provinces and Compartments.	Area in sq. m.	Population. 1881.	Population. 1901.
Aquila degli Abruzzi (Abruzzo Ulteriore II.)	2484	353,027	436,367
Campobasso (Molise)	1691	365,434	389,976
Chieti (Abruzzo Citeriore)	1138	343,948	387,604
Teramo (Abruzzo Ulteriore I.)	1067	254,806	312,188
Abruzzi and Molise	6380	1,317,215	1,526,135
Avellino (Principato Ulteriore)	1172	392,619	421,766
Benevento	818	238,425	265,460
Caserta (Terra di Lavoro)	2033	714,131	805,345
Naples	350	1,001,245	1,141,788
Salerno (Principato Citeriore)	1916	550,157	585,132
Campania	6289	2,896,577	3,219,491
Bari delle Puglie(Terra di Bari)	2065	679,499	837,683
Foggia (Capitanata)	2688	356,267	421,115
Lecce (Terra di Otranto)	2623	553,298	705,382
Apulia	7376	1,589,064	1,964,180
Potenza (Basilicata)	3845	524,504	491,558
Catanzaro (Calabria Ulteriore II.)	2030	433,975	498,791
Cosenza (Calabria Citeriore)	2568	451,185	503,329
Reggio di Calabria (Calabria Ulteriore I.)	1221	372,723	437,209
Calabria	5819	1,257,883	1,439,329
Caltanisetta	1263	266,379	329,449
Catania	1917	563,457	703,598
Girgenti	1172	312,487	380,666
Messina	1246	460,924	550,895
Palermo	1948	699,151	796,151
Syracuse	1442	341,526	433,796
Trapani	948	283,977	373,569
Sicily	9936	2,927,901	3,568,124
Cagliari	5204	420,635	486,767
Sassari	4090	261,367	309,026
Sardinia	9294	682,002	795,793
Kingdom of Italy	110,623	28,459,628	32,965,504

The number of foreigners in Italy in 1901 was 61,606, of whom 37,762 were domiciled within the kingdom.

The population given in the foregoing table is the resident or "legal" population, which is also given for the individual towns. This is 490,251 higher than the actual population, 32,475,253, ascertained by the census of the 10th of February 1901; the difference is due to temporary absences from their residences of certain individuals on military service, &c., who probably were counted twice, and also to the fact that 469,020 individuals were returned as absent from Italy, while only 61,606 foreigners were in Italy at the date of the census. The kingdom is divided into 69 provinces, 284 regions, of which 197 are classed as *circondarii* and 87 as districts (the latter belonging to the province of Mantua and the 8 provinces of Venetia), 1806 administrative divisions (*mandamenti*) and 8262 communes. These were the figures at the date of the census. In 1906 there were 1805 *mandamenti* and 8290 communes, and 4 boroughs in Sardinia not connected with communes. The *mandamenti* or administrative divisions no longer correspond to the judicial divisions (*mandamenti giudiziarii*) which in November 1891 were reduced from 1806 to 1535 by a law which provided that judicial reform should not modify existing administrative and electoral divisions. The principal elective local administrative bodies are the provincial and the communal councils. The franchise is somewhat wider than the parliamentary. Both bodies are elected for six years, one-half being renewed every three years. The provincial council elects a provincial commission and the communal council a municipal council from among its own members; these smaller bodies carry on the business of the larger while they are not sitting. The syndic of each commune is elected by ballot by the communal council from among its own members.

The actual (not the resident or "legal") population of Italy since 1770 is approximately given in the following table (the first census of the kingdom as a whole was taken in 1871):—

1770	14,689,317	1861	25,016,801
1800	17,237,421	1871	26,801,154
1825	19,726,977	1881	28,459,628
1848	23,617,153	1901	32,475,253

The average density increased from 257·21 per sq. m. in 1881 to 293·28 in 1901. In Venetia, Emilia, the Marches, Umbria and Tuscany the proportion of concentrated population is only from 40 to 55%; in Piedmont, Liguria and Lombardy the proportion rises to from 70 to 76%; in southern Italy, Sicily and Sardinia it attains a maximum of from 76 to 93%.

The population of towns over 100,000 is given in the following table according to the estimates for 1906. The population of the town itself is distinguished from that of its commune, which often includes a considerable portion of the surrounding country.

	Town.	Commune.
Bologna	105,153	160,423
Catania	135,548	159,210
Florence	201,183	226,559
Genoa	255,294	267,248
Messina	108,514	165,007
Milan	560,613	..
Naples	491,614	585,289
Palermo	264,036	323,747
Rome	403,282	516,580
Turin	277,121	361,720
Venice	146,940	169,563

The population of the different parts of Italy differs in character and dialect; and there is little community of sentiment between them. The modes of life and standards of comfort and morality in north Italy and in Calabria are widely different; the former being far in front of the latter. Much, however, is effected towards unification, by compulsory military service, it being the principle that no man shall serve within the military district to which he belongs. In almost all parts the idea of personal loyalty (*e.g.* between master and servant) retains an almost feudal strength. The inhabitants of the north—the Piedmontese, Lombards and Genoese especially—have suffered less than those of the rest of the peninsula from foreign domination and from the admixture of inferior racial elements, and the cold winter climate prevents the heat of summer from being enervating. They, and also the inhabitants of central Italy, are more industrious than the inhabitants of the southern provinces, who have by no means recovered from centuries of misgovernment and oppression, and are naturally more hot-blooded and excitable, but less stable, capable of organization or trustworthy. The southerners are apathetic except when roused, and socialist doctrines find their chief adherents in the north. The Sicilians and Sardinians have something of Spanish dignity, but the former are one of the most mixed and the latter probably one of the purest races of the Italian kingdom. Physical characteristics differ widely; but as a whole the Italian is somewhat short of stature, with dark or black hair and eyes, often good looking. Both sexes reach maturity early. Mortality is decreasing, but if we may judge from the physical conditions of the recruits the physique of the nation shows little or no improvement. Much of this lack of progress is attributed to the heavy manual (especially agricultural) work undertaken by women and children. The women especially age rapidly, largely owing to this cause (E. Nathan, *Vent' anni di vita italiana attraverso all' annuario*, 169 sqq.).

Births, Marriages, Deaths.—Birth and marriage rates vary considerably, being highest in the centre and south (Umbria, the Marches, Apulia, Abruzzi and Molise, and Calabria) and lowest in the north (Piedmont, Liguria and Venetia), and in Sardinia. The death-rate is highest in Apulia, in the Abruzzi and Molise, and in Sardinia, and lowest in the north, especially in Venetia and Piedmont.

Taking the statistics for the whole kingdom, the annual marriage-rate for the years 1876–1880 was 7·53 per 1000; in 1881–1885 it rose to 8·06; in 1886–1890 it was 7·77; in 1891–1895 it was 7·41, and in 1896–1900 it had gone down to 7·14 (a figure largely produced by the abnormally low rate of 6·88 in 1898), and in 1902 was 7·23. Divorce is forbidden by the Roman Catholic Church, and only 839 judicial separations were obtained from the courts in 1902, more than half of the demands made having been abandoned. Of the whole population in 1901, 57·5% were unmarried, 36·0% married, and 6·5% widowers or widows. The illegitimate births show a decrease, having been 6·95 per 100 births in 1872 and 5·72 in 1902, with a rise, however, in the intermediate period as high as 7·76 in 1883. The birth-rate shows a corresponding decrease from 38·10 per 1000 in 1881 to 33·29 in 1902. The male births have since 1872 been about 3% (3·14 in 1872–1875 and 2·72 in 1896–1900) in excess of the female births, which is rather more than compensated for by the greater male mortality, the excess being 2·64 in 1872–1875 and having increased to 4·08 in 1896–1900. (The calculations are made

in both cases on the total of births and deaths of both sexes.) The result is that, while in 1871 there was an excess of 143,370 males over females in the total population, in 1881 the excess was only 71,138, and in 1901 there were 169,684 more females than males. The death-rate (excluding still-born children) was, in 1872, 30·78 per 1000, and has since steadily decreased—less rapidly between 1886–1890 than during other years; in 1902 it was only 22·15 and in 1899 was as low as 21·89. The excess of births over deaths shows considerable variations—owing to a very low birth-rate, it was only 3·12 per 1000 in 1880, but has averaged 11·05 per 1000 from 1896 to 1900, reaching 11·98 in 1899 and 11·14 in 1902. For the four years 1899–1902 24·66 % died under the age of one year, 9·41 between one and two years. The average expectation of life at birth for the same period was 52 years and 11 months, 62 years and 2 months at the age of three years, 52 years at the age of fifteen, 44 years at the age of twenty-four, 30 years at the age of forty; while the average period of life, which was 35 years 3 months per individual in 1882, was 43 years per individual in 1901. This shows a considerable improvement, largely, but not entirely, in the diminution of infant mortality; the expectation of life at birth in 1882, it is true, was only 33 years and 6 months, and at three years of age 56 years 1 month; but the increase, both in the expectation of life and in its average duration, goes all through the different ages.

Occupations.—In the census of 1901 the population over nine years of age (both male and female) was divided as follows as regards the main professions:—

	Total.	Males.	Females.
Agricultural (including hunting and fishing)	9,666,467	6,466,165	3,200,302
Industrial	4,505,736	3,017,393	1,488,343
Commerce and transport (public and private services)	1,003,888	885,070	118,818
Domestic service, &c.	574,855	171,875	402,980
Professional classes, administration, &c.	1,304,347	855,217	449,130
Defence	204,012	204,012	..
Religion	129,893	89,329	40,564

Emigration.—The movement of emigration may be divided into two currents, temporary and permanent—the former going chiefly towards neighbouring European countries and to North Africa, and consisting of manual labourers, the latter towards trans-oceanic countries, principally Brazil, Argentina and the United States. These emigrants remain abroad for several years, even when they do not definitively establish themselves there. They are composed principally of peasants, unskilled workmen and other manual labourers. There was a tendency towards increased emigration during the last quarter of the 19th century. The principal causes are the growth of population, and the over-supply of and low rates of remuneration for manual labour in various Italian provinces. Emigration has, however, recently assumed such proportions as to lead to scarcity of labour and rise of wages in Italy itself. Italians form about half of the total emigrants to America.

Year.	Temporary Emigration.		Permanent Emigration.	
	Total No. of Emigrants.	Per every 100,000 of Population.	Total No. of Emigrants.	Per every 100,000 of Population.
1881	94,225	333	41,607	147
1891	118,111	389	175,520	578
1901	281,668	865	251,577	772

The increased figures may, to a minor extent, be due to better registration, in consequence of the law of 1901.

From the next table will be seen the direction of emigration in the years specified:—

	1900.	1901.	1902.	1903.	1904.	1905.
Europe	181,047	244,298	236,066	215,943	209,942	266,982
N. Africa	5,417	9,499	11,771	9,452	14,709	11,910
U.S. and Canada	89,400	124,636	196,723	200,383	173,537	322,627
Mexico (Central America)	2,069	997	766	1,311	1,828	2,044
South America	74,168	152,543	85,097	78,699	74,209	111,943
Asia and Oceania	691	1,272	1,086	2,168	2,966	2,715
Total	352,792	533,245	531,509	507,956	477,191	718,221

The figures for 1905 show that the total of 718,221 emigrants was made up, as regards numbers, mainly by individuals from Venetia, Sicily, Campania, Piedmont, Calabria and the Abruzzi; while the percentage was highest in Calabria (4·44), the Abruzzi, Venetia, Basilicata, the Marches, Sicily (2·86), Campania, Piedmont (2·02). Tuscany gives 1·20, Latium 1·14 %, Apulia only 1·02, while Sardinia with 0·34 % occupies an exceptional position. The figure for Sicily, which was 106,000 in 1905, reached 127,000 in 1906 (3·5 %), and of these about three-fourths would be adults; in the meantime, however, the population increases so fast that even in 1905 there was a net increase in Sicily of 20,000 souls; so that in three years 220,000 workers were replaced by 320,000 infants.

The phenomenon of emigration in Sicily cannot altogether be explained by low wages, which have risen, though prices have done the same. It has been defined as apparently "a kind of collective madness."

Agriculture.—Accurate statistics with regard to the area occupied in different forms of cultivation are difficult to obtain, both on account of their varied and piecemeal character and from the lack of a complete cadastral survey. A complete survey was ordered by the law of the 1st of March 1886, but many years must elapse before its completion. The law, however, enabled provinces most heavily burdened by land tax to accelerate their portion of the survey, and to profit by the reassessment of the tax on the new basis. An idea of the effects of the survey may be gathered from the fact that the assessments in the four provinces of Mantua, Ancona, Cremona and Milan, which formerly amounted to a total of £1,454,696, are now £2,788,080, an increase of 91 %. Of the total area of Italy, 70,793,000 acres, 71% are classed as "productive." The unproductive area comprises 16% of the total area (this includes 4% occupied by lagoons or marshes, and 1·75% of the total area susceptible of *bonificazione* or improvement by drainage. Between 1882 and 1902 over £4,000,000 was spent on this by the government). The uncultivated area is 13%. This includes 3·50% of the total susceptible of cultivation.

The cultivated area may be divided into five agrarian regions or zones, named after the variety of tree culture which flourishes in them. (1) Proceeding from south to north, the first zone is that of the *agrumi* (oranges, lemons and similar fruits). It comprises a great part of Sicily. In Sardinia it extends along the southern and western coasts. It predominates along the Ligurian Riviera from Bordighera to Spezia, and on the Adriatic, near San Benedetto del Tronto and Gargano, and, crossing the Italian shore of the Ionian Sea, prevails in some regions of Calabria, and terminates around the gulfs of Salerno, Sorrento and Naples. (2) The region of *olives* comprises the internal Sicilian valleys and part of the mountain slopes; in Sardinia, the valleys near the coast on the S.E., S.W. and N.W.; on the mainland it extends from Liguria and from the southern extremities of the Romagna to Cape Santa Maria di Leuca in Apulia, and to Cape Spartivento in Calabria. Some districts of the olive region are near the lakes of upper Italy and in Venetia, and the territories of Verona, Vicenza, Treviso and Friuli. (3) The *vine* region begins on the sunny slopes of the Alpine spurs and in those Alpine valleys open towards the south, extending over the plains of Lombardy and Emilia. In Sardinia it covers the mountain slopes to a considerable height, and in Sicily covers the sides of the Madonie range, reaching a level above 3000 ft. on the southern slope of Etna. The Calabrian Alps, the less rocky sides of the Apulian Murgie and the whole length of the Apennines are covered at different heights, according to their situation. The hills of Tuscany, and of Monferrato in Piedmont, produce the most celebrated Italian vintages. (4) The region of *chestnuts* extends from the valleys to the high plateaus of the Alps, along the northern slopes of the Apennines in Liguria, Modena, Tuscany, Romagna, Umbria, the Marches and along the southern Apennines to the Calabrian and Sicilian ranges, as well as to the mountains of Sardinia. (5) The *wooded* region covers the Alps and Apennines above the chestnut level. The woods consist chiefly of pine and hazel upon the Apennines, and upon the Calabrian, Sicilian and Sardinian mountains of oak, ilex, hornbeam and similar trees.

Between these regions of tree culture lie zones of different herbaceous culture, cereals, vegetables and textile plants. The style of cultivation varies according to the nature of the ground, terraces supported by stone walls being much used in mountainous districts. Cereal cultivation occupies the foremost place in area and quantity though it has been on the decline since 1903, still representing, however, an advance on previous years. Wheat is the most important crop and is widely distributed. In 1905 12,734,491 acres, or about 18% of the total area, produced 151,696,571 bushels of wheat, a yield of only 12 bushels per acre. The importation has, however, enormously increased since 1882—from 164,600 to 1,126,368 tons; while the extent of land devoted to corn cultivation has slightly decreased. Next in importance to wheat comes maize, occupying about 7% of the total area of the country, and cultivated almost everywhere as an alternative crop. The production of maize in 1905

reached about 96,250,000 bushels, a slight increase on the average. The production of maize is, however, insufficient, and 208,719 tons were imported in 1902—about double the amount imported in 1882.

Rice is cultivated in low-lying, moist lands, where spring and summer temperatures are high. The Po valley and the valleys of Emilia and the Romagna are best adapted for rice, but the area is diminishing on account of the competition of foreign rice and of the impoverishment of the soil by too intense cultivation. The area is about 0·5% of the total of Italy. The area under rye is about 0·5% of the total, of which about two-thirds lie in the Alpine and about one-third in the Apennine zone. The barley zone is geographically extensive but embraces not more than 1% of the total area, of which half is situated in Sardinia and Sicily. Oats, cultivated in the Roman and Tuscan maremma and in Apulia, are used almost exclusively for horses and cattle. The area of oats cultivation is 1·5% of the total area. The other cereals, millet and *panico sorgo* (*Panicum italicum*), have lost much of their importance in consequence of the introduction of maize and rice. Millet, however, is still cultivated in the north of Italy, and is used as bread for agricultural labourers, and as forage when mixed with buckwheat (*Sorghum saccaratum*). The manufacture of macaroni and similar foodstuff is a characteristic Italian industry. It is extensively distributed, but especially flourishes in the Neapolitan provinces. The exportation of "corn-flour pastes" sank, however, from 7100 tons to 350 between 1882 and 1902.

The cultivation of green forage is extensive and is divided into the categories of temporary and perennial. The temporary includes vetches, pulse, lupine, clover and trifolium; and the perennial, meadow-trefoil, lupinella, sulla (*Hedysarum coronarium*), lucerne and darnel. The natural grass meadows are extensive, and hay is grown all over the country, but especially in the Po valley. Pasture occupies about 30% of the total area of the country, of which Alpine pastures occupy 1·25%. Seed-bearing vegetables are comparatively scarce. The principal are: white beans, largely consumed by the working classes; lentils, much less cultivated than beans; and green peas, largely consumed in Italy, and exported as a spring vegetable. Chick-pease are extensively cultivated in the southern provinces. Horse beans are grown, especially in the south and in the larger islands; lupines are also grown for fodder.

Among tuberous vegetables the potato comes first. The area occupied is about 0·7% of the whole of the country. Turnips are grown principally in the central provinces as an alternative crop to wheat. They yield as much as 12 tons per acre. Beetroot (*Beta vulgaris*) is used as fodder, and yields about 10 tons per acre. Sugar beet is extensively grown to supply the sugar factories. In 1898–1899 there were only four sugar factories, with an output of 5972 tons; in 1905 there were thirty-three, with an output of 93,916 tons.

Market gardening is carried on both near towns and villages, where products find ready sale, and along the great railways, on account of transport facilities. Rome is an exception to the former rule and imports garden produce largely from the neighbourhood of Naples and from Sardinia.

Among the chief industrial plants is tobacco, which grows wherever suitable soil exists. Since tobacco is a government monopoly, its cultivation is subject to official concessions and prescriptions. Experiments hitherto made show that the cultivation of Oriental tobacco may profitably be extended in Italy. The yield for 1901 was 5528 tons, but a large increase took place subsequently, eleven million new plants having been added in southern Italy in 1905.

The chief textile plants are hemp, flax and cotton. Hemp is largely cultivated in the provinces of Turin, Ferrara, Bologna, Forlì, Ascoli Piceno and Caserta. Bologna hemp is specially valued. Flax covers about 160,000 acres, with a product, in fibre, amounting to about 20,000 tons. Cotton (*Gossypium herbaceum*), which at the beginning of the 19th century, at the time of the Continental blockade, and again during the American War of Secession, was largely cultivated, is now grown only in parts of Sicily and in a few southern provinces. Sumach, liquorice and madder are also grown in the south.

The vine is cultivated throughout the length and breadth of Italy, but while in some of the districts of the south and centre it occupies from 10 to 20% of the cultivated area, in some of the northern provinces, such as Sondrio, Belluno, Grosseto, &c., the average is only about 1 or 2%. The methods of cultivation are varied; but the planting of the vines by themselves in long rows of insignificant bushes is the exception. In Lombardy, Emilia, Romagna, Tuscany, the Marches, Umbria and the southern provinces, they are trained to trees which are either left in their natural state or subjected to pruning and pollarding. In Campania the vines are allowed to climb freely to the tops of the poplars. In the rest of Italy the elm and the maple are the trees mainly employed as supports. Artificial props of several kinds—wires, cane work, trellis work, &c.—are also in use in many districts (in the neighbourhood of Rome canes are almost exclusively employed), and in some the plant is permitted to trail along the ground. The vintage takes place, according to locality and climate, from the beginning of September to the beginning of November. The vine has been attacked by the *Oidium Tuckeri*, the *Phylloxera vastatrix* and the *Peronospora viticola*, which in rapid succession wrought great havoc in Italian vineyards. American vines, are, however, immune and have been largely adopted. The production of wine in the vintage of 1907, which was extraordinarily abundant all over the country, was estimated at 1232 million gallons (56 million hectolitres), the average for 1901–1903 being some 352 million gallons less; of this the probable home consumption was estimated at rather over half, while a considerable amount remained over from 1906. The exportation in 1902 only reached about 45 million gallons (and even that is double the average), while an equally abundant vintage in France and Spain rendered the exportation of the balance of 1907 impossible, and fiscal regulations rendered the distillation of the superfluous amount difficult. The quality, too, owing to bad weather at the time of vintage, was not good; Italian wine, indeed, never is sufficiently good to compete with the best wines of other countries, especially France (though there is more opening for Italian wines of the Bordeaux and Burgundy type); nor will many kinds of it stand keeping, partly owing to their natural qualities and partly to the insufficient care devoted to their preparation. There has been some improvement, however, while some of the heavier white wines, noticeably the Marsala of Sicily, have excellent keeping qualities. The area cultivated as vineyards has increased enormously, from about 4,940,000 acres to 9,880,000 acres, or about 14% of the total area of the country. Over-production seems thus to be a considerable danger, and improvement of quality is rather to be sought after. This has been encouraged by government prizes since 1904.

Next to cereals and the vine the most important object of cultivation is the olive. In Sicily and the provinces of Reggio, Catanzaro, Cosenza and Lecce this tree flourishes without shelter; as far north as Rome, Aquila and Teramo it requires only the slightest protection; in the rest of the peninsula it runs the risk of damage by frost every ten years or so. The proportion of ground under olives is from 20 to 36% at Porto Maurizio, and in Reggio, Lecce, Bari, Chieti and Leghorn it averages from 10 to 19%. Throughout Piedmont, Lombardy, Venetia and the greater part of Emilia, the tree is of little importance. In the olive there is great variety of kinds, and the methods of cultivation differ greatly in different districts; in Bari, Chieti and Lecce, for instance, there are regular woods of nothing but olive-trees, while in middle Italy there are olive-orchards with the interspaces occupied by crops of various kinds. The Tuscan oils from Lucca, Calci and Buti are considered the best in the world; those of Bari, Umbria and western Liguria rank next. The wood of the olive is also used for the manufacture of small articles. The olive-growing area occupies about 3·5% of the total area of the country, and the crop in 1905 produced about 75,000,000 gallons of oil. The falling off of the crop, especially in 1899, was due to bad seasons and to insects, notably the *Cycloconium oleoginum*, and the *Dacus oleae*, or oil-fly, which have ravaged the olive-yards, and it is noticeable that lately good and bad seasons seem to alternate; between 1900 and 1905 the crops were alternately one half of, and equal to, that of the latter year. With the development of agricultural knowledge, notable improvements have been effected in the manufacture of oil. The steam mills give the best results. The export trade, however, is decreasing considerably, while the home consumption is increasing. In 1901, 1985 imperial tuns of oil were shipped from Gallipoli for abroad—two-thirds to the United Kingdom, one-third to Russia—and 666 to Italian ports; while in 1904 the figures were reversed, 1633 tuns going to Italian ports, and only 945 tuns to foreign ports. The other principal port of shipping is Gioia Tauro, 30 m. N.N.E. of Reggio Calabria. A certain amount of linseed-oil is made in Lombardy, Sicily, Apulia and Calabria; colza in Piedmont, Lombardy, Venetia and Emilia; and castor-oil in Venetia and Sicily. The product is principally used for industrial purposes, and partly in the preparation of food, but the amount is decreasing.

The cultivation of oranges, lemons and their congeners (collectively designated in Italian by the term *agrumi*) is of comparatively modern date, the introduction of the *Citrus Bigaradia* being probably due to the Arabs. Sicily is the chief centre of cultivation—the area occupied by lemon and orange orchards in the province of Palermo alone having increased from 11,525 acres in 1854 to 54,340 in 1874. Reggio Calabria, Catanzaro, Cosenza, Lecce, Salerno, Naples and Caserta are the continental provinces which come next after Sicily. In Sardinia the cultivation is extensive, but receives little attention. Both crude and concentrated lime-juice is exported, and essential oils are extracted from the rind of the *agrumi*, more particularly from that of the lemon and the bergamot. In northern and central Italy, except in the province of Brescia, the *agrumi* are almost non-existent. The trees are planted on irrigated soil and the fruit gathered between November and August. Considerable trade is done in *agro di limone* or lemon extract, which forms the basis of citric acid. Extraction is extensively carried on in the provinces of Messina and Palermo.

Among other fruit trees, apple-trees have special importance. Almonds are widely cultivated in Sicily, Sardinia and the southern provinces; walnut trees throughout the peninsula, their wood being more important than their fruit; hazel nuts, figs, prickly pears (used in the south and the islands for hedges, their fruit being a minor consideration), peaches, pears, locust beans and pistachio nuts are among the other fruits. The mulberry-tree (*Morus alba*), whose leaves serve as food for silkworms, is cultivated in every region, considerable progress having been made in its cultivation and in the rearing of silkworms since 1850. Silkworm-rearing establishments

of importance now exist in the Marches, Umbria, in the Abruzzi, Tuscany, Piedmont and Venetia. The chief silk-producing provinces are Lombardy, Venetia and Piedmont. During the period 1900–1904 the average annual production of silk cocoons was 53,500 tons, and of silk 5200 tons.

The great variety in physical and social conditions throughout the peninsula gives corresponding variety to the methods of agriculture. In the rotation of crops there is an amazing diversity—shifts of two years, three years, four years, six years, and in many cases whatever order strikes the fancy of the farmer. The fields of Tuscany for the most part bear wheat one year and maize the next, in perpetual interchanges, relieved to some extent by green crops. A similar method prevails in the Abruzzi, and in the provinces of Salerno, Benevento and Avellino. In Lombardy a six-year shift is common: either wheat, clover, maize, rice, rice, rice (the last year manured with lupines) or maize, wheat followed by clover, clover, clover ploughed in, and rice, rice and rice manured with lupines. The Emilian region is one where regular rotations are best observed—a common shift being grain, maize, clover, beans and vetches, &c., grain, which has the disadvantage of the grain crops succeeding each other. In the province of Naples, Caserta, &c., the method of fallows is widely adopted, the ground often being left in this state for fifteen or twenty years; and in some parts of Sicily there is a regular interchange of fallow and crop year by year. The following scheme indicates a common Sicilian method of a type which has many varieties: fallow, grain, grain, pasture, pasture—other two divisions of the area following the same order, but beginning respectively with the two years of grain and the two of pasture.

Woods and forests.

Woods and forests play an important part, especially in regard to the consistency of the soil and to the character of the watercourses. The chestnut is of great value for its wood and its fruit, an article of popular consumption. Good timber is furnished by the oak and beech, and pine and fir forests of the Alps and Apennines. Notwithstanding the efforts of the government to unify and co-ordinate the forest laws previously existing in the various states, deforestation has continued in many regions. This has been due to speculation, to the unrestricted pasturage of goats, to the rights which many communes have over the forests, and to some extent to excessive taxation, which led the proprietors to cut and sell the trees and then abandon the ground to the Treasury. The results are—a lack of water-supply and of water-power, the streams becoming mere torrents for a short period and perfectly dry for the rest of the year; lack of a sufficient supply of timber; the denudation of the soil on the hills, and, where the valleys below have insufficient drainage, the formation of swamps. If the available water-power of Italy, already very considerable, be harnessed, converted into electric power (which is already being done in some districts), and further increased by reafforestation, the effect upon the industries of Italy will be incalculable, and the importation of coal will be very materially diminished. The area of forest is about 14·3% of the total, and of the chestnut-woods 1·5 more; and its products in 1886 were valued at £3,520,000 (not including chestnuts). A quantity of it is really brushwood, used for the manufacture of charcoal and for fuel, coal being little used except for manufacturing purposes. Forest nurseries have also been founded.

Live stock.

According to an approximate calculation the number of head of live stock in Italy in 1890 was 16,620,000, thus divided:—horses, 720,000; asses, 1,000,000; mules, 300,000; cattle, 5,000,000; sheep, 6,000,000; goats, 1,800,000; swine, 1,800,000.

The breed of cattle most widely distributed is that known as the Podolian, usually with white or grey coat and enormous horns. Of the numerous sub-varieties, the finest is said to be that of the Val di Chiana, where the animals are stall-fed all the year round; next is ranked the so-called Valle Tiberina type. Wilder varieties roam in vast herds over the Tuscan and Roman *maremmas*, and the corresponding districts in Apulia and other regions. In the Alpine districts there is a stock distinct from the Podolian, generally called *razza montanina*. These animals are much smaller in stature and more regular in form than the Podolians; they are mainly kept for dairy purposes. Another stock, with no close allies nearer than the south of France, is found in the plain of Racconigi and Carmagnola; the mouse-coloured Swiss breed occurs in the neighbourhood of Milan; the Tirolese breed stretches south to Padua and Modena; and a red-coated breed named of Reggio or Friuli is familiar both in what were the duchies of Parma and Modena, and in the provinces of Udine and Treviso. In Sicily the so-called Modica race is of note; and in Sardinia there is a distinct stock which seldom exceeds the weight of 700 lb. Buffaloes are kept in several districts, more particularly of southern Italy.

Enormous flocks are possessed by professional sheep-farmers, who pasture them in the mountains in the summer, and bring them down to the plains in the winter. At Saluzzo in Piedmont there is a stock with hanging ears, arched face and tall stature, kept for its dairy qualities; and in the Biellese the merino breed is maintained by some of the larger proprietors. In the upper valleys of the Alps there are many local varieties, one of which at Ossola is like the Scottish blackface. Liguria is not much adapted for sheep-farming on a large scale; but a number of small flocks come down to the plain of Tuscany in the winter. With the exception of a few sub-Alpine districts near Bergamo and Brescia, the great Lombard plain is decidedly unpastoral. The Bergamo sheep is the largest breed in the country; that of Cadore and Belluno approaches it in size. In the Venetian districts the farmers often have small stationary flocks. Throughout the Roman province, and Umbria, Apulia, the Abruzzi, Basilicata and Calabria, is found in its full development a remarkable system of pastoral migration with the change of seasons which has been in existence from the most ancient times, and has attracted attention as much by its picturesqueness as by its industrial importance (see APULIA). Merino sheep have been acclimatized in the Abruzzi, Capitanata and Basilicata. The number of sheep, however, is on the decrease. Similarly, the number of goats, which are reared only in hilly regions, is decreasing, especially on account of the existing forest laws, as they are the chief enemies of young plantations. Horse-breeding is on the increase. The state helps to improve the breeds by placing choice stallions at the disposal of private breeders at a low tariff. The exportation is, however, unimportant, while the importation is largely on the increase, 46,463 horses having been imported in 1902. Cattle-breeding varies with the different regions. In upper Italy cattle are principally reared in pens and stalls; in central Italy cattle are allowed to run half wild, the stall system being little practised; in the south and in the islands cattle are kept in the open air, few shelters being provided. The erection of shelters, however, is encouraged by the state. Swine are extensively reared in many provinces. Fowls are kept on all farms and, though methods are still antiquated, trade in fowls and eggs is rapidly increasing.

In 1905 Italy exported 32,786 and imported 17,766 head of cattle; exported 33,574 and imported 6551 sheep; exported 95,995 and imported 1604 swine. The former two show a very large decrease and the latter a large increase on the export figures for 1882. The export of agricultural products shows a large increase.

The north of Italy has long been known for its great dairy districts. Parmesan cheese, otherwise called Lodigiano (from Lodi) or *grana*, was presented to King Louis XII. as early as 1509. Parmesan is not confined to the province from which it derives its name; it is manufactured in all that part of Emilia in the neighbourhood of the Po, and in the provinces of Brescia, Bergamo, Pavia, Novara and Alessandria. Gorgonzola, which takes its name from a town in the province, has become general throughout the whole of Lombardy, in the eastern parts of the "ancient provinces," and in the province of Cuneo. The cheese known as the *cacio-cavallo* is produced in regions extending from 37° to 43° N. lat. Gruyère, extensively manufactured in Switzerland and France, is also produced in Italy in the Alpine regions and in Sicily. With the exception of Parmesan, Gorgonzola, La Fontina and Gruyère, most of the Italian cheese is consumed in the locality of its production. Co-operative dairy farms are numerous in north Italy, and though only about half as many as in 1889 (114 in 1902) are better organized. Modern methods have been introduced.

Drainage, &c.

The drainage of marshes and marshy lands has considerably extended. A law passed on the 22nd of March 1900 gave a special impulse to this form of enterprise by fixing the ratio of expenditure incumbent respectively upon the State, the provinces, the communes, and the owners or other private individuals directly interested.

Agrarian economics.

The Italian Federation of Agrarian Unions has greatly contributed to agricultural progress. Government travelling teachers of agriculture, and fixed schools of viticulture, also do good work. Some unions annually purchase large quantities of merchandise for their members, especially chemical manures. The importation of machinery amounted to over 5000 tons in 1901.

Income from land has diminished on the whole. The chief diminution has taken place in the south in regard to oranges and lemons, cereals and (for some provinces) vines. Since 1895, however, the heavy import corn duty has caused a slight rise in the income from corn lands. The principal reasons for the general decrease are the fall in prices through foreign competition and the closing of certain markets, the diseases of plants and the increased outlay required to combat them, and the growth of State and local taxation. One of the great evils of Italian agricultural taxation is its lack of elasticity and of adaptation to local conditions. Taxes are not sufficiently proportioned to what the land may reasonably be expected to produce, nor sufficient allowance made for the exceptional conditions of a southern climate, in which a few hours' bad weather may destroy a whole crop. The Italian agriculturist has come to look (and often in vain) for action on a large scale from the state, for irrigation, drainage of uncultivated low-lying land, which may be made fertile, river regulation, &c.; while to the small proprietor the state often appears only as a hard and inconsiderate tax-gatherer.

The relations between owners and tillers of the soil are still regulated by the ancient forms of agrarian contract, which have remained almost untouched by social and political changes. The possibility of reforming these contracts in some parts of the kingdom has been studied, in the hope of bringing them into closer harmony with the needs of rational cultivation and the exigencies of social justice.

Peasant proprietorship is most common in Lombardy and Piedmont, but it is also found elsewhere. Large farms are found in certain

of the more open districts; but in Italy generally, and especially in Sardinia, the land is very much subdivided. The following forms of contract are most usual in the several regions: In Piedmont the *mezzadria* (*métayage*), the *terzieria*, the *colonia parziaria*, the *boaria*, the *schiavenza* and the *affitto*, or lease, are most usual. Under *mezzadria* the contract generally lasts three years. Products are usually divided in equal proportions between the owner and the tiller. The owner pays the taxes, defrays the cost of preparing the ground, and provides the necessary implements. Stock usually belongs to the owner, and, even if kept on the half-and-half system, is usually bought by him. The peasant, or *mezzadro*, provides labour. Under *terzieria* the owner furnishes stock, implements and seed, and the tiller retains only one-third of the principal products. In the *colonia parziaria* the peasant executes all the agricultural work, in return for which he is housed rent-free, and receives one-sixth of the corn, one-third of the maize and has a small money wage. This contract is usually renewed from year to year. The *boaria* is widely diffused in its two forms of *cascina fatta* and *paghe*. In the former case a peasant family undertakes all the necessary work in return for payment in money or kind, which varies according to the crop; in the latter the money wages and the payment in kind are fixed beforehand. *Schiavenza*, either simple or with a share in the crops, is a form of contract similar to the *boaria*, but applied principally to large holdings. The wages are lower than under the *boaria*. In the *affitto*, or lease, the proprietor furnishes seed and the implements. Rent varies according to the quality of the soil.

In Lombardy, besides the *mezzadria*, the lease is common, but the *terzieria* is rare. The lessee, or farmer, tills the soil at his own risk; usually he provides live stock, implements and capital, and has no right to compensation for ordinary improvements, nor for extraordinary improvements effected without the landlord's consent. He is obliged to give a guarantee for the fulfilment of his engagements. In some places he pays an annual tribute in grapes, corn and other produce. In some of the Lombard *mezzadria* contracts taxes are paid by the cultivator.

In Venetia it is more common than elsewhere in Italy for owners to till their own soil. The prevalent forms of contract are the *mezzadria* and the lease. In Liguria, also, *mezzadria* and lease are the chief forms of contract.

In Emilia both *mezzadria* and lease tenure are widely diffused in the provinces of Ferrara, Reggio and Parma; but other special forms of contract exist, known as the *famiglio da spesa*, *boaria*, *braccianti obbligati* and *braccianti disobbligati*. In the *famiglio da spesa* the tiller receives a small wage and a proportion of certain products. The *boaria* is of two kinds. If the tiller receives as much as 45 lire per month, supplemented by other wages in kind, it is said to be *boaria a sularío*; if the principal part of his remuneration is in kind, his contract is called *boaria a spesa*.

In the Marches, Umbria and Tuscany, *mezzadria* prevails in its purest form. Profits and losses, both in regard to produce and stock, are equally divided. In some places, however, the landlord takes two-thirds of the olives and the whole of the grapes and the mulberry leaves. Leasehold exists in the province of Grosseto alone. In Latium leasehold and farming by landlords prevail, but cases of *mezzadria* and of "improvement farms" exist. In the *agro Romano*, or zone immediately around Rome, land is as a rule left for pasturage. It needs, therefore, merely supervision by guardians and mounted overseers, or *butteri*, who are housed and receive wages. Large landlords are usually represented by *ministri*, or factors, who direct agricultural operations and manage the estates, but the estate is often let to a middleman, or *mercante di campagna*. Wherever corn is cultivated, leasehold predominates. Much of the work is done by companies of peasants, who come down from the mountainous districts when required, permanent residence not being possible owing to the malaria. Near Velletri and Frosinone "improvement farms" prevail. A piece of uncultivated land is made over to a peasant for from 20 to 29 years. Vines and olives are usually planted, the landlord paying the taxes and receiving one-third of the produce. At the end of the contract the landlord either cultivates his land himself or leases it, repaying to the improver part of the expenditure incurred by him. This repayment sometimes consists of half the estimated value of the standing crops.

In the Abruzzi and in Apulia leasehold is predominant. Usually leases last from three to six years. In the provinces of Foggia and Lecce long leases (up to twenty-nine years) are granted, but in them it is explicitly declared that they do not imply *enfiteusi* (perpetual leasehold), nor any other form of contract equivalent to co-proprietorship. *Mezzadria* is rarely resorted to. On some small holdings, however, it exists with contracts lasting from two to six years. Special contracts, known as *colonie immovibili* and *colonie temporanee* are applied to the *latifondi* or huge estates, the owners of which receive half the produce, except that of the vines, olive-trees and woods, which he leases separately. "Improvement contracts" also exist. They consist of long leases, under which the landlord shares the costs of improvements and builds farm-houses; also leases of orange and lemon gardens, two-thirds of the produce of which go to the landlord, while the farmer contributes half the cost of farming besides the labour. Leasehold, varying from four to six years for arable land and from six to eighteen years for forest-land, prevails also in Campania, Basilicata and Calabria. The *estaglio*, or rent, is often paid in kind, and is equivalent to half the produce of good land and one-third of the produce of bad land. "Improvement contracts" are granted for uncultivated bush districts, where one fourth of the produce goes to the landlord, and for plantations of fig-trees, olive-trees and vines, half of the produce of which belongs to the landlord, who at the end of ten years reimburses the tenant for a part of the improvements effected. Other forms of contract are the *piccola mezzadria*, or sub-letting by tenants to under-tenants, on the half-and-half system; *enfiteusi*, or perpetual leases at low rents—a form which has almost died out; and *mezzadria* (in the provinces of Caserta and Benevento).

In Sicily leasehold prevails under special conditions. In pure leasehold the landlord demands at least six months' rent as guarantee, and the forfeiture of any fortuitous advantages. Under the *gabella* lease the contract lasts twenty-nine years, the lessee being obliged to make improvements, but being sometimes exempted from rent during the first years. *Inquilinaggio* is a form of lease by which the landlord, and sometimes the tenant, makes over to tenant or sub-tenant the sowing of corn. There are various categories of *inquilinaggio*, according as rent is paid in money or in kind. Under *mezzadria* or *metateria* the landlord divides the produce with the farmer in various proportions. The farmer provides all labour. *Latifondi* farms are very numerous in Sicily. The landlord lets his land to two or more persons jointly, who undertake to restore it to him in good condition with one-third of it "*interrozzito*," that is, fallow, so as to be cultivated the following year according to triennial rotation. These lessees are usually speculators, who divide and sub-let the estate. The sub-tenants in their turn let a part of their land to peasants in *mezzadria*, thus creating a system disastrous both for agriculture and the peasants. At harvest-time the produce is placed in the barns of the lessor, who first deducts 25% as premium, then 16% for *battiteria* (the difference between corn before and after winnowing), then deducts a proportion for rent and subsidies, so that the portion retained by the actual tiller of the soil is extremely meagre. In bad years the tiller, moreover, gives up seed corn before beginning harvest.

In Sardinia landlord-farming and leasehold prevail. In the few cases of *mezzadria* the Tuscan system is followed.

Mines.—The number of mines increased from 589 in 1881 to 1580 in 1902. The output in 1881 was worth about £2,800,000, but by 1895 had decreased to £1,800,000, chiefly on account of the fall in the price of sulphur. It afterwards rose, and was worth more than £3,640,000 in 1899, falling again to £3,118,600 in 1902 owing to severe American competition in sulphur (see SICILY). The chief minerals are sulphur, in the production of which Italy holds one of the first places, iron, zinc, lead; these, and, to a smaller extent, copper of an inferior quality, manganese and antimony, are successfully mined. The bulk of the sulphur mines are in Sicily, while the majority of the lead and zinc mines are in Sardinia; much of the lead smelting is done at Pertusola, near Genoa, the company formed for this purpose having acquired many of the Sardinian mines. Iron is mainly mined in Elba. Quicksilver and tin are found (the latter in small quantities) in Tuscany. Boracic acid is chiefly found near Volterra, where there is also a little rock salt, but the main supply is obtained by evaporation. The output of stone from quarries is greatly diminished (from 12,500,000 tons, worth £1,920,000, in 1890, to 8,000,000 tons, worth £1,400,000, in 1899), a circumstance probably attributable to the slackening of building enterprise in many cities, and to the decrease in the demand for stone for railway, maritime and river embankment works. The value of the output had, however, by 1902 risen to £1,600,000, representing a tonnage of about 10,000,000. There is good travertine below Tivoli and elsewhere in Italy; the finest granite is found at Baveno. Lava is much used for paving-stones in the neighbourhood of volcanic districts, where pozzolana (for cement) and pumice stone are also important. Much of Italy contains Pliocene clay, which is good for pottery and brickmaking. Mineral springs are very numerous, and of great variety.

Fisheries.—The number of boats and smacks engaged in the fisheries has considerably increased. In 1881 the total number was 15,914, with a tonnage of 49,103. In 1902 there were 23,098 boats, manned by 101,720 men, and the total catch was valued at just over half a million sterling—according to the government figures, which are certainly below the truth. The value has, however, undoubtedly diminished, though the number of boats and crews increases. Most of the fishing boats, properly so called, start from the Adriatic coast, the coral boats from the western Mediterranean coast, and the sponge boats from the western Mediterranean and Sicilian coasts. Fishing and trawling are carried on chiefly off the Italian (especially Ligurian, Austrian and Tunisian coasts; coral is found principally near Sardinia and Sicily, and sponges almost exclusively off Sicily and Tunisia in the neighbourhood of Sfax. For sponge fishing no accurate statistics are available before 1896; in that year 75 tons of sponges were secured, but there has been considerable diminution since, only 31 tons being obtained in 1902. A considerable proportion was obtained by foreign boats. The island of Lampedusa may be considered its centre. Coral fishing, which fell off between 1889 and 1892 on account of the temporary closing of the Sciacca coral reefs has greatly decreased since 1884, when the fisheries produced 643 tons, whereas in 1902 they only produced 225 tons. The value of the product has, however, proportionately increased, so that the sum realized was little less, while less than half the number of men

was employed. Sardinian coral commands from £3 to £4 per kilogramme (2·204 lb), and is much more valuable than the Sicilian coral. The Sciacca reefs were again closed for three winters by a decree of 1904. The fishing is largely carried on by boats from Torre del Greco, in the Gulf of Naples, where the best coral beds are now exhausted. In 1879 4000 men were employed; in 1902 only just over 1000. In 1902 there were 48 tunny fisheries, employing 3006 men, and 5116 tons of fish worth £80,000 were caught. The main fisheries are in Sardinia, Sicily and Elba. Anchovy and sardine fishing (the products of which are reckoned among the general total) are also of considerable importance, especially along the Ligurian and Tuscan coasts. The lagoon fisheries are also of great importance, more especially those of Comacchio, the lagoon of Orbetello and the Mare Piccolo at Taranto &c The deep-sea fishing boats in 1902 numbered 1368, with a total tonnage of 16,149; 100 of these were coral-fishing boats and 111 sponge-fishing boats.

Industrial Progress.—The industrial progress of Italy has been great since 1880. Many articles formerly imported are now made at home, and some Italian manufactures have begun to compete in foreign markets. Italy has only unimportant lignite and anthracite mines, but water power is abundant and has been largely applied to industry, especially in generating electricity. The electric power required for the tramways and the illumination of Rome is entirely supplied by turbines situated at Tivoli, and this is the case elsewhere, and the harnessing of this water-power is capable of very considerable extension. A sign of industrial development is to be found in the growing number of manufacturing companies, both Italian and foreign.

The chief development has taken place in mechanical industries, though it has also been marked in metallurgy. Sulphur mining supplies large industries of sulphur-refining and grinding, in spite of American competition. Very little pig iron is made, most of the iron ore being exported, and iron manufactured consists of old iron resmelted. For steel-making foreign pig iron is chiefly used. The manufacture of steel rails, carried on first at Terni and afterwards at Savona, began in Italy in 1886. Tin has been manufactured since 1892. Lead, antimony, mercury and copper are also produced. The total salt production in 1902 was 458,497 tons, of which 248,215 were produced in the government salt factories and the rest in the free salt-works of Sicily. Great progress has been made in the manufacture of machinery; locomotives, railway carriages, electric tram-cars, &c., and machinery of all kinds, are now largely made in Italy itself, especially in the north and in the neighbourhood of Naples. At Turin the manufacture of motor-cars has attained great importance and the F.I.A.T. (Fabbrica Italiana Automobili Torino) factory employs 2000 workmen, while eight others employ 2780 amongst them.

Mechanical Industries.

The textile industries, some of which are of ancient date, are among those that have most rapidly developed. Handlooms and small spinning establishments have, in the silk industry, given place to large establishments with steam looms. The production of raw silk at least tripled itself between 1875 and 1900, and the value of the silks woven in Italy, estimated in 1890 to be £2,200,000, is now, on account of the development of the export trade, calculated to be almost £4,000,000. Lombardy (especially Como, Milan and Bergamo), Piedmont and Venetia are the chief silk-producing regions. There are several public assay offices in Italy for silk; the first in the world was established in Turin in 1750. The cotton industry has also rapidly developed. Home products not only supply the Italian market in increasing degree, but find their way into foreign markets. While importation of raw cotton increases importations of cotton thread and of cotton stuffs have rapidly decreased. The value of the annual produce of the various branches of the cotton industry, which in 1885 was calculated to be £7,200,000, was in 1900, notwithstanding the fall in prices, about £12,000,000. The industry is chiefly developed in Lombardy, Piedmont and Liguria; to some extent also in Campania, Venetia and Tuscany, and to a less extent in Lazio (Rome), Apulia, Emilia, the Marches, Umbria, the Abruzzi and Sicily. A government weaving school was established in Naples in 1906. As in the case of cotton, Italian woollen fabrics are conquering the home market in increasing degree. The industry centres chiefly in Piedmont (province of Novara), Venetia (province of Vicenza), Tuscany (Florence), Lombardy (Brescia), Campania (Caserta), Genoa, Umbria, the Marches and Rome. To some extent the industry also exists in Emilia, Calabria, Basilicata, the Abruzzi, Sardinia and Sicily. It has, however, a comparatively small export trade.

Textiles.

The other textile industries (flax, jute, &c.) have made notable progress. The jute industry is concentrated in a few large factories, which from 1887 onwards have more than supplied the home market, and have begun considerably to export.

Chemical industries show an output worth £2,640,000 in 1902 as against £1,040,000 in 1893. The chief products are sulphuric acid; sulphate of copper, employed chiefly as a preventive of certain maladies of the vine; carbonate of lead, hyperphosphates and chemical manures; calcium carbide; explosive powder; dynamite and other explosives. Pharmaceutical industries, as distinguished from those above mentioned, have kept pace with the general development of Italian activity. The principal product is quinine, the manufacture of which has acquired great importance, owing to its use as a specific against malaria. Milan and Genoa are the principal centres, and also the government military pharmaceutical factory at Turin. Other industries of a semi-chemical character are candle-, soap-, glue-, and perfume-making, and the preparation of india-rubber. The last named has succeeded, by means of the large establishments at Milan in supplying not only the whole Italian market but an export trade.

Chemicals.

The match-making industry is subject to special fiscal conditions. In 1902–1903 there were 219 match factories scattered throughout Italy, but especially in Piedmont, Lombardy and Venetia. The number has been reduced to less than half since 1897 by the suppression of smaller factories, while the production has increased from 47,690 millions to 59,741 millions.

The beetroot-sugar industry has attained considerable proportions in Umbria, the Marches, Lazio, Venetia and Piedmont since 1890. In 1898–1899, 5972 tons were produced, while in 1905 the figure had risen to 93,916. The rise of the industry has been favoured by protective tariffs and by a system of excise which allows a considerable premium to manufacturers.

Alcohol has undergone various oscillations, according to the legislation governing distilleries. In 1871 only 20 hectolitres were produced, but in 1881 the output was 318,000 hectolitres, the maximum hitherto attained. Since then special laws have hampered development, some provinces, as for instance Sardinia, being allowed to manufacture for their own consumption but not for export. In other parts the industry is subjected to an almost prohibitive excise-duty. The average production is about 180,000 hectolitres per annum. The greatest quantity is produced in Lombardy, Piedmont, Venetia and Tuscany. The quantity of beer is about the same, the greater part of the beer drunk being imported from Germany, while the production of artificial mineral waters has somewhat decreased. There is a considerable trade (not very large for export, however) in natural mineral waters, which are often excellent.

Paper-making is highly developed in the provinces of Novara, Caserta, Milan, Vicenza, Turin, Como, Lucca, Ancona, Genoa, Brescia, Cuneo, Macerata and Salerno. The hand-made paper of Fabriano is especially good.

Furniture-making in different styles is carried on all over Italy, especially as a result of the establishment of industrial schools. Each region produces a special type, Venetia turning out imitations of 16th- and 17th-century styles, Tuscany the 15th-century or cinquecento style, and the Neapolitan provinces the Pompeian style. Furniture and cabinet-making in great factories are carried on particularly in Lombardy and Piedmont. Bent-wood factories have been established in Venetia and Liguria.

A characteristic Italian industry is that of straw-plaiting for hat-making, which is carried on principally in Tuscany, in the district of Fermo, in the Alpine villages of the province of Vicenza, and in some communes of the province of Messina. The plaiting is done by country women, while the hats are made up in factories. Both plaits and hats are largely exported.

Tobacco is entirely a government monopoly; the total amount manufactured in 1902–1903 was 16,599 tons—a fairly constant figure.

The finest glass is made in Tuscany and Venetia; Venetian glass is often coloured and of artistic form.

In the various ceramic arts Italy was once unrivalled, but the ancient tradition for a long time lost its primeval impulse. The works at Vinovo, which had fame in the 18th century, came to an untimely end in 1820; those of Castelli (in the Abruzzi), which have been revived, were supplanted by Charles III.'s establishment at Capodimonte, 1750, which after producing articles of surprising execution was closed before the end of the century. The first place now belongs to the Della Doccia works at Florence. Founded in 1735 by the marquis Carlo Ginori, they maintained a reputation of the very highest kind down to about 1860; but since then they have not kept pace with their younger rivals in other lands. They still, however, are commercially successful. Other cities where the ceramic industries keep their ground are Pesaro, Gubbio, Faenza (whose name long ago became the distinctive term for the finer kind of potter's work in France, *faïence*), Savona and Albissola, Turin, Mondovi, Cuneo, Castellamonte, Milan, Brescia, Sassuolo, Imola, Rimini, Perugia, Castelli, &c. In all these the older styles, by which these places became famous in the 16th–18th centuries, have been revived. It is estimated that the total production of the finer wares amounts on the average to £400,000 per annum. The ruder branches of the art—the making of tiles and common wares—are pretty generally diffused.

Artistic Industries.

The jeweller's art received large encouragement in a country which had so many independent courts; but nowhere has it attained a fuller development than at Rome. A vast variety of trinkets—in coral, glass, lava, &c.—is exported from Italy, or carried away by the annual host of tourists. The copying of the paintings of the old masters is becoming an art industry of no small mercantile importance in some of the larger cities.

The production of mosaics is an industry still carried on with much success in Italy, which indeed ranks exceedingly high in the

department. The great works of the Vatican are especially famous (more than 17,000 distinct tints are employed in their productions), and there are many other establishments in Rome. The Florentine mosaics are perhaps better known abroad; they are composed of larger pieces than the Roman. Those of the Venetian artists are remarkable for the boldness of their colouring. There is a tendency towards the fostering of feminine home industries—lace-making, linen-weaving, &c.

Condition of the Working Classes.—The condition of the numerous agricultural labourers (who constitute one-third of the population) is, except in some regions, hard, and in places absolutely miserable. Much light was thrown upon their position by the agricultural inquiry (*inchiesta agraria*) completed in 1884. The large numbers of emigrants, who are drawn chiefly from the rural classes, furnish another proof of poverty. The terms of agrarian contracts and leases (except in districts where *mezzadria* prevails in its essential form), are in many regions disadvantageous to the labourers, who suffer from the obligation to provide guarantees for payment of rent, for repayment of seed corn and for the division of products.

Malaria. It was only at the close of the 19th century that the true cause of malaria—the conveyance of the infection by the bite of the *Anopheles claviger*—was discovered. This mosquito does not as a rule enter the large towns; but low-lying coast districts and ill-drained plains are especially subject to it. Much has been done in keeping out the insects by fine wire netting placed on the windows and the doors of houses, especially in the railway-men's cottages. In 1902 the state took up the sale of quinine at a low price, manufacturing it at the central military pharmaceutical laboratory at Turin. Statistics show the difference produced by this measure.

Financial Year.	Pounds of quinine sold.	Deaths by Malaria.
1901–1902	..	13,358
1902–1903	4,932	9,908
1903–1904	15,915	8,513
1904–1905	30,956	8,501
1905–1906	41,166	7,838
1906–1907	45,591	4,875

The profit made by the state, which is entirely devoted to a special fund for means against malaria, amounted in these five years to £41,759. It has been established that two 3-grain pastilles a day are a sufficient prophylactic; and the proprietors of malarious estates and contractors for public works in malarious districts are bound by law to provide sufficient quinine for their workmen, death for want of this precaution coming under the provisions of the workmen's compensation act. Much has also been, though much remains to be, done in the way of *bonificamento, i.e.* proper drainage and improvement of the (generally fertile) low-lying and hitherto malarious plains.

In Venetia the lives of the small proprietors and of the salaried peasants are often extremely miserable. There and in Lombardy the disease known as *pellagra* is most widely diffused. The disease is due to poisoning by micro-organisms produced by deteriorated maize, and can be combated by care in ripening, drying and storing the maize. The most recent statistics show the disease to be diminishing. Whereas in 1881 there were 104,067 (16·29 per 1000) peasants afflicted by the disease, in 1899 there were only 72,603 (10·30 per 1000) peasants, with a maximum of 39,882 (34·32 per 1000) peasants in Venetia, and 19,557 (12·90 per 1000) peasants in Lombardy. The decrease of the disease is a direct result of the efforts made to combat it, in the form of special hospitals or *pellagrosari*, economic kitchens, rural bakeries and maize-drying establishments. A bill for the better prevention of pellagra was introduced in the spring of 1902. The deaths from it dropped in that year to 2376, from 3054 in the previous year and 3788 in 1900.

In Liguria, on account of the comparative rarity of large estates, agricultural labourers are in a better condition. Men earn between 1s. 3d. and 2s. 1d. a day, and women from 5d. to 8d. In Emilia the day labourers, known as *disobbligati*, earn, on the contrary, low wages, out of which they have to provide for shelter and to lay by something against unemployment. Their condition is miserable. In Tuscany, however, the prevalence of *mezzadria*, properly so called, has raised the labourers' position. Yet in some Tuscan provinces, as, for instance, that of Grosseto, where malaria rages, labourers are organized in gangs under "corporals," who undertake harvest work. They are poverty-stricken, and easily fall victims to fever. In the Abruzzi and in Apulia both regular and irregular workmen are engaged by the year. The *curatori* or *curatoli* (factors) receive £40 a year, with a slight interest in the profits; the stockmen hardly earn in money and kind £13; the muleteers and underworkmen get between £5 to £8, plus firewood, bread and oil; irregular workmen have even lower wages, with a daily distribution of bread, salt and oil. In Campania and Calabria the *curatoli* and *massari* earn, in money and kind, about £12 a year; cowmen, shepherds and muleteers about £10; irregular workmen are paid from 8½d. to 1s. 8d. per day, but only find employment, on an average, 230 days in the year. The condition of Sicilian labourers is also miserable. The huge extent of the *latifondi*, or large estates, often results in their being left in the hands of speculators, who exploit both workmen and farmers with such usury that the latter are often compelled, at the end of a scanty year, to hand over their crops to the usurers before harvest. In Sardinia wage-earners are paid 10d. a day, with free shelter and an allotment for private cultivation. Irregular adult workmen earn between 10d. and 1s. 3d., and boys from 6d. to 10d. a day. Woodcutters and vine-waterers, however, sometimes earn as much as 3s. a day.

The peasants somewhat rarely use animal food—this is most largely used in Sardinia and least in Sicily—bread and polenta or macaroni and vegetables being the staple diet. Wine is the prevailing drink.

The condition of the workmen employed in manufactures has improved during recent years. Wages are higher, the cost of the prime necessaries of life is, as a rule, lower, though taxation on some of them is still enormous; so that the remuneration of work has improved. Taking into account the variations in wages and in the price of wheat, it may be calculated that the number of hours of work requisite to earn a sum equal to the price of a cwt. of wheat fell from 183 in 1871 to 73 in 1894. In 1898 it was 105, on account of the rise in the price of wheat, and since then up till 1902 it oscillated between 105 and 95.

Wages have risen from 22·6 centimes per hour (on an average) to 26·3 centimes, but not in all industries. In the mining and woollen industries they have fallen, but have increased in mechanical, chemical, silk and cotton industries. Wages vary greatly in different parts of Italy, according to the cost of the necessaries of life, the degree of development of working-class needs and the state of working-class organization, which in some places has succeeded in increasing the rates of pay. Women are, as a rule, paid less than men, and though their wages have also increased, the rise has been slighter than in the case of men. In some trades, for instance the silk trade, women earn little more than 10d. a day, and, for some classes of work, as little as 7d. and 4½d. The general improvement in sanitation has led to a corresponding improvement in the condition of the working classes, though much still remains to be done, especially in the south. On the other hand, it is generally the case that even in the most unpromising inn the bedding is clean.

Strikes. The number of industrial strikes has risen from year to year, although, on account of the large number of persons involved in some of them, the rise in the number of strikers has not always corresponded to the number of strikes. During the years 1900 and 1901 strikes were increasingly numerous, chiefly on account of the growth of Socialist and working-class organizations.

The greatest proportion of strikes takes place in northern Italy, especially Lombardy and Piedmont, where manufacturing industries are most developed. Textile, building and mining industries show the highest percentage of strikes, since they give employment to large numbers of men concentrated in single localities. Agricultural strikes, though less frequent than those in manufacturing industries, have special importance in Italy. They are most common in the north and centre, a circumstance which shows them to be promoted less by the more backward and more ignorant peasants than by the better-educated labourers of Lombardy and Emilia, among whom Socialist organizations are widespread. Since 1901 there have been, more than once, general strikes at Milan and elsewhere, and one in the autumn of 1905 caused great inconvenience throughout the country, and led to no effective result.

Although in some industrial centres the working-class movement has assumed an importance equal to that of other countries, there is no general working-class organization comparable to the English trade unions. Mutual benefit and co-operative societies serve the purpose of working-class defence or offence against the employers. In 1893, after many vicissitudes, the Italian Socialist Labour Party was founded, and has now become the Italian Socialist Party, in which the majority of Italian workmen enrol themselves. Printers and hat-makers, however, possess trade societies. In 1899 an agitation began for the organization of "Chambers of Labour," intended to look after the technical education of workmen and to form commissions of arbitration in case of strikes. They act also as employment bureaux, and are often centres of political propaganda. At present such "chambers" exist in many Italian cities, while "leagues of improvement," or of "resistance," are rapidly spreading in the country districts. In many cases the action of these organizations has proved, at least temporarily, advantageous to the working classes.

Labour legislation is backward in Italy, on account of the late development of manufacturing industry and of working-class organization. On the 17th of April 1898 a species of Employers' Liability Act compelled employers of more than five workmen in certain industries to insure their employees against accidents.

On the 17th of July 1898 a national fund for the insurance of workmen against illness and old age was founded by law on the principle of optional registration. In addition to an initial endowment by the state, part of the annual income of the fund is furnished in various forms by the state (principally by making over a proportion of the profits of the Post Office Savings Bank), and part by the premiums of the workmen. The minimum annual premium is six lire for an annuity of one lira per day at the age of sixty, and insurance against sickness. The low level of wages in many trades and the jealousies of the "Chambers of Labour" and other working-class organizations impede rapid development.

A law came into operation in February 1908, according to which a weekly day of rest (with few exceptions) was established on Sunday in every case in which it was possible, and otherwise upon some other day of the week.

The French institution of *Prudhommes* was introduced into Italy in 1893, under the name of *Collegi di Probiviri*. The institution has not attained great vogue. Most of the colleges deal with matters affecting textile and mechanical industries. Each "college" is founded by royal decree, and consists of a president, with not fewer than ten and not more than twenty members. A conciliation bureau and a jury are elected to deal with disputes concerning wages, hours of work, labour contracts, &c., and have power to settle the disputes, without appeal, whenever the amounts involved do not exceed £8.

Provident institutions.

Provident institutions have considerably developed in Italy under the forms of savings banks, assurance companies and mutual benefit societies. Besides the Post Office Savings Bank and the ordinary savings banks, many co-operative credit societies and ordinary credit banks receive deposits of savings.

The greatest number of savings banks exists in Lombardy; Piedmont and Venetia come next. Campania holds the first place in the south, most of the savings of that region being deposited in the provident institutions of Naples. In Liguria and Sardinia the habit of thrift is less developed. Assurance societies in Italy are subject to the general dispositions of the commercial code regarding commercial companies. Mutual benefit societies have increased rapidly, both because their advantages have been appreciated, and because, until recently, the state had taken no steps directly to insure workmen against illness. The present Italian mutual benefit societies resemble the ancient beneficent corporations, of which in some respects they may be considered a continuation. The societies require government recognition if they wish to enjoy legal rights. The state (law of the 15th of April 1896) imposed this condition in order to determine exactly the aims of the societies, and, while allowing them to give help to their sick, old or feeble members, or aid the families of deceased members, to forbid them to pay old-age pensions, lest they assumed burdens beyond their financial strength. Nevertheless, the majority of societies have not sought recognition, being suspicious of fiscal state intervention.

Co-operation.

Co-operation, for the various purposes of credit, distribution, production and labour, has attained great development in Italy. Credit co-operation is represented by a special type of association known as People's Banks (*Banche Popolari*). They are not, as a rule, supported by workmen or peasants, but rather by small tradespeople, manufacturers and farmers. They perform a useful function in protecting their clients from the cruel usury which prevails, especially in the south. A recent form of co-operative credit banks are the *Casse Rurali* or rural banks, on the Raffeisen system, which lend money to peasants and small proprietors out of capital obtained on credit or by gift. These loans are made on personal security, but the members of the bank do not contribute any quota of the capital, though their liability is unlimited in case of loss. They are especially widespread in Lombardy and Venetia.

Distributive co-operation is confined almost entirely to Piedmont, Liguria, Lombardy, Venetia, Emilia and Tuscany, and is practically unknown in Basilicata, the Abruzzi and Sardinia.

Co-operative dairies are numerous. They have, however, much decreased in number since 1889. More numerous are the agricultural and viticultural co-operative societies, which have largely increased in number. They are to be found mainly in the fertile plains of north Italy, where they enjoy considerable success, removing the cause of labour troubles and strikes, and providing for cultivation on a sufficiently large scale. The richest, however, of the co-operative societies, though few in number, are those for the production of electricity, for textile industries and for ceramic and glass manufactures.

Co-operation in general is most widely diffused, in proportion to population, in central Italy; less so in northern Italy, and much less so in the south and the islands. It thus appears that co-operation flourishes most in the districts in which the *mezzadria* system has been prevalent.

Railways.—The first railway in Italy, a line 16 m. long from Naples to Castellammare, was opened in 1840. By 1881 there were some 5500 m. open, in 1891 some 8000 m., while in 1901 the total length was 9317 m. In July 1905 all the principal lines, which had been constructed by the state, but had been since 1885 let out to three companies (Mediterranean, Adriatic, Sicilian), were taken over by the state; their length amounted in 1901 to 6147 m., and in 1907 to 8422 m. The minor lines (many of them narrow gauge) remain in the hands of private companies. The total length, including the Sardinian railways, was 10,368 m. in 1907. The state, in taking over the railways, did not exercise sufficient care to see that the lines and the rolling stock were kept up to a proper state of efficiency and adequacy for the work they had to perform; while the step itself was taken somewhat hastily. The result was that for the first two years of state administration the service was distinctly bad, and the lack of goods trucks at the ports was especially felt. A capital expenditure of £4,000,000 annually was decided on to bring the lines up to the necessary state of efficiency to be able to cope with the rapidly increasing traffic. It was estimated in 1906 that this would have to be maintained for a period of ten years, with a further total expenditure of £14,000,000 on new lines.

Comparing the state of things in 1901 with that of 1881, for the whole country, we find the passenger and goods traffic almost doubled (except the cattle traffic), the capital expenditure almost doubled, the working expenses per mile almost imperceptibly increased, and the gross receipts per mile slightly lower. The *personnel* had increased from 70,568 to 108,690. The construction of numerous unremunerative lines, and the free granting of concessions to government and other employees (and also of cheap tickets on special occasions for congresses, &c., in various towns, without strict inquiry into the qualifications of the claimants) will account for the failure to realize a higher profit. The fares (in slow trains, with the addition of 10% for expenses) are: 1st class, 1·85d.; 2nd, 1·3d.; 3rd, 0·725d. per mile. There are, however, considerable reductions for distances over 93 m., on a scale increasing in proportion to the distance.

The taking over of the main lines by the state has of course produced a considerable change in the financial situation of the railways. The state incurred in this connexion a liability of some £20,000,000, of which about £16,000,000 represented the rolling stock. The state has considerably improved the engines and passenger carriages. The capital value of the whole of the lines, rolling stock, &c., for 1908–1909 was calculated approximately at £244,161,400, and the profits at £5,295,019, or 2·2%.

Milan is the most important railway centre in the country, and is followed by Turin, Genoa, Verona, Bologna, Rome, Naples. Lombardy and Piedmont are much better provided with railways in proportion to their area than any other parts of Italy; next come Venetia, Emilia and the immediate environs of Naples.

The northern frontier is crossed by the railway from Turin to Ventimiglia by the Col di Tenda, the Mont Cenis line from Turin to Modane (the tunnel is 7 m. in length), the Simplon line (tunnel 11 m. in length) from Domodossola to Brigue, the St Gotthard from Milan to Chiasso (the tunnel is entirely in Swiss territory), the Brenner from Verona to Trent, the line from Udine to Tarvis and the line from Venice to Triest by the Adriatic coast. Besides these international lines the most important are those from Milan to Turin (via Vercelli and via Alessandria), to Genoa via Tortona, to Bologna via Parma and Modena, to Verona, and the shorter lines to the district of the lakes of Lombardy; from Turin to Genoa via Savona and via Alessandria; from Genoa to Savona and Ventimiglia along the Riviera, and along the south-west coast of Italy, via Sarzana (whence a line runs to Parma) to Pisa (whence lines run to Pistoia and Florence) and Rome; from Verona to Modena, and to Venice via Padua; from Bologna to Padua, to Rimini (and thence along the north-east coast via Ancona, Castellammare Adriatico and Foggia to Brindisi and Otranto), and to Florence and Rome; from Rome to Ancona, to Castellammare Adriatico and to Naples; from Naples to Foggia, via Metaponto (with a junction for Reggio di Calabria), to Brindisi and to Reggio di Calabria. (For the Sicilian and Sardinian lines, see SICILY and SARDINIA.) The speed of the trains is not high, nor are the runs without stoppage long as a rule. One of the fastest runs is from Rome to Orte, 52·40 m. in 69 min., or 45·40 m. per hour, but this is a double line with little traffic. The low speed reduces the potentiality of the lines. The insufficiency of rolling stock, and especially of goods wagons, is mainly caused by delays in "handling" traffic consequent on this or other causes, among which may be mentioned the great length of the single lines south of Rome. It is thus a matter of difficulty to provide trucks for a sudden emergency, *e.g.* the vintage season; and in 1905–1907 complaints were many, while the seaports were continually short of trucks. This led to deficiencies in the supply of coal to the manufacturing centres, and to some diversion elsewhere of shipping.

Steam and Electric Tramways.—Tramways with mechanical traction have developed rapidly. Between 1875, when the first line was opened, and 1901, the length of the lines grew to 1890 m. of steam and 270 m. of electric tramways. These lines exist principally in Lombardy (especially in the province of Milan), in Piedmont,

especially in the province of Turin, and in other regions of northern and central Italy. In the south they are rare, on account partly of the mountainous character of the country, and partly of the scarcity of traffic. All the important towns of Italy are provided with internal electric tramways, mostly with overhead wires.

Carriage-roads have been greatly extended in modern times, although their ratio to area varies in different localities. In north Italy there are 1480 yds. of road per sq. m.; in central Italy 993; in southern Italy 405; in Sardinia 596, and in Sicily only 244. They are as a rule well kept up in north and central Italy, less so in the south, where, especially in Calabria, many villages are inaccessible by road and have only footpaths leading to them. By the act of 1903 the state contributes half and the province a quarter of the cost of roads connecting communes with the nearest railway stations or landing places.

Inland Navigation.—Navigable canals had in 1886 a total length of about 655 m.; they are principally situated in Piedmont, Lombardy and Venetia, and are thus practically confined to the Po basin. Canals lead from Milan to the Ticino, Adda and Po. The Po is itself navigable from Turin downwards, but through its delta it is so sandy that canals are preferred, the Po di Volano and the Po di Primaro on the right, and the Canale Bianco on the left. The total length of navigable rivers is 967 m.

Posts, Telegraphs and Telephones.—The number of post offices (including *collettorie*, or collecting offices, which are rapidly being eliminated) increased from 2200 in 1862 to 4823 in 1881, 6700 in 1891 and 8817 in 1904. In spite of a large increase in the number of letters and post cards (*i.e.* nearly 10 per inhabitant per annum in 1904, as against 5·65 in 1888) the average is considerably below that of most other European countries. The number of state telegraph offices was 4603, of other offices (railway and tramway stations, which accept private telegrams for transmission) 1930. The telephone system is considerably developed; in 1904, 92 urban and 66 inter-urban systems existed. They were installed by private companies, but have been taken over by the state. International communication between Rome and Paris, and Italy and Switzerland also exists. The parcel post and money order services have largely increased since 1887–1888, the number of parcels having almost doubled (those for abroad are more than trebled), while the number of money orders issued is trebled and their value doubled (about £40,000,000). The value of the foreign orders paid in Italy increased from £1,280,000 to £2,356,000—owing to the increase of emigration and of the savings sent home by emigrants.

At the end of 1907 Italy was among the few countries that had not adopted the reduction of postage sanctioned at the Postal Union congress, held in Rome in 1906, by which the rates became 2½d. for the first oz., and 1½d. per oz. afterwards. The internal rate is 15c. (1½d.) per ½ oz.; post-cards 10c. (1d.), reply 15c. On the other hand, letters within the postal district are only 5c. (½d.) per ½ oz. Printed matter is 2c. (¼d.) per 50 grammes (1¾ oz.). The regulations provide that if there is a greater weight of correspondence (including book-packets) than 1¼ lb for any individual by any one delivery, notice shall be given him that it is lying at the post office, he being then obliged to arrange for fetching it. Letters insured for a fixed sum are not delivered under any circumstances.

Money order cards are very convenient and cheap (up to 10 lire [8s.] for 10c. [1d.]), as they need not be enclosed in a letter, while a short private message can be written on them. Owing to the comparatively small amount of letters, it is found possible to have a travelling post office on all principal trains (while almost every train has a travelling sorter, for whom a compartment is reserved) without a late fee being exacted in either case. In the principal towns letters may be posted in special boxes at the head office just before the departure of any given mail train, and are conveyed direct to the travelling post office. Another convenient arrangement is the provision of letter-boxes on electric tramcars in some cities.

Mercantile Marine.—Between the years 1881 and 1905 the number of ships entered and cleared at Italian ports decreased slightly (219,598 in 1881 and 208,737 in 1905), while their aggregate tonnage increased (32,070,704 in 1881 and 80,782,030 in 1905). In the movement of shipping, trade with foreign countries prevails (especially as regards arrivals) over trade between Italian ports. Most of the merchandise and passengers bound for and hailing from foreign ports sail under foreign flags. Similarly, foreign vessels prevail over Italian vessels in regard to goods embarked. European countries absorb the greater part of Italian sea-borne trade, whereas most of the passenger traffic goes to North and South America. The substitution of steamships for sailing vessels has brought about a diminution in the number of vessels belonging to the Italian mercantile marine, whether employed in the coasting trade, the fisheries or in traffic on the high seas. Thus:—

Year.	Total No. of Ships.	Steamships.		Sailing Vessels.	
		Number.	Tonnage (Net).	Number.	Tonnage (Net).
1881	7815	176	93,698	7,639	895,359
1905	5596	513	462,259	5,083	570,355

Among the steamers the increase has chiefly taken place in vessels of more than 1000 tons displacement, but the number of large sailing vessels has also increased. The most important Italian ports are (in order): Genoa, Naples, Palermo, Leghorn, Messina, Venice, Catania.

Foreign Trade.—Italian trade with foreign countries (imports and exports) during the quinquennium 1872–1876 averaged £94,000,000 a year; in the quinquennium 1893–1897 it fell to £88,960,000 a year. In 1898, however, the total rose to £104,680,000, but the increase was principally due to the extra importation of corn in that year. In 1899 it was nearly £120,000,000. Since 1899 there has been a steady increase both in imports and exports. Thus:—

Year.	Trade with Foreign Countries in £1000 (exclusive of Precious Metals).[1]			
	Totals.	Imports.	Exports.	Excess of Imports over Exports.
1871	81,966	38,548	43,418	−4,870
1881	96,208	49,587	46,621	2,966
1891	80,135	45,063	35,072	9,991
1900	121,538	68,009	53,529	14,480
1904	140,437	76,549	63,888	12,661

[1] No account has here been taken of fluctuations of exchange.

The great extension of Italian coast-line is thought by some to be not really a source of strength to the Italian mercantile marine, as few of the ports have a large enough hinterland to provide them with traffic, and in this hinterland (except in the basin of the Po) there are no canals or navigable rivers. Another source of weakness is the fact that Italy is a country of transit and the Italian mercantile marine has to enter into competition with the ships of other countries, which call there in passing. A third difficulty is the comparatively small tonnage and volume of Italian exports relatively to the imports, the former in 1907 being about one-fourth of the latter, and greatly out of proportion to the relative value; while a fourth is the lack of facilities for handling goods, especially in the smaller ports.

The total imports for the first six months of 1907 amounted to £57,840,000, an increase of £7,520,000 as compared with the corresponding period of 1906. The exports for the corresponding period amounted to £35,840,000, a diminution of £1,520,000 as compared with the corresponding period of 1906. The diminution was due to a smaller exportation of raw silk and oil. The countries with which this trade is mainly carried on are: (imports) United Kingdom, Germany, United States, France, Russia and India; (exports) Switzerland, United States, Germany, France, United Kingdom and Argentina.

The most important imports are minerals, including coal and metals (both in pig and wrought); silks, raw, spun and woven; stone, potter's earths, earthenware and glass; corn, flour and farinaceous products; cotton, raw, spun and woven; and live stock. The principal exports are silk and cotton tissues, live stock, wines, spirits and oils; corn, flour, macaroni and similar products; and minerals, chiefly sulphur. Before the tariff reform of 1887 manufactured articles, alimentary products and raw materials for manufacture held the principal places in the imports. In the exports, alimentary products came first, while raw materials for manufacture and manufactured articles were of little account. The transformation of Italy from a purely agricultural into a largely industrial country is shown by the circumstance that trade in raw stuffs, semi-manufactured and manufactured materials, now preponderates over that in alimentary products and wholly-manufactured articles, both the importation of raw materials and the exportation of manufactured articles having increased. The balance of Italian trade has undergone frequent fluctuations. The large predominance of imports over exports after 1884 was a result of the falling off of the export trade in live stock, olive oil and wine, on account of the closing of the French market, while the importation of corn from Russia and the Balkan States increased considerably. In 1894 the excess of imports over exports fell to £2,720,000, but by 1898 it had grown to £8,391,000, in consequence chiefly of the increased importation of coal, raw cotton and cotton thread, pig and cast iron, old iron, grease and oil-seeds for use in Italian industries. In 1899 the excess of imports over exports fell to £3,006,000; but since then it has never been less than £12,000,000.

Education.—Public instruction in Italy is regulated by the state, which maintains public schools of every grade, and requires that other public schools shall conform to the rules of the state schools. No private person may open a school without state authorization. Schools may be classed thus:—

1. Elementary, of two grades, of the lower of which there must legally be at least one for boys and one for girls in each commune; while the upper grade elementary school is required in communes having normal and secondary schools or over 4000 inhabitants. In both the instruction is free They are maintained by the communes, sometimes with state help.

The age limit is six to nine years for the lower grade, and up to twelve for the higher grade, attendance being obligatory at the latter also where it exists. 2. Secondary instruction (i.) classical in the *ginnasi* and *licei*, the latter leading to the universities; (ii.) technical. 3. Higher education—universities, higher institutes and special schools.

Of the secondary and higher educatory methods, in the normal schools and licei the state provides for the payment of the staff and for scientific material, and often largely supports the ginnasi and technical schools, which should by law be supported by the communes. The universities are maintained by the state and by their own ancient resources; while the higher special schools are maintained conjointly by the state, the province, the commune and (sometimes) the local chamber of commerce.

The number of persons unable to read and write has gradually decreased, both absolutely and in proportion to the number of inhabitants. The census of 1871 gave 73% of illiterates, that of 1881, 67%, and that of 1901, 56%, *i.e.* 51·8 for males and 60·8 for females. In Piedmont there were 17·7% of illiterates above six years (the lowest) and in Calabria 78·7% (the highest), the figures for the whole country being 48·5. As might be expected, progress has been most rapid wherever education, at the moment of national unification, was most widely diffused. For instance, the number of bridegrooms unable to write their names in 1872 was in the province of Turin 26%, and in the Calabrian province of Cosenza 90%; in 1899 the percentage in the province of Turin had fallen to 5%, while in that of Cosenza it was still 76%. Infant asylums (where the first rudiments of instruction are imparted to children between two and a half and six years of age) and elementary schools have increased in number. There has been a corresponding increase in the number of scholars. Thus:—

Year.	Infant Asylums (Public and Private).		Daily Elementary Schools (Public and Private).	
	Number of Asylums.	Number of Scholars.	Number of Schoolrooms.	Number of Scholars.
1885–86	2083	240,365	53,628	2,252,898
1890–91	2296	278,204	57,077	2,418,692
1901–02	3314	355,594	61,777	2,733,349

The teachers in 1901–1902 numbered 65,739 (exclusive of 576 non-teaching directors and 322 teachers of special subjects) or about 41·5 scholars per teacher.

The rate of increase in the public state-supported schools has been much greater than in the private schools. School buildings have been improved and the qualifications of teachers raised. Nevertheless, many schools are still defective, both from a hygienic and a teaching point of view; while the economic position of the elementary teachers, who in Italy depend upon the communal administrations and not upon the state, is still in many parts of the country extremely low.

The law of 1877 rendering education compulsory for children between six and nine years of age has been the principal cause of the spread of elementary education. The law is, however, imperfectly enforced for financial reasons. In 1901–1902 only 65% out of the whole number of children between six and nine years of age were registered in the lower standards of the elementary and private schools. The evening schools have to some extent helped to spread education. Their number and that of their scholars have, however, decreased since the withdrawal of state subsidies. In 1871–1872 there were 375,947 scholars at the evening schools and 154,585 at the holiday schools, while in 1900–1901 these numbers had fallen to 94,510 and 35,460 respectively. These are, however, the only institutions in which a decrease is shown, and by the law of 1906 5000 of these institutions are to be provided in the communes where the proportion of illiterates is highest. In 1895 they numbered 4245, with 138,181 scholars. Regimental schools impart elementary education to illiterate soldiers. Whereas the levy of 1894 showed 40% of the recruits to be completely illiterate, only 27% were illiterate when the levy was discharged in 1897. Private institutions and working-class associations have striven to improve the intellectual conditions of the working classes. Popular universities have lately attained considerable development. The number of institutes devoted to secondary education remained almost unchanged between 1880–1881 and 1895–1896. In some places the number has even been diminished by the suppression of private educational institutes. But the number of scholars has considerably increased, and shows a ratio superior to the general increase of the population. The greatest increase has taken place in technical education, where it has been much more rapid than in classical education. There are three higher commercial schools, with academic rank, at Venice, Genoa and Bari, and eleven secondary commercial schools; and technical and commercial schools for women at Florence and Milan. The number of agricultural schools has also grown, although the total is relatively small when compared with population. The attendance at the various classes of secondary schools in 1882 and 1902 is shown by the following table:—

	1882.	1902.	No. of Schools.
Ginnasi—			
Government	13,875	24,081	192
On an equal footing with government schools	6,417	7,208	76
Not on such a footing	22,609	24,850[1]	442
Total	42,811	56,139	710
Technical schools—			
Government	7,510	30,411	188
On an equal footing	8,653	12,055	101
Not on such a footing	8,670	3,623[1]	106[1]
Total	24,833	46,089	395
Licei—			
Government	6,623	10,983	121
On an equal footing	1,167	1,955	33
Not on such a footing	4,600	4,962[1]	187
Total	12,390	17,900	341
Technical institutes—			
Government	5,555	9,654	54
On an equal footing	1,684	1,898	18
Not on such a footing.	619	378[1]	7
Total	7,858	11,930	79
Nautical institutes—			
Government	758	1,878	18
On an equal footing	69	38	1
Not on such a footing	13	29[1]	1
Total	816	1,945	20

[1] 1896.

The schools which do not obtain equality with government schools are either some of those conducted by religious orders, or else those in which a sufficient standard is not reached. The total number of such schools was, in 1896, 742 with 33,813 pupils.

The pupils of the secondary schools reach a maximum of 6·60 per 1000 in Liguria and 5·92 in Latium, and a minimum of 2·30 in the Abruzzi, 2·27 in Calabria and 1·65 in Basilicata.

For the boarding schools, or *convitti*, there are only incomplete reports except for the institutions directly dependent on the ministry of public instruction, which are comparatively few. The rest are largely directed by religious institutions. In 1895–1896 there were 919 convitti for boys, with 59,066 pupils, of which 40, with 3814 pupils, were dependent on the ministry (in 1901–1902 there were 43 of these with 4036 pupils); and 1456 for girls, with 49,367 pupils, of which only 8, with about 600 pupils, were dependent on the ministry.

The *scuole normali* or training schools (117 in number, of which 75 were government institutions) for teachers had 1329 male students in 1901–1902, showing hardly any increase, while the female students increased from 8005 in 1882–1883 to 22,316 in 1895–1896, but decreased to 19,044 in 1901–1902, owing to the admission of women to telegraph and telephone work. The female secondary schools in 1881–1882 numbered 77, of which 7 were government institutions, with 3569 pupils; in 1901–1902 there were 233 schools (9 governmental) with 9347 pupils.

The total attendance of students in the various faculties at the different universities and higher institutes is as follows:—

	1882.	1902.
Law	4,801	8,385
Philosophy and letters	419	1,703
Medicine and surgery	4,428	9,055
Professional diploma, pharmacy	798	3,290
Mathematics and natural science	1,364	3,500
Engineering	982	1,293
Agriculture	145	507
Commerce	128	167
Total	13,065	27,900

Thus a large all-round increase in secondary and higher education is shown—satisfactory in many respects, but showing that more young men devote themselves to the learned professions (especially to the law) than the economic condition of the country will justify. There are 21 universities—Bologna, Cagliari, Camerino, Catania, Ferrara, Genoa, Macerata, Messina, Modena, Naples, Padua, Palermo, Parma, Pavia, Perugia, Pisa, Rome, Sassari, Siena, Turin, Urbino, of which Camerino, Ferrara, Perugia and Urbino are not state institutions; university courses are also given at Aquila, Bari and Catanzaro. Of these the most frequented in 1904–1905 were: Naples (4745), Turin (3451), Rome (2630), Bologna (1711), Pavia (1559), Padua (1364), Genoa (1276), and the least frequented, Cagliari (254), Siena (235) and Sassari (200). The professors are ordinary and extraordinary, and free professors (*liberi docenti*), corresponding to the German *Privatdozenten*, are also allowed to be attached to the universities.

The institutions which co-operate with the universities are the special schools for engineers at Turin, Naples, Rome and Bologna (and others attached to some of the universities), the higher technical institute at Milan, the higher veterinary schools of Milan, Naples and Turin, the institute for higher studies at Florence (*Istituto di studi superiori, pratici e di perfezionamento*), the literary and scientific academy of Milan, the higher institutes for the training of female teachers at Florence and Rome, the Institute of Social Studies at Florence, the higher commercial schools at Venice, Bari and Genoa, the commercial university founded by L. Bocconi at Milan in 1902, the higher naval school at Genoa, the higher schools of agriculture at Milan and Portici, the experimental institute at Perugia, the school of forestry at Vallambrosa, the industrial museum at Turin. The special secondary institutions, distinct from those already reckoned under the universities and allied schools, include an Oriental institute at Naples with 243 pupils; 34 schools of agriculture with (1904–1905) 1925 students; 2 schools of mining (at Caltanisetta and Iglesias) with (1904–1905) 83 students; 308 industrial and commercial schools with (1903–1904) 46,411 students; 174 schools of design and moulding with (1898) 12,556 students; 13 government fine art institutes (1904–1905) with 2778 students and 13 non-government with 1662 students; 5 government institutes of music with 1026 students, and 51 non-government with 4109 pupils (1904–1905). Almost all of these show a considerable increase.

Libraries are numerous in Italy, those even of small cities being often rich in manuscripts and valuable works. Statistics collected in 1893–1894 and 1896 revealed the existence of 1831 libraries, either private (but open to the public) or completely public. The public libraries have been enormously increased since 1870 by the incorporation of the treasures of suppressed monastic institutions. The richest in manuscripts is that of the Vatican, especially since the purchase of the Barberini Library in 1902; it now contains over 34,000 MSS. The Vatican archives are also of great importance. Most large towns contain important state or communal archives, in which a considerable amount of research is being done by local investigators; the various societies for local history (*Società di Storia Patria*) do very good work and issue valuable publications; the treasures which the archives contain are by no means exhausted. Libraries and archives are under the superintendence of the Ministry of Public Instruction. A separate department of this ministry under a director-general has the charge of antiquities and fine arts, making archaeological excavations and supervising those undertaken by private persons (permission to foreigners, even to foreign schools, to excavate in Italy is rarely granted), and maintaining the numerous state museums and picture galleries. The exportation of works of art and antiquities from Italy without leave of the ministry is forbidden (though it has in the past been sometimes evaded). An inventory of those subjects, the exportation of which can in no case be permitted, has been prepared; and the ministry has at its disposal a fund of £200,000 for the purchase of important works of art of all kinds.

Charities.—In Italy there is no legal right in the poor to be supported by the parish or commune, nor any obligation on the commune to relieve the poor—except in the case of forsaken children and the sick poor. Public charity is exercised through the permanent charitable foundations (*opere pie*), which are, however, very unequally distributed in the different provinces. The districts of Italy which show between 1881 and 1903 the greatest increase of new institutions, or of gifts to old ones, are Lombardy, Piedmont, Liguria, while Sardinia, Calabria and Basilicata stand lowest, Latium standing comparatively low.

The patrimony of Italian charitable institutions is considerable and is constantly increasing. In 1880 the number of charitable institutions (exclusive of public pawnshops, or *Monti di Pietà*, and other institutions which combine operations of credit with charity) was approximately 22,000, with an aggregate patrimony of nearly £80,000,000. The revenue was about £3,600,000; after deduction of taxes, interest on debts, expenses of management, &c., £2,080,000. Adding to this £1,240,000 of communal and provincial subsidies, the product of the labour of inmates, temporary subscriptions, &c., the net revenue available for charity was, during 1880, £3,860,000. Of this sum £260,000 was spent for religious purposes. Between 1881 and 1905 the bequests to existing institutions and sums left for the endowment of new institutions amounted to about £16,604,600.

Charitable institutions take, as a rule, the two forms of outdoor and indoor relief and attendance. The indoor institutions are the more important in regard to endowment, and consist of hospitals for the infirm (a number of these are situated at the seaside); of hospitals for chronic and incurable diseases; of orphan asylums; of poorhouses and shelters for beggars; of infant asylums or institutes for the first education of children under six years of age; of lunatic asylums; of homes for the deaf and dumb; and of institutes for the blind. The outdoor charitable institutions include those which distribute help in money or food; those which supply medicine and medical help; those which aid mothers unable to rear their own children; those which subsidize orphans and foundlings; those which subsidize educational institutes; and those which supply marriage portions. Between 1881 and 1898 the chief increases took place in the endowments of hospitals; orphan asylums; infant asylums; poorhouses; almshouses; voluntary workhouses; and institutes for the blind. The least creditably administered of these are the asylums for abandoned infants; in 1887, of a total of 23,913, 53·77 % died; while during the years 1893–1896 (no later statistics are available) of 117,970 51·72 % died. The average mortality under one year for the whole of Italy in 1893–1896 was only 16·66 %.

Italian charity legislation was reformed by the laws of 1862 and 1890, which attempted to provide efficacious protection for endowments, and to ensure the application of the income to the purposes for which it was intended. The law considers as "charitable institutions" (*opere pie*) all poorhouses, almshouses and institutes which partly or wholly give help to able-bodied or infirm paupers, or seek to improve their moral and economic condition; and also the *Congregazioni di carità* (municipal charity boards existing in every commune, and composed of members elected by the municipal council), which administer funds destined for the poor in general. All charitable institutions were under the protection of provincial administrative junta, existing in every province, and empowered to control the management of charitable endowments. The supreme control was vested in the minister of the Interior. The law of 1890 also empowers every citizen to appeal to the tribunals on behalf of the poor, for whose benefit a given charitable institution may have been intended. A more recent law provides for the formation of a central body, with provincial commissions under it. Its effect, however, has been comparatively small.

Public pawnshops or *Monti di pietà* numbered 555 in 1896, with a net patrimony of £2,879,625. In that year their income, including revenue from capital, was £416,385, and their expenditure £300,232. The amount lent on security was £4,153,229.

The *Monti frumentarii* or co-operative corn deposits, which lend seed corn to farmers, and are repaid after harvest with interest in kind, numbered 1615 in 1894, and possessed a patrimony of £240,000.

In addition to the regular charitable institutions, the communal and provincial authorities exercise charity, the former (in 1899) to the extent of £1,827,166 and the latter to the extent of £919,832 per annum. Part of these sums is given to hospitals, and part spent directly by the communal and provincial authorities. Of the sum spent by the communes, about ½ goes for the sanitary service (doctors, midwives, vaccination), ⅛ for the maintenance of foundlings, $\frac{1}{10}$ for the support of the sick in hospitals, and $\frac{1}{22}$ for sheltering the aged and needy. Of the sum spent by the provincial authorities, over half goes to lunatic asylums and over a quarter to the maintenance of foundling hospitals.

Religion.—The great majority of Italians—97·12%—are Roman Catholics. Besides the ordinary Latin rite, several others are recognized. The Armenians of Venice maintain their traditional characteristics. The Albanians of the southern provinces still employ the Greek rite and the Greek language in their public worship, and their priests, like those of the Greek Church, are allowed to marry. Certain peculiarities introduced by St Ambrose distinguish the ritual of Milan from that of the general church. Up to 1871 the island of Sicily was, according to the bull of Urban II., ecclesiastically dependent on the king, and exempt from the canonical power of the pope.

Though the territorial authority of the papal see was practically abolished in 1870, the fact that Rome is the seat of the administrative centre of the vast organization of the church is not without significance to the nation. In the same city in which the administrative functions of the body politic are centralized

there still exists the court of the spiritual potentate which in 1879 consisted of 1821 persons. Protestants number some 65,000, of whom half are Italian and half foreign. Of the former 22,500 are Waldensians. The number of Jews was returned as 36,000, but is certainly higher. There are, besides, in Italy some 2500 members of the Greek Orthodox Church. There were in 1901 20,707 parishes in Italy, 68,444 secular clergy and 48,043 regulars (monks, lay brothers and nuns). The size of parishes varies from province to province, Sicily having larger parishes in virtue of the old Sicilian church laws, and Naples, and some parts of central Italy, having the smallest. The Italian parishes had in 1901 a total gross revenue, including assignments from the public worship endowment fund, of £1,280,000 or an average of £63 per parish; 51% of this gross sum consists of revenue from glebe lands.

The kingdom is divided into 264 sees and ten abbeys, or prelatures *nullius dioceseos*. The dioceses are as follows:—

A. 6 suburbicarian sees—Ostia and Velletri, Porto and Sta Rufina, Albano, Frascati, Palestrina, Sabina—all held by cardinal bishops.

B. 74 sees immediately subject to the Holy See, of which 12 are archiepiscopal and 61 episcopal.

C. 37 ecclesiastical provinces, each under a metropolitan, composed of 148 suffragan dioceses. Their position is indicated in the following table:—

Metropolitans.	*Suffragans.*
Acerenza-Matera	Anglona-Tursi, Tricarico, Venosa.
Bari	Conversano, Ruvo-Bitonto.
Benevento	S. Agata de' Goti, Alife, Ariano, Ascoli Satriano Cerignola, Avellino, Bojano, Bovino, Larino, Lucera, S. Severo, Telese (Cerreto), Termoli.
Bologna	Faenza, Imola.
Brindisi and Ostuni	No suffragan.
Cagliari	Galtelli-Nuoro, Iglesias, Ogliastra.
Capua	Caiazzo, Calvi-Teano, Caserta, Isernia-Venafro, Sessa.
Chieti and Vasto	No suffragan.
Conza and Campagna	S. Angelo de' Lombardi-Bisaccia, Lacedonia, Muro Lucano.
Fermo	Macerata-Tolentino, Montalto, Ripatransone, S. Severino.
Florence	Borgo S. Sepolcro, Colle di Val d'Elsa, Fiesole, S. Miniato, Modigliana, Pistoia-Prato.
Genoa	Albenga, Bobbio, Chiavari, Savona-Noli, Tortona, Ventimiglia.
Lanciano and Ortona	No suffragan.
Manfredonia and Viesti	No suffragan.
Messina	Lipari, Nicosia, Patti.
Milan	Bergamo, Brescia, Como, Crema, Cremona, Lodi, Mantua, Pavia.
Modena	Carpi, Guastalla, Massa-Carrara, Reggio.
Monreale	Caltanisetta, Girgenti.
Naples	Acerra, Ischia, Nola, Pozzuoli.
Oristano	Ales-Terralba.
Otranto	Gallipoli, Lecce, Ugento.
Palermo	Cefalù, Mazzara, Trapani.
Pisa	Leghorn, Pescia, Pontremoli, Volterra.
Ravenna	Bertinoro, Cervia, Cesena, Comacchio, Forlì, Rimini, Sarsina.
Reggio Calabria	Bova, Cassano, Catanzaro, Cotrone, Gerace, Nicastro, Oppido, Nicotera-Tropea, Squillace.
Salerno	Acerno, Capaccio-Vallo, Diano, Marsico-Nuovo and Potenza, Nocera dei Pagani, Nusco, Policastro.
Sassari	Alghero, Ampurias and Tempio, Bisarhio, Bosa.
S. Severino	Cariati.
Siena	Chiusi-Pienza, Grosseto, Massa Marittima, Sovana-Pitigliano.
Syracuse	Caltagirone, Noto, Piazza-Armerina.
Sorrento	Castellammare.
Taranto	Castellaneta, Oria.
Trani-Nazareth-Barletta, Bisceglie	Andria.
Turin	Acqui, Alba, Aosta, Asti, Cuneo, Fossano, Ivrea, Mondovi, Pinerolo, Saluzzo, Susa.
Urbino	S. Angelo in Vado-Urbania, Cagli-Pergola, Fossombrone, Montefeltro, Pesaro, Sinigaglia.
Venice (patriarch)	Adria, Belluno-Feltre, Ceneda (Vittorio), Chioggia, Concordia-Portogruaro, Padua, Treviso, Verona, Vicenza.
Vercelli	Alessandria della Paglia, Biella, Casale, Monferrato, Novara, Vigevano.

Twelve archbishops and sixty-one bishops are independent of all metropolitan supervision, and hold directly of the Holy See. The archbishops are those of Amalfi, Aquila, Camerino and Treia, Catania, Cosenza, Ferrara, Gaeta, Lucca, Perugia, Rossano, Spoleto, and Udine, and the bishops those of Acireale, Acquapendente, Alatri, Amelia, Anagni, Ancona-Umana, Aquino-Sora-Pontecorvo, Arezzo, Ascoli, Assisi, Aversa, Bagnorea, Borgo San Donnino, Cava-Sarno, Città di Castello, Città della Pieve, Cività Castellana-Orte-Gallese, Corneto-Civita Vecchia, Cortona, Fabriano-Matelica, Fano, Ferentino Foggia, Foligno, Gravina-Montepeloso, Gubbio, Jesi, Luni-Sarzana and Bragnato, S. Marco-Bisignano, Marsi (Pescina), Melfi-Rapolla Mileto, Molfetta-Terlizzi-Giovennazzo, Monopoli, Montalcino, Montefiascone, Montepulciano, Nardo, Narni, Nocera in Umbria, Norcia, Orvieto, Osimo-Cingoli, Parma, Penne-Atri, Piacenza, Poggio Mirteto, Recanati-Loreto, Rieti, Segni, Sutri-Nepi, Teramo, Terni, Terracina-Piperno-Sezze, Tivoli, Todi, Trivento, Troia, Valva-Sulmona, Veroli, Viterbo-Toscanella. Excluding the diocese of Rome and suburbicarian sees, each see has an average area of 430 sq. m. and a population of 121,285 souls. The largest sees exist in Venetia and Lombardy, and the smallest in the provinces of Naples, Leghorn, Forlì, Ancona, Pesaro, Urbino, Caserta, Avellino and Ascoli. The Italian sees (exclusive of Rome and of the suburbicarian sees) have a total annual revenue of £206,000 equal to an average of £800 per see. The richest is that of Girgenti, with £6304, and the poorest that of Porto Maurizio, with only £246. In each diocese is a seminary or diocesan school.

Religious Foundations.

In 1855 an act was passed in the Sardinian states for the disestablishment of all houses of the religious orders not engaged in preaching, teaching or the care of the sick, of all chapters of collegiate churches not having a cure of souls or existing in towns of less than 20,000 inhabitants, and of all private benefices for which no service was paid by the holders. The property and money thus obtained were used to form an ecclesiastical fund (*Cassa Ecclesiastica*) distinct from the finances of the state. This act resulted in the suppression of 274 monasteries with 3733 friars, of 61 nunneries with 1756 nuns and of 2722 chapters and benefices. In 1860 and 1861 the royal commissioners (even before the constitution of the new kingdom of Italy had been formally declared) issued decrees by which there were abolished—(1) in Umbria, 197 monasteries and 102 convents with 1809 male and 2393 female associates, and 836 chapters or benefices; (2) in the Marches, 292 monasteries and 127 convents with 2950 male and 2728 female associates; (3) in the Neapolitan provinces, 747 monasteries and 275 convents with 8787 male and 7493 female associates. There were thus disestablished in seven or eight years 2075 houses of the regular clergy occupied by 31,649 persons; and the confiscated property yielded a revenue of £398,298. And at the same time there had been suppressed 11,889 chapters and benefices of the secular clergy, which yielded an annual income of £199,149. The value of the capital thus potentially freed was estimated at £12,000,000; though hitherto the ecclesiastical possessions in Lombardy, Emilia, Tuscany and Sicily had been untouched. As yet the Cassa Ecclesiastica had no right to dispose of the property thus entrusted to it; but in 1862 an act was passed by which it transferred all its real property to the national domain, and was credited with a corresponding amount by the exchequer. The property could now be disposed of like the other property of the domain; and except in Sicily, where the system of emphyteusis was adopted, the church lands began to be sold by auction. To encourage the poorer classes of the people to become landholders, it was decided that the lots offered for sale should be small, and that the purchaser should be allowed to pay by five or ten yearly instalments. By a new act in 1866 the process of secularization was extended to the whole kingdom. All the members of the suppressed communities received full exercise of all the ordinary political and civil rights of laymen; and annuities were granted to all those who had taken permanent religious vows prior to the 18th of January 1864. To priests and choristers, for example, of the proprietary or endowed orders were assigned £24 per annum if they were upwards of sixty years of age, £16 if upwards of 40, and £14, 8s. if younger. The Cassa Ecclesiastica was abolished, and in its stead was instituted a *Fondo pel Culto*, or public worship fund. From the general confiscation were exempted the buildings actually used for public worship, as episcopal residences or seminaries, &c., or which had been appropriated to the use of schools, poorhouses, hospitals, &c.; as well as the buildings, appurtenances, and movable property of the abbeys of Monte Casino, Della Cava dei Tirreni, San Martino della Scala, Monreale, Certosa near Pavia, and other establishments of the same kind of importance as architectural or historical monuments. An annuity equal to the ascertained revenue of the suppressed institutions was placed to the credit of the fund in the government 5% consols. A fourth of this sum was to be handed to the communes to be employed on works of beneficence or education as soon as a surplus was obtained from that part of the annuity assigned for the payment of monastic pensions; and in Sicily, 209 communes entered on their privileges as soon as the patrimony was liquidated. Another act in 1867 decreed the suppression of certain foundations which had escaped the action of previous measures, put an extraordinary tax of 30% on the whole of the patrimony of the church, and granted the government the right of issuing 5% bonds sufficient to bring into the treasury £16,000,000,

which were to be accepted at their nominal value as purchase money for the alienated property. The public worship endowment fund has relieved the state exchequer of the cost of public worship; has gradually furnished to the poorer parish priests an addition to their stipends, raising them to £32 per annum, with the prospect of further raising them to £40; and has contributed to the outlay incurred by the communes for religious purposes. The monastic buildings required for public purposes have been made over to the communal and provincial authorities, while the same authorities have been entrusted with the administration of the ecclesiastical revenues previously set apart for charity and education, and objects of art and historical interest have been consigned to public libraries and museums. By these laws the reception of novices was forbidden in the existing conventual establishments the extinction of which had been decreed, and all new foundations were forbidden, except those engaged in instruction and the care of the sick. But the laws have not been rigorously enforced of late years; and the ecclesiastical possessions seized by the state were thrown on the market simultaneously, and so realized very low prices, being often bought up by wealthy religious institutions. The large number of these institutions was increased when these bodies were expelled from France.

On the 30th of June 1903 the patrimony of the endowment fund amounted to £17,339,040, of which only £264,289 were represented by buildings still occupied by monks or nuns. The rest was made up of capital and interest. The liabilities of the fund (capitalized) amounted to £10,668,105, of which monastic pensions represented a rapidly diminishing sum of £2,564,930. The chief items of annual expenditure drawn from the fund are the supplementary stipends to priests and the pensions to members of suppressed religious houses. The number of persons in receipt of monastic pensions on the 30th of June 1899 was 13,255; but while this item of expenditure will disappear by the deaths of those entitled to pensions, the supplementary stipends and contributions are gradually increasing. The following table shows the course of the two main categories of the fund from 1876 to 1902–1903:—

	1876.	1885–1886.	1898–1899.	1902–1903.
Monastic pensions, liquidation of religious property and provision of shelter for nuns	£749,172	£491,339	£220,479	£165,144
Supplementary stipends to bishops and parochial clergy, assignments to Sardinian clergy and expenditure for education and charitable purposes . .	142,912	128,521	210,020	347,940

Roman Charitable and Religious Fund.—The law of the 19th of June 1873 contained special provisions, in conformity with the character of Rome as the seat of the papacy, and with the situation created by the Law of Guarantees. According to the census of 1871 there were in the city and province of Rome 474 monastic establishments (311 for monks, 163 for nuns), occupied by 4326 monks and 3825 nuns, and possessing a gross revenue of 4,780,891 lire. Of these, 126 monasteries and 90 convents were situated in the city, 51 monasteries and 22 convents in the "suburbicariates." The law of 1873 created a special charitable and religious fund of the city, while it left untouched 23 monasteries and 49 convents which had either the character of private institutions or were supported by foreign funds. New parishes were created, old parishes were improved, the property of the suppressed religious corporations was assigned to charitable and educational institutions and to hospitals, while property having no special application was used to form a charitable and religious fund. On the 30th of June 1903 the balance-sheet of this fund showed a credit amounting to £1,796,120 and a debit of £460,819. Expenditure for the year 1902–1903 was £889,858 and revenue £818,674.

Constitution and Government.—The Vatican palace itself (with St Peter's), the Lateran palace, and the papal villa at Castel Gandolfo have secured to them the privilege of extraterritoriality by the law of 1871. The small republic of San Marino is the only other enclave in Italian territory. Italy is a constitutional monarchy, in which the executive power belongs exclusively to the sovereign, while the legislative power is shared by him with the parliament. He holds supreme command by land and sea, appoints ministers and officials, promulgates the laws, coins money, bestows honours, has the right of pardoning, and summons and dissolves the parliament. Treaties with foreign powers, however, must have the consent of parliament. The sovereign is irresponsible, the ministers, the signature of one of whom is required to give validity to royal decrees, being responsible. Parliament consists of two chambers, the senate and the Chamber of Deputies, which are nominally on an equal footing, though practically the elective chamber is the more important. The senate consists of princes of the blood who have attained their majority, and of an unlimited number of senators above forty years of age, who are qualified under any one of twenty-one specified categories—by having either held high office, or attained celebrity in science, literature, &c. In 1908 there were 318 senators exclusive of five members of the royal family. Nomination is by the king for life. Besides its legislative functions, the senate is the highest court of justice in the case of political offences or the impeachment of ministers. The deputies to the lower house are 508 in number, *i.e.* one to every 64,893 of the population, and all the constituencies are single-member constituencies. The party system is not really strong. The suffrage is extended to all citizens over twenty-one years of age who can read and write and have either attained a certain standard of elementary education or are qualified by paying a rent which varies from £6 in communes of 2500 inhabitants to £16 in communes of 150,000 inhabitants, or, if peasant farmers, 16s. of rent; or by being sharers in the profits of farms on which not less than £3, 4s. of direct (including provincial) taxation is paid; or by paying not less than £16 in direct (including provincial) taxation. Others, *e.g.* members of the professional classes, are qualified to vote by their position. The number of electors (2,541,327) at the general election in 1904 was 29% of the male population over twenty-one years of age, and 7·6% of the total population—exclusive of those temporarily disfranchised on account of military service; and of these 62·7% voted. No candidate can be returned unless he obtains more than half the votes given and more than one-sixth of the total number on the register; otherwise a second ballot must be held. Nor can he be returned under the age of thirty, and he must be qualified as an elector. All salaried government officials (except ministers, under-secretaries of state and other high functionaries, and officers in the army or navy), and ecclesiastics, are disqualified for election. Senators and deputies receive no salary but have free passes on railways throughout Italy and on certain lines of steamers. Parliaments are quinquennial, but the king may dissolve the Chamber of Deputies at any time, being bound, however, to convoke a new chamber within four months. The executive must call parliament together annually. Each of the chambers has the right of introducing new bills, as has also the government; but all money bills must originate in the Chamber of Deputies. The consent of both chambers and the assent of the king is necessary to their being passed. Ministers may attend the debates of either house but can only vote in that of which they are members. The sittings of both houses are public, and an absolute majority of the members must be present to make a sitting valid. The ministers are eleven in number and have salaries of about £1000 each; the presidency of the council of ministers (created in 1889) may be held by itself or (as is usual) in conjunction with any other portfolio. The ministries are: interior (under whom are the prefects of the several provinces), foreign affairs, treasury (separated from finance in 1889), finance, public works, justice and ecclesiastical affairs, war, marine, public instruction, commerce, industry and agriculture, posts and telegraphs (separated from public works in 1889). Each minister is aided by an under-secretary of state at a salary of £500. There is a council of state with advisory functions, which can also decide certain questions of administration, especially applications from local authorities and conflicts between ministries, and a court of accounts, which has the right of examining all details of state expenditure. In every country the bureaucracy is abused, with more or less reason, for unprogressiveness, timidity and "red-tape," and Italy is no exception to the rule. The officials are not well paid, and are certainly numerous; while the manifold checks and counter-checks have by no means always been sufficient to prevent dishonesty.

Titles of Honour.—The former existence of so many separate sovereignties and "fountains of honour" gave rise to a great many hereditary titles of nobility. Besides many hundreds of princes, dukes, marquesses, counts, barons and viscounts, there are a large number of persons of "patrician" rank, persons with a right to the designation *nobile* or *signori*, and certain hereditary knights or cavalieri. In the "Golden Book of the Capitol" (*Libro d'Oro del Campidoglio*) are inscribed 321 patrician families, and of these 28 have the title of prince and 8 that of duke, while the others are marquesses, counts or simply patricians. For the Italian orders of knighthood see KNIGHTHOOD AND CHIVALRY: *Orders of Knighthood.* The king's uncle is duke of Aosta, his son is prince of Piedmont and his cousin is duke of Genoa.

Justice.—The judiciary system of Italy is mainly framed on the French model. Italy has courts of cassation at Rome, Naples, Palermo, Turin, Florence, 20 appeal court districts, 162 tribunal districts and 1535 *mandamenti*, each with its own magistracy (*pretura*). In 13 of the principal towns there are also *pretori* who have exclusively penal jurisdiction. For minor civil cases involving sums up to 100 lire (£4), *giudici conciliatori* have also jurisdiction, while they may act as arbitrators up to any amount by request. The Roman court of cassation is the highest, and in both penal and civil matters has a right to decide questions of law and disputes between the lower judicial authorities, and is the only one which has jurisdiction in penal cases, while sharing with the others the right to revise civil cases.

The *pretori* have penal jurisdiction concerning all misdemeanours (*contravvenzioni*) or offences (*delitti*) punishable by imprisonment not exceeding three months or by fine not exceeding 1000 lire (£40). The penal tribunals have jurisdiction in cases involving imprisonment up to ten years, or a fine exceeding £40, while the assize courts, with a jury, deal with offences involving imprisonment for life or over ten years, and have exclusive jurisdiction (except that the senate is on occasion a high court of justice) over all political offences. Appeal may be made from the sentences of the *pretori* to the tribunals, and from the tribunals to the courts of appeal; from the assize courts there is no appeal except on a point of form, which appeal goes to the court of cassation at Rome. This court has the supreme power in all questions of legality of a sentence, jurisdiction or competency.

The penal code was unified and reformed in 1890. A reform of late years is the *condanna condizionale*, equivalent to the English "being bound over to appear for judgment if called upon," applied in 94,489 cases in 1907. In civil matters there is appeal from the *giudice conciliatore* to the *pretore* (who has jurisdiction up to a sum of 1500 lire = £60), from the *pretore* to the civil tribunal, from the civil tribunal to the court of appeal, and from the court of appeal to the court of cassation.

The judges of all kinds are very poorly paid. Even the first president of the Rome court of cassation only receives £600 a year.

The statistics of civil proceedings vary considerably from province to province. Lombardy, with 25 lawsuits per 1000 inhabitants, holds the lowest place; Emilia comes next with 31 per 1000; Tuscany has 39; Venetia, 42; Calabria, 144; Rome, 146; Apulia, 153; and Sardinia, 360 per 1000. The high average in Sardinia is chiefly due to cases within the competence of the conciliation offices. The number of penal proceedings, especially those within the competence of praetors, has also increased, chiefly on account of the frequency of minor contraventions of the law referred to in the section *Crime*. The ratio of criminal proceedings to population is, as a rule, much higher in the south than in the north.

A royal decree, dated February 1891, established three classes of prisons: judiciary prisons, for persons awaiting examination or persons sentenced to arrest, detention or seclusion for less than six months; penitentiaries of various kinds (*ergastoli, case di reclusione, detenzione* or *custodia*), for criminals condemned to long terms of imprisonment; and reformatories, for criminals under age and vagabonds. Capital punishment was abolished in 1877, penal servitude for life being substituted. This generally involves solitary confinement of the most rigorous nature, and, as little is done to occupy the mind, the criminal not infrequently becomes insane. Certain types of dangerous individuals are relegated after serving a sentence in the ordinary convict prisons, and by administrative, not by judicial process, to special penal colonies known as *domicilii coatti* or "forced residences." These establishments are, however, unsatisfactory, being mostly situated on small islands, where it is often difficult to find work for the *coatti*, who are free by day, being only confined at night. They receive a small and hardly sufficient, allowance for food of 50 *centesimi* a day, which they are at liberty to supplement by work if they can find it or care to do it.

Notwithstanding the construction of new prisons and the transformation of old ones, the number of cells for solitary confinement is still insufficient for a complete application of the penal system established by the code of 1890, and the moral effect of the association of the prisoners is not good, though the system of solitary confinement as practised in Italy is little better. The total number of prisoners, including minors and inhabitants of enforced residences, which from 76,066 (2·84 per 1000 inhabitants) on the 31st of December 1871 rose to a maximum of 80,792 on the 31st of December 1879 (2·87 per 1000), decreased to a minimum of 60,621 in 1896 (1·94 per 1000), and on the 31st of December 1898 rose again to 75,470 (2·38 per 1000), of whom 7038, less than one-tenth, were women. The lowness of the figures regarding women is to be noticed throughout. On the 31st of December 1903 it had decreased to 65,819, of which 6044 were women. Of these, 31,219 were in lock-ups, 25,145 in penal establishments, 1837 minors in government, and 4547 in private reformatories, and 3071 (males) were inmates of forced residences.

Crime.—Statistics of offences, including *contravvenzioni* or breaches of by-laws and regulations, exhibit a considerable increase per 100,000 inhabitants since 1887, and only a slight diminution on the figures of 1897. The figure was 1783·45 per 100,000 in 1887, 2164·46 in 1892, 2546·49 in 1897, 2497·90 in 1902. The increase is partly covered by *contravvenzioni*, but almost every class of penal offence shows a rise except homicide, and even in that the diminution is slow, 5418 in 1880, 3966 in 1887, 4408 in 1892, 4005 in 1897, 3202 in 1902; and Italy remains, owing to the frequent use of the knife, the European country in which it is most frequent. Libels, insults, &c., resistance to public authority, offences against good customs, thefts and frauds, have increased; assaults are nearly stationary. There is also an increase in juvenile delinquency. From 1890 to 1900 the actual number rose by one-third (from 30,108 to 43,684), the proportion to the rest of those sentenced from one-fifth to one-fourth; while in 1905 the actual number rose to 67,944, being a considerable proportionate rise also. In Naples, the Camorra and in Sicily, the Mafia are secret societies whose power of resistance to authority is still not inconsiderable.

Procedure, both civil and criminal, is somewhat slow, and the preliminary proceedings before the *juge d'instruction* occupy much time; and recent murder trials, by the large number of witnesses called (including experts) and the lengthy speeches of counsel, have been dragged out to an unconscionable length. In this, as in the intervention of the presiding judge, the French system has been adopted; and it is said (*e.g.* by Nathan, *Vent' anni di vita italiana*, p. 241) that the efforts of the *juge d'instruction* are, as a rule, in fact, though not in law, largely directed to prove that the accused is guilty. In 1902 of 884,612 persons accused of penal offences, 13·12% were acquitted during the period of the *instruction*, 30·31 by the courts, 46·32 condemned and the rest acquitted in some other way. This shows that charges, often involving preliminary imprisonment, are brought against an excessive proportion of persons who either are not or cannot be proved to be guilty. The courts of appeal and cassation, too, often have more than they can do; in the year 1907 the court of cassation at Rome decided 948 appeals on points of law in civil cases, while no fewer than 460 remained to be decided.

As in most civilized countries, the number of suicides in Italy has increased from year to year.

The Italian suicide rate of 63·6 per 1,000,000 is, however, lower than those of Denmark, Switzerland, Germany and France, while it approximates to that of England. The Italian rate is highest in the more enlightened and industrial north, and lowest in the south. Emilia gives a maximum rate of 10·48 per 100,000, while that of Liguria and Lazio is little lower. The minimum of 1·27 is found in the Basilicata, though Calabria gives only 2·13. About 20% of the total are women, and there is an increase of nearly 3% since 1882 in the proportion of suicides under twenty years of age.

Army.—The Italian army grew out of the old Piedmontese army with which in the main the unification of Italy was brought about. This unification meant for the army the absorption of contingents from all parts of Italy and presenting serious differences in physical and moral aptitudes, political opinions and education. Moreover the strategic geography of the country required the greater part of the army to be stationed permanently within reach of the north-eastern and north-western frontiers. These conditions made a territorial system of recruiting or organization, as understood in Germany, practically impossible. To secure fairly uniform efficiency in the various corps, and also as a means of unifying Italy, Piedmontese, Umbrians and Neapolitans are mixed in the same corps and sleep in the same barrack room. But on leaving the colours the men disperse to their homes, and thus a regiment has, on mobilization, to draw largely on the nearest reservists, irrespective of the corps to which they belong. The remedy for this condition of affairs is sought in a most elaborate and artificial system of transferring officers and men from one unit to another at stated intervals in peace-time, but this is no more than a palliative, and there are other difficulties of almost equal importance to be surmounted. Thus in Italy the universal service system, though probably the best organization both for the army and the nation, works with a maximum of friction. "Army Reform," therefore, has been very much in the forefront of late years, owing to the estrangement of Austria (which power can mobilize much more rapidly), but financial difficulties have hitherto stood in the way

of any radical and far-reaching reforms, and even the proposals of the Commission of 1907, referred to below, have only been partially accepted.

The law of 1875 therefore still regulates the principles of military service in Italy, though an important modification was made in 1907–1908. By this law, every man liable and accepted for service served for eight or nine years on the *Active Army* and its *Reserve* (of which three to five were spent with the colours), four or five in the *Mobile Militia*, and the rest of the service period of nineteen years in the *Territorial Militia*. Under present regulations the term of liability is divided into nine years in the *Active Army and Reserve* (three or two years with the colours) four in the *Mobile Militia* and six in the *Territorial Militia*. But these figures do not represent the actual service of every able-bodied Italian. Like almost all "Universal Service" countries, Italy only drafts a small proportion of the available recruits into the army.

The following table shows the operation of the law of 1875, with the figures of 1871 for comparison:—

	30th Sept.		30th June.	
	1871.	1881.	1891.	1901.
Officers[1]	14,070	22,482	36,739	36,718
Men	521,969	1,833,554	2,821,367	3,330,202
ActingArmy & Reserve	536,039	731,149	843,160	734,401
Mobile Militia . .	..	294,714	445,315	320,170
Territorial Militia . .	..	823,970	1,553,784	2,275,631

[1] Including officers on special service or in the reserve.

Thus, on the 30th of September 1871 the various categories of the army included only 2% of the population, but on the 30th of June 1898 they included 10%. But in 1901 the strength of the active army and reserve shows a marked diminution, which became accentuated in the year following. The table below indicates that up to 1907 the army, though always below its nominal strength, never absorbed more than a quarter of the available contingent.

	1902.	1903.	1904.	1906.
Liable	441,171	453,640	469,860	475,737
Physically unfit . . .	91,176	98,065	119,070	122,559
Struck off	12,270	13,189	13,130	18,222
Failed to appear . .	33,634	34,711	39,219	40,226
Put back for re-examination	108,835	108,618	107,173	122,205
Assigned to Territorial Militia and excused peace service . . .	92,952	96,916	94,136	87,032
Assigned to active army	102,204	102,141	97,132	87,493
Joined active army . .	88,666	86,448	81,581	66,836

The serious condition of recruiting was quickly noticed, and the tabulation of each year's results was followed by a new draft law, but no solution was achieved until a special commission assembled. The inquiries made by this body revealed an unsatisfactory condition in the national defences, traceable in the main to financial exigencies, and as regards recruiting a new law was brought into force in 1907–1908.

One specially difficult point concerned the effectives of the peace-strength army. Hitherto the actual time of training had been less than the nominal. The recruits due to join in November were not incorporated till the following March, and thus in the winter months Italy was defenceless. The army is always maintained at a low peace effective (about one-quarter of war establishment) and even this was reduced, by the absence of the recruits, until there were often only 15 rank and file with a company, whose war strength is about 230. Even in the summer and autumn a large proportion of the army consisted of men with but a few months' service—a highly dangerous state of things considering the peculiar mobilization conditions of the country. Further—and this case no legislation can cover—the contingent, and (what is more serious) the reserves, are being steadily weakened by emigration. The increase in the numbers rejected as unfit is accounted for by the fact that if only a small proportion of the contingent can be taken for service, the medical standard of acceptance is high.

The new recruiting scheme of 1907 re-established three categories of recruits,[1] the 2nd category corresponding practically to the German *Ersatz-Reserve*. The men classed in it have to train for six months, and they are called up in the late summer to bridge the gap above mentioned. The new terms of service for the other categories have been already stated. In consequence, in 1908, of 490,000 liable, some 110,000 actually joined for full training and 24,000 of the new 2nd category for short training, which contrasts very forcibly with the feeble embodiments of 1906 and 1907. These changes threw a considerable strain on the finances, but the imminence of the danger caused their acceptance.

The peace strength under the new scheme is nominally 300,000, but actually (average throughout the year) about 240,000. The army is organized in 12 army corps (each of 2 divisions), 6 of which are quartered on the plain of Lombardy and Venetia and on the frontiers, and 2 more in northern Central Italy. Their headquarters are: I. Turin, II. Alessandria, III. Milan, IV. Genoa, V. Verona, VI. Bologna, VII. Ancona, VIII. Florence, IX. Rome, X. Naples, XI. Bari, XII. Palermo, Sardinian division Cagliari. In addition there are 22 "Alpini" battalions and 15 mountain batteries stationed on the Alpine frontiers.

The war strength was estimated in 1901 as, *Active Army* (incl. Reserve) 750,000, *Mobile Militia* 320,000, *Territorial Militia* 2,300,000 (more than half of the last-named untrained). These figures are, with a fractional increase in the Regular Army, applicable to-day. When the 1907 scheme takes full effect, however, the Active Army and the Mobile Militia will each be augmented by about one-third. In 1915 the field army should, including officers and permanent *cadres*, be about 1,012,000 strong. The Mobile Militia will not, however, at that date have felt the effects of the scheme, and the Territorial Militia (setting the drain of emigration against the increased population) will probably remain at about the same figure as in 1901.

The army consists of 96 three-battalion regiments of infantry of the line and 12 of *bersaglieri* (riflemen), each of the latter having a cyclist company (Bersaglieri cyclist battalions are being (1909) provisionally formed); 26 regiments of cavalry, of which 10 are lancers, each of 6 squadrons; 24 regiments of artillery, each of 8 batteries;[2] 1 regiment of horse artillery of 6 batteries; 1 of mountain artillery of 12 batteries, and 3 independent mountain batteries. The armament of the infantry is the Männlicher-Carcano magazine rifle of 1891. The field and horse artillery was in 1909 in process of rearmament with a Krupp quick-firer. The garrison artillery consists of 3 coast and 3 fortress regiments, with a total of 72 companies. There are 4 regiments (11 battalions) of engineers. The *carabinieri* or gendarmerie, some 26,500 in number, are part of the standing army; they are recruited from selected volunteers from the army. In 1902 the special corps in Eritrea numbered about 4700 of all ranks, including nearly 4000 natives.

Ordinary and extraordinary military expenditure for the financial year 1898–1899 amounted to nearly £10,000,000, an increase of £4,000,000 as compared with 1871. The Italian Chamber decided that from the 1st of July 1901 until the 30th of June 1907 Italian military expenditure proper should not exceed the maximum of £9,560,000 per annum fixed by the Army Bill of May 1897, and that military pensions should not exceed £1,440,000. Italian military expenditure was thus until 1907 £11,000,000 per annum. In 1908 the ordinary and extraordinary expenditure was £10,000,000. The demands of the Commission were only partly complied with, but a large special grant was voted amounting to at least £1,000,000 per annum for the next seven years. The amount spent is slight compared with the military expenditure of other countries.

The Alpine frontier is fortified strongly, although the condition of the works was in many cases considered unsatisfactory by the 1907 Commission. The fortresses in the basin of the Po chiefly belong to the era of divided Italy and are now out of date; the chief coast fortresses are Vado, Genoa, Spezia, Monte Argentaro, Gacta, Straits of Messina, Taranto, Maddalena. Rome is protected by a circle of forts from a *coup de main* from the sea, the coast, only 12 m. off, being flat and deserted.

Navy.—For purposes of naval organization the Italian coast is divided into three maritime departments, with headquarters at Spezia, Naples and Venice; and into two *comandi militari*, with headquarters at Taranto and at the island of Maddalena. The *personnel* of the navy consists of the following corps: (1) General staff; (2) naval engineers, chiefly employed in building and repairing war vessels; (3) sanitary corps; (4) commissariat corps, for supplies and account-keeping; (5) crews.

The *matériel* of the Italian navy has been completely transformed, especially in virtue of the bill of the 31st of March 1875. Old types of vessels have been sold or demolished, and replaced by newer types.

[1] The 2nd category of the 1875 law had practically ceased to exist.

[2] This may be reduced, in consequence of the adoption of the new Q.F. gun, 1 to 6.

In March 1907 the Italian navy contained, excluding ships of no fighting value:—

	Effective.	Completing.	Projected.
Modern battleships	4	4	3
Old battleships	10	..	..
Armoured cruisers	6	2	..
Protected cruisers	14	..	..
Torpedo gunboats	13	..	..
Destroyers	13	4	10
Modern torpedo boats	34	..	15
Submarines	1	4	2

The four modern ships—the "Vittorio Emanuele" class, laid down in 1897—have a tonnage of 12,625, two 12-in. and twelve 8-in. guns, an I.H.P. of 19,000, and a designed speed of 22 knots, being intended to avoid any battleship and to carry enough guns to destroy any cruiser.

The *personnel* on active service consisted of 1799 officers and 25,000 men, the former being doubled and the latter trebled since 1882.

Naval expenditure has enormously increased since 1871, the total for 1871 having been about £900,000, and the total for 1905–1906 over £5,100,000. Violent fluctuations have, however, taken place from year to year, according to the state of Italian finances. To permit the steady execution of a normal programme of shipbuilding, the Italian Chamber, in May 1901, adopted a resolution limiting naval expenditure, inclusive of naval pensions and of premiums on mercantile shipbuilding, to the sum of £4,840,000 for the following six years, *i.e.* from 1st July 1901 until 30th June 1907. This sum consists of £4,240,000 of naval expenditure proper, £220,000 for naval pensions and £380,000 for premiums upon mercantile shipbuilding. During the financial year ending on the 30th of June 1901 these figures were slightly exceeded.

Finance.—The volume of the Italian budget has considerably increased as regards both income and expenditure. The income of £60,741,418 in 1881 rose in 1899–1900 to £69,917,126; while the expenditure increased from £58,705,929 in 1881 to £69,708,706 in 1899–1900, an increase of £9,175,708 in income and £11,002,777 in expenditure, while there has been a still further increase since, the figures for 1905–1906 showing (excluding items which figure on both sides of the account) an increase of £8,766,995 in income and £5,434,560 in expenditure over 1899–1900. These figures include not only the categories of "income and expenditure" proper, but also those known as "movement of capital," "railway constructions" and "*partite di giro*," which do not constitute real income and expenditure.[1] Considering only income and expenditure proper, the approximate totals are:—

Financial Year.	Revenue.	Expenditure.	Surpluses or Deficits.
1882	£52,064,800	£51,904,800	£+ 160,000
1885–1886	56,364,000	57,304,400	− 940,400
1890–1891	61,600,000	64,601,600	−3,001,600
1895–1896	65,344,000	67,962,800	−2,618,800
1898–1899	66,352,800	65,046,400	+1,306,400
1899–1900	66,860,800	65,323,600	+1,537,200
1900–1901	68,829,200	66,094,400	+2,734,800
1905–1906	77,684,100	75,143,300	+2,540,900

The financial year 1862 closed with a deficit of more than £16,000,000, which increased in 1866 to £28,840,000 on account of the preparations for the war against Austria. Excepting the increases of deficit in 1868 and 1870, the annual deficits tended thenceforward to decrease, until in 1875 equilibrium between expenditure and revenue was attained, and was maintained until 1881. Advantage was taken of the equilibrium to abolish certain imposts, amongst them the grist tax, which prior to its gradual repeal produced more than £3,200,000 a year. From 1885–1886 onwards, outlay on public works, military and colonial expenditure, and especially the commercial and financial crises, contributed to produce annual deficits; but owing to drastic reforms introduced in 1894–1895 and to careful management the year 1898–1899 marked a return of surpluses (nearly £1,306,400).

The revenue in the Italian financial year 1905–1906 (July 1, 1905 to June 30, 1906) was £102,486,108, and the expenditure £99,945,253, or, subtracting the *partite di giro*, £99,684,121 and £97,143,266, leaving a surplus of £2,540,855.[2] The surplus was made up by contributions from every branch of the effective revenue, except the "contributions and repayments from local authorities." The railways showed an increase of £351,685; registration transfer and succession, £295,560; direct taxation, £42,136 (mainly from income tax, which more than made up for the remission of the house tax in the districts of Calabria visited by the earthquake of 1906); customs and excise, £1,036,742; government monopolies, £291,027; posts, £41,310; telegraphs, £23,364; telephones, £65,771. Of the surplus £1,000,000 was allocated to the improvement of posts, telegraphs and telephones; £1,000,000 to public works (£720,000 for harbour improvement and £280,000 for internal navigation); £200,000 to the navy (£132,000 for a second dry dock at Taranto and £68,000 for coal purchase); and £200,000 as a nucleus of a fund for the purchase of valuable works of art which are in danger of exportation.

Taxation.

The state therefore draws its principal revenues from the imposts, the taxes and the monopolies. According to the Italian tributary system, "imposts," properly so called are those upon land, buildings and personal estate. The impost upon land is based upon the cadastral survey independently of the vicissitudes of harvests. In 1869 the main quota to the impost was increased by one-tenth, in addition to the extra two-tenths previously imposed in 1866. Subsequently, it was decided to repeal these additional tenths, the first being abolished in 1886 and the rest in 1887. On account of the inequalities still existing in the cadastral survey, in spite of the law of 1886 (see *Agriculture*, above), great differences are found in the land tax assessments in various parts of Italy. Land is not so heavily burdened by the government quota as by the additional centimes imposed by the provincial and communal authorities. On an average Italian landowners pay nearly 25% of their revenues from land in government and local land tax. The buildings impost has been assessed since 1866 upon the basis of 12·50% of "taxable revenue." Taxable revenue corresponds to two-thirds of actual income from factories and to three-fourths of actual income from houses; it is ascertained by the agents of the financial administration. In 1869, however, a third additional tenth was added to the previously existing additional two-tenths, and, unlike the tenths of the land tax, they have not been abolished. At present the main quota with the additional three-tenths amounts to 16·25% of taxable income. The imposts on incomes from personal estate (*ricchezza mobile*) were introduced in 1866; it applies to incomes derived from investments, industry or personal enterprise, but not to landed revenues. It is proportional, and is collected by deduction from salaries and pensions paid to servants of the state, where it is assessed on three-eighths of the income, and from interest on consolidated stock, where it is assessed on the whole amount; and by register in the cases of private individuals, who pay on three-fourths of their income, professional men, capitalists or manufacturers, who pay on one-half or nine-twentieths of their income. From 1871 to 1894 it was assessed at 13·20% of taxable income, this quota being formed of 12% main quota and 1·20% as an additional tenth. In 1894 the quota, including the additional tenth, was raised to the uniform level of 20%. One-tenth of the tax is paid to the communes as compensation for revenues made over to the state.

Taxes proper are divided into (*a*) taxes on business transactions and (*b*) taxes on articles of consumption. The former apply principally to successions, stamps, registrations, mortgages, &c.; the latter to distilleries, breweries, explosives, native sugar and matches, though the customs revenue and octrois upon articles of general consumption, such as corn, wine, spirits, meat, flour, petroleum, butter, tea, coffee and sugar, may be considered as belonging to this class. The monopolies are those of salt, tobacco and the lottery.

Since 1880, while income from the salt and lotto monopolies has remained almost stationary, and that from land tax and octroi has diminished, revenue derived from all other sources has notably increased, especially that from the income tax on personal estate, and the customs, the yield from which has been nearly doubled.

It will be seen that the revenue is swollen by a large number of taxes which can only be justified by necessity; the reduction and, still more, the readjustment of taxation (which now largely falls on articles of primary necessity) is urgently needed. The government in presenting the estimates for 1907–1908 proposed to set aside a sum of nearly £800,000 every year for this express purpose. It must be remembered that the sums realized by the octroi go in the main to the various communes. It is only in Rome and Naples that the octroi is collected directly by the government, which pays over a certain proportion to the respective communes.

The external taxation is not only strongly protectionist, but is

[1] "Movement of capital" consists, as regards "income," of the proceeds of the sale of buildings, Church or Crown lands, old prisons, barracks, &c., or of moneys derived from sale of consolidated stock. Thus "income" really signifies diminution of patrimony or increase of debt. In regard to "expenditure," "movement of capital" refers to extinction of debt by amortization or otherwise, to purchases of buildings or to advances made by the state. Thus "expenditure" really represents a patrimonial improvement, a creation of credit or a decrease of indebtedness. The items referring to "railway construction" represent, on the one hand, repayments made to the exchequer by the communes and provinces of money disbursed on their account by the State Treasury; and, on the other, the cost of new railways incurred by the Treasury. The items of the "*partite di giro*" are inscribed both on the credit and debit sides of the budget, and have merely a figurative value.

[2] Financial operations (mainly in connexion with railway purchase) figure on each side of the account for about £22,000,000.

applied to goods which cannot be made in Italy; hardly anything comes in duty free, even such articles as second-hand furniture paying duty, unless within six months of the date at which the importer has declared domicile in Italy. The application, too, is somewhat rigorous, *e.g.* the tax on electric light is applied to foreign ships generating their own electricity while lying in Italian ports.

The annual consumption per inhabitant of certain kinds of food and drink has considerably increased, *e.g.* grain from 270 lb per head in 1884–1885 to 321 lb in 1901–1902 (maize remains almost stationary at 158 lb); wine from 73 to 125 litres per head; oil from 12 to 13 lb per head (sugar is almost stationary at 7¼ lb per head, and coffee at about 1 lb); salt from 14 to 16 lb per head. Tobacco slightly diminished in weight at a little over 1 lb per head, while the gross receipts are considerably increased—by over 2½ millions sterling since 1884–1885—showing that the quality consumed is much better. The annual expenditure on tobacco was 5s. per inhabitant in 1902–1903, and is increasing.

The annual surpluses are largely accounted for by the heavy taxation on almost everything imported into the country,[1] and by the monopolies on tobacco and on salt; and are as a rule spent, and well spent, in other ways. Thus, that of 1907–1908 was devoted mainly to raising the salaries of government officials and university professors; even then the maximum for both (in the former class, for an under-secretary of state) was only £500 per annum. The case is frequent, too, in which a project is sanctioned by law, but is then not carried into execution, or only partly so, owing to the lack of funds. Additional stamp duties and taxes were imposed in 1909 to meet the expenditure necessitated by the disastrous earthquake at the end of 1908.

The way in which the taxes press on the poor may be shown by the number of small proprietors sold up owing to inability to pay the land and other taxes. In 1882 the number of landed proprietors was 14·52% of the population, in 1902 only 12·66, with an actual diminution of some 30,000. Had the percentage of 1882 been kept up there would have been in 1902 600,000 more proprietors than there were. Between 1884 and 1902 no fewer than 220,616 sales were effected for failure to pay taxes, while, from 1886 to 1902, 79,208 expropriations were effected for other debts not due to the state. In 1884 there were 20,422 sales, of which 35·28% were for debts of 4s. or less, and 51·95 for debts between 4s. and £2; in 1902 there were 4857 sales, but only 11·01% for debts under 4s. (the treasury having given up proceeding in cases where the property is a tiny piece of ground, sometimes hardly capable of cultivation), and 55·69% for debts between 4s. and £2. The expropriations deal as a rule with properties of higher value; of these there were 3217 in 1886, 5993 in 1892 (a period of agricultural depression), 3910 in 1902. About 22% of them are for debts under £40, about 49% from £40 to £200, about 26% from £200 to £2000.

Of the expenditure a large amount is absorbed by interest on debt. Debt has continually increased with the development of the state.

Expenditure. The sum paid in interest on debt amounted to £17,640,000 in 1871, £19,440,000 in 1881, £25,600,000 in 1891–1892 and £27,560,000 in 1899–1900; but had been reduced to £23,100,409 by the 30th of June 1906. The public debt at that date was composed as follows:—

Part I.—*Funded Debt.*

Grand Livre—	Amount.
Consolidated 5 %	£316,141,802
,, 3 %	6,404,335
,, 4½ % net	28,872,511
,, 4 % ,,	7,875,592
,, 3½ % ,,	37,689,880
Total	£396,984,120
Debts to be transferred to the Grand Livre	60,868
Perpetual annuity to the Holy See	2,580,000
Perpetual debts (Modena, Sicily, Naples)	2,591,807
Total	£402,216,795

Part II.—*Unfunded Debt.*

Debts separately inscribed in the Grand Livre	10,042,027
Various railway obligations, redeemable, &c.	56,375,351
Sicilian indemnities	195,348
Capital value of annual payment to South Austrian Company	37,102,908
Long date Treasury warrants, law of July 7, 1901	1,416,200
Railway certificates (3·65% net), Art. 6 of law, June 25, 1905, No. 261	14,220,000
Total	£119,351,834
Part I.	£402,216,795
Grand Total	£521,568,629

[1] For example, wheat, the price of which was in 1902 26 lire per cwt., pays a tax of 7½ lire; sugar pays four times its wholesale value in tax; coffee twice its wholesale value.

The debt per head of population was, in 1905, £14, 16s. 3d., and the interest 13s. 5d.

In July 1906 the 5% gross (4% net), and 4% net rente were successfully converted into 3¾% stock (to be reduced to 3½% after five years), to a total amount of £324,017,393. The demands for reimbursement at par represented a sum of only £187,588 and the market value of the stock was hardly affected; while the saving to the Treasury was to be £800,000 per annum for the first five years and about double the amount afterwards.

Currency.—The *lira* (plural *lire*) of 100 *centesimi* (centimes) is equal in value to the French franc. The total coinage (exclusive of Eritrean currency) from the 1st of January 1862 to the end of 1907 was 1,104,667,116 lire (exclusive of recoinage), divided as follows: gold, 427,516,970 lire; silver, 570,097,025 lire; nickel, 23,417,000 lire; bronze, 83,636,121 lire. The forced paper currency, instituted in 1866, was abolished in 1881, in which year were dissolved the Union of Banks of Issue created in 1874 to furnish to the state treasury a milliard of lire in notes, guaranteed collectively by the banks. Part of the Union notes were redeemed, part replaced by 10 lire and 5 lire state notes, payable at sight in metallic legal tender by certain state banks. Nevertheless the law of 1881 did not succeed in maintaining the value of the state notes at a par with the metallic currency, and from 1885 onwards there reappeared a gold premium, which during 1899 and 1900 remained at about 7%, but subsequently fell to about 3% and has since 1902 practically disappeared. The paper circulation to the debit of the state and the paper currency issued by the authorized state banks is shown below:—

Date.	Direct Liability of State.		Notes issued by State Banks.	Aggregate Paper Currency.
	State Notes.	Bons de Caisse.[1]		
	Lire.	Lire.	Lire.	Lire.
31st December 1881	940,000,000	..	735,579,197	1,675,579,197
,, 1886	446,665,535	..	1,031,869,712	1,478,535,247
,, 1891	341,949,237	..	1,121,601,079	1,463,550,316
,, 1896	400,000,000	110,000,000	1,069,233,376	1,579,233,376
,, 1899	451,431,780	42,138,152	1,180,110,330	1,673,680,262
,, 1905	441,304,780	1,874,184	1,406,474,800	1,848,657,764

[1] These ceased to have legal currency at the end of 1901; they were notes of 1 and 2 lire.

Banks.—Until 1893 the juridical status of the Banks of Issue was regulated by the laws of the 30th of April 1874 on paper currency and of the 7th of April 1881 on the abolition of forced currency. At that time four limited companies were authorized to issue bank notes, namely, the National Bank, the National Bank of Tuscany, the Roman Bank and the Tuscan Credit Bank; and two banking corporations, the Bank of Naples and the Bank of Sicily. In 1893 the Roman Bank was put into liquidation, and the other three limited companies were fused, so as to create the Bank of Italy, the privilege of issuing bank notes being thenceforward confined to the Bank of Italy, the Bank of Naples and the Bank of Sicily. The gold reserve in the possession of the Banca d'Italia on September 30th 1907 amounted to £32,240,984, and the silver reserve to £4,767,861; the foreign treasury bonds, &c. amounted to £3,324,074, making the total reserve £40,332,919; while the circulation amounted to £54,612,234. The figures were on the 31st of December 1906:

	Paper Circulation.	Reserve.
Banca d'Italia	£47,504,352	£36,979,235
Banca di Napoli	13,893,152	9,756,284
Banca di Sicilia	2,813,692	2,060,481
Total	£64,211,196	£48,796,000

This is considerably in excess of the circulation, £40,404,000, fixed by royal decree of 1900; but the issue of additional notes was allowed, provided they were entirely covered by a metallic reserve, whereas up to the fixed limit a 40% reserve only was necessary. These notes are of 50, 100, 500 and 1000 lire; while the state issues notes for 5, 10 and 25 lire, the currency of these at the end of October 1906 being £17,546,967; with a total guarantee of £15,636,000 held against them. They were in January 1908 equal in value to the metallic currency of gold and silver.

The price of Italian consolidated 5% (gross, 4% net, allowing for the 20% income tax) stock, which is the security most largely negotiated abroad, and used in settling differences between large financial institutions, has steadily risen during recent years. After being depressed between 1885 and 1894, the prices in Italy and abroad reached, in 1899, on the Rome Stock Exchange, the average of 100·83 and of 94·8 on the Paris Bourse. By the end of 1901 the price of Italian stock on the Paris Bourse had, however, risen to par or thereabouts. The average price of Italian 4% in 1905 was 105·29; since the conversion to 3¾% net (to be further reduced to 3½ in five more years), the price has been about 103·5. Rates of exchange, or, in other words the gold premium, favoured Italy during the years immediately following the abolition of the forced currency in 1881. In 1885, however, rates tended to rise, and though they fell in 1886 they subsequently increased to such an extent as to reach 110% at the end of August 1894. For the next four years they continued

low, but rose again in 1898 and 1899. In 1900 the maximum rate was 107·32, and the minimum 105·40, but in 1901 rates fell considerably, and were at par in 1902–1909.

There are in Italy six clearing houses, namely, the ancient one at Leghorn, and those of Genoa, Milan, Rome, Florence and Turin, founded since 1882.

The number of ordinary banks, which diminished between 1889 and 1894, increased in the following years, and was 158 in 1898. At the same time the capital employed in banking decreased by nearly one-half, namely, from about £12,360,000 in 1880 to about £6,520,000 in 1898. This decrease was due to the liquidation of a number of large and small banks, amongst others the Bank of Genoa, the General Bank, and the Società di Credito Mobiliare Italiano of Rome, and the Genoa Discount Bank—establishments which alone represented £4,840,000 of paid-up capital. Ordinary credit operations are also carried on by the co-operative credit societies, of which there are some 700.

Certain banks make a special business of lending money to owners of land or buildings (*credito fondiario*). Loans are repayable by instalments, and are guaranteed by first mortgages not greater in amount than half the value of the hypothecated property. The banks may buy up mortgages and advance money on current account on the security of land or buildings. The development of the large cities has induced these banks to turn their attention rather to building enterprise than to mortgages on rural property. The value of their land certificates or *cartelle fondiarie* (representing capital in circulation) rose from £10,420,000 in 1881 to £15,560,000 in 1886, and to £30,720,000 in 1891, but fell to £29,320,000 in 1896, to £27,360,000 in 1898, and to £24,360,000 in 1907; the amount of money lent increased from £10,440,000 in 1881 to £15,600,000 in 1886, and £30,800,000 in 1891, but fell to £29,320,000 in 1896, to £27,360,000 in 1899, and to £21,720,000 in 1907. The diminution was due to the law of the 10th of April 1893 upon the banks of issue, by which they were obliged to liquidate the loan and mortgage business they had previously carried on.

Agrarian Credit Banks.

Various laws have been passed to facilitate agrarian credit. The law of the 23rd of January 1887 (still in force) extended the dispositions of the Civil Code with regard to "privileges,"[1] and established special "privileges" in regard to harvested produce, produce stored in barns and farm buildings, and in regard to agricultural implements. Loans on mortgage may also be granted to landowners and agricultural unions, with a view to the introduction of agricultural improvements. These loans are regulated by special disposition, and are guaranteed by a share of the increased value of the land after the improvements have been carried out. Agrarian credit banks may, with the permission of the government, issue *cartelle agrarie*, or agrarian bonds, repayable by instalments and bearing interest.

Internal Administration.—It was not till 1865 that the administrative unity of Italy was realized. Up to that year some of the regions of the kingdom, such as Tuscany, continued to have a kind of autonomy; but by the laws of the 20th of March the whole country was divided into 69 provinces and 8545 communes. The extent to which communal independence had been maintained in Italy through all the centuries of its political disintegration was strongly in its favour. The syndic (*sindaco*) or chief magistrate of the commune was appointed by the king for three years, and he was assisted by a "municipal junta."

Local government was modified by the law of the 10th of February 1889 and by posterior enactments. The syndics (or mayors) are now elected by a secret ballot of the communal council, though they are still government officials. In the provincial administrations the functions of the prefects have been curtailed. Each province has a prefect, responsible to and appointed by the Ministry of the Interior, while each of the regions (called variously *circondarii* and *distretti*) has its sub-prefect. Whereas the prefect was formerly *ex-officio* president of the provincial deputation or executive committee of the provincial council, his duties under the present law are reduced to mere participation in the management of provincial affairs, the president of the provincial deputation being chosen among and elected by the members of the deputation. The most important change introduced by the new law has been the creation in every province of a provincial administrative junta entrusted with the supervision of communal administrations, a function previously discharged by the provincial deputation. Each provincial administrative junta is composed, in part, of government nominees, and in larger part of elective elements, elected by the provincial council for four years, half of whom require to be elected every two years. The acts of communal administration requiring the sanction of the provincial administrative junta are chiefly financial. Both communal councils and prefects may appeal to the government against the decision of the provincial administrative juntas, the government being guided by the opinion of the Council of State. Besides possessing competence in regard to local government elections, which previously came within the jurisdiction of the provincial deputations, the provincial administrative juntas discharge magisterial functions in administrative affairs, and deal with appeals presented by private persons against acts of the communal and provincial administrations. The juntas are in this respect organs of the administrative jurisprudence created in Italy by the law of the 1st of May 1890, in order to provide juridical protection for those rights and interests outside the competence of the ordinary tribunals. The provincial council only meets once a year in ordinary session.

The former qualifications for electorship in local government elections have been modified, and it is now sufficient to pay five lire annually in direct taxes, five lire of certain communal taxes, or a certain rental (which varies according to the population of a commune), instead of being obliged to pay, as previously, at least five lire annually of direct taxes to the state. In consequence of this change the number of local electors increased by more than one-third between 1887–1889; it decreased, however, as a result of an extraordinary revision of the registers in 1894. The period for which both communal and provincial councils are elected is six years, one-half being renewed every three years.

The ratio of local electors to population is in Piedmont 79%, but in Sicily less than 45%. The ratio of voters to qualified electors tends to increase; it is highest in Campania, Basilicata and in the south generally; the lowest percentages are given by Emilia and Liguria.

Local finance is regulated by the communal and provincial law of May 1898, which instituted provincial administrative juntas, empowered to examine and sanction the acts of the communal financial administrations. The sanction of the provincial administrative junta is necessary for sales or purchases of property, alterations of rates (although in case of increase the junta can only act upon request of ratepayers paying an aggregate of one-twentieth of the local direct taxation), and expenditure affecting the communal budget for more than five years. The provincial administrative junta is, moreover, empowered to order "obligatory" expenditure, such as the upkeep of roads, sanitary works, lighting, police (*i.e.* the so-called "guardie di pubblica sicurezza," the "carabinieri" being really a military force; only the largest towns maintain a municipal police force), charities, education, &c., in case such expenditure is neglected by the communal authorities. The cost of fire brigades, infant asylums, evening and holiday schools, is classed as "optional" expenditure. Communal revenues are drawn from the proceeds of communal property, interest upon capital, taxes and local dues. The most important of the local dues is the gate tax, or *dazio di consumo*, which may be either a surtax upon commodities (such as alcoholic drinks or meat), having already paid customs duty at the frontier, in which case the local surtax may not exceed 50% of the frontier duty, or an exclusively communal duty limited to 10% on flour, bread and farinaceous products,[2] and to 20% upon other commodities. The taxes thus vary considerably in different towns.

Local finance.

In addition, the communes have a right to levy a surtax not exceeding 50% of the quota levied by the state upon lands and buildings; a family tax, or *fuocatico*, upon the total incomes of families, which, for fiscal purposes, are divided into various categories; a tax based upon the rent-value of houses, and other taxes upon cattle, horses, dogs, carriages and servants; also on licences for shopkeepers, hotel and restaurant keepers, &c.; on the slaughter of animals, stamp duties, one-half of the tax on bicycles, &c. Occasional sources of interest are found in the sale of communal property, the realization of communal credits, and the contraction of debt.

The provincial administrations are entrusted with the management of the affairs of the provinces in general, as distinguished from those of the communes. Their expenditure is likewise classed as "obligatory" and "optional." The former category comprises the maintenance of provincial roads, bridges and watercourse embankments; secondary education, whenever this is not provided for by private institutions or by the state (elementary education being maintained by the communes), and the maintenance of foundlings and pauper lunatics. "Optional" expenditure includes the cost of services of general public interest, though not strictly indispensable. Provincial revenues are drawn from provincial property, school taxes, tolls and surtaxes on land and buildings. The provincial surtaxes may not exceed 50% of the quotas levied by the state. In 1897 the total provincial revenue was £3,732,253, of which £3,460,000 was obtained from the surtax upon lands and buildings. Expenditure amounted to £3,768,888, of which the principal items were £760,000 for roads and bridges, £520,000 for lunatic asylums, £240,000 for foundling hospitals, £320,000 for interest on debt and £200,000 for police. Like communal revenue, provincial revenue has considerably increased since 1880, principally on account of the increase in the land and building surtax.

The Italian local authorities, communes and provinces alike, have considerably increased their indebtedness since 1882. The ratio of communal and provincial debt per inhabitant has grown

[1] "Privileges" assure to creditors priority of claim in case of foreclosure for debt or mortgage. Prior to the law of the 23rd of January 1887 harvested produce and agricultural implements were legally exempt from "privilege."

[2] At the beginning of 1902 the Italian parliament sanctioned a bill providing for the abolition of municipal duties on bread and farinaceous products within three years of the promulgation of the bill on 1st July 1902.

from 30·79 lire (£1, 4s. 7½d.) to 43·70 lire (£1, 14s. 11d.), an increase due in great part to the need for improved buildings, hygienic reforms and education, but also attributable in part to the manner in which the finances of many communes are administered. The total was in 1900, £49,496,193 for the communes and £6,908,022 for the provinces. The former total is more than double and the latter more than treble the sum in 1873, while there is an increase of 62 % in the former and 26 % in the latter over the totals for 1882.

See *Annuario statistico italiano* (not, however, issued regularly each year) for general statistics; and other official publications; W. Deecke, *Italy; a Popular Account of the Country, its People and its Institutions* (translated by H. A. Nesbitt, London, 1904); B. King and T. Okey, *Italy to-day* (London, 1901); E. Nathan, *Vent' Anni di vita italiana attraverso all'Annuario* (Rome, 1906); G. Strafforello, *Geografia dell'Italia* (Turin, 1890–1902). (T. As.)

History

The difficulty of Italian history lies in the fact that until modern times the Italians have had no political unity, no independence, no organized existence as a nation. Split up into numerous and mutually hostile communities, they never, through the fourteen centuries which have elapsed since the end of the old Western empire, shook off the yoke of foreigners completely; they never until lately learned to merge their local and conflicting interests in the common good of undivided Italy. Their history is therefore not the history of a single people, centralizing and absorbing its constituent elements by a process of continued evolution, but of a group of cognate populations, exemplifying divers types of constitutional developments.

The early history of Italy will be found under Rome and allied headings. The following account is therefore mainly concerned with the periods succeeding A.D. 476, when Romulus Augustulus was deposed by Odoacer. Prefixed to this are two sections dealing respectively with (A) the ethnographical and philological divisions of ancient Italy, and (B) the unification of the country under Augustus, the growth of the road system and so forth. The subsequent history is divided into five periods: (C) From 476 to 1796; (D) From 1796 to 1814; (E) From 1815 to 1870; (F) From 1870 to 1902; (G) From 1902 to 1910.

A. Ancient Languages and Peoples

The ethnography of ancient Italy is a very complicated and difficult subject, and notwithstanding the researches of modern scholars is still involved in some obscurity. The great beauty and fertility of the country, as well as the charm of its climate, undoubtedly attracted, even in early ages, successive swarms of invaders from the north, who sometimes drove out the previous occupants of the most favoured districts, at others reduced them to a state of serfdom, or settled down in the midst of them, until the two races gradually coalesced. Ancient writers are agreed as to the composite character of the population of Italy, and the diversity of races that were found within the limits of the peninsula. But unfortunately the traditions they have transmitted to us are often various and conflicting, while the only safe test of the affinities of nations, derived from the comparison of their languages, is to a great extent inapplicable, from the fact that the idioms that prevailed in Italy in and before the 5th century B.C. are preserved, if at all, only in a few scanty and fragmentary inscriptions, though from that date onwards we have now a very fair record of many of them (see, *e.g.* Latin Language, Osca Lingua, Iguvium, Volsci, Etruria: section *Language*, and below). These materials, imperfect as they are, when combined with the notices derived from ancient writers and the evidence of archaeological excavations, may be considered as having furnished some results of reasonable certainty.

It must be observed that the name "Italians" was at one time confined to the Oenotrians; indeed, according to Antiochus of Syracuse (*apud* Dion. Hal. *Ant. Rom.* ii. 1), the name of Italy was first still more limited, being applied only to the southern portion of the Bruttium peninsula (now known as Calabria). But in the time of that historian, as well as of Thucydides, the names of Oenotria and Italia, which appear to have been at that period regarded as synonymous, had been extended to include the shore of the Tarentine Gulf as far as Metapontum and from thence across to the gulfs of Laus and Posidonia on the Tyrrhenian Sea. It thus still comprised only the two provinces subsequently known as Lucania and Bruttium (see references *s.v.* "Italia" in R. S. Conway's *Italic Dialects*, p. 5). The name seems to be a Graecized form of an Italic *Vitelia*, from the stem *vitlo-*, "calf" (Lat. *vitulus*, Gr. ἰταλός), and perhaps to have meant "calf-land," "grazing-land"; but the origin is more certain than the meaning; the calf may be one of the many animals connected with Italian tribes (see Hirpini, Samnites).

Taking the term Italy to comprise the whole peninsula with the northern region as far as the Alps, we must first distinguish the tribe or tribes which spoke Indo-European languages from those who did not. To the latter category it is now possible to refer with certainty only the Etruscans (for the chronology and limits of their occupation of Italian soil see Etruria: section *Language*). Of all the other tribes that inhabited Italy down to the classical period, of whose speech there is any record (whether explicit or in the form of names and glosses), it is impossible to maintain that any one does not belong to the Indo-European group. Putting aside the Etruscan, and also the different Greek dialects of the Greek colonies, like Cumae, Neapolis, Tarentum, and proceeding from the south to the north, the different languages or dialects, of whose separate existence at some time between, say, 600 and 200 B.C., we can be sure, may be enumerated as follows: (1) Sicel, (2) South Oscan and Oscan, (3) Messapian, (4) North Oscan, (5) Volscian, (6) East Italic or "Sabellic," (7) Latinian, (8) Sabine, (9) Iguvine or "Umbrian," (10) Gallic, (11) Ligurian and (12) Venetic.

Between several of these dialects it is probable that closer affinities exist. (1) It is probable, though not very clearly demonstrated, that Venetic, East Italic and Messapian are connected together and with the ancient dialects spoken in Illyria (*q.v.*), so that these might be provisionally entitled the Adriatic group, to which the language spoken by the Eteocretes of the city of Praesos in Crete down to the 4th century B.C. was perhaps akin. (2) Too little is known of the Sicel language to make clear more than its Indo-European character. But it must be reckoned among the languages of Italy because of the well-supported tradition of the early existence of the Sicels in Latium (see Siculi). Their possible place in the earlier stratum of Indo-European population is discussed under Sabini. How far also the language or languages spoken in Bruttium and at certain points of Lucania, such as Anxia, differed from the Oscan of Samnium and Campania there is not enough evidence to show (see Bruttii). (3) It is doubtful whether there are any actual inscriptions which can be referred with certainty to the language of the Ligures, but some other evidence seems to link them with the *-CO-* peoples, whose early distribution is discussed under Volsci and Liguria. (4) It is difficult to point to any definite evidence by which we may determine the dates of the earliest appearance of Gallic tribes in the north of Italy. No satisfactory collection has been made of the Celtic inscriptions of Cisalpine Gaul, though many are scattered about in different museums. For our present purpose it is important to note that the archaeological stratification in deposits like those of Bologna shows that the Gallic period supervened upon the Etruscan. Until a scientific collection of the local and personal names of this district has been made, and until the archaeological evidence is clearly interpreted, it is impossible to go beyond the region of conjecture as to the tribe or tribes occupying the valley of the Po before the two invasions. It is clear, however, that the Celtic and Etruscan elements together occupied the greater part of the district between the Apennines and the Alps down to its Romanization, which took place gradually in the course of the 2nd century B.C. Their linguistic neighbours were Ligurian in the south and south-west, and the Veneti on the east.

We know from the Roman historians that a large force of Gauls came as far south as Rome in the year 390 B.C., and that some part of this horde settled in what was henceforward known as the *Ager Gallicus*, the easternmost strip of coast in what was later known as Umbria, including the towns of Caesēna, Ravenna and Arīminum. A bilingual inscription (Gallic and Latin) of

the 2nd century B.C. was found as far south as Tuder, the modern Todi (*Italic Dialects*, ii. 528; Stokes, *Bezzenberger's Beiträge*, 11, p. 113).

(5) Turning now to the languages which constitute the Italic group in the narrower sense, (*a*) Oscan; (*b*) the dialect of Velitrae, commonly called Volscian; (*c*) Latinian (*i.e.* Latin and its nearest congeners, like Faliscan); and (*d*) Umbrian (or, as it may more safely be called, Iguvine), two principles of classification offer themselves, of which the first is purely linguistic, the second linguistic and topographical. Writers on the ethnology of Italy have been hitherto content with the first, namely, the broad distinction between the dialects which preserved the Indo-European velars (especially the breathed plosive *q*) as velars or back-palatals (gutturals), with or without the addition of a *w*-sound, and the dialects which converted the velars wholly into labials, for example, Latinian *quis* contrasted with Oscan, Volscian and Umbrian *pis* (see further LATIN LANGUAGE).

This distinction, however, takes us but a little way towards an historical grouping of the tribes, since the only Latinian dialects of which, besides Latin, we have inscriptions are Faliscan and Marsian (see FALISCI, MARSI); although the place-names of the Aequi (*q.v.*) suggest that they belong to the same group in this respect. Except, therefore, for a very small and apparently isolated area in the north of Latium and south of Etruria, all the tribes of Italy, though their idioms differed in certain particulars, are left undiscriminated. This presents a strong contrast to the evidence of tradition, which asserts very strongly (1) the identity of the Sabines and Samnites; (2) the conquest of an earlier population by this tribe; and which affords (3) clear evidence of the identity of the Sabines with the ruling class, *i.e.* the patricians, at Rome itself (see SABINI; and ROME: *Early History and Ethnology*).

Some clue to this enigma may perhaps be found in the second principle of classification proposed by the present writer at the Congresso Internationale di Scienze Storiche at Rome (*Atti del Congresso*, ii) in 1903. It was on that occasion pointed out that the ethnica or tribal and oppidan names of communities belonging to the Sabine stock were marked by the use of the suffix *-NO-* as in *Sabini*; and that there was some linguistic evidence that this stratum of population overcame an earlier population, which used, generally, ethnica in *-CO-* or *-TI-* (as in *Marruci, Ardeates*, transformed later into *Marrucini, Ardeatini*).

The validity of this distinction and its results are discussed under SABINI and VOLSCI, but it is well to state here its chief consequences.

1. Latin will be counted the language of the earlier plebeian stratum of the population of Rome and Latium, probably once spread over a large area of the peninsula, and akin in some degree to the language or languages spoken in north Italy before either the Etruscan or the Gallic invasions began.

2. It would follow, on the other hand, that what is called Oscan represented the language of the invading Sabines (more correctly Safines), whose racial affinities would seem to be of a distinctly more northern cast, and to mark them, like the Dorians or Achaeans in Greece, as an early wave of the invaders who more than once in later history have vitally influenced the fortunes of the tempting southern land into which they forced their way.

3. What is called Volscian, known only from the important inscription of the town of Velitrae, and what is called Umbrian, known from the famous Iguvine Tables with a few other records, would be regarded as Safine dialects, spoken by Safine communities who had become more or less isolated in the midst of the earlier and possibly partly Etruscanized populations, the result being that as early as the 4th century B.C. their language had suffered corruptions which it escaped both in the Samnite mountains and in the independent and self-contained community of Rome.

For fuller details the reader must be referred to the separate articles already mentioned, and to IGUVIUM, PICENUM, OSCA LINGUA, MARSI, AEQUI, SICULI and LIGURIA. Such archaeological evidence as can be connected with the linguistic data will there be discussed.

(R. S. C.)

B. CONSOLIDATION OF ITALY

We have seen that the name of Italy was originally applied only to the southernmost part of the peninsula, and was only gradually extended so as to comprise the central regions, such as Latium and Campania, which were designated by writers as late as Thucydides and Aristotle as in Opicia. The progress of this change cannot be followed in detail, but there can be little doubt that the extension of the Roman arms, and the gradual union of the nations of the peninsula under one dominant power, would contribute to the introduction, or rather would make the necessity felt, for the use of one general appellation. At first, indeed, the term was apparently confined to the regions of the central and southern districts, exclusive of Cisalpine Gaul and the whole tract north of the Apennines, and this continued to be the official or definite signification of the name down to the end of the republic. But the natural limits of Italy are so clearly marked that the name came to be generally employed as a geographical term at a much earlier period. Thus we already find Polybius repeatedly applying it in this wider signification to the whole country, as far as the foot of the Alps; and it is evident from many passages in the Latin writers that this was the familiar use of the term in the days of Cicero and Caesar. The official distinction was, however, still retained. Cisalpine Gaul, including the whole of northern Italy, still constituted a "province," an appellation never applied to Italy itself. As such it was assigned to Julius Caesar, together with Transalpine Gaul, and it was not till he crossed the Rubicon that he entered Italy in the strict sense of the term.

Augustus was the first who gave a definite administrative organization to Italy as a whole, and at the same time gave official sanction to that wider acceptation of the name which had already established itself in familiar usage, and which has continued to prevail ever since.

The division of Italy into eleven regions, instituted by Augustus for administrative purposes, which continued in official use till the reign of Constantine, was based mainly on the territorial divisions previously existing, and preserved with few exceptions the ancient limits.

The first region comprised Latium (in the more extended sense of the term, as including the land of the Volsci, Hernici and Aurunci), together with Campania and the district of the Picentini. It thus extended from the mouth of the Tiber to that of the Silarus (see LATIUM).

The second region included Apulia and Calabria (the name by which the Romans usually designated the district known to the Greeks as Messapia or Iapygia), together with the land of the Hirpini, which had usually been considered as a part of Samnium.

The third region contained Lucania and Bruttium; it was bounded on the west coast by the Silarus, on the east by the Bradanus.

The fourth region comprised all the Samnites (except the Hirpini), together with the Sabines and the cognate tribes of the Frentani, Marrucini, Marsi, Peligni, Vestini and Aequiculi. It was separated from Apulia on the south by the river Tifernus, and from Picenum on the north by the Matrinus.

The fifth region was composed solely of Picenum, extending along the coast of the Adriatic from the mouth of the Matrinus to that of the Aesis, beyond Ancona.

The sixth region was formed by Umbria, in the more extended sense of the term, as including the Ager Gallicus, along the coast of the Adriatic from the Aesis to the Ariminus, and separated from Etruria on the west by the Tiber.

The seventh region consisted of Etruria, which preserved its ancient limits, extending from the Tiber to the Tyrrhenian Sea, and separated from Liguria on the north by the river Macra.

The eighth region, termed Gallia Cispadana, comprised the southern portion of Cisalpine Gaul, and was bounded on the north (as its name implied) by the river Padus or Po, from above Placentia to its mouth. It was separated from Etruria and Umbria by the main chain of the Apennines; and the river

ITALY
(Ancient)
Scale, 1 3,700,000
English Miles
Roman Miles
Principal Roads
Other Roads
Boundaries of the Regions of Augustus I-XI
A
B
C
D
E
F
G
8°
10°
12°
14°
16°
18°
1
2
3
42°
44°
46°
GALLIA CISALPINA
GALLIA TRANSPADANA
XI
X
IX
VIII
VII
VI
IV
III
I
VENETIA
ISTRIA
LIGURIA
ETRURIA
UMBRIA
PICENUM
SAMNIUM
CAMPANIA
APULIA
CALABRIA
LUCANIA
BRUTTII
PANNONIA
DALMATIA
MARE HADRIATICUM
MARE TYRRHENUM
CORSICA
ALPES MARITIMAE
Augusta Taurinorum
Mediolanum
Verona
Patavium
Aquileia
Tergeste
Ravenna
Ariminum
Bononia
Pisaurum
Ancona
Firmum Picenum
Castrum Novum
Roma
Ostia
Tarquinii
Volaterrae
Populonium
Portus Pisanus
Portus Veneris
Portus Herculis Monoeci
Portus Maurilli
Album Intimilium
Album Ingaunum
Ilva I. (Aethalia)
Capraria
Mariana
Planasia
Oglasa
Igilium
Alsium
Pyrgi
Centum Cellae
Castrum Novum
Portus Augusti
Laurentum
Lavinium
Ardea
Antium
Circeii
Terracina
Sinuessa
Volturnum
Capua
Cumae
Neapolis
Puteoli
Misenum
Salernum
Paestum
Velia
Buxentum
Tempsa
Croton
Locri
Rhegium
Messana
Tyndaris
Panormus
Lilybaeum
Drepanum
Segesta
Eryx
Motya
Syracusae
Agrigentum
Gela
Catana
Leontini
Thermae Himeraeae
Caralis
Olbia
Turris Libisonis
Nora
Sulci
Tibur
Praeneste
Sabata
Augusta Bagiennorum
Pollentia
Hasta
Industria
Ticinum
Laus Pompeia
Cremona
Mantua
Brixellum
Parma
Mutina
Regium Lepidum
Forum Cornelii
Faventia
Forum Livii
Forum Popilii
Rubicon F.
Sena Gallica
Fanum Fortunae
Pisaurum
Forum Sempronii
Aesis F.
Auximum
Numana
Potentia
Cunarus M.
Ricina
Urbs Salvia
Cingulum
Asculum
Truentum
Cupra Maritima
Via Flaminia
Via Salaria
Via Valeria
Via Claudia Valeria
Via Latina
Via Appia
Via Popilia
Via Aemilia
Via Aurelia
Via Cassia
Via Clodia
Via Postumia
Via Annia
Via Gallica
Via Julia Augusta
Via Aurelia Nova
Via Aurelia Vetus
Via Cornelia
Via Aemilia Scauri
Via Aemilia Lepidi
Via Aemilia Altinate
Via Aemilia Augusta
Via Aemilia Augusta Taurinorum
Via Aemilia Augusta Ticinum
Via Aemilia Augusta Laus Pompeia
Via Aemilia Augusta Cremona
Via Aemilia Augusta Mantua
Via Aemilia Augusta Brixellum
Via Aemilia Augusta Parma
Via Aemilia Augusta Mutina
Via Aemilia Augusta Regium Lepidum
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Via Aemilia Augusta Asculum
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Via Aemilia Augusta Cupra Maritima
Via Aemilia Augusta Castrum Novum
Via Aemilia Augusta Via Flaminia
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Via Aemilia Augusta Via Aemilia Augusta Castrum Novum

Emery Walker sc

Ariminus was substituted for the far-famed Rubicon as its limit on the Adriatic.

The ninth region comprised Liguria, extending along the sea-coast from the Varus to the Macra, and inland as far as the river Padus, which constituted its northern boundary from its source in Mount Vesulus to its confluence with the Trebia just above Placentia.

The tenth region included Venetia from the Padus and Adriatic to the Alps, to which was annexed the neighbouring peninsula of Istria, and to the west the territory of the Cenomani, a Gaulish tribe, extending from the Athesis to the Addua, which had previously been regarded as a part of Gallia Cisalpina.

The eleventh region, known as Gallia Transpadana, included all the rest of Cisalpine Gaul from the Padus on the south and the Addua on the east to the foot of the Alps.

The arrangements thus established by Augustus continued almost unchanged till the time of Constantine, and formed the basis of all subsequent administrative divisions until the fall of the Western empire.

The mainstay of the Roman military control of Italy first, and of the whole empire afterwards, was the splendid system of roads. As the supremacy of Rome extended itself over Italy, the Roman road system grew step by step, each fresh conquest being marked by the pushing forward of roads through the heart of the newly-won territory, and the establishment of fortresses in connexion with them. It was in Italy that the military value of a network of roads was first appreciated by the Romans, and the lesson stood them in good stead in the provinces. And it was for military reasons that from mere cart-tracks they were developed into permanent highways (T. Ashby, in *Papers of the British School at Rome*, i. 129). From Rome itself roads radiated in all directions. Communications with the south-east were mainly provided by the Via Appia (the "queen of Roman roads," as Statius called it) and the Via Latina, which met close to Casilinum, at the crossing of the Volturnus, 3 m. N.W. of Capua, the second city in Italy in the 3rd century B.C., and the centre of the road system of Campania. Here the Via Appia turned eastward towards Beneventum, while the Via Popilia continued in a south-easterly direction through the Campanian plain and thence southwards through the mountains of Lucania and Bruttii as far as Rhegium. Coast roads of minor importance as means of through communication also existed on both sides of the "toe" of the boot. Other roads ran south from Capua to Cumae, Puteoli (the most important harbour of Campania), and Neapolis, which could also be reached by a coast road from Minturnae on the Via Appia. From Beneventum, another important road centre, the Via Appia itself ran south-east through the mountains past Venusia to Tarentum on the south-west coast of the "heel," and thence across Calabria to Brundusium, while Trajan's correction of it, following an older mule-track, ran north-east through the mountains and then through the lower ground of Apulia, reaching the coast at Barium. Both met at Brundusium, the principal port for the East. From Aequum Tuticum, on the Via Traiana, the Via Herculia ran to the south-east, crossing the older Via Appia, then south to Potentia and so on to join the Via Popilia in the centre of Lucania.

Roads.

The only highroad of importance which left Rome and ran eastwards, the Via Valeria, was not completed as far as the Adriatic before the time of Claudius; but on the north and north-west started the main highways which communicated with central and northern Italy, and with all that part of the Roman empire which was accessible by land. The Via Salaria, a very ancient road, with its branch, the Via Caecilia, ran north-eastwards to the Adriatic coast and so also did the Via Flaminia, which reached the coast at Fanum Fortunae, and thence followed it to Ariminum. The road along the east coast from Fanum Fortunae down to Barium, which connected the terminations of the Via Salaria and Via Valeria, and of other roads farther south crossing from Campania, had no special name in ancient times, as far as we know. The Via Flaminia was the earliest and most important road to the north; and it was soon extended (in 187 B.C.) by the Via Aemilia running through Bononia as far as Placentia, in an almost absolutely straight line between the plain of the Po and the foot of the Apennines. In the same year a road was constructed over the Apennines from Bononia to Arretium, but it is difficult to suppose that it was not until later that the Via Cassia was made, giving a direct communication between Arretium and Rome. The Via Clodia was an alternative route to the Cassia for the first portion out of Rome, a branch having been built at the same time from Florentia to Lucca and Luna. Along the west coast the Via Aurelia ran up to Pisa and was continued by another Via Aemilia to Genoa. Thence the Via Postumia led to Dertona, Placentia and Cremona, while the Via Aemilia and the Via Julia Augusta continued along the coast into Gallia Narbonensis.

The road system of Cisalpine Gaul was mainly conditioned by the rivers which had to be crossed, and the Alpine passes which had to be approached.

Cremona, on the north bank of the Po, was an important meeting point of roads and Hostilia (Ostiglia) another; so also was Patavium, farther east, and Altinum and Aquileia farther east still. Roads, indeed, were almost as plentiful as railways at the present day in the basin of the Po.

As to the roads leading out of Italy, from Aquileia roads diverged northward into Raetia, eastward to Noricum and Pannonia, and southwards to the Istrian and Dalmatian coasts. Farther west came the roads over the higher Alpine passes—the Brenner from Verona, the Septimer and the Splügen from Clavenna (Chiavenna), the Great and the Little St Bernard from Augusta Praetoria (Aosta), and the Mont Genèvre from Augusta Taurinorum (Turin).

Westward two short but important roads led on each side of the Tiber to the great harbour at its mouth; while the coast of Latium was supplied with a coast road by Septimius Severus. To the south-west the roads were short and of little importance.

On ancient Italian geography in general see articles in Pauly-Wissowa, *Realencyclopädie* (1899, sqq.); *Corpus inscriptionum Latinarum* (Berlin, 1862 sqq.); G. Strafforello, *Geografia dell' Italia* (Turin, 1890–1892); H. Nissen, *Italische Landeskunde* (Berlin, 1883–1902); also references in articles ROME, LATIUM, &c. (T. As.)

C. From 476 to 1796

The year 476 opened a new age for the Italian people. Odoacer, a chief of the Herulians, deposed Romulus, the last Augustus of the West, and placed the peninsula beneath the titular sway of the Byzantine emperors. At Pavia the barbarian conquerors of Italy proclaimed him king, and he received from Zeno the dignity of Roman patrician. Thus began that system of mixed government, Teutonic and Roman, which, in the absence of a national monarch, impressed the institutions of new Italy from the earliest date with dualism. The same revolution vested supreme authority in a non-resident and inefficient autocrat, whose title gave him the right to interfere in Italian affairs, but who lacked the power and will to rule the people for his own or their advantage. Odoacer inaugurated that long series of foreign rulers—Greeks, Franks, Germans, Spaniards and Austrians—who have successively contributed to the misgovernment of Italy from distant seats of empire.

I. *Gothic and Lombard Kingdoms.*—In 488 Theodoric, king of the East Goths, received commission from the Greek emperor, Zeno, to undertake the affairs of Italy. He defeated Odoacer, drove him to Ravenna, besieged him there, and in 493 completed the conquest of the country by murdering the Herulian chief with his own hand. Theodoric respected the Roman institutions which he found in Italy, held the Eternal City sacred, and governed by ministers chosen from the Roman population. He settled at Ravenna, which had been the capital of Italy since the days of Honorius, and which still testifies by its monuments to the Gothic chieftain's Romanizing policy. Those who believe that the Italians would have gained strength by unification in a single monarchy must regret that this Gothic kingdom lacked the elements of stability. The Goths, except in the valley of the Po, resembled an army of occupation rather than a people numerous enough to blend with the Italic stock. Though their

rule was favourable to the Romans, they were Arians; and religious differences, combined with the pride and jealousies of a nation accustomed to imperial honours, rendered the inhabitants of Italy eager to throw off their yoke. When, therefore, Justinian undertook the reconquest of Italy, his generals, Belisarius and Narses, were supported by the south. The struggle of the Greeks and the Goths was carried on for fourteen years, between 539 and 553, when Teias, the last Gothic king, was finally defeated in a bloody battle near Vesuvius. At its close the provinces of Italy were placed beneath Greek dukes, controlled by a governor-general, entitled exarch, who ruled in the Byzantine emperor's name at Ravenna.

This new settlement lasted but a few years. Narses had employed Lombard auxiliaries in his campaigns against the Goths; and when he was recalled by an insulting message from the empress in 565, he is said to have invited this fiercest and rudest of the Teutonic clans to seize the spoils of Italy. Be this as it may, the Lombards, their ranks swelled by the Gepidae, whom they had lately conquered, and by the wrecks of other barbarian tribes, passed southward under their king Alboin in 568. The Herulian invaders had been but a band of adventurers; the Goths were an army; the Lombards, far more formidable, were a nation in movement. Pavia offered stubborn resistance; but after a three years' siege it was taken, and Alboin made it the capital of his new kingdom.

The Lombards.

In order to understand the future history of Italy, it is necessary to form a clear conception of the method pursued by the Lombards in their conquest. Penetrating the peninsula, and advancing like a glacier or half-liquid stream of mud, they occupied the valley of the Po, and moved slowly downward through the centre of the country. Numerous as they were compared with their Gothic predecessors, they had not strength or multitude enough to occupy the whole peninsula. Venice, which since the days of Attila had offered an asylum to Roman refugees from the northern cities, was left untouched. So was Genoa with its Riviera. Ravenna, entrenched within her lagoons, remained a Greek city. Rome, protected by invincible prestige, escaped. The sea-coast cities of the south, and the islands, Sicily, Sardinia and Corsica, preserved their independence. Thus the Lombards neither occupied the extremities nor subjugated the brain-centre of the country. The strength of Alboin's kingdom was in the north; his capital, Pavia. As his people pressed southward, they omitted to possess themselves of the coasts; and what was worse for the future of these conquerors, the original impetus of the invasion was checked by the untimely murder of Alboin in 573. After this event, the semi-independent chiefs of the Lombard tribe, who borrowed the title of dukes from their Roman predecessors, seem to have been contented with consolidating their power in the districts each had occupied. The duchies of Spoleto in the centre, and of Benevento in the south, inserted wedge-like into the middle of the peninsula, and enclosing independent Rome, were but loosely united to the kingdom at Pavia. Italy was broken up into districts, each offering points for attack from without, and fostering the seeds of internal revolution. Three separate capitals must be discriminated—Pavia, the seat of the new Lombard kingdom; Ravenna, the garrison city of the Byzantine emperor; and Rome, the rallying point of the old nation, where the successor of St Peter was already beginning to assume that national protectorate which proved so influential in the future.

It is not necessary to write the history of the Lombard kingdom in detail. Suffice it to say that the rule of the Lombards proved at first far more oppressive to the native population, and was less intelligent of their old customs, than that of the Goths had been. Wherever the Lombards had the upper hand, they placed the country under military rule, resembling in its general character what we now know as the feudal system. Though there is reason to suppose that the Roman laws were still administered within the cities, yet the Lombard code was that of the kingdom; and the Lombards being Arians, they added the oppression of religious intolerance to that of martial despotism and barbarous cupidity. The Italians were reduced to the last extremity when Gregory the Great (590–604), having strengthened his position by diplomatic relations with the duchy of Spoleto, and brought about the conversion of the Lombards to orthodoxy, raised the cause of the remaining Roman population throughout Italy. The fruit of his policy, which made of Rome a counterpoise against the effete empire of the Greeks upon the one hand and against the pressure of the feudal kingdom on the other, was seen in the succeeding century. When Leo the Isaurian published his decrees against the worship of images in 726, Gregory II. allied himself with Liudprand, the Lombard king, threw off allegiance to Byzantium, and established the autonomy of Rome. This pope initiated the dangerous policy of playing one hostile force off against another with a view to securing independence. He used the Lombards in his struggle with the Greeks, leaving to his successors the duty of checking these unnatural allies. This was accomplished by calling the Franks in against the Lombards. Liudprand pressed hard, not only upon the Greek dominions of the exarchate, but also upon Rome. His successors, Rachis and Aistolf, attempted to follow the same game of conquest. But the popes, Gregory III., Zachary and Stephen II., determining at any cost to espouse the national cause and to aggrandize their own office, continued to rely upon the Franks. Pippin twice crossed the Alps, and forced Aistolf to relinquish his acquisitions, including Ravenna, Pentapolis, the coast towns of Romagna and some cities in the duchy of Spoleto. These he handed over to the pope of Rome. This donation of Pippin in 756 confirmed the papal see in the protectorate of the Italic party, and conferred upon it sovereign rights. The virtual outcome of the contest carried on by Rome since the year 726 with Byzantium and Pavia was to place the popes in the position held by the Greek exarch, and to confirm the limitation of the Lombard kingdom. We must, however, be cautious to remember that the south of Italy was comparatively unaffected. The dukes of the Greek empire and the Lombard dukes of Benevento, together with a few autonomous commercial cities, still divided Italy below the Campagna of Rome (see LOMBARDS).

II. *Frankish Emperors.*—The Franko-Papal alliance, which conferred a crown on Pippin and sovereign rights upon the see of Rome, held within itself that ideal of mutually supporting papacy and empire which exercised so powerful an influence in medieval history. When Charles the Great (Charlemagne) deposed his father-in-law Desiderius, the last Lombard king, in 774, and when he received the circlet of the empire from Leo III. at Rome in 800, he did but complete and ratify the compact offered to his grandfather, Charles Martel, by Gregory III. The relations between the new emperor and the pope were ill defined; and this proved the source of infinite disasters to Italy and Europe in the sequel. But for the moment each seemed necessary to the other; and that sufficed. Charles took possession of the kingdom of Italy, as limited by Pippin's settlement. The pope was confirmed in his rectorship of the cities ceded by Aistolf, with the further understanding, tacit rather than expressed, that, even as he had wrung these provinces for the Italic people from both Greeks and Lombards, so in the future he might claim the protectorate of such portions of Italy, external to the kingdom, as he should be able to acquire. This, at any rate, seems to be the meaning of that obscure re-settlement of the peninsula which Charles effected. The kingdom of Italy, transmitted on his death by Charles the Great, and afterwards confirmed to his grandson Lothar by the peace of Verdun in 843, stretched from the Alps to Terracina. The duchy of Benevento remained tributary, but independent. The cities of Gaeta and Naples, Sicily and the so-called Theme of Lombardy in South Apulia and Calabria, still recognized the Byzantine emperor. Venice stood aloof, professing a nominal allegiance to the East. The parcels into which the Lombards had divided the peninsula remained thus virtually unaltered, except for the new authority acquired by the see of Rome.

Charles the Great and the Carolingians.

Internally Charles left the affairs of the Italian kingdom

much as he found them, except that he appears to have pursued the policy of breaking up the larger fiefs of the Lombards, substituting counts for their dukes, and adding to the privileges of the bishops. We may reckon these measures among the earliest advantages extended to the cities, which still contained the bulk of the old Roman population, and which were destined to intervene with decisive effect two centuries later in Italian history. It should also here be noticed that the changes introduced into the holding of the fiefs, whether by altering their boundaries or substituting Frankish for Lombard vassals, were chief among the causes why the feudal system took no permanent hold in Italy. Feudalism was not at any time a national institution. The hierarchy of dukes and marquises and counts consisted of foreign soldiers imposed on the indigenous inhabitants; and the rapid succession of conquerors, Lombards, Franks and Germans following each other at no long interval, and each endeavouring to weaken the remaining strength of his predecessor, prevented this alien hierarchy from acquiring fixity by permanence of tenure. Among the many miseries inflicted upon Italy by the frequent changes of her northern rulers, this at least may be reckoned a blessing.

The Italians acknowledged eight kings of the house of Charles the Great, ending in Charles the Fat, who was deposed in 888. After them followed ten sovereigns, some of whom have been misnamed Italians by writers too eager to catch at any resemblance of national glory for a people passive in the hands of foreign masters. The truth is that no period in Italian history was less really glorious than that which came to a close in 961 by Berengar II.'s cession of his rights to Otto the Great. It was a period marked in the first place by the conquests of the Saracens, who began to occupy Sicily early in the 9th century, overran Calabria and Apulia, took Bari and threatened Rome. In the second place it was marked by a restoration of the Greeks to power. In 890 they established themselves again at Bari, and ruled the Theme of Lombardy by means of an officer entitled Catapan. In the third place it was marked by a decline of good government in Rome. Early in the 10th century the papacy fell into the hands of a noble family, known eventually as the counts of Tusculum, who almost succeeded in rendering the office hereditary, and in uniting the civil and ecclesiastical functions of the city under a single member of their house. It is not necessary to relate the scandals of Marozia's and Theodora's female reign, the infamies of John XII. or the intrigues which tended to convert Rome into a duchy. The most important fact for the historian of Italy to notice is that during this time the popes abandoned, not only their high duties as chiefs of Christendom, but also their protectorate of Italian liberties. A fourth humiliating episode in this period was the invasion of the Magyar barbarians, who overran the north of Italy, and reduced its fairest provinces to the condition of a wilderness. Anarchy and misery are indeed the main features of that long space of time which elapsed between the death of Charles the Great and the descent of Otto. Through the almost impenetrable darkness and confusion we only discern this much, that Italy was powerless to constitute herself a nation.

Frankish and Italian kings.

The discords which followed on the break-up of the Carolingian power, and the weakness of the so-called Italian emperors, who were unable to control the feudatories (marquises of Ivrea and Tuscany, dukes of Friuli and Spoleto), from whose ranks they sprang, exposed Italy to ever-increasing misrule. The country by this time had become thickly covered over with castles, the seats of greater or lesser nobles, all of whom were eager to detach themselves from strict allegiance to the "Regno." The cities, exposed to pillage by Huns in the north and Saracens in the south, and ravaged on the coast by Norse pirates, asserted their right to enclose themselves with walls, and taught their burghers the use of arms. Within the circuit of their ramparts, the bishops already began to exercise authority in rivalry with the counts, to whom, since the days of Theodoric, had been entrusted the government of the Italian burghs. Agreeably to feudal customs, these nobles, as they grew in power, retired from the town, and built themselves fortresses on points of vantage in the neighbourhood. Thus the titular king of Italy found himself simultaneously at war with those great vassals who had chosen him from their own class, with the turbulent factions of the Roman aristocracy, with unruly bishops in the growing cities and with the multitude of minor counts and barons who occupied the open lands, and who changed sides according to the interests of the moment. The last king of the quasi-Italian succession, Berengar II., marquis of Ivrea (951–961), made a vigorous effort to restore the authority of the regno; and had he succeeded, it is not impossible that now at the last moment Italy might have become an independent nation. But this attempt at unification was reckoned to Berengar for a crime. He only won the hatred of all classes, and was represented by the obscure annalists of that period as an oppressor of the church and a remorseless tyrant. In Italy, divided between feudal nobles and almost hereditary ecclesiastics, of foreign blood and alien sympathies, there was no national feeling. Berengar stood alone against a multitude, unanimous in their intolerance of discipline. His predecessor in the kingdom, Lothar, had left a young and beautiful widow, Adelheid. Berengar imprisoned her upon the Lake of Como, and threatened her with a forced marriage to his son Adalbert. She escaped to the castle of Canossa, where the great count of Tuscany espoused her cause, and appealed in her behalf to Otto the Saxon. The king of Germany descended into Italy, and took Adelheid in marriage. After this episode Berengar was more discredited and impotent than ever. In the extremity of his fortunes he had recourse himself to Otto, making a formal cession of the Italian kingdom, in his own name and that of his son Adalbert, to the Saxon as his overlord. By this slender tie the crown of Italy was joined to that of Germany; and the formal right of the elected king of Germany to be considered king of Italy and emperor may be held to have accrued from this epoch.

III. *The German Emperors.*—Berengar gained nothing by his act of obedience to Otto. The great Italian nobles, in their turn, appealed to Germany. Otto entered Lombardy in 961, deposed Berengar, assumed the crown in San Ambrogio at Milan, and in 962 was proclaimed emperor by John XII. at Rome. Henceforward Italy changed masters according as one or other of the German families assumed supremacy beyond the Alps. It is one of the strongest instances furnished by history of the fascination exercised by an idea that the Italians themselves should have grown to glory in this dependence of their nation upon Caesars who had nothing but a name in common with the Roman Imperator of the past.

Saxon and Franconian emperors.

The first thing we have to notice in this revolution which placed Otto the Great upon the imperial throne is that the Italian kingdom, founded by the Lombards, recognized by the Franks and recently claimed by eminent Italian feudatories, virtually ceased to exist. It was merged in the German kingdom; and, since for the German princes Germany was of necessity their first care, Italy from this time forward began to be left more and more to herself. The central authority of Pavia had always been weak; the regno had proved insufficient to combine the nation. But now even that shadow of union disappeared, and the Italians were abandoned to the slowly working influences which tended to divide them into separate states. The most brilliant period of their chequered history, the period which includes the rise of communes, the exchange of municipal liberty for despotism and the gradual discrimination of the five great powers (Milan, Venice, Florence, the Papacy and the kingdom of Naples), now begins. Among the centrifugal forces which determined the future of the Italian race must be reckoned, first and foremost, the new spirit of municipal independence. We have seen how the cities enclosed themselves with walls, and how the bishops defined their authority against that of the counts. Otto encouraged this revolution by placing the enclosures of the chief burghs beyond the jurisdiction of the counts. Within those precincts the bishops and the citizens were independent of all feudal masters but the emperor. He further

broke the power of the great vassals by redivisions of their feuds, and by the creation of new marches which he assigned to his German followers. In this way, owing to the dislocation of the ancient aristocracy, to the enlarged jurisdiction of a power so democratic as the episcopate, and to the increased privileges of the burghs, feudalism received a powerful check in Italy. The Italian people, that people which gave to the world the commerce and the arts of Florence, was not indeed as yet apparent. But the conditions under which it could arise, casting from itself all foreign and feudal trammels, recognizing its true past in ancient Rome, and reconstructing a civility out of the ruins of those glorious memories, were now at last granted. The nobles from this time forward retired into the country and the mountains, fortified themselves in strong places outside the cities, and gave their best attention to fostering the rural population. Within the cities and upon the open lands the Italians, in this and the next century, doubled, trebled and quadrupled their numbers. A race was formed strong enough to keep the empire itself in check, strong enough, except for its own internecine contests, to have formed a nation equal to its happier neighbours.

The recent scandals of the papacy induced Otto to deprive the Romans of their right to elect popes. But when he died in 973, his son Otto II. (married to Theophano of the imperial Byzantine house) and his grandson, Otto III., who descended into Italy in 996, found that the affairs of Rome and of the southern provinces were more than even their imperial powers could cope with. The faction of the counts of Tusculum raised its head from time to time in the Eternal City, and Rome still claimed to be a commonwealth. Otto III.'s untimely death in 1002 introduced new discords. Rome fell once more into the hands of her nobles. The Lombards chose Ardoin, marquis of Ivrea, for king, and Pavia supported his claims against those of Henry of Bavaria, who had been elected in Germany. Milan sided with Henry; and this is perhaps the first eminent instance of cities being reckoned powerful allies in the Italian disputes of sovereigns. It is also the first instance of that bitter feud between the two great capitals of Lombardy, a feud rooted in ancient antipathies between the Roman population of Mediolanum and the Lombard garrison of Alboin's successors, which proved so disastrous to the national cause. Ardoin retired to a monastery, where he died in 1015. Henry nearly destroyed Pavia, was crowned in Rome and died in 1024. After this event Heribert, the archbishop of Milan, invited Conrad, the Franconian king of Germany, into Italy, and crowned him with the iron crown of the kingdom.

Heribert and the Lombard burghs.

The intervention of this man, Heribert, compels us to turn a closer glance upon the cities of North Italy. It is here, at the present epoch and for the next two centuries, that the pith and nerve of the Italian nation must be sought; and among the burghs of Lombardy, Milan, the eldest daughter of ancient Rome, assumes the lead. In Milan we hear for the first time the word *Comune*. In Milan the citizens first form themselves into a *Parlamento*. In Milan the archbishop organizes the hitherto voiceless, defenceless population into a community capable of expressing its needs, and an army ready to maintain its rights. To Heribert is attributed the invention of the *Carroccio*, which played so singular and important a part in the warfare of Italian cities. A huge car drawn by oxen, bearing the standard of the burgh, and carrying an altar with the host, this carroccio, like the ark of the Israelites, formed a rallying point in battle, and reminded the armed artisans that they had a city and a church to fight for. That Heribert's device proved effectual in raising the spirit of his burghers, and consolidating them into a formidable band of warriors, is shown by the fact that it was speedily adopted in all the free cities. It must not, however, be supposed that at this epoch the liberties of the burghs were fully developed. The mass of the people remained unrepresented in the government; and even if the consuls existed in the days of Heribert, they were but humble legal officers, transacting business for their constituents in the courts of the bishop and his viscount. It still needed nearly a century of struggle to render the burghers independent of lordship, with a fully organized commune, self-governed in its several assemblies. While making these reservations, it is at the same time right to observe that certain Italian communities were more advanced upon the path of independence than others. This is specially the case with the maritime ports. Not to mention Venice, which has not yet entered the Italian community, and remains a Greek free city, Genoa and Pisa were rapidly rising into ill-defined autonomy. Their command of fleets gave them incontestable advantages, as when, for instance, Otto II. employed the Pisans in 980 against the Greeks in Lower Italy, and the Pisans and Genoese together attacked the Saracens of Sardinia in 1017. Still, speaking generally, the age of independence for the burghs had only begun when Heribert from Milan undertook the earliest organization of a force that was to become paramount in peace and war.

Rome.

Next to Milan, and from the point of view of general politics even more than Milan, Rome now claims attention. The destinies of Italy depended upon the character which the see of St Peter should assume. Even the liberties of her republics in the north hung on the issue of a contest which in the 11th and 12th centuries shook Europe to its farthest boundaries. So fatally were the internal affairs of that magnificent but unhappy country bound up with concerns which brought the forces of the civilized world into play. Her ancient prestige, her geographical position and the intellectual primacy of her most noble children rendered Italy the battleground of principles that set all Christendom in motion, and by the clash of which she found herself for ever afterwards divided. During the reign of Conrad II., the party of the counts of Tusculum revived in Rome; and Crescentius, claiming the title of consul in the imperial city, sought once more to control the election of the popes. When Henry III., the son of Conrad, entered Italy in 1046, he found three popes in Rome. These he abolished, and, taking the appointment into his own hands, gave German bishops to the see. The policy thus initiated upon the precedent laid down by Otto the Great was a remedy for pressing evils. It saved Rome from becoming a duchy in the hands of the Tusculum house. But it neither raised the prestige of the papacy, nor could it satisfy the Italians, who rightly regarded the Roman see as theirs. These German popes were short-lived and inefficient. Their appointment, according to notions which defined themselves within the church at this epoch, was simoniacal; and during the long minority of Henry IV., who succeeded his father in 1056, the terrible Tuscan monk, Hildebrand of Soana, forged weapons which he used with deadly effect against the presumption of the empire. The condition of the church seemed desperate, unless it could be purged of crying scandals—of the subjection of the papacy to the great Roman nobles, of its subordination to the German emperor and of its internal demoralization. It was Hildebrand's policy throughout three papacies, during which he controlled the counsels of the Vatican, and before he himself assumed the tiara, to prepare the mind of Italy and Europe for a mighty change. His programme included these three points: (1) the celibacy of the clergy; (2) the abolition of ecclesiastical appointments made by the secular authority; (3) the vesting of the papal election in the hands of the Roman clergy and people, presided over by the curia of cardinals. How Hildebrand paved the way for these reforms during the pontificates of Nicholas II. and Alexander II., how he succeeded in raising the papal office from the depths of degradation and subjection to illimitable sway over the minds of men in Europe, and how his warfare with the empire established on a solid basis the still doubtful independence of the Italian burghs, renewing the long neglected protectorate of the Italian race, and bequeathing to his successors a national policy which had been forgotten by the popes since his great predecessor Gregory II., forms a chapter in European history which must now be interrupted. We have to follow the fortunes of unexpected allies, upon whom in no small measure his success depended.

In order to maintain some thread of continuity through the perplexed and tangled vicissitudes of the Italian race, it has been necessary to disregard those provinces which did not immediately contribute to the formation of its history. For this reason we have left the whole of the south up to the present point unnoticed. Sicily in the hands of the Mussulmans, the Theme of Lombardy abandoned to the weak suzerainty of the Greek catapans, the Lombard duchy of Benevento slowly falling to pieces and the maritime republics of Naples, Gaeta and Amalfi extending their influence by commerce in the Mediterranean, were in effect detached from the Italian regno, beyond the jurisidiction of Rome, included in no parcel of Italy proper. But now the moment had arrived when this vast group of provinces, forming the future kingdom of the Two Sicilies, was about to enter definitely and decisively within the bounds of the Italian community. Some Norman adventurers, on pilgrimage to St Michael's shrine on Monte Gargano, lent their swords in 1017 to the Lombard cities of Apulia against the Greeks. Twelve years later we find the Normans settled at Aversa under their Count Rainulf. From this station as a centre the little band of adventurers, playing the Greeks off against the Lombards, and the Lombards against the Greeks, spread their power in all directions, until they made themselves the most considerable force in southern Italy William of Hauteville was proclaimed count of Apulia. His half-brother, Robert Wiskard or Guiscard, after defeating the papal troops at Civitella in 1053, received from Leo IX. the investiture of all present and future conquests in Apulia, Calabria and Sicily, which he agreed to hold as fiefs of the Holy See. Nicholas II. ratified this grant, and confirmed the title of count. Having consolidated their possessions on the mainland, the Normans, under Robert Guiscard's brother, the great Count Roger, undertook the conquest of Sicily in 1060. After a prolonged struggle of thirty years, they wrested the whole island from the Saracens; and Roger, dying in 1101, bequeathed to his son Roger a kingdom in Calabria and Sicily second to none in Europe for wealth and magnificence. This, while the elder branch of the Hauteville family still held the title and domains of the Apulian duchy; but in 1127, upon the death of his cousin Duke William, Roger united the whole of the future realm. In 1130 he assumed the style of king of Sicily, inscribing upon his sword the famous hexameter—

Norman conquest of the Two Sicilies.

"Appulus et Calaber Siculus mihi servit et Afer."

This Norman conquest of the two Sicilies forms the most romantic episode in medieval Italian history. By the consolidation of Apulia, Calabria and Sicily into a powerful kingdom, by checking the growth of the maritime republics and by recognizing the over-lordship of the papal see, the house of Hauteville influenced the destinies of Italy with more effect than any of the princes who had previously dealt with any portion of the peninsula. Their kingdom, though Naples was from time to time separated from Sicily, never quite lost the cohesion they had given it; and all the disturbances of equilibrium in Italy were due in after days to papal manipulation of the rights acquired by Robert Guiscard's act of homage. The southern *regno*, in the hands of the popes, proved an insurmountable obstacle to the unification of Italy, led to French interference in Italian affairs, introduced the Spaniard and maintained in those rich southern provinces the reality of feudal sovereignty long after this alien element had been eliminated from the rest of Italy (see NORMANS; SICILY: *History*).

For the sake of clearness, we have anticipated the course of events by nearly a century. We must now return to the date of Hildebrand's elevation to the papacy in 1073, when he chose the memorable name of Gregory VII. In the next year after his election Hildebrand convened a council, and passed measures enforcing the celibacy of the clergy. In 1075 he caused the investiture of ecclesiastical dignitaries by secular potentates of any degree to be condemned. These two reforms, striking at the most cherished privileges and most deeply-rooted self-indulgences of the aristocratic caste in Europe, inflamed the bitterest hostility. Henry IV., king of Germany, but not crowned emperor, convened a diet in the following year at Worms, where Gregory was deposed and excommunicated. The pope followed with a counter excommunication, far more formidable, releasing the king's subjects from their oaths of allegiance. War was thus declared between the two chiefs of western Christendom, that war of investitures which out-lasted the lives of both Gregory and Henry, and was not terminated till the year 1122. The dramatic episodes of this struggle are too well known to be enlarged upon. In his single-handed duel with the strength of Germany, Gregory received material assistance from the Countess Matilda of Tuscany. She was the last heiress of the great house of Canossa, whose fiefs stretched from Mantua across Lombardy, passed the Apennines, included the Tuscan plains, and embraced a portion of the duchy of Spoleto. It was in her castle of Canossa that Henry IV. performed his three days' penance in the winter of 1077; and there she made the cession of her vast domains to the church. That cession, renewed after the death of Gregory to his successors, conferred upon the popes indefinite rights, of which they afterwards availed themselves in the consolidation of their temporal power. Matilda died in the year 1115. Gregory had passed before her from the scene of his contest, an exile at Salerno, whither Robert Guiscard carried him in 1084 from the anarchy of rebellious Rome. With unbroken spirit, though the objects of his life were unattained, though Italy and Europe had been thrown into confusion, and the issue of the conflict was still doubtful, Gregory expired in 1085 with these words on his lips: "I loved justice, I hated iniquity, therefore in banishment I die."

War of investitures.

The greatest of the popes thus breathed his last; but the new spirit he had communicated to the papacy was not destined to expire with him. Gregory's immediate successors, Victor III., Urban II. and Paschal II., carried on his struggle with Henry IV. and his imperial antipopes, encouraging the emperor's son to rebel against him, and stirring up Europe for the first crusade. When Henry IV. died, his own son's prisoner, in 1106, Henry V. crossed the Alps, entered Rome, wrung the imperial coronation from Paschal II. and compelled the pope to grant his claims on the investitures. Scarcely had he returned to Germany when the Lateran disavowed all that the pope had done, on the score that it had been extorted by force. France sided with the church. Germany rejected the bull of investiture. A new descent into Italy, a new seizure of Rome, proved of no avail. The emperor's real weakness was in Germany, where his subjects openly expressed their discontent. He at last abandoned the contest which had distracted Europe. By the concordat of Worms, 1122, the emperor surrendered the right of investiture by ring and staff, and granted the right of election to the clergy. The popes were henceforth to be chosen by the cardinals, the bishops by the chapters subject to the pope's approval. On the other hand the pope ceded to the emperor the right of investiture by the sceptre. But the main issue of the struggle was not in these details of ecclesiastical government; principles had been at stake far deeper and more widely reaching. The respective relations of pope and emperor, ill-defined in the compact between Charles the Great and Leo III., were brought in question, and the two chief potentates of Christendom, no longer tacitly concordant, stood against each other in irreconcilable rivalry. Upon this point, though the battle seemed to be a drawn one, the popes were really victors. They remained independent of the emperor, but the emperor had still to seek the crown at their hands. The pretensions of Otto the Great and Henry III. to make popes were gone for ever (see PAPACY; INVESTITURE).

IV. *Age of the Communes.*—The final gainers, however, by the war of investitures were the Italians. In the first place, from this time forward, owing to the election of popes by the Roman curia, the Holy See remained in the hands of Italians; and this, though it was by no means an unmixed good, was a great glory to the nation. In the next place, the antagonism of the popes to the emperors, which became hereditary in the Holy College, forced the former to assume the protectorate of the national cause. But by far the greatest profit the Italians reaped was the emancipation of their

Rise of free cities.

burghs. During the forty-seven years' war, when pope and emperor were respectively bidding for their alliance, and offering concessions to secure their support, the communes grew in self-reliance, strength and liberty. As the bishops had helped to free them from subservience to their feudal masters, so the war of investitures relieved them of dependence on their bishops. The age of real autonomy, signalized by the supremacy of consuls in the cities, had arrived.

In the republics, as we begin to know them after the war of investitures, government was carried on by officers called consuls, varying in number according to custom and according to the division of the town into districts. These magistrates, as we have already seen, were originally appointed to control and protect the humbler classes. But, in proportion as the people gained more power in the field the consuls rose into importance, superseded the bishops and began to represent the city in transactions with its neighbours. Popes and emperors who needed the assistance of a city, had to seek it from the consuls, and thus these officers gradually converted an obscure and indefinite authority into what resembles the presidency of a commonwealth. They were supported by a deliberative assembly, called *credenza*, chosen from the more distinguished citizens. In addition to this privy council, we find a *gran consiglio*, consisting of the burghers who had established the right to interfere immediately in public affairs, and a still larger assembly called *parlamento*, which included the whole adult population. Though the institutions of the communes varied in different localities, this is the type to which they all approximated. It will be perceived that the type was rather oligarchical than strictly democratic. Between the parlamento and the consuls with their privy council, or credenza, was interposed the gran consiglio of privileged burghers. These formed the aristocracy of the town, who by their wealth and birth held its affairs within their custody. There is good reason to believe that, when the term *popolo* occurs, it refers to this body and not to the whole mass of the population. The *comune* included the entire city—bishop, consuls, oligarchy, councils, handicraftsmen, proletariate. The *popolo* was the governing or upper class. It was almost inevitable in the transition from feudalism to democracy that this intermediate ground should be traversed; and the peculiar Italian phrases, *primo popolo*, *secondo popolo*, *terzo popolo*, and so forth, indicate successive changes, whereby the oligarchy passed from one stage to another in its progress toward absorption in democracy or tyranny.

Under their consuls the Italian burghs rose to a great height of prosperity and splendour. Pisa built her Duomo. Milan undertook the irrigation works which enriched the soil of Lombardy for ever. Massive walls, substantial edifices, commodious seaports, good roads, were the benefits conferred by this new government on Italy. It is also to be noticed that the people now began to be conscious of their past. They recognized the fact that their blood was Latin as distinguished from Teutonic, and that they must look to ancient Rome for those memories which constitute a people's nationality. At this epoch the study of Roman law received a new impulse, and this is the real meaning of the legend that Pisa, glorious through her consuls, brought the pandects in a single codex from Amalfi. The very name consul, no less than the Romanizing character of the best architecture of the time, points to the same revival of antiquity.

The rise of the Lombard communes produced a sympathetic revolution in Rome, which deserves to be mentioned in this place.

Republic in Rome.

A monk, named Arnold of Brescia, animated with the spirit of the Milanese, stirred up the Romans to shake off the temporal sway of their bishop. He attempted, in fact, upon a grand scale what was being slowly and quietly effected in the northern cities. Rome, ever mindful of her unique past, listened to Arnold's preaching. A senate was established, and the republic was proclaimed. The title of patrician was revived and offered to Conrad, king of Italy, but not crowned emperor. Conrad refused it, and the Romans conferred it upon one of their own nobles. Though these institutions borrowed high-sounding titles from antiquity, they were in reality imitations of the Lombard civic system. The patrician stood for the consuls. The senate, composed of nobles, represented the credenza and the gran consiglio. The pope was unable to check this revolution, which is now chiefly interesting as further proof of the insurgence of the Latin as against the feudal elements in Italy at this period (see ROME: *History*).

Though the communes gained so much by the war of investitures, the division of the country between the pope's and emperor's parties was no small price to pay for independence. It inflicted upon Italy the ineradicable curse of party-warfare, setting city against city, house against house, and rendering concordant action for a national end impossible. No sooner had the compromise of the investitures been concluded than it was manifest that the burghers of the new enfranchised communes were resolved to turn their arms against each other. We seek in vain an obvious motive for each separate quarrel. All we know for certain is that, at this epoch, Rome attempts to ruin Tivoli, and Venice Pisa; Milan fights with Cremona, Cremona with Crema, Pavia with Verona, Verona with Padua, Piacenza with Parma, Modena and Reggio with Bologna, Bologna and Faenza with Ravenna and Imola, Florence and Pisa with Lucca and Siena, and so on through the whole list of cities. The nearer the neighbours, the more rancorous and internecine is the strife; and, as in all cases where animosity is deadly and no grave local causes of dispute are apparent, we are bound to conclude that some deeply-seated permanent uneasiness goaded these fast growing communities into rivalry. Italy was, in fact, too small for her children. As the towns expanded, they perceived that they must mutually exclude each other. They fought for bare existence, for primacy in commerce, for the command of seaports, for the keys of mountain passes, for rivers, roads and all the avenues of wealth and plenty. The pope's cause and the emperor's cause were of comparatively little moment to Italian burghers; and the names of Guelph and Ghibelline, which before long began to be heard in every street, on every market-place, had no meaning for them. These watchwords are said to have arisen in Germany during the disputed succession of the empire between 1135 and 1152, when the Welfs of Bavaria opposed the Swabian princes of Waiblingen origin. But in Italy, although they were severally identified with the papal and imperial parties, they really served as symbols for jealousies which altered in complexion from time to time and place to place, expressing more than antagonistic political principles, and involving differences vital enough to split the social fabric to its foundation.

Municipal wars.

Under the imperial rule of Lothar the Saxon (1125–1137) and Conrad the Swabian (1138–1152), these civil wars increased in violence owing to the absence of authority. Neither Lothar nor Conrad was strong at home; the former had no influence in Italy, and the latter never entered Italy at all. But when Conrad died, the electors chose his nephew Frederick, surnamed Barbarossa, who united the rival honours of Welf and Waiblingen, to succeed him; and it was soon obvious that the empire had a master powerful of brain and firm of will. Frederick immediately determined to reassert the imperial rights in his southern provinces, and to check the warfare of the burghs. When he first crossed the Alps in 1154, Lombardy was, roughly speaking, divided between two parties, the one headed by Pavia professing loyalty to the empire, the other headed by Milan ready to oppose its claims. The municipal animosities of the last quarter of a century gave substance to these factions; yet neither the imperial nor the anti-imperial party had any real community of interest with Frederick. He came to supersede self-government by consuls, to deprive the cities of the privilege of making war on their own account and to extort his regalian rights of forage, food and lodging for his armies. It was only the habit of interurban jealousy which prevented the communes from at once combining to resist demands which threatened their liberty of action, and would leave them passive at the pleasure of a foreign master. The diet was opened at Roncaglia near Piacenza, where Frederick

Swabian emperors.

Frederick Barbarossa and the Lombard cities.

listened to the complaints of Como and Lodi against Milan, of Pavia against Tortona and of the marquis of Montferrat against Asti and Chieri. The plaintiffs in each case were imperialists; and Frederick's first action was to redress their supposed grievances. He laid waste Chieri, Asti and Tortona, then took the Lombard crown at Pavia, and, reserving Milan for a future day, passed southward to Rome. Outside the gates of Rome he was met by a deputation from the senate he had come to supersede, who addressed him in words memorable for expressing the republican spirit of new Italy face to face with autocratic feudalism: "Thou wast a stranger, I have made thee a citizen"; it is Rome who speaks: "Thou camest as an alien from beyond the Alps, I have conferred on thee the principality." Moved only to scorn and indignation by the rhetoric of these presumptuous enthusiasts, Frederick marched into the Leonine city, and took the imperial crown from the hands of Adrian IV. In return for this compliance, the emperor delivered over to the pope his troublesome rival Arnold of Brescia, who was burned alive by Nicholas Breakspear, the only English successor of St Peter. The gates of Rome itself were shut against Frederick; and even on this first occasion his good understanding with Adrian began to suffer. The points of dispute between them related mainly to Matilda's bequest, and to the kingdom of Sicily, which the pope had rendered independent of the empire by renewing its investiture in the name of the Holy See. In truth, the papacy and the empire had become irreconcilable. Each claimed illimitable authority, and neither was content to abide within such limits as would have secured a mutual tolerance. Having obtained his coronation, Frederick withdrew to Germany, while Milan prepared herself against the storm which threatened. In the ensuing struggle with the empire, that great city rose to the altitude of patriotic heroism. By their sufferings no less than by their deeds of daring, her citizens showed themselves to be sublime, devoted and disinterested, winning the purest laurels which give lustre to Italian story. Almost in Frederick's presence, they rebuilt Tortona, punished Pavia, Lodi, Cremona and the marquis of Montferrat. Then they fortified the Adda and Ticino, and waited for the emperor's next descent. He came in 1158 with a large army, overran Lombardy, raised his imperial allies, and sat down before the walls of Milan. Famine forced the burghers to partial obedience, and Frederick held a victorious diet at Roncaglia. Here the jurists of Bologna appeared, armed with their new lore of Roman law, and expounded Justinian's code in the interests of the German empire. It was now seen how the absolutist doctrines of autocracy developed in Justinian's age at Byzantium would bear fruits in the development of an imperial idea, which was destined to be the fatal mirage of medieval Italy. Frederick placed judges of his own appointment, with the title of podestà, in all the Lombard communes; and this stretch of his authority, while it exacerbated his foes, forced even his friends to join their ranks against him. The war, meanwhile, dragged on. Crema yielded after an heroic siege in 1160, and was abandoned to the cruelty of its fierce rival Cremona. Milan was invested in 1161, starved into capitulation after nine months' resistance, and given up to total destruction by the Italian imperialists of Frederick's army, so stained and tarnished with the vindictive passions of municipal rivalry was even this, the one great glorious strife of Italian annals. Having ruined his rebellious city, but not tamed her spirit, Frederick withdrew across the Alps. But, in the interval between his second and third visit, a league was formed against him in north-eastern Lombardy. Verona, Vicenza, Padua, Treviso, Venice entered into a compact to defend their liberties; and when he came again in 1163 with a brilliant staff of German knights, the imperial cities refused to join his standards. This was the first and ominous sign of a coming change.

Meanwhile the election of Alexander III. to the papacy in 1159 added a powerful ally to the republican party. Opposed by an anti-pope whom the emperor favoured, Alexander found it was his truest policy to rely for support upon the anti-imperialist communes. They in return gladly accepted a champion who lent them the prestige and influence of the church. When Frederick once more crossed the Alps in 1166, he advanced on Rome, and besieged Alexander in the Coliseum. But the affairs of Lombardy left him no leisure to persecute a recalcitrant pontiff. In April 1167 a new league was formed between Cremona, Bergamo, Brescia, Mantua and Ferrara. In December of the same year this league allied itself with the elder Veronese league, and received the addition of Milan, Lodi, Piacenza, Parma, Modena and Bologna. The famous league of Lombard cities, styled Concordia in its acts of settlement, was now established. Novara, Vercelli, Asti and Tortona swelled its ranks; only Pavia and Montferrat remained imperialist between the Alps and Apennines. Frederick fled for his life by the Mont Cenis, and in 1168 the town of Alessandria was erected to keep Pavia and the marquisate in check. In the emperor's absence, Ravenna, Rimini, Imola and Forlì joined the league, which now called itself the "Society of Venice, Lombardy, the March, Romagna and Alessandria." For the fifth time, in 1174, Frederick entered his rebellious dominions. The fortress town of Alessandria stopped his progress with those mud walls contemptuously named "of straw," while the forces of the league assembled at Modena and obliged him to raise the siege. In the spring of 1176 Frederick threatened Milan. His army found itself a little to the north of the town near the village of Legnano, when the troops of the city, assisted only by a few allies from Piacenza, Verona, Brescia, Novara and Vercelli, met and overwhelmed it. The victory was complete. Frederick escaped alone to Pavia, whence he opened negotiations with Alexander. In consequence of these transactions, he was suffered to betake himself unharmed to Venice. Here, as upon neutral ground, the emperor met the pope, and a truce for six years was concluded with the Lombard burghs. Looking back from the vantage-ground of history upon the issue of this long struggle, we are struck with the small results which satisfied the Lombard communes. They had humbled and utterly defeated their foreign lord. They had proved their strength in combination. Yet neither the acts by which their league was ratified nor the terms negotiated for them by their patron Alexander evince the smallest desire of what we now understand as national independence. The name of Italy is never mentioned. The supremacy of the emperor is not called in question. The conception of a permanent confederation, bound together in offensive and defensive alliance for common objects, has not occurred to these hard fighters and stubborn asserters of their civic privileges. All they claim is municipal autonomy; the right to manage their own affairs within the city walls, to fight their battles as they choose, and to follow their several ends unchecked. It is vain to lament that, when they might have now established Italian independence upon a secure basis, they chose local and municipal privileges. Their mutual jealousies, combined with the prestige of the empire, and possibly with the selfishness of the pope, who had secured his own position, and was not likely to foster a national spirit that would have threatened the ecclesiastical supremacy, deprived the Italians of the only great opportunity they ever had of forming themselves into a powerful nation.

Lombard League.

When the truce expired in 1183, a permanent peace was ratified at Constance. The intervening years had been spent by the Lombards, not in consolidating their union, but in attempting to secure special privileges for their several cities. Alessandria della Paglia, glorious by her resistance to the emperor in 1174, had even changed her name to Cesarea! The signatories of the peace of Constance were divided between leaguers and imperialists. On the one side we find Vercelli, Novara, Milan, Lodi, Bergamo, Brescia, Mantua, Verona, Vicenza, Padua, Treviso, Bologna, Faenza, Modena, Reggio, Parma, Piacenza; on the other, Pavia, Genoa, Alba, Cremona, Como, Tortona, Asti, Cesarea. Venice, who had not yet entered the Italian community, is conspicuous by her absence. According to the terms of this treaty, the communes were confirmed in their right of self-government by consuls, and their right of warfare. The emperor retained the supreme courts of appeal within the cities, and

Peace of Constance.

his claim for sustenance at their expense when he came into Italy.

The privileges confirmed to the Lombard cities by the peace of Constance were extended to Tuscany, where Florence, having ruined Fiesole, had begun her career of freedom and prosperity. The next great chapter in the history of Italian evolution is the war of the burghs against the nobles. The consular cities were everywhere surrounded by castles; and, though the feudal lords had been weakened by the events of the preceding centuries, they continued to be formidable enemies. It was, for instance, necessary to the well-being of the towns that they should possess territory round their walls, and this had to be wrested from the nobles. We cannot linger over the details of this warfare. It must suffice to say that, partly by mortgaging their property to rich burghers, partly by entering the service of the cities as *condottieri* (mercenary leaders), partly by espousing the cause of one town against another, and partly by forced submission after the siege of their strong places, the counts were gradually brought into connexion of dependence on the communes. These, in their turn, forced the nobles to leave their castles, and to reside for at least a portion of each year within the walls. By these measures the counts became citizens, the rural population ceased to rank as serfs, and the Italo-Roman population of the towns absorbed into itself the remnants of Franks, Germans and other foreign stocks. It would be impossible to exaggerate the importance of this revolution, which ended by destroying the last vestige of feudality, and prepared that common Italian people which afterwards distinguished itself by the creation of European culture. But, like all the vicissitudes, of the Italian race, while it was a decided step forward in one direction, it introduced a new source of discord. The associated nobles proved ill neighbours to the peaceable citizens. They fortified their houses, retained their military habits, defied the consuls, and carried on feuds in the streets and squares. The war against the castles became a war against the palaces; and the system of government by consuls proved inefficient to control the clashing elements within the state. This led to the establishment of podestàs, who represented a compromise between two radically hostile parties in the city, and whose business it was to arbitrate and keep the peace between them. Invariably a foreigner, elected for a year with power of life and death and control of the armed force, but subject to a strict account at the expiration of his office, the podestà might be compared to a dictator invested with limited authority. His title was derived from that of Frederick Barbarossa's judges; but he had no dependence on the empire. The citizens chose him, and voluntarily submitted to his rule. The podestà marks an essentially transitional state in civic government, and his intervention paved the way for despotism.

War of cities against nobles.

The thirty years which elapsed between Frederick Barbarossa's death in 1190 and the coronation of his grandson Frederick II. in 1220 form one of the most momentous epochs in Italian history. Barbarossa, perceiving the advantage that would accrue to his house if he could join the crown of Sicily to that of Germany, and thus deprive the popes of their allies in Lower Italy, procured the marriage of his son Henry VI. to Constance, daughter of King Roger, and heiress of the Hauteville dynasty. When William II., the last monarch of the Norman race, died, Henry VI. claimed that kingdom in his wife's right, and was recognized in 1194. Three years afterwards he died, leaving a son, Frederick, to the care of Constance, who in her turn died in 1198, bequeathing the young prince, already crowned king of Germany, to the guardianship of Innocent III. It was bold policy to confide Frederick to his greatest enemy and rival; but the pope honourably discharged his duty, until his ward outgrew the years of tutelage, and became a fair mark for ecclesiastical hostility. Frederick's long minority was occupied by Innocent's pontificate. Among the principal events of that reign must be reckoned the foundation of the two orders, Franciscan and Dominican, who were destined to form a militia for the holy see in conflict with the empire and the heretics of Lombardy.

Innocent III.

A second great event was the fourth crusade, undertaken in 1198, which established the naval and commercial supremacy of the Italians in the Mediterranean. The Venetians, who contracted for the transport of the crusaders, and whose blind doge Dandolo was first to land in Constantinople, received one-half and one-fourth of the divided Greek empire for their spoils. The Venetian ascendancy in the Levant dates from this epoch; for, though the republic had no power to occupy all the domains ceded to it, Candia was taken, together with several small islands and stations on the mainland. The formation of a Latin empire in the East increased the pope's prestige; while at home it was his policy to organize Countess Matilda's heritage by the formation of Guelph leagues, over which he presided. This is the meaning of the three leagues, in the March, in the duchy of Spoleto and in Tuscany, which now combined the chief cities of the papal territory into allies of the holy see. From the Tuscan league Pisa, consistently Ghibelline, stood aloof. Rome itself again at this epoch established a republic, with which Innocent would not or could not interfere. The thirteen districts in their council nominated four *caporioni*, who acted in concert with a *senator*, appointed, like the podestà of other cities, for supreme judicial functions. Meanwhile the Guelph and Ghibelline factions were beginning to divide Italy into minute parcels. Not only did commune range itself against commune under the two rival flags, but party rose up against party within the city walls. The introduction of the factions into Florence in 1215, owing to a private quarrel between the Buondelmonti, Amidei and Donati, is a celebrated instance of what was happening in every burgh.

Frederick II. was left without a rival for the imperial throne in 1218 by the death of Otto IV., and on the 22nd of November 1220, Honorius III., Innocent's successor, crowned him in Rome. It was impossible for any section of the Italians to mistake the gravity of his access to power. In his single person he combined the prestige of empire with the crowns of Italy, Sicily, Sardinia, Germany and Burgundy; and in 1225, by marriage with Yolande de Brienne, he added that of Jerusalem. There was no prince greater or more formidable in the habitable globe. The communes, no less than the popes, felt that they must prepare themselves for contest to the death with a power which threatened their existence. Already in 1218, the Guelphs of Lombardy had resuscitated their old league, and had been defeated by the Ghibellines in a battle near Ghibello. Italy seemed to lie prostrate before the emperor, who commanded her for the first time from the south as well as from the north. In 1227 Frederick, who had promised to lead a crusade, was excommunicated by Gregory IX. because he was obliged by illness to defer his undertaking; and thus the spiritual power declared war upon its rival. The Guelph towns of Lombardy again raised their levies. Frederick enlisted his Saracen troops at Nocera and Luceria, and appointed the terrible Ezzelino da Romano his vicar in the Marches of Verona to quell their insurrection. It was 1236, however, before he was able to take the field himself against the Lombards. Having established Ezzelino in Verona, Vicenza and Padua, he defeated the Milanese and their allies at Cortenuova in 1237, and sent their carroccio as a trophy of his victory to Rome. Gregory IX. feared lest the Guelph party would be ruined by this check. He therefore made alliance with Venice and Genoa, fulminated a new excommunication against Frederick, and convoked a council at Rome to ratify his ban in 1241. The Genoese undertook to bring the French bishops to this council. Their fleet was attacked at Meloria by the Pisans, and utterly defeated. The French prelates went in silver chains to prison in the Ghibelline capital of Tuscany. So far Frederick had been successful at all points. In 1243 a new pope, Innocent IV., was elected, who prosecuted the war with still bitterer spirit. Forced to fly to France, he there, at Lyons, in 1245, convened a council, which enforced his condemnation of the emperor. Frederick's subjects were freed from their allegiance, and he was declared dethroned and deprived of all rights. Five times king and emperor as he was, Frederick, placed under the ban of the church, led henceforth a doomed existence. The mendicant monks stirred up the populace to acts of fanatical

Frederick II. Emperor.

enmity. To plot against him, to attempt his life by poison or the sword, was accounted virtuous. His secretary, Piero delle Vigne, was wrongly suspected of conspiring. The crimes of his vicar Ezzelino, who laid whole provinces waste and murdered men by thousands in his Paduan prisons, increased the horror with which he was regarded. Parma revolted from him, and he spent months in 1247–1248 vainly trying to reduce this one time faithful city. The only gleam of success which shone on his ill fortune was the revolution which placed Florence in the hands of the Ghibellines in 1248. Next year Bologna rose against him, defeated his troops and took his son Enzio, king of Sardinia, prisoner at Fossalta. Hunted to the ground and broken-hearted, Frederick expired at the end of 1250 in his Apulian castle of Fiorentino. It is difficult to judge his career with fairness. The only prince who could, with any probability of success, have established the German rule in Italy, his ruin proved the impossibility of that long-cherished scheme. The nation had outgrown dependence upon foreigners, and after his death no German emperor interfered with anything but miserable failure in Italian affairs. Yet from many points of view it might be regretted that Frederick was not suffered to rule Italy. By birth and breeding an Italian, highly gifted and widely cultivated, liberal in his opinions, a patron of literature, a founder of universities, he anticipated the spirit of the Renaissance. At his court Italian started into being as a language. His laws were wise. He was capable of giving to Italy a large and noble culture. But the commanding greatness of his position proved his ruin. Emperor and king of Sicily, he was the natural enemy of popes, who could not tolerate so overwhelming a rival.

After Frederick's death, the popes carried on their war for eighteen years against his descendants. The cause of his son Conrad was sustained in Lower Italy by Manfred, one of Frederick's many natural children; and, when Conrad died in 1254, Manfred still acted as vicegerent for the Swabians, who were now represented by a boy Conradin. Innocent IV. and Alexander IV. continued to make head against the Ghibelline party. The most dramatic incident in this struggle was the crusade preached against Ezzelino. This tyrant had made himself justly odious; and when he was hunted to death in 1259, the triumph was less for the Guelph cause than for humanity outraged by the iniquities of such a monster. The battle between Guelph and Ghibelline raged with unintermitting fury. While the former faction gained in Lombardy by the massacre of Ezzelino, the latter revived in Tuscany after the battle of Montaperti, which in 1260 placed Florence at the discretion of the Ghibellines. Manfred, now called king of Sicily, headed the Ghibellines, and there was no strong counterpoise against him. In this necessity Urban IV. and Clement IV. invited Charles of Anjou to enter Italy and take the Guelph command. They made him senator of Rome and vicar of Tuscany, and promised him the investiture of the regno provided he stipulated that it should not be held in combination with the empire. Charles accepted these terms, and was welcomed by the Guelph party as their chief throughout Italy. He defeated Manfred in a battle at Grandella near Benevento in 1266. Manfred was killed; and, when Conradin, a lad of sixteen, descended from Germany to make good his claims to the kingdom, he too was defeated at Tagliacozzo in 1267. Less lucky than his uncle, Conradin escaped with his life, to die upon a scaffold at Naples. His glove was carried to his cousin Constance, wife of Peter of Aragon, the last of the great Norman-Swabian family. Enzio died in his prison four years later. The popes had been successful; but they had purchased their bloody victory at a great cost. This first invitation to French princes brought with it incalculable evils.

Papal war against Frederick's successors.

Charles of Anjou, supported by Rome, and recognized as chief in Tuscany, was by far the most formidable of the Italian potentates. In his turn he now excited the jealousy of the popes, who began, though cautiously, to cast their weight into the Ghibelline scale. Gregory initiated the policy of establishing an equilibrium between the parties, which was carried out by his successor Nicholas III. Charles was forced to resign the senatorship of Rome and the signoria of Lombardy and Tuscany. In 1282 he received a more decided check, when Sicily rose against him in the famous rebellion of the Vespers. He lost the island, which gave itself to Aragon; and thus the kingdom of Sicily was severed from that of Naples, the dynasty in the one being Spanish and Ghibelline, in the other French and Guelph. Meanwhile a new emperor had been elected, the prudent Rudolf of Habsburg, who abstained from interference with Italy, and who confirmed the territorial pretensions of the popes by solemn charter in 1278. Henceforth Emilia, Romagna, the March of Ancona, the patrimony of St Peter and the Campagna of Rome held of the Holy See, and not of the empire. The imperial chancery, without inquiring closely into the deeds furnished by the papal curia, made a deed of gift, which placed the pope in the position of a temporal sovereign. While Nicholas III. thus bettered the position of the church in Italy, the Guelph party grew stronger than ever, through the crushing defeat of the Pisans by the Genoese at Meloria in 1284. Pisa, who had ruined Amalfi, was now ruined by Genoa. She never held her head so high again after this victory, which sent her best and bravest citizens to die in the Ligurian dungeons. The Mediterranean was left to be fought for by Genoa and Venice, while Guelph Florence grew still more powerful in Tuscany. Not long after the battle of Meloria Charles of Anjou died, and was succeeded by his son Charles II. of Naples, who played no prominent part in Italian affairs. The Guelph party was held together with a less tight hand even in cities so consistent as Florence. Here in the year 1300 new factions, subdividing the old Guelphs and Ghibellines under the names of Neri and Bianchi, had acquired such force that Boniface VIII., a violently Guelph pope, called in Charles of Valois to pacify the republic and undertake the charge of Italian affairs. Boniface was a passionate and unwise man. After quarrelling with the French king, Philip le Bel, he fell into the hands of the Colonna family at Anagni, and died, either of the violence he there received or of mortification, in October 1303.

Civil Wars of Guelphs and Ghibellines.

After the short papacy of Benedict XI. a Frenchman, Clement V., was elected, and the seat of the papacy was transferred to Avignon. Thus began that Babylonian exile of the popes which placed them in subjection to the French crown and ruined their prestige in Italy. Lasting seventy years, and joining on to the sixty years of the Great Schism, this enfeeblement of the papal authority, coinciding as it did with the practical elimination of the empire from Italian affairs, gave a long period of comparative independence to the nation. Nor must it be forgotten that this exile was due to the policy which induced the pontiffs, in their detestation of Ghibellinism, to rely successively upon the houses of Anjou and of Valois. This policy it was which justified Dante's fierce epigram—the *puttaneggiar co regi*.

Translation of the Papacy to Avignon.

The period we have briefly traversed was immortalized by Dante in an epic which from one point of view might be called the poem of the Guelphs and Ghibellines. From the foregoing bare narration of events it is impossible to estimate the importance of these parties, or to understand their bearing on subsequent Italian history We are therefore forced to pause awhile, and probe beneath the surface. The civil wars may be regarded as a continuation of the previous municipal struggle, intensified by recent hostilities between the burghers and the nobles. The quarrels of the church and empire lend pretexts and furnish war-cries; but the real question at issue is not the supremacy of pope or emperor. The conflict is a social one, between civic and feudal institutions, between commercial and military interests, between progress and conservatism. Guelph democracy and industry idealize the pope. The banner of the church waves above the camp of those who aim at positive prosperity and republican equality. Ghibelline aristocracy and immobility idealize the emperor. The prestige of the empire, based upon Roman law and feudal tradition, attracts imaginative patriots and systematic thinkers. The two ideals are counterposed and mutually exclusive. No city calls itself either Guelph

or Ghibelline till it has expelled one-half of its inhabitants; for each party is resolved to constitute the state according to its own conception, and the affirmation of the one programme is the negation of the other. The Ghibelline honestly believes that the Guelphs will reduce society to chaos. The Guelph is persuaded that the Ghibellines will annihilate freedom and strangle commerce. The struggle is waged by two sets of men who equally love their city, but who would fain rule it upon diametrically opposite principles, and who fight to the death for its possession. This contradiction enters into the minutest details of life—armorial bearings, clothes, habits at table, symbolize and accentuate the difference. Meanwhile each party forms its own organization of chiefs, finance-officers and registrars at home, and sends ambassadors to foreign cities of the same complexion. A network of party policy embraces and dominates the burghs of Italy, bringing the most distant centres into relation, and by the very division of the country augmenting the sense of nationality. The Italians learn through their discords at this epoch that they form one community. The victory in the conflict practically falls to the hitherto unenfranchised plebeians. The elder noble families die out or lose their preponderance. In some cities, as notably in Florence after the date 1292, it becomes criminal to be *scioperato*, or unemployed in industry. New houses rise into importance; a new commercial aristocracy is formed. Burghers of all denominations are enrolled in one or other of the arts or gilds, and these trading companies furnish the material from which the government or signoria of the city is composed. Plebeian handicrafts assert their right to be represented on an equality with learned professions and wealthy corporations. The ancient classes are confounded and obliterated in a population more homogeneous, more adapted for democracy and despotism.

In addition to the parliament and the councils which have been already enumerated, we now find a *council of the party* established within the city. This body tends to become a little state within the state, and, by controlling the victorious majority, disposes of the government as it thinks best. The consuls are merged in *ancients* or *priors*, chosen from the arts. A new magistrate, the *gonfalonier of justice*, appears in some of the Guelph cities, with the special duty of keeping the insolence of the nobility in check. Meanwhile the podestà still subsists; but he is no longer equal to the task of maintaining an equilibrium of forces. He sinks more and more into a judge, loses more and more the character of dictator. His ancient place is now occupied by a new functionary, no longer acting as arbiter, but concentrating the forces of the triumphant party. The *captain of the people*, acting as head of the ascendant Guelphs or Ghibellines, undertakes the responsibility of proscriptions, decides on questions of policy, forms alliances, declares war. Like all officers created to meet an emergency, the limitations to his power are ill-defined, and he is often little better than an autocrat.

New constitution of the free cities.

V. *Age of the Despots.*—Thus the Italians, during the heat of the civil wars, were ostensibly divided between partisans of the empire and partisans of the church. After the death of Frederick II. their affairs were managed by Manfred and by Charles of Anjou, the supreme captains of the parties, under whose orders acted the captains of the people in each city. The contest being carried on by warfare, it followed that these captains in the burghs were chosen on account of military skill; and, since the nobles were men of arms by profession, members of ancient houses took the lead again in towns where they had been absorbed into the bourgeoisie. In this way, after the downfall of the Ezzelini of Romano, the Della Scala dynasty arose in Verona, and the Carraresi in Padua. The Estensi made themselves lords of Ferrara; the Torriani headed the Guelphs of Milan. At Ravenna we find the Polenta family, at Rimini the Malatestas, at Parma the Rossi, at Piacenza the Scotti, at Faenza the Manfredi. There is not a burgh of northern Italy but can trace the rise of a dynastic house to the vicissitudes of this period. In Tuscany, where the Guelph party was very strongly organized, and the commercial constitution of Florence kept the nobility in check, the communes remained as yet free from hereditary masters. Yet generals from time to time arose, the Conte Ugolino della Gheradesca at Pisa, Uguccione della Faggiuola at Lucca, the Conte Guido di Montefeltro at Florence, who threatened the liberties of Tuscan cities with military despotism.

Origin of Tyrannies.

Left to themselves by absentee emperors and exiled popes, the Italians pursued their own course of development unchecked. After the commencement of the 14th century, the civil wars decreased in fury, and at the same time it was perceived that their effect had been to confirm tyrants in their grasp upon free cities. Growing up out of the captain of the people or signore of the commune, the tyrant annihilated both parties for his own profit and for the peace of the state. He used the dictatorial powers with which he was invested to place himself above the law, resuming in his person the state-machinery which had preceded him. In him, for the first time, the city attained self-consciousness; the blindly working forces of previous revolutions were combined in the will of a ruler. The tyrant's general policy was to favour the multitude at the expense of his own caste. He won favour by these means, and completed the levelling down of classes, which had been proceeding ever since the emergence of the communes.

In 1309 Robert, grandson of Charles, the first Angevine sovereign, succeeded to the throne of Naples, and became the leader of the Guelphs in Italy. In the next year Henry VII. of Luxembourg crossed the Alps soon after his election to the empire, and raised the hopes of the Ghibellines. Dante from his mountain solitudes passionately called upon him to play the part of a Messiah. But it was now impossible for any German to control the "Garden of the Empire." Italy had entered on a new phase of her existence, and the great poet's *De monarchia* represented a dream of the past which could not be realized. Henry established imperial vicars in the Lombard towns, confirming the tyrants, but gaining nothing for the empire in exchange for the titles he conferred. After receiving the crown in Rome, he died at Buonconvento, a little walled town south of Siena, on his backward journey in 1313. The profits of his inroad were reaped by despots, who used the Ghibelline prestige for the consolidation of their own power. It is from this epoch that the supremacy of the Visconti, hitherto the unsuccessful rivals of the Guelphic Torriani for the signory of Milan, dates. The Scaligers in Verona and the Carraresi in Padua were strengthened; and in Tuscany Castruccio Castracane, Uguccione's successor at Lucca, became formidable. In 1325 he defeated the Florentines at Alto Pascio, and carried home their carroccio as a trophy of his victory over the Guelphs. Louis of Bavaria, the next emperor, made a similar excursion in the year 1327, with even greater loss of imperial prestige. He deposed Galeazzo Visconti on his downward journey, and offered Milan for a sum of money to his son Azzo upon his return. Castruccio Castracane was nominated by him duke of Lucca; and this is the first instance of a dynastic title conferred upon an Italian adventurer by the emperor. Castruccio dominated Tuscany, where the Guelph cause, in the weakness of King Robert, languished. But the adventurer's death in 1328 saved the stronghold of republican institutions, and Florence breathed freely for a while again. Can Grande della Scala's death in the next year inflicted on the Lombard Ghibellines a loss hardly inferior to that of Castruccio's on their Tuscan allies. Equally contemptible in its political results and void of historical interest was the brief visit of John of Bohemia, son of Henry VII., whom the Ghibellines next invited to assume their leadership. He sold a few privileges, conferred a few titles, and recrossed the Alps in 1333. It is clear that at this time the fury of the civil wars was spent. In spite of repeated efforts on the part of the Ghibellines, in spite of King Robert's supine incapacity, the imperialists gained no permanent advantage. The Italians were tired of fighting, and the leaders of both factions looked exclusively to their own interests. Each city which had been the cradle of freedom thankfully accepted a master, to quench the conflagration of party strife, encourage

Decline of civil wars.

Advent of the bourgeoisie.

trade, and make the handicraftsmen comfortable. Even the Florentines in 1342 submitted for a few months to the despotism of the duke of Athens. They conferred the signory upon him for life; and, had he not mismanaged matters, he might have held the city in his grasp. Italy was settling down and turning her attention to home comforts, arts and literature. Boccaccio, the contented bourgeois, succeeded to Dante, the fierce aristocrat.

The most marked proof of the change which came over Italy towards the middle of the 14th century is furnished by the companies of adventure. It was with their own militia that the burghers won freedom in the war of independence, subdued the nobles, and fought the battles of the parties. But from this time forward they laid down their arms, and played the game of warfare by the aid of mercenaries. Ecclesiastical overlords, interfering from a distance in Italian politics; prosperous republics, with plenty of money to spend but no leisure or inclination for camp-life; cautious tyrants, glad of every pretext to emasculate their subjects, and courting popularity by exchanging conscription for taxation—all combined to favour the new system. Mercenary troops are said to have been first levied from disbanded Germans, together with Breton and English adventurers, whom the Visconti and Castruccio took into their pay. They soon appeared under their own captains, who hired them out to the highest bidder, or marched them on marauding expeditions up and down the less protected districts. The names of some of these earliest captains of adventure, Fra Moriale, Count Lando and Duke Werner, who styled himself the "Enemy of God and Mercy," have been preserved to us. As the companies grew in size and improved their discipline, it was seen by the Italian nobles that this kind of service offered a good career for men of spirit, who had learned the use of arms. To leave so powerful and profitable a calling in the hands of foreigners seemed both dangerous and uneconomical. Therefore, after the middle of the century, this profession fell into the hands of natives. The first Italian who formed an exclusively Italian company was Alberico da Barbiano, a nobleman of Romagna, and founder of the Milanese house of Belgiojoso. In his school the great condottieri Braccio da Montone and Sforza Attendolo were formed; and henceforth the battles of Italy were fought by Italian generals commanding native troops. This was better in some respects than if the mercenaries had been foreigners. Yet it must not be forgotten that the new companies of adventure, who decided Italian affairs for the next century, were in no sense patriotic. They sold themselves for money, irrespective of the cause which they upheld; and, while changing masters, they had no care for any interests but their own. The name condottiero, derived from *condotta*, a paid contract to supply so many fighting men in serviceable order, sufficiently indicates the nature of the business. In the hands of able captains, like Francesco Sforza or Piccinino, these mercenary troops became moving despotisms, draining the country of its wealth, and always eager to fasten and found tyrannies upon the provinces they had been summoned to defend. Their generals substituted heavy-armed cavalry for the old militia, and introduced systems of campaigning which reduced the art of war to a game of skill. Battles became all but bloodless; diplomacy and tactics superseded feats of arms and hard blows in pitched fields. In this way the Italians lost their military vigour, and wars were waged by despots from their cabinets, who pulled the strings of puppet captains in their pay. Nor were the people only enfeebled for resistance to a real foe; the whole political spirit of the race was demoralized. The purely selfish bond between condottieri and their employers, whether princes or republics, involved intrigues and treachery, checks and counterchecks, secret terror on the one hand and treasonable practice on the other, which ended by making statecraft in Italy synonymous with perfidy.

It must further be noticed that the rise of mercenaries was synchronous with a change in the nature of Italian despotism. The tyrants, as we have already seen, established themselves as captains of the people, vicars of the empire, vicars for the church, leaders of the Guelph and Ghibelline parties. They were accepted by a population eager for repose, who had merged old class distinctions in the conflicts of preceding centuries. They rested in large measure on the favour of the multitude, and pursued a policy of sacrificing to their interests the nobles. It was natural that these self-made princes should seek to secure the peace which they had promised in their cities, by freeing the people from military service and disarming the aristocracy. As their tenure of power grew firmer, they advanced dynastic claims, assumed titles, and took the style of petty sovereigns. Their government became paternal; and, though there was no limit to their cruelty when stung by terror, they used the purse rather than the sword, bribery at home and treasonable intrigue abroad in preference to coercive measures or open war. Thus was elaborated the type of despot which attained completeness in Gian Galeazzo Visconti and Lorenzo de' Medici. No longer a tyrant of Ezzelino's stamp, he reigned by intelligence and terrorism masked beneath a smile. He substituted cunning and corruption for violence. The lesser people tolerated him because he extended the power of their city and made it beautiful with public buildings. The bourgeoisie, protected in their trade, found it convenient to support him. The nobles, turned into courtiers, placemen, diplomatists and men of affairs, ended by preferring his authority to the alternative of democratic institutions. A lethargy of well-being, broken only by the pinch of taxation for war-costs, or by outbursts of frantic ferocity and lust in the less calculating tyrants, descended on the population of cities which had boasted of their freedom. Only Florence and Venice, at the close of the period upon which we are now entering, maintained their republican independence. And Venice was ruled by a close oligarchy; Florence was passing from the hands of her oligarchs into the power of the Medicean merchants.

Change in type of despotism.

Between the year 1305, when Clement V. settled at Avignon, and the year 1447, when Nicholas V. re-established the papacy upon a solid basis at Rome, the Italians approximated more nearly to self-government than at any other epoch of their history. The conditions which have been described, of despotism, mercenary warfare and bourgeois prosperity, determined the character of this epoch, which was also the period when the great achievements of the Renaissance were prepared. At the end of this century and a half, five principal powers divided the peninsula; and their confederated action during the next forty-five years (1447–1492) secured for Italy a season of peace and brilliant prosperity. These five powers were the kingdom of Naples, the duchy of Milan, the republic of Florence, the republic of Venice and the papacy. The subsequent events of Italian history will be rendered most intelligible if at this point we trace the development of these five constituents of Italian greatness separately.

Discrimination of the five great powers.

When Robert of Anjou died in 1343, he was succeeded by his grand-daughter Joan, the childless wife of four successive husbands, Andrew of Hungary, Louis of Taranto, James of Aragon and Otto of Brunswick. Charles of Durazzo, the last male scion of the Angevine house in Lower Italy, murdered Joan in 1382, and held the kingdom for five years. Dying in 1387, he transmitted Naples to his son Ladislaus, who had no children, and was followed in 1414 by his sister Joan II. She too, though twice married, died without issue, having at one time adopted Louis III. of Provence and his brother René, at another Alfonso V. of Aragon, who inherited the crown of Sicily. After her death in February 1435 the kingdom was fought for between René of Anjou and Alfonso, surnamed the Magnanimous. René found supporters among the Italian princes, especially the Milanese Visconti, who helped him to assert his claims with arms. During the war of succession which ensued, Alfonso was taken prisoner by the Genoese fleet in August 1435, and was sent a prisoner to Filippo Maria at Milan. Here he pleaded his own cause so powerfully, and proved so incontestably the advantage which might ensue to the Visconti from his alliance, if he held the regno, that he obtained his release and recognition as king. From the end of the year 1435

The Two Sicilies.

Alfonso reigned alone and undisturbed in Lower Italy, combining for the first time since the year 1282 the crowns of Sicily and Naples. The former he held by inheritance, together with that of Aragon. The latter he considered to be his by conquest. Therefore, when he died in 1458, he bequeathed Naples to his natural son Ferdinand, while Sicily and Aragon passed together to his brother John, and so on to Ferdinand the Catholic. The twenty-three years of Alfonso's reign were the most prosperous and splendid period of South Italian history. He became an Italian in taste and sympathy, entering with enthusiasm into the humanistic ardour of the earlier Renaissance, encouraging men of letters at his court, administering his kingdom on the principles of an enlightened despotism, and lending his authority to establish that equilibrium in the peninsula upon which the politicians of his age believed, not without reason, that Italian independence might be secured.

The last member of the Visconti family of whom we had occasion to speak was Azzo, who bought the city in 1328 from Louis of Bavaria. His uncle Lucchino succeeded, but was murdered in 1349 by a wife against whose life he had been plotting. Lucchino's brother John, archbishop of Milan, now assumed the lordship of the city, and extended the power of the Visconti over Genoa and the whole of north Italy, with the exception of Piedmont, Verona, Mantua, Ferrara and Venice. The greatness of the family dates from the reign of this masterful prelate. He died in 1354, and his heritage was divided between three members of his house, Matteo, Bernabò and Galeazzo. In the next year Matteo, being judged incompetent to rule, was assassinated by order of his brothers, who made an equal partition of their subject cities—Bernabò residing in Milan, Galeazzo in Pavia. Galeazzo was the wealthiest and most magnificent Italian of his epoch. He married his daughter Violante to our duke of Clarence, and his son Gian Galeazzo to a daughter of King John of France. When he died in 1378, this son resolved to reunite the domains of the Visconti; and, with this object in view, he plotted and executed the murder of his uncle Bernabò. Gian Galeazzo thus became by one stroke the most formidable of Italian despots. Immured in his castle at Pavia, accumulating wealth by systematic taxation and methodical economy, he organized the mercenary troops who eagerly took service under so good a paymaster; and, by directing their operations from his cabinet, he threatened the whole of Italy with conquest. The last scions of the Della Scala family still reigned in Verona, the last Carraresi in Padua; the Estensi were powerful in Ferrara, the Gonzaghi in Mantua. Gian Galeazzo, partly by force and partly by intrigue, discredited these minor despots, pushed his dominion to the very verge of Venice, and, having subjected Lombardy to his sway, proceeded to attack Tuscany. Pisa and Perugia were threatened with extinction, and Florence dreaded the advance of the Visconti arms, when the plague suddenly cut short his career of treachery and conquest in the year 1402. Seven years before his death Gian Galeazzo bought the title of duke of Milan and count of Pavia from the emperor Wenceslaus, and there is no doubt that he was aiming at the sovereignty of Italy. But no sooner was he dead than the essential weakness of an artificial state, built up by cunning and perfidious policy, with the aid of bought troops, dignified by no dynastic title, and consolidated by no sense of loyalty, became apparent. Gian Galeazzo's duchy was a masterpiece of mechanical contrivance, the creation of a scheming intellect and lawless will. When the mind which had planned it was withdrawn, it fell to pieces, and the very hands which had been used to build it helped to scatter its fragments. The Visconti's own generals, Facino Cane, Pandolfo Malatesta, Jacopo dal Verme, Gabrino Fondulo, Ottobon Terzo, seized upon the tyranny of several Lombard cities. In others the petty tyrants whom the Visconti had uprooted reappeared. The Estensi recovered their grasp upon Ferrara, and the Gonzaghi upon Mantua. Venice strengthened herself between the Adriatic and the Alps. Florence reassumed her Tuscan hegemony. Other communes which still preserved the shadow of independence, like Perugia and Bologna, began once more to dream of republican freedom under their own leading families. Meanwhile Gian Galeazzo had left two sons, Giovanni Maria and Filippo Maria. Giovanni, a monster of cruelty and lust, was assassinated by some Milanese nobles in 1412; and now Filippo set about rebuilding his father's duchy. Herein he was aided by the troops of Facino Cane, who, dying opportunely at this period, left considerable wealth, a well-trained band of mercenaries, and a widow, Beatrice di Tenda. Filippo married and then beheaded Beatrice after a mock trial for adultery, having used her money and her influence in reuniting several subject cities to the crown of Milan. He subsequently spent a long, suspicious, secret and incomprehensible career in the attempt to piece together Gian Galeazzo's Lombard state, and to carry out his schemes of Italian conquest. In this endeavour he met with vigorous opponents. Venice and Florence, strong in the strength of their resentful oligarchies, offered a determined resistance; nor was Filippo equal in ability to his father. His infernal cunning often defeated its own aims, checkmating him at the point of achievement by suggestions of duplicity or terror. In the course of Filippo's wars with Florence and Venice, the greatest generals of this age were formed—Francesco Carmagnola, who was beheaded between the columns at Venice in 1432; Niccolò Piccinino, who died at Milan in 1444; and Francesco Sforza, who survived to seize his master's heritage in 1450. Son of Attendolo Sforza, this Francesco received the hand of Filippo's natural daughter, Bianca, as a reward for past service and a pledge of future support. When the Visconti dynasty ended by the duke's death in 1447, he pretended to espouse the cause of the Milanese republic, which was then re-established; but he played his cards so subtly as to make himself, by the help of Cosimo de' Medici in Florence, duke *de facto* if not *de jure*. Francesco Sforza was the only condottiero among many aspiring to be tyrants who planted themselves firmly on a throne of first-rate importance. Once seated in the duchy of Milan, he displayed rare qualities as a ruler; for he not only entered into the spirit of the age, which required humanity and culture from a despot, but he also knew how to curb his desire for territory. The conception of confederated Italy found in him a vigorous supporter. Thus the limitation of the Milanese duchy under Filippo Maria Visconti, and its consolidation under Francesco Sforza, were equally effectual in preparing the balance of power to which Italian politics now tended.

Duchy of Milan.

This balance could not have been established without the concurrent aid of Florence. After the expulsion of the duke of Athens in 1343, and the great plague of 1348, the Florentine proletariate rose up against the merchant princes. This insurgence of the artisans, in a republic which had been remodelled upon economical principles by Giano della Bella's constitution of 1292, reached a climax in 1378, when the Ciompi rebellion placed the city for a few years in the hands of the Lesser Arts. The revolution was but temporary, and was rather a symptom of democratic tendencies in the state than the sign of any capacity for government on the part of the working classes. The necessities of war and foreign affairs soon placed Florence in the power of an oligarchy headed by the great Albizzi family. They fought the battles of the republic with success against the Visconti, and widely extended the Florentine domain over the Tuscan cities. During their season of ascendancy Pisa was enslaved, and Florence gained the access to the sea. But throughout this period a powerful opposition was gathering strength. It was led by the Medici, who sided with the common people, and increased their political importance by the accumulation and wise employment of vast commercial wealth. In 1433 the Albizzi and the Medici came to open strife. Cosimo de' Medici, the chief of the opposition, was exiled to Venice. In the next year he returned, assumed the presidency of the democratic party, and by a system of corruption and popularity-hunting, combined with the patronage of arts and letters, established himself as the real but unacknowledged dictator of the commonwealth. Cosimo abandoned the policy of his predecessors. Instead of opposing Francesco Sforza in Milan, he lent him his prestige and influence, foreseeing that the dynastic future of his own family and the pacification of Italy might be secured by a balance of power in

The Unification of ITALY 1859-1870
Austrian Territory in 1850
Kingdom of Sardinia (House of Savoy)
Dates of Unification (1859)
Battlefields ⚔1862
Fortresses of the Quadrilateral underlined Verona
ITALY of the RENAISSANCE (1400-1500)
Cities of the Lombard League underlined:-Milan
English Miles
0 10 20 40 60 80 100
Emery Walker sc.
SWITZERLAND
AUSTRIA
TIROL
SALZBURG
STYRIA
CARINTHIA
CARNIOLA
HUNGARY
FRANCE
SAVOY
PIEDMONT
LOMBARDY (1859)
VENETIA (1866)
PARMA (1866)
MODENA (1860)
TUSCANY (1860)
UMBRIA (1860)
MARCHES (1860)
ROMAGNA (1860)
BOSNIA
DALMATIA
ADRIATIC SEA
TYRRHENIAN SEA
MEDITERRANEAN SEA
CORSICA (To Genoa)
SARDINIA (To Aragon)
CORSICA (To France)
SARDINIA
STATES OF THE CHURCH
PATRIMONY OF S. PETER
FLORENCE
SIENA
UMBRIA
ABRUZZI
MOLISE
CAPITINATA
TERRA DI LAVORO
BASILICATA
BARI
OTRANTO
CALABRIA
SICILY
THE TWO SICILIES (To Aragon)
THE TWO SICILIES (1860)
AFRICA
Rome
Naples
Venice
Milan
Genoa
Turin
Florence
Pisa
Leghorn (Livorno)
Elba
Malta
Syracuse
Messina
Palermo
Trapani
Catania
Lipari Is.
Aspromonte 1862
Reggio 1862
Milazzo
Marsala
Mazzara
Porto Palo
Siacca
Girgenti
Catania
Syracuse
Malta (British)

which Florence should rank on equal terms with Milan and Naples.

Venice.

The republic of Venice differed essentially from any other state in Italy; and her history was so separate that, up to this point, it would have been needless to interrupt the narrative by tracing it. Venice, however, in the 14th century took her place at last as an Italian power on an equality at least with the very greatest. The constitution of the commonwealth had slowly matured itself through a series of revolutions, which confirmed and defined a type of singular stability. During the earlier days of the republic the doge had been a prince elected by the people, and answerable only to the popular assemblies. In 1032 he was obliged to act in concert with a senate, called *pregadi*; and in 1172 the grand council, which became the real sovereign of the state, was formed. The several steps whereby the members of the grand council succeeded in eliminating the people from a share in the government, and reducing the doge to the position of their ornamental representative, cannot here be described. It must suffice to say that these changes culminated in 1297, when an act was passed for closing the grand council, or in other words for confining it to a fixed number of privileged families, in whom the government was henceforth vested by hereditary right. This ratification of the oligarchical principle, together with the establishment in 1311 of the Council of Ten, completed that famous constitution which endured till the extinction of the republic in 1797. Meanwhile, throughout the middle ages, it had been the policy of Venice to refrain from conquests on the Italian mainland, and to confine her energies to commerce in the East. The first entry of any moment made by the Venetians into strictly Italian affairs was in 1336, when the republics of Florence and St Mark allied themselves against Mastino della Scala, and the latter took possession of Treviso. After this, for thirty years, between 1352 and 1381, Venice and Genoa contested the supremacy of the Mediterranean. Pisa's maritime power having been extinguished in the battle of Meloria (1284), the two surviving republics had no rivals. They fought their duel out upon the Bosporus, off Sardinia, and in the Morea, with various success. From the first great encounter, in 1355, Venice retired well-nigh exhausted, and Genoa was so crippled that she placed herself under the protection of the Visconti. The second and decisive battle was fought upon the Adriatic. The Genoese fleet under Luciano Doria defeated the Venetians off Pola in 1379, and sailed without opposition to Chioggia, which was stormed and taken. Thus the Venetians found themselves blockaded in their own lagoons. Meanwhile a fleet was raised for their relief by Carlo Zeno in the Levant, and the admiral Vittore Pisani, who had been imprisoned after the defeat at Pola, was released to lead their forlorn hope from the city side. The Genoese in their turn were now blockaded in Chioggia, and forced by famine to surrender. The losses of men and money which the war of Chioggia, as it was called, entailed, though they did not immediately depress the spirit of the Genoese republic, signed her naval ruin. During this second struggle to the death with Genoa, the Venetians had been also at strife with the Carraresi of Padua and the Scaligers of Verona. In 1406, after the extinction of these princely houses they added Verona, Vicenza and Padua to the territories they claimed on *terra firma*. Their career of conquest, and their new policy of forming Italian alliances and entering into the management of Italian affairs were confirmed by the long dogeship of Francesco Foscari (1423–1457), who must rank with Alfonso, Cosimo de' Medici, Francesco Sforza and Nicholas V., as a joint-founder of confederated Italy. When Constantinople fell in 1453, the old ties between Venice and the Eastern empire were broken, and she now entered on a wholly new phase of her history. Ranking as one of the five Italian powers, she was also destined to defend Western Christendom against the encroachments of the Turk in Europe. (See VENICE: *History*.)

By their settlement in Avignon, the popes relinquished their protectorate of Italian liberties, and lost their position as Italian potentates. Rienzi's revolution in Rome (1347–1354), and his establishment of a republic upon a fantastic basis, half classical, half feudal, proved the temper of the times; while the rise of dynastic families in the cities of the church, claiming the title of papal vicars, but acting in their own interests, weakened the authority of the Holy See. The predatory expeditions of Bertrand du Poiet and Robert of Geneva were as ineffective as the descents of the emperors; and, though the cardinal Albornoz conquered Romagna and the March in 1364, the legates who resided in those districts were not long able to hold them against their despots. At last Gregory XI. returned to Rome; and Urban VI., elected in 1378, put a final end to the Avignonian exile. Still the Great Schism, which now distracted Western Christendom, so enfeebled the papacy, and kept the Roman pontiffs so engaged in ecclesiastical disputes, that they had neither power nor leisure to occupy themselves seriously with their temporal affairs. The threatening presence of the two princely houses of Orsini and Colonna, alike dangerous as friends or foes, rendered Rome an unsafe residence. Even when the schism was nominally terminated in 1415 by the council of Constance, the next two popes held but a precarious grasp upon their Italian domains. Martin V. (1417–1431) resided principally at Florence. Eugenius IV. (1431–1447) followed his example. And what Martin managed to regain Eugenius lost. At the same time, the change which had now come over Italian politics, the desire on all sides for a settlement, and the growing conviction that a federation was necessary, proved advantageous to the popes as sovereigns. They gradually entered into the spirit of their age, assumed the style of despots and made use of the humanistic movement, then at its height, to place themselves in a new relation to Italy. The election of Nicholas V. in 1447 determined this revolution in the papacy, and opened a period of temporal splendour, which ended with the establishment of the popes as sovereigns. Thomas of Sarzana was a distinguished humanist. Humbly born, he had been tutor in the house of the Albizzi, and afterwards librarian of the Medici at Florence, where he imbibed the politics together with the culture of the Renaissance. Soon after assuming the tiara, he found himself without a rival in the church; for the schism ended by Felix V.'s resignation in 1449. Nicholas fixed his residence in Rome, which he began to rebuild and to fortify, determining to render the Eternal City once more a capital worthy of its high place in Europe. The Romans were flattered; and, though his reign was disturbed by republican conspiracy, Nicholas V. was able before his death in 1455 to secure the modern status of the pontiff as a splendid patron and a wealthy temporal potentate.

The Papacy.

Italy was now for a brief space independent. The humanistic movement had created a common culture, a common language and sense of common nationality. The five great powers, with their satellites—dukes of Savoy and Urbino, marquesses of Ferrara and Mantua, republics of Bologna, Perugia, Siena—were constituted. All political institutions tended toward despotism. The Medici became yearly more indispensable to Florence, the Bentivogli more autocratic in Bologna, the Baglioni in Perugia; and even Siena was ruled by the Petrucci. But this despotism was of a mild type. The princes were Italians; they shared the common enthusiasms of the nation for art, learning, literature and science; they studied how to mask their tyranny with arts agreeable to the multitude. When Italy had reached this point, Constantinople was taken by the Turks. On all sides it was felt that the Italian alliance must be tightened; and one of the last, best acts of Nicholas V.'s pontificate was the appeal in 1453 to the five great powers in federation. As regards their common opposition to the Turk, this appeal led to nothing; but it marked the growth of a new Italian consciousness.

Confederated Italy.

Between 1453 and 1492 Italy continued to be prosperous and tranquil. Nearly all wars during this period were undertaken either to check the growing power of Venice or to further the ambition of the papacy. Having become despots, the popes sought to establish their relatives in principalities. The word nepotism acquired new significance in the reigns of Sixtus IV. and Innocent VIII. Though the country was convulsed by no great struggle, these forty years witnessed a truly appalling

increase of political crime. To be a prince was tantamount to being the mark of secret conspiracy and assassination. Among the most noteworthy examples of such attempts may be mentioned the revolt of the barons against Ferdinand I. of Naples (1464), the murder of Galeazzo Maria Sforza at Milan (1476) and the plot of the Pazzi to destroy the Medici (1478). After Cosimo de' Medici's death in 1464, the presidency of the Florentine republic passed to his son Piero, who left it in 1469 to his sons Lorenzo and Giuliano. These youths assumed the style of princes, and it was against their lives that the Pazzi, with the sanction of Sixtus IV., aimed their blow. Giuliano was murdered, Lorenzo escaped, to tighten his grasp upon the city, which now loved him and was proud of him. During the following fourteen years of his brilliant career he made himself absolute master of Florence, and so modified her institutions that the Medici were henceforth necessary to the state. Apprehending the importance of Italian federation, Lorenzo, by his personal tact and prudent leadership of the republic, secured peace and a common intelligence between the five powers. His own family was fortified by the marriage of his daughter to a son of Innocent VIII., which procured his son Giovanni's elevation to the cardinalate, and involved two Medicean papacies and the future dependence of Florence upon Rome.

VI. *Age of Invasions.*—The year 1492 opened a new age for Italy. In this year Lorenzo died, and was succeeded by his son, the vain and weak Piero; France passed beneath the personal control of the inexperienced Charles VIII.; the fall of Granada freed Spain from her embarrassments; Columbus discovered America, destroying the commercial supremacy of Venice; last, but not least, Roderigo Borgia assumed the tiara with the famous title of Alexander VI. In this year the short-lived federation of the five powers was shaken, and Italy was once more drawn into the vortex of European affairs. The events which led to this disaster may be briefly told. After Galeazzo Maria's assassination, his crown passed to a boy, Gian Galeazzo, who was in due course married to a grand-daughter of Ferdinand I. of Naples. But the government of Milan remained in the hands of this youth's uncle, Lodovico, surnamed Il Moro. Lodovico resolved to become duke of Milan. The king of Naples was his natural enemy, and he had cause to suspect that Piero de' Medici might abandon his alliance. Feeling himself alone, with no right to the title he was bent on seizing, he had recourse to Charles VIII. of France, whom he urged to make good his claim to the kingdom of Naples. This claim, it may be said in passing, rested on the will of King René of Anjou. After some hesitation, Charles agreed to invade Italy. He crossed the Alps in 1495, passed through Lombardy, entered Tuscany, freed Pisa from the yoke of Florence, witnessed the expulsion of the Medici, marched to Naples and was crowned there—all this without striking a blow. Meanwhile Lodovico procured his nephew's death, and raised a league against the French in Lombardy. Charles hurried back from Naples, and narrowly escaped destruction at Fornovo in the passes of the Apennines. He made good his retreat, however, and returned to France in 1495. Little remained to him of his light acquisitions; but he had convulsed Italy by this invasion, destroyed her equilibrium, exposed her military weakness and political disunion, and revealed her wealth to greedy and more powerful nations.

Invasion of Charles VIII.

The princes of the house of Aragon, now represented by Frederick, a son of Ferdinand I., returned to Naples. Florence made herself a republic, adopting a form of constitution analogous to that of Venice. At this crisis she was ruled by the monk Girolamo Savonarola, who inspired the people with a thirst for freedom, preached the necessity of reformation, and placed himself in direct antagonism to Rome. After a short but eventful career, the influence of which was long effective, he lost his hold upon the citizens. Alexander VI. procured a mock trial, and his enemies burned him upon the Piazza in 1498. In this year Louis XII. succeeded Charles VIII. upon the throne of France. As duke of Orleans he had certain claims to Milan through his grandmother Valentina, daughter of Gian Galeazzo, the first duke. They were not valid, for the investiture of the duchy had been granted only to male heirs. But they served as a sufficient pretext, and in 1499 Louis entered and subdued the Milanese. Lodovico escaped to Germany, returned the next year, was betrayed by his Swiss mercenaries and sent to die at Loches in France. In 1500 Louis made the blunder of calling Ferdinand the Catholic to help him in the conquest of Naples. By a treaty signed at Granada, the French and Spanish kings were to divide the spoil. The conquest was easy; but, when it came to a partition, Ferdinand played his ally false. He made himself supreme over the Two Sicilies, which he now reunited under a single crown. Three years later, unlessoned by this experience, Louis signed the treaty of Blois (1504), whereby he invited the emperor Maximilian to aid him in the subjugation of Venice. No policy could have been less far-sighted; for Charles V., joint heir to Austria, Burgundy, Castile and Aragon, the future overwhelming rival of France, was already born.

Louis XII.

The stage was now prepared, and all the actors who were destined to accomplish the ruin of Italy trod it with their armies. Spain, France, Germany, with their Swiss auxiliaries, had been summoned upon various pretexts to partake her provinces. Then, too late, patriots like Machiavelli perceived the suicidal self-indulgence of the past, which, by substituting mercenary troops for national militias, left the Italians at the absolute discretion of their neighbours. Whatever parts the Italians themselves played in the succeeding quarter of a century, the game was in the hands of French, Spanish and German invaders. Meanwhile, no scheme for combination against common foes arose in the peninsula. Each petty potentate strove for his own private advantage in the confusion; and at this epoch the chief gains accrued to the papacy. Aided by his terrible son, Cesare Borgia, Alexander VI. chastised the Roman nobles, subdued Romagna and the March, threatened Tuscany, and seemed to be upon the point of creating a Central Italian state in favour of his progeny, when he died suddenly in 1503. His conquests reverted to the Holy See. Julius II., his bitterest enemy and powerful successor, continued Alexander's policy, but no longer in the interest of his own relatives. It became the nobler ambition of Julius to aggrandize the church, and to reassume the protectorate of the Italian people. With this object, he secured Emilia, carried his victorious arms against Ferrara, and curbed the tyranny of the Baglioni in Perugia. Julius II. played a perilous game; but the stakes were high, and he fancied himself strong enough to guide the tempest he evoked. Quarrelling with the Venetians in 1508, he combined the forces of all Europe by the league of Cambray against them; and, when he had succeeded in his first purpose of humbling them even to the dust, he turned round in 1510, uttered his famous resolve to expel the barbarians from Italy, and pitted the Spaniards against the French. It was with the Swiss that he hoped to effect this revolution; but the Swiss, now interfering for the first time as principals in Italian affairs, were incapable of more than adding to the already maddening distractions of the people. Formed for mercenary warfare, they proved a perilous instrument in the hands of those who used them, and were hardly less injurious to their friends than to their foes. In 1512 the battle of Ravenna between the French troops and the allies of Julius—Spaniards, Venetians and Swiss—was fought. Gaston de Foix bought a doubtful victory dearly with his death; and the allies, though beaten on the banks of the Ronco, immediately afterwards expelled the French from Lombardy. Yet Julius II. had failed, as might have been foreseen. He only exchanged one set of foreign masters for another, and taught a new barbarian race how pleasant were the plains of Italy. As a consequence of the battle of Ravenna, the Medici returned in 1512 to Florence.

When Leo X. was elected in 1513, Rome and Florence rejoiced; but Italy had no repose. Louis XII. had lost the game, and the Spaniards were triumphant. But new actors appeared upon the scene, and the same old struggle was resumed with fiercer energy. By the victory of Marignano in 1515 Francis I., having now succeeded to the throne of France, regained the Milanese,

and broke the power of the Swiss, who held it for Massimiliano Sforza, the titular duke. Leo for a while relied on Francis; for the vast power of Charles V., who succeeded to the empire in 1519, as in 1516 he had succeeded to the crowns of Spain and Lower Italy, threatened the whole of Europe. It was Leo's nature, however, to be inconstant. In 1521 he changed sides, allied himself to Charles, and died after hearing that the imperial troops had again expelled the French from Milan. During the next four years the Franco-Spanish war dragged on in Lombardy until the decisive battle of Pavia in 1525, when Francis was taken prisoner, and Italy lay open to the Spanish armies. Meanwhile Leo X. had been followed by Adrian VI., and Adrian by Clement VII., of the house of Medici, who had long ruled Florence. In the reign of this pope Francis was released from his prison in Madrid (1526), and Clement hoped that he might still be used in the Italian interest as a counterpoise to Charles. It is impossible in this place to follow the tangled intrigues of that period. The year 1527 was signalized by the famous sack of Rome. An army of mixed German and Spanish troops, pretending to act for the emperor, but which may rather be regarded as a vast marauding party, entered Italy under their leader Frundsberg. After his death, the Constable de Bourbon took command of them; they marched slowly down, aided by the marquis of Ferrara, and unopposed by the duke of Urbino, reached Rome, and took it by assault. The constable was killed in the first onslaught; Clement was imprisoned in the castle of St Angelo; Rome was abandoned to the rage of 30,000 ruffians. As an immediate result of this catastrophe, Florence shook off the Medici, and established a republic. But Clement, having made peace with the emperor, turned the remnants of the army which had sacked Rome against his native city. After a desperate resistance, Florence fell in 1530. Alessandro de' Medici was placed there with the title of duke of Città di Penna; and, on his murder in 1537, Cosimo de' Medici, of the younger branch of the ruling house, was made duke. Acting as lieutenant for the Spaniards, he subsequently (1555) subdued Siena, and bequeathed to his descendants the grand-duchy of Tuscany.

VII. *Spanish-Austrian Ascendancy.*—It was high time, after the sack of Rome in 1527, that Charles V. should undertake Italian affairs. The country was exposed to anarchy, of which this had been the last and most disgraceful example. The Turks were threatening western Europe, and Luther was inflaming Germany. By the treaty of Barcelona in 1529 the pope and emperor made terms. By that of Cambray in the same year France relinquished Italy to Spain. Charles then entered the port of Genoa, and on the 5th of November met Clement VII. at Bologna. He there received the imperial crown, and summoned the Italian princes for a settlement of all disputed claims. Francesco Sforza, the last and childless heir of the ducal house, was left in Milan till his death, which happened in 1535. The republic of Venice was respected in her liberties and Lombard territories. The Este family received a confirmation of their duchy of Modena and Reggio, and were invested in their fief of Ferrara by the pope. The marquessate of Mantua was made a duchy; and Florence was secured, as we have seen, to the Medici. The great gainer by this settlement was the papacy, which held the most substantial Italian province, together with a prestige that raised it far above all rivalry. The rest of Italy, however parcelled, henceforth became but a dependence upon Spain. Charles V., it must be remembered, achieved his conquest and confirmed his authority far less as emperor than as the heir of Castile and Aragon. A Spanish viceroy in Milan and another in Naples, supported by Rome and by the minor princes who followed the policy dictated to them from Madrid, were sufficient to preserve the whole peninsula in a state of somnolent inglorious servitude.

Settlement of Italy by Spain.

From 1530 until 1796, that is, for a period of nearly three centuries, the Italians had no history of their own. Their annals are filled with records of dynastic changes and redistributions of territory, consequent upon treaties signed by foreign powers, in the settlement of quarrels which no wise concerned the people. Italy only too often became the theatre of desolating and distracting wars. But these wars were fought for the most part by alien armies; the points at issue were decided beyond the Alps; the gains accrued to royal families whose names were unpronounceable by southern tongues. The affairs of Europe during the years when Habsburg and Bourbon fought their domestic battles with the blood of noble races may teach grave lessons to all thoughtful men of our days, but none bitterer, none fraught with more insulting recollections, than to the Italian people, who were haggled over like dumb driven cattle in the mart of chaffering kings. We cannot wholly acquit the Italians of their share of blame. When they might have won national independence, after their warfare with the Swabian emperors, they let the golden opportunity slip. Pampered with commercial prosperity, eaten to the core with inter-urban rivalries, they submitted to despots, renounced the use of arms, and offered themselves in the hour of need, defenceless and disunited to the shock of puissant nations. That they had created modern civilization for Europe availed them nothing. Italy, intellectually first among the peoples, was now politically and practically last; and nothing to her historian is more heart-rending than to watch the gradual extinction of her spirit in this age of slavery.

In 1534 Alessandro Farnese, who owed his elevation to his sister Giulia, one of Alexander VI.'s mistresses, took the tiara with the title of Paul III. It was his ambition to create a duchy for his family; and with this object he gave Parma and Piacenza to his son Pier Luigi. After much wrangling between the French and Spanish parties, the duchy was confirmed in 1586 to Ottaviano Farnese and his son Alessandro, better known as Philip II.'s general, the prince of Parma. Alessandro's descendants reigned in Parma and Piacenza till the year 1731. Paul III.'s pontificate was further marked by important changes in the church, all of which confirmed the spiritual autocracy of Rome. In 1540 this pope approved of Loyola's foundation, and secured the powerful militia of the Jesuit order. The Inquisition was established with almost unlimited powers in Italy, and the press was placed under its jurisdiction. Thus free thought received a check, by which not only ecclesiastical but political tyrants knew how to profit. Henceforth it was impossible to publish or to utter a word which might offend the despots of church or state; and the Italians had to amuse their leisure with the polite triflings of academics. In 1545 a council was opened at Trent for the reformation of church discipline and the promulgation of orthodox doctrine. The decrees of this council defined Roman Catholicism against the Reformation; and, while failing to regenerate morality, they enforced a hypocritical observance of public decency. Italy to outer view put forth blossoms of hectic and hysterical piety, though at the core her clergy and her aristocracy were more corrupt than ever.

Pontificate of Paul III.

In 1556 Philip II., by the abdication of his father Charles V., became king of Spain. He already wore the crown of the Two Sicilies, and ruled the duchy of Milan. In the next year Ferdinand, brother of Charles, was elected emperor. The French, meanwhile, had not entirely abandoned their claims on Italy. Gian Pietro Caraffa, who was made pope in 1555 with the name of Paul IV., endeavoured to revive the ancient papal policy of leaning upon France. He encouraged the duke of Guise to undertake the conquest of Naples, as Charles of Anjou had been summoned by his predecessors. But such schemes were now obsolete and anachronistic. They led to a languid lingering Italian campaign, which was settled far beyond the Alps by Philip's victories over the French at St Quentin and Gravelines. The peace of Câteau Cambresis, signed in 1559, left the Spanish monarch undisputed lord of Italy. Of free commonwealths there now survived only Venice, which, together with Spain, achieved for Europe the victory of Lepanto in 1573; Genoa, which, after the ineffectual Fieschi revolution in 1547, abode beneath the rule of the great Doria family, and held a feeble sway in Corsica; and the two insignificant republics of Lucca and San Marino.

Reign of Philip II.

The future hope of Italy, however, was growing in a remote and hitherto neglected corner. Emmanuel Philibert, duke of Savoy, represented the oldest and not the least illustrious reigning house in Europe, and his descendants were destined to achieve for Italy the independence which no other power or prince had given her since the fall of ancient Rome. (See SAVOY, HOUSE OF.)

When Emmanuel Philibert succeeded to his father Charles III. in 1553, he was a duke without a duchy. But the princes of the house of Savoy were a race of warriors; and what Emmanuel Philibert lost as sovereign he regained as captain of adventure in the service of his cousin Philip II. The treaty of Câteau Cambresis in 1559, and the evacuation of the Piedmontese cities held by French and Spanish troops in 1574, restored his state. By removing the capital from Chambéry to Turin, he completed the transformation of the dukes of Savoy from Burgundian into Italian sovereigns. They still owned Savoy beyond the Alps, the plains of Bresse, and the maritime province of Nice.

Emmanuel Philibert was succeeded by his son Charles Emmanuel I., who married Catherine, a daughter of Philip II. He seized the first opportunity of annexing Saluzzo, which had been lost to Savoy in the last two reigns, and renewed the disastrous policy of his grandfather Charles III. by invading Geneva and threatening Provence. Henry IV. of France forced him in 1601 to relinquish Bresse and his Burgundian possessions. In return he was allowed to keep Saluzzo. All hopes of conquest on the transalpine side were now quenched; but the keys of Italy had been given to the dukes of Savoy; and their attention was still further concentrated upon Lombard conquests. Charles Emmanuel now attempted the acquisition of Montferrat, which was soon to become vacant by the death of Francesco Gonzaga, who held it together with Mantua. In order to secure this territory, he went to war with Philip III. of Spain, and allied himself with Venice and the Grisons to expel the Spaniards from the Valtelline. When the male line of the Gonzaga family expired in 1627, Charles, duke of Nevers, claimed Mantua and Montferrat in right of his wife, the only daughter of the last duke. Charles Emmanuel was now checkmated by France, as he had formerly been by Spain. The total gains of all his strenuous endeavours amounted to the acquisition of a few places on the borders of Montferrat.

Extinction of old ducal families.

Not only the Gonzagas, but several other ancient ducal families, died out about the date which we have reached. The legitimate line of the Estensi ended in 1597 by the death of Alfonso II., the last duke of Ferrara. He left his domains to a natural relative, Cesare d'Este, who would in earlier days have inherited without dispute, for bastardy had been no bar on more than one occasion in the Este pedigree. Urban VIII., however, put in a claim to Ferrara, which, it will be remembered, had been recognized a papal fief in 1530. Cesare d'Este had to content himself with Modena and Reggio, where his descendants reigned as dukes till 1794. Under the same pontiff, the Holy See absorbed the duchy of Urbino on the death of Francesco Maria II., the last representative of Montefeltro and Della Rovere. The popes were now masters of a fine and compact territory, embracing no inconsiderable portion of Countess Matilda's legacy, in addition to Pippin's donation, and the patrimony of St Peter. Meanwhile Spanish fanaticism, the suppression of the Huguenots in France and the Catholic policy of Austria combined to strengthen their authority as pontiffs. Urban's predecessor, Paul V., advanced so far as to extend his spiritual jurisdiction over Venice, which, up to the date of his election (1605), had resisted all encroachments of the Holy See. Venice offered the single instance in Italy of a national church. The republic managed the tithes, and the clergy acknowledged no chief above their own patriarch. Paul V. now forced the Venetians to admit his ecclesiastical supremacy; but they refused to readmit the Jesuits, who had been expelled in 1606. This, if we do not count the proclamation of James I. of England (1604), was the earliest instance of the order's banishment from a state where it had proved disloyal to the commonwealth.

Decline of Venice and Spain.

Venice rapidly declined throughout the 17th century. The loss of trade consequent upon the closing of Egypt and the Levant, together with the discovery of America and the sea-route to the Indies, had dried up her chief source of wealth. Prolonged warfare with the Ottomans, who forced her to abandon Candia in 1669, as they had robbed her of Cyprus in 1570, still further crippled her resources. Yet she kept the Adriatic free of pirates, notably by suppressing the sea-robbers called Uscocchi (1601–1617), maintained herself in the Ionian Islands, and in 1684 added one more to the series of victorious episodes which render her annals so romantic. In that year Francesco Morosini, upon whose tomb we still may read the title Peloponnesiacus, wrested the whole of the Morea from the Turks. But after his death in 1715 the republic relaxed her hold upon his conquests. The Venetian nobles abandoned themselves to indolence and vice. Many of them fell into the slough of pauperism, and were saved from starvation by public doles. Though the signory still made a brave show upon occasions of parade, it was clear that the state was rotten to the core, and sinking into the decrepitude of dotage. The Spanish monarchy at the same epoch dwindled with apparently less reason. Philip's Austrian successors reduced it to the rank of a secondary European power. This decline of vigour was felt, with the customary effects of discord and bad government, in Lower Italy. The revolt of Masaniello in Naples (1647), followed by rebellions at Palermo and Messina, which placed Sicily for a while in the hands of Louis XIV. (1676–1678) were symptoms of progressive anarchy. The population, ground down by preposterous taxes, ill-used as only the subjects of Spaniards, Turks or Bourbons are handled, rose in blind exasperation against their oppressors. It is impossible to attach political importance to these revolutions; nor did they bring the people any appreciable good. The destinies of Italy were decided in the cabinets and on the battlefields of northern Europe. A Bourbon at Versailles, a Habsburg at Vienna, or a thick-lipped Lorrainer, with a stroke of his pen, wrote off province against province, regarding not the populations who had bled for him or thrown themselves upon his mercy.

Wars of Succession.

This inglorious and passive chapter of Italian history is continued to the date of the French Revolution with the records of three dynastic wars, the war of the Spanish succession, the war of the Polish succession, the war of the Austrian succession, followed by three European treaties, which brought them respectively to diplomatic terminations. Italy, handled and rehandled, settled and resettled, upon each of these occasions, changed masters without caring or knowing what befell the principals in any one of the disputes. Humiliating to human nature in general as are the annals of the 18th-century campaigns in Europe, there is no point of view from which they appear in a light so tragi-comic as from that afforded by Italian history. The system of setting nations by the ears with the view of settling the quarrels of a few reigning houses was reduced to absurdity when the people, as in these cases, came to be partitioned and exchanged without the assertion or negation of a single principle affecting their interests or rousing their emotions.

Spanish Succession.

In 1700 Charles II. died, and with him ended the Austrian family in Spain. Louis XIV. claimed the throne for Philip, duke of Anjou. Charles, archduke of Austria, opposed him. The dispute was fought out in Flanders; but Lombardy felt the shock, as usual, of the French and Austrian dynasties. The French armies were more than once defeated by Prince Eugene of Savoy, who drove them out of Italy in 1707. Therefore, in the peace of Utrecht (1713), the services of the house of Savoy had to be duly recognized. Victor Amadeus II. received Sicily with the title of king. Montferrat and Alessandria were added to his northern provinces, and his state was recognized as independent. Charles of Austria, now emperor, took Milan, Mantua, Naples and Sardinia for his portion of the Italian spoil. Philip founded the Bourbon line of Spanish kings, renouncing in Italy all that his Habsburg predecessors had gained. Discontented with this diminution

of the Spanish heritage, Philip V. married Elisabetta Farnese, heiress to the last duke of Parma, in 1714. He hoped to secure this duchy for his son, Don Carlos; and Elisabetta further brought with her a claim to the grand-duchy of Tuscany, which would soon become vacant by the death of Gian Gastone de' Medici. After this marriage Philip broke the peace of Europe by invading Sardinia. The Quadruple Alliance was formed, and the new king of Sicily was punished for his supposed adherence to Philip V. by the forced exchange of Sicily for the island of Sardinia. It was thus that in 1720 the house of Savoy assumed the regal title which it bore until the declaration of the Italian kingdom in the last century. Victor Amadeus II.'s reign was of great importance in the history of his state. Though a despot, as all monarchs were obliged to be at that date, he reigned with prudence, probity and zeal for the welfare of his subjects. He took public education out of the hands of the Jesuits, which, for the future development of manliness in his dominions, was a measure of incalculable value. The duchy of Savoy in his days became a kingdom, and Sardinia, though it seemed a poor exchange for Sicily, was a far less perilous possession than the larger and wealthier island would have been. In 1730 Victor Amadeus abdicated in favour of his son Charles Emmanuel III. Repenting of this step, he subsequently attempted to regain Turin, but was imprisoned in the castle of Rivoli, where he ended his days in 1732.

The War of the Polish Succession which now disturbed Europe is only important in Italian history because the treaty of Vienna in 1738 settled the disputed affairs of the duchies of Parma and Tuscany. The duke Antonio Farnese died in 1731; the grand-duke Gian Gastone de' Medici died in 1737. In the duchy of Parma Don Carlos had already been proclaimed. But he was now transferred to the Two Sicilies, while Francis of Lorraine, the husband of Maria Theresa, took Tuscany and Parma. Milan and Mantua remained in the hands of the Austrians. On this occasion Charles Emmanuel acquired Tortona and Novara.

Polish Succession.

Worse complications ensued for the Italians when the emperor Charles VI., father of Maria Theresa, died in 1740. The three branches of the Bourbon house, ruling in France, Spain and the Sicilies, joined with Prussia, Bavaria and the kingdom of Sardinia to despoil Maria Theresa of her heritage. Lombardy was made the seat of war; and here the king of Sardinia acted as in some sense the arbiter of the situation. After war broke out, he changed sides and supported the Habsburg-Lorraine party. At first, in 1745, the Sardinians were defeated by the French and Spanish troops. But Francis of Lorraine, elected emperor in that year, sent an army to the king's support, which in 1746 obtained a signal victory over the Bourbons at Piacenza. Charles Emmanuel now threatened Genoa. The Austrian soldiers already held the town. But the citizens expelled them, and the republic kept her independence. In 1748 the treaty of Aix-la-Chapelle, which put an end to the War of the Austrian Succession, once more redivided Italy. Parma, Piacenza and Guastalla were formed into a duchy for Don Philip, brother of Charles III. of the Two Sicilies, and son of Philip V. of Spain. Charles III. was confirmed in his kingdom of the Two Sicilies. The Austrians kept Milan and Tuscany. The duchy of Modena was placed under the protection of the French. So was Genoa, which in 1755, after Paoli's insurrection against the misgovernment of the republic, ceded her old domain of Corsica to France.

Austrian Succession.

From the date of this settlement until 1792, Italy enjoyed a period of repose and internal amelioration under her numerous paternal despots. It became the fashion during these forty-four years of peace to encourage the industrial population and to experimentalize in economical reforms. The Austrian government in Lombardy under Maria Theresa was characterized by improved agriculture, regular administration, order, reformed taxation and increased education. A considerable amount of local autonomy was allowed, and dependence on Vienna was very slight and not irksome. The nobles and the clergy were rich and influential, but kept in order by the civil power. There was no feeling of nationality, but the people were prosperous, enjoyed profound peace and were placidly content with the existing order of things. On the death of Maria Theresa in 1780, the emperor Joseph II. instituted much wider reforms. Feudal privileges were done away with, clerical influence diminished and many monasteries and convents suppressed, the criminal law rendered more humane and torture abolished largely as a result of G. Beccaria's famous pamphlet *Dei delitti e delle pene*. At the same time Joseph's administration was more arbitrary, and local autonomy was to some extent curtailed. His anti-clerical laws produced some ill-feeling among the more devout part of the population. On the whole the Austrian rule in pre-revolutionary days was beneficial and far from oppressive, and helped Lombardy to recover from the ill-effects of the Spanish domination. It did little for the moral education of the people, but the same criticism applies more or less to all the European governments of the day. The emperor Francis I. ruled the grand-duchy of Tuscany by lieutenants until his death in 1765, when it was given, as an independent state, to his second son, Peter Leopold. The reign of this duke was long remembered as a period of internal prosperity, wise legislation and important public enterprise. Leopold, among other useful works, drained the Val di Chiana, and restored those fertile upland plains to agriculture. In 1790 he succeeded to the empire, and left Tuscany to his son Ferdinand. The kingdom of Sardinia was administered upon similar principles, but with less of geniality. Charles Emmanuel made his will law, and erased the remnants of free institutions from his state. At the same time he wisely followed his father's policy with regard to education and the church. This is perhaps the best that can be said of a king who incarnated the stolid absolutism of the period. From this date, however, we are able to trace the revival of independent thought among the Italians. The European ferment of ideas which preceded the French Revolution expressed itself in men like Alfieri, the fierce denouncer of tyrants, Beccaria, the philosopher of criminal jurisprudence, Volta, the physicist, and numerous political economists of Tuscany. Moved partly by external influences and partly by a slow internal reawakening, the people was preparing for the efforts of the 19th century. The papacy, during this period, had to reconsider the question of the Jesuits, who made themselves universally odious, not only in Italy, but also in France and Spain. In the pontificate of Clement XIII. they ruled the Vatican, and almost succeeded in embroiling the pope with the concerted Bourbon potentates of Europe. His successor, Clement XIV. suppressed the order altogether by a brief of 1773. (J. A. S.)

Forty-four years' peace.

D. Italy in the Napoleonic Period, 1796–1814

The campaign of 1796 which led to the awakening of the Italian people to a new consciousness of unity and strength is detailed in the article Napoleonic Campaigns. Here we can attempt only a general survey of the events, political, civic and social, which heralded the *Risorgimento* in its first phase. It is desirable in the first place to realize the condition of Italy at the time when the irruption of the French and the expulsion of the Austrians opened up a new political vista for that oppressed and divided people.

For many generations Italy had been bandied to and fro between the Habsburgs and the Bourbons The decline of French influence at the close of the reign of Louis XIV. left the Habsburgs and the Spanish Bourbons without serious rivals. The former possessed the rich duchies of Milan (including Mantua) and Tuscany; while through a marriage alliance with the house of Este of Modena (the Archduke Ferdinand had married the heiress of Modena) its influence over that duchy was supreme. It also had a few fiefs in Piedmont and in Genoese territory. By marrying her daughter, Maria Amelia, to the young duke of Parma, and another daughter, Maria Carolina, to Ferdinand of Naples, Maria Theresa consolidated Habsburg influence in the north and south of the peninsula. The Spanish Bourbons held Naples and Sicily, as well as the duchy of Parma.

Influence of the French Revolution.

Of the nominally independent states the chief were the kingdom of Sardinia, ruled over by the house of Savoy, and comprising Piedmont, the isle of Sardinia and nominally Savoy and Nice, though the two provinces last named had virtually been lost to the monarchy since the campaign of 1793. Equally extensive, but less important in the political sphere, were the Papal States and Venetia, the former torpid under the obscurantist rule of pope and cardinals, the latter enervated by luxury and the policy of unmanly complaisance long pursued by doge and council. The ancient rival of Venice, Genoa, was likewise far gone in decline. The small states, Lucca and San Marino, completed the map of Italy. The worst governed part of the peninsula was the south, where feudalism lay heavily on the cultivators and corruption pervaded all ranks. Milan and Piedmont were comparatively well governed; but repugnance to Austrian rule in the former case, and the contagion of French Jacobinical opinions in the latter, brought those populations into increasing hostility to the rulers. The democratic propaganda, which was permeating all the large towns of the peninsula, then led to the formation of numerous and powerful clubs and secret societies; and the throne of Victor Amadeus III., of the house of Savoy, soon began to totter under the blows delivered by the French troops at the mountain barriers of his kingdom and under the insidious assaults of the friends of liberty at Turin. Plotting was rife at Milan, as also at Bologna, where the memory of old liberties predisposed men to cast off clerical rule and led to the first rising on behalf of Italian liberty in the year 1794. At Palermo the Sicilians struggled hard to establish a republic in place of the odious government of an alien dynasty.

Bonaparte in Italy.

The anathemas of the pope, the bravery of Piedmontese and Austrians, and the subsidies of Great Britain failed to keep the league of Italian princes against France intact. The grand-duke of Tuscany was the first of the European sovereigns who made peace with, and recognized the French republic, early in 1795. The first fortnight of Napoleon's campaign of 1796 detached Sardinia from alliance with Austria and England. The enthusiasm of the Italians for the young Corsican "liberator" greatly helped his progress. Two months later Ferdinand of Naples sought for an armistice, the central duchies were easily overrun, and, early in 1797, Pope Pius VI. was fain to sign terms of peace with Bonaparte at Tolentino, practically ceding the northern part of his states, known as the Legations. The surrender of the last Habsburg stronghold, Mantua, on the 2nd of February 1797 left the field clear for the erection of new political institutions.

Already the men of Reggio, Modena and Bologna had declared for a democratic policy, in which feudalism and clerical rule should have no place, and in which manhood suffrage,

The Cispadane Republic.

together with other rights promised by Bonaparte to the men of Milan in May 1796, should form the basis of a new order of things. In taking this step the Modenese and Romagnols had the encouragement of Bonaparte, despite the orders which the French directory sent to him in a contrary sense. The result was the formation of an assembly at Modena which abolished feudal dues and customs, declared for manhood suffrage and established the Cispadane Republic (October 1796).

The close of Bonaparte's victorious campaign against the Archduke Charles in 1797 enabled him to mature those designs respecting Venice which are detailed in the article NAPOLEON. On a far higher level was his conduct towards the Milanese. While the French directory saw in that province little more than a district which might be plundered and bargained for, Bonaparte, though by no means remiss in the exaction of gold and of artistic treasures, was laying the foundation of a friendly republic. During his sojourn at the castle of Montebello or Mombello, near Milan, he commissioned several of the leading men of northern Italy to draw up a project of constitution and list of reforms for that province. Meanwhile he took care to curb the excesses of the Italian Jacobins and to encourage the Moderates, who were favourable to the French connexion as promising a guarantee against Austrian domination and internal anarchy. He summed up his conduct in the letter of the 8th of May 1797 to the French directory, "I cool the hot heads here and warm the cool ones." The Transpadane Republic, or, as it was soon called, the Cisalpine Republic, began its organized life on the 9th of July 1797, with a brilliant festival at Milan. The constitution was modelled on that of the French directory, and, lest there should be a majority of clerical or Jacobinical deputies, the French Republic through its general, Bonaparte, nominated and appointed the first deputies and administrators of the new government. In the same month it was joined by the Cispadane Republic; and the terms of the treaty of Campo Formio (October 17, 1797), while fatal to the political life of Venice, awarded to this now considerable state the Venetian territories west of the river Adige. A month later, under the pretence of stilling the civil strifes in the Valtelline, Bonaparte absorbed that Swiss district in the Cisalpine Republic, which thus included all the lands between Como and Verona on the north, and Rimini on the south.

The Cisalpine Republic.

Early in the year 1798 the Austrians, in pursuance of the scheme of partition agreed on at Campo Formio, entered Venice and brought to an end its era of independence which had lasted some 1100 years. Venice with its mainland territories east of the Adige, inclusive of Istria and Dalmatia, went to the Habsburgs, while the Venetian isles of the Adriatic (the Ionian Isles) and the Venetian fleet went to strengthen France for that eastern expedition on which Bonaparte had already set his heart. Venice not only paid the costs of the war to the two chief belligerents, but her naval resources also helped to launch the young general on his career of eastern adventure. Her former rival, Genoa, had also been compelled, in June 1797, to bow before the young conqueror, and had undergone at his hands a remodelling on the lines already followed at Milan. The new Genoese republic, French in all but name, was renamed the Ligurian Republic.

End of the Venetian Republic.

Before he set sail for Egypt, the French had taken possession of Rome. Already masters of the papal fortress of Ancona, they began openly to challenge the pope's authority at the Eternal City itself. Joseph Bonaparte, then French envoy to the Vatican, encouraged democratic manifestations; and one of them, at the close of 1797,

French occupation of Rome.

led to a scuffle in which a French general, Duphot, was killed. The French directory at once ordered its general, Berthier, to march to Rome: the Roman democrats proclaimed a republic on the 15th of February 1798, and on their invitation Berthier and his troops marched in. The pope, Pius VI., was forthwith haled away to Siena and a year later to Valence in the south of France, where he died. Thus fell the temporal power. The "liberators" of Rome thereupon proceeded to plunder the city in a way which brought shame on their cause and disgrace (perhaps not wholly deserved) on the general left in command, Masséna.

These events brought revolution to the gates of the kingdom of Naples, the worst-governed part of Italy, where the boorish king, Ferdinand IV. (*il rè lazzarone*, he was termed),

Naples.

and his whimsical consort, Maria Carolina, scarcely held in check the discontent of their own subjects. A British fleet under Nelson, sent into the Mediterranean in May 1798 primarily for their defence, checkmated the designs of Bonaparte in Egypt, and then, returning to Naples, encouraged that court to adopt a spirited policy. It is now known that the influence of Nelson and of the British ambassador, Sir William Hamilton, and Lady Hamilton precipitated the rupture between Naples and France. The results were disastrous. The Neapolitan troops at first occupied Rome, but, being badly handled by their leader, the Austrian general, Mack, they were soon scattered in flight; and the Republican troops under General Championnet, after crushing the stubborn resistance of the lazzaroni, made their way into Naples and proclaimed the Parthenopaean Republic (January 23, 1799). The Neapolitan Democrats chose five of their leading men to be directors. and tithes and feudal dues and customs

The Parthenopaean Republic.

were abolished. Much good work was done by the Republicans during their brief tenure of power, but it soon came to an end owing to the course of events which favoured a reaction against France. The directors of Paris, not content with overrunning and plundering Switzerland, had outraged German sentiment in many ways. Further, at the close of 1798 they virtually compelled the young king of Sardinia, Charles Emmanuel IV., to abdicate at Turin. He retired to the island of Sardinia, while the French despoiled Piedmont, thereby adding fuel to the resentment rapidly growing against them in every part of Europe.

Suvarov in Italy.

The outcome of it all was the War of the Second Coalition, in which Russia, Austria, Great Britain, Naples and some secondary states of Germany took part. The incursion of an Austro-Russian army, led by that strange but magnetic being, Suvarov, decided the campaign in northern Italy. The French, poorly handled by Schérer and Sérurier, were everywhere beaten, especially at Magnano (April 5) and Cassano (April 27). Milan and Turin fell before the allies, and Moreau, who took over the command, had much difficulty in making his way to the Genoese coast-line. There he awaited the arrival of Macdonald with the army of Naples. That general, Championnet's successor, had been compelled by these reverses and by the threatening pressure of Nelson's fleet to evacuate Naples and central Italy. In many parts the peasants and townsfolk, enraged by the licence of the French, hung on his flank and rear. The republics set up by the French at Naples, Rome and Milan collapsed as soon as the French troops retired; and a reaction in favour of clerical and Austrian influence set in with great violence. For the events which then occurred at Naples, so compromising to the reputation of Nelson, see NELSON and NAPLES. Sir William Hamilton was subsequently recalled in a manner closely resembling a disgrace, and his place was taken by Paget, who behaved with more dignity and tact.

Meanwhile Macdonald, after struggling through central Italy, had defeated an Austrian force at Modena (June 12, 1799), but Suvarov was able by swift movements utterly to overthrow him at the Trebbia (June 17–19). The wreck of his force drifted away helplessly towards Genoa. A month later the ambitious young general, Joubert, who took over Moreau's command and rallied part of Macdonald's following, was utterly routed by the Austro-Russian army at Novi (August 15) with the loss of 12,000 men. Joubert perished in the battle. The growing friction between Austria and Russia led to the transference of Suvarov and his Russians to Switzerland, with results which were to be fatal to the allies in that quarter. But in Italy the Austrian successes continued. Melas defeated Championnet near Coni on the 4th of November; and a little later the French garrisons at Ancona and Coni surrendered. The tricolour, which floated triumphantly over all the strongholds of Italy early in the year, at its close waved only over Genoa, where Masséna prepared for a stubborn defence. Nice and Savoy also seemed at the mercy of the invaders. Everywhere the old order of things was restored. The death of the aged Pope Pius VI. at Valence (August 29, 1799) deprived the French of whatever advantage they had hoped to gain by dragging him into exile; on the 24th of March 1800 the conclave, assembled for greater security on the island of San Giorgio at Venice, elected a new pontiff, Pius VII.

Campaign of Marengo.

Such was the position of affairs when Bonaparte returned from Egypt and landed at Fréjus. The contrast presented by his triumphs, whether real or imaginary, to the reverses sustained by the armies of the French directory, was fatal to that body and to popular institutions in France. After the *coup d'état* of Brumaire (November 1799) he, as First Consul, began to organize an expedition against the Austrians (Russia having now retired from the coalition), in northern Italy. The campaign culminating at Marengo was the result. By that triumph (due to Desaix and Kellermann rather than directly to him), Bonaparte consolidated his own position in France and again laid Italy at his feet. The Austrian general, Melas, signed an armistice whereby he was to retire with his army beyond the river Mincio. Ten days earlier, namely on the 4th of June, Masséna had been compelled by hunger to capitulate at Genoa; but the success at Marengo, followed up by that of Macdonald in north Italy, and Moreau at Hohenlinden (December 2, 1800), brought the emperor Francis to sue for peace which was finally concluded at Lunéville on the 9th of February 1801. The Cisalpine and Ligurian Republics (reconstituted soon after Marengo) were recognized by Austria on condition that they were independent of France. The rule of Pius VII. over the Papal States was admitted; and Italian affairs were arranged much as they were at Campo Formio: Modena and Tuscany now reverted to French control, their former rulers being promised compensation in Germany. Naples, easily worsted by the French, under Miollis, left the British alliance, and made peace by the treaty of Florence (March 1801), agreeing to withdraw her troops from the Papal States, to cede Piombino and the Presidii (in Tuscany) to France and to close her ports to British ships and commerce. King Ferdinand also had to accept a French garrison at Taranto, and other points in the south.

Treaty of Lunéville.

Napoleon's reorganization of Italy.

Other changes took place in that year, all of them in favour of France. By complex and secret bargaining with the court of Madrid, Bonaparte procured the cession to France of Louisiana, in North America, and Parma; while the duke of Parma (husband of an infanta of Spain) was promoted by him to the duchy of Tuscany, now renamed the kingdom of Etruria. Piedmont was declared to be a military division at the disposal of France (April 21, 1801); and on the 21st of September 1802, Bonaparte, then First Consul for life, issued a decree for its definitive incorporation in the French Republic. About that time, too, Elba fell into the hands of Napoleon. Piedmont was organized in six departments on the model of those of France, and a number of French veterans were settled by Napoleon in and near the fortress of Alessandria. Besides copying the Roman habit of planting military colonies, the First Consul imitated the old conquerors of the world by extending and completing the road-system of his outlying districts, especially at those important passes, the Mont Cenis and Simplon. He greatly improved the rough track over the Simplon Pass, so that, when finished in 1807, it was practicable for artillery. Milan was the terminus of the road, and the construction of the Foro Buonaparte and the completion of the cathedral added dignity to the Lombard capital. The Corniche road was improved; and public works in various parts of Piedmont, and the Cisalpine and Ligurian Republics attested the foresight and wisdom of the great organizer of industry and quickener of human energies. The universities of Pavia and Bologna were reopened and made great progress in this time of peace and growing prosperity. Somewhat later the Pavia canal was begun in order to connect Lake Como with the Adriatic for barge-traffic.

The personal nature of the tie binding Italy to France was illustrated by a curious incident of the winter of 1802–1803. Bonaparte, now First Consul for life, felt strong enough to impose his will on the Cisalpine Republic and to set at defiance one of the stipulations of the treaty of Lunéville. On the pretext of consolidating that republic, he invited 450 of its leading men to come to Lyons to a *consulta*. In reality he and his agents had already provided for the passing of proposals which were agreeable to him. The deputies having been dazzled by fêtes and reviews, Talleyrand and Marescalchi, ministers of foreign affairs at Paris and Milan, plied them with hints as to the course to be followed by the *consulta*; and, despite the rage of the more democratic of their number, everything corresponded to the wishes of the First Consul. It remained to find a chief. Very many were in favour of Count Melzi, a Lombard noble, who had been chief of the executive at Milan; but again Talleyrand and French agents set to work on behalf of their master, with the result that he was elected president for ten years. He accepted that office because, as he frankly informed the deputies, he had found no one who "for his services rendered to his country, his authority with the people and his separation from party

has deserved such an office." Melzi was elected vice-president with merely honorary functions. The constitution comprised a *consulta* charged with executive duties, a legislative body of 150 members and a court charged with the maintenance of the fundamental laws. These three bodies were to be chosen by three electoral colleges consisting of (*a*) landed proprietors, (*b*) learned men and clerics, (*c*) merchants and traders, holding their sessions biennially at Milan, Bologna and Brescia respectively. In practice the *consulta* could override the legislature; and, as the *consulta* was little more than the organ of the president, the whole constitution may be pronounced as autocratic as that of France after the changes brought about by Bonaparte in August 1802. Finally we must note that the Cisalpine now took the name of the Italian Republic, and that by a concordat with the pope, Bonaparte regulated its relations to the Holy See in a manner analogous to that adopted in the famous French concordat promulgated at Easter 1802 (see CONCORDAT). It remains to add that the Ligurian Republic and that of Lucca remodelled their constitutions in a way somewhat similar to that of the Cisalpine.

Bonaparte's ascendancy did not pass unchallenged. Many of the Italians retained their enthusiasm for democracy and national independence. In 1803 movements in these directions took place at Rimini, Brescia and Bologna; but they were sharply repressed, and most Italians came to acquiesce in the Napoleonic supremacy as inevitable and indeed beneficial. The complete disregard shown by Napoleon for one of the chief conditions of the treaty of Lunéville (February 1801)—that stipulating for the independence of the Ligurian and Cisalpine Republics—became more and more apparent every year. Alike in political and commercial affairs they were for all practical purposes dependencies of France. Finally, after the proclamation of the French empire (May 18, 1804) Napoleon proposed to place his brother Joseph over the Italian state, which now took the title of kingdom of Italy. On Joseph declining, Napoleon finally decided to accept the crown which Melzi, Marescalchi, Serbelloni and others begged him to assume. Accordingly, on the 26th of May 1805, in the cathedral at Milan, he crowned himself with the iron crown of the old Lombard kings, using the traditional formula, "God gave it me: let him beware who touches it." On the 7th of June he appointed his step-son, Eugène Beauharnais, to be viceroy. Eugène soon found that his chief duty was to enforce the will of Napoleon. The legislature at Milan having ventured to alter some details of taxation, Eugène received the following rule of conduct from his step-father: "Your system of government is simple: the emperor wills it to be thus." Republicanism was now everywhere discouraged. The little republic of Lucca, along with Piombino, was now awarded as a principality by the emperor to Elisa Bonaparte and her husband, Bacciocchi.

Kingdom of Italy.

In June 1805 there came a last and intolerable affront to the emperors of Austria and Russia, who at that very time were seeking to put bounds to Napoleon's ambition and to redress the balance of power. The French emperor, at the supposed request of the doge of Genoa, declared the Ligurian Republic to be an integral part of the French empire. This defiance to the sovereigns of Russia and Austria rekindled the flames of war. The third coalition was formed between Great Britain, Russia and Austria, Naples soon joining its ranks.

For the chief events of the ensuing campaigns see NAPOLEONIC CAMPAIGNS. While Masséna pursued the Austrians into their own lands at the close of 1805, Italian forces under Eugène and Gouvion St Cyr (*q.v.*) held their ground against allied forces landed at Naples. After Austerlitz (December 2, 1805) Austria made peace by the treaty of Pressburg, ceding to the kingdom of Italy her part of Venetia along with the provinces of Istria and Dalmatia. Napoleon then turned fiercely against Maria Carolina of Naples upbraiding her with her "perfidy." He sent Joseph Bonaparte and Masséna southwards with a strong column, compelled the Anglo-Russian forces to evacuate Naples, and occupied the south of the peninsula with little opposition except at the fortress of Gaeta. The Bourbon court sailed away to Palermo, where it remained for eight years under the protection afforded by the British fleet and a British army of occupation. On the 15th of February 1806 Joseph Bonaparte entered Naples in triumph, his troops capturing there two hundred pieces of cannon. Gaeta, however, held out stoutly against the French. Sir Sidney Smith with a British squadron captured Capri (February 1806), and the peasants of the Abruzzi and Calabria soon began to give trouble. Worst of all was the arrival of a small British force in Calabria under Sir John Stuart, which beat off with heavy loss an attack imprudently delivered by General Réynier on level ground near the village of Maida (July 4). The steady volleys of Kempt's light infantry were fatal to the French, who fell back in disorder under a bayonet charge of the victors, with the loss of some 2700 men. Calabria now rose in revolt against King Joseph, and the peasants dealt out savage reprisals to the French troops. On the 18th of July, however, Gaeta surrendered to Masséna, and that marshal, now moving rapidly southwards, extricated Réynier, crushed the Bourbon rising in Calabria with great barbarity, and compelled the British force to re-embark for Sicily. At Palermo Queen Maria Carolina continued to make vehement but futile efforts for the overthrow of King Joseph.

Joseph Bonaparte in Naples.

It is more important to observe that under Joseph and his ministers or advisers, including the Frenchmen Roederer, Dumas, Miot de Melito and the Corsican Saliceti, great progress was made in abolishing feudal laws and customs, in reforming the judicial procedure and criminal laws on the model of the *Code Napoléon*, and in attempting the beginnings of elementary education. More questionable was Joseph's policy in closing and confiscating the property of 213 of the richer monasteries of the land. The monks were pensioned off, but though the confiscated property helped to fill the empty coffers of the state, the measure aroused widespread alarm and resentment among that superstitious people.

The peace of Tilsit (July 7, 1807) enabled Napoleon to press on his projects for securing the command of the Mediterranean, thenceforth a fundamental axiom of his policy. Consequently, in the autumn of 1807 he urged on Joseph the adoption of vigorous measures for the capture of Sicily. Already, in the negotiations with England during the summer of 1806, the emperor had shown his sense of the extreme importance of gaining possession of that island, which indeed caused the breakdown of the peace proposals then being considered; and now he ordered French squadrons into the Mediterranean in order to secure Corfu and Sicily. His plans respecting Corfu succeeded. That island and some of the adjacent isles fell into the hands of the French (some of them were captured by British troops in 1809–10); but Sicily remained unassailable. Capri, however, fell to the French on the 18th of October 1808, shortly after the arrival at Naples of the new king, Murat.

This ambitious marshal, brother-in-law of Napoleon, foiled in his hope of gaining the crown of Spain, received that of Naples in the summer of 1808, Joseph Bonaparte being moved from Naples to Madrid. This arrangement pleased neither of the relatives of the emperor; but his will now was law on the continent. Joseph left Naples on the 23rd of May 1808; but it was not until the 6th of September that Joachim Murat made his entry. A fortnight later his consort Caroline arrived, and soon showed a vigour and restlessness of spirit which frequently clashed with the dictates of her brother, the emperor and the showy, unsteady policy of her consort. The Spanish national rising of 1808 and thereafter the Peninsular War diverted Napoleon's attention from the affairs of south Italy. In June 1809, during his campaign against Austria, Sir John Stuart with an Anglo-Sicilian force sailed northwards, captured Ischia and threw Murat into great alarm; but on the news of the Austrian defeat at Wagram, Stuart sailed back again.

Murat King of Naples.

It is now time to turn to the affairs of central Italy. Early in 1808 Napoleon proceeded with plans which he had secretly concerted after the treaty of Tilsit for transferring the infanta

of Spain who, after the death of her consort, reigned at Florence on behalf of her young son, Charles Louis, from her kingdom of Etruria to the little principality of Entre Douro e Minho which he proposed to carve out from the north of Portugal. Etruria reverted to the French empire, but the Spanish princess and her son did not receive the promised indemnity. Elisa Bonaparte and her husband, Bacciocchi, rulers of Lucca and Piombino, became the heads of the administration in Tuscany, Elisa showing decided governing capacity.

Central Italy.

The last part of the peninsula to undergo the Gallicizing influence was the papal dominion. For some time past the relations between Napoleon and the pope, Pius VII., had been severely strained, chiefly because the emperor insisted on controlling the church, both in France and in the kingdom of Italy, in a way inconsistent with the traditions of the Vatican, but also because the pontiff refused to grant the divorce between Jerome Bonaparte and the former Miss Patterson on which Napoleon early in the year 1806 laid so much stress. These and other disputes led the emperor, as successor of Charlemagne, to treat the pope in a very high-handed way. "Your Holiness (he wrote) is sovereign of Rome, but I am its emperor"; and he threatened to annul the presumed "donation" of Rome by Charlemagne, unless the pope yielded implicit obedience to him in all temporal affairs. He further exploited the Charlemagne tradition for the benefit of the continental system, that great engine of commercial war by which he hoped to assure the ruin of England. This aim prompted the annexation of Tuscany, and his intervention in the affairs of the Papal States. To this the pope assented under pressure from Napoleon; but the latter soon found other pretexts for intervention, and in February 1808 a French column under Miollis occupied Rome, and deposed the papal authorities. Against this violence Pius VII. protested in vain. Napoleon sought to push matters to an extreme, and on the 2nd of April he adopted the rigorous measure of annexing to the kingdom of Italy the papal provinces of Ancona, Urbino, Macerata and Camerina. This measure, which seemed to the pious an act of sacrilege, and to Italian patriots an outrage on the only independent sovereign of the peninsula, sufficed for the present. The outbreak of war in Spain, followed by the rupture with Austria in the spring of 1809, distracted the attention of the emperor. But after the occupation of Vienna the conqueror dated from that capital on the 17th of May 1809 a decree virtually annexing Rome and the *Patrimonium Petri* to the French empire. Here again he cited the action of Charlemagne, his "august predecessor," who had merely given "certain domains to the bishops of Rome as fiefs, though Rome did not thereby cease to be part of his empire."

Napoleon and the Papacy.

Annexation of the Papal States.

In reply the pope prepared a bull of excommunication against those who should infringe the prerogatives of the Holy See in this matter. Thereupon the French general, Miollis, who still occupied Rome, caused the pope to be arrested and carried him away northwards into Tuscany, thence to Savona; finally he was taken, at Napoleon's orders, to Fontainebleau. Thus, a second time, fell the temporal power of the papacy. By an imperial decree of the 17th of February 1810, Rome and the neighbouring districts, including Spoleto, became part of the French empire. Rome thenceforth figured as its second city, and entered upon a new life under the administration of French officials. The Roman territory was divided into two departments—the Tiber and Trasimenus; the *Code Napoléon* was introduced, public works were set on foot and great advance was made in the material sphere. Nevertheless the harshness with which the emperor treated the Roman clergy and suppressed the monasteries caused deep resentment to the orthodox.

There is no need to detail the fortunes of the Napoleonic states in Italy. One and all they underwent the influences emanating from Paris; and in respect to civil administration, law, judicial procedure, education and public works, they all experienced great benefits, the results of which never wholly disappeared. On the other hand, they suffered from the rigorous measures of the continental system, which seriously crippled trade at the ports and were not compensated by the increased facilities for trade with France which Napoleon opened up. The drain of men to supply his armies in Germany, Spain and Russia was also a serious loss. A powerful Italian corps marched under Eugène Beauharnais to Moscow, and distinguished itself at Malo-Jaroslavitz, as also during the horrors of the retreat in the closing weeks of 1812. It is said that out of 27,000 Italians who entered Russia with Eugène, only 333 saw their country again. That campaign marked the beginning of the end for the Napoleonic domination in Italy as elsewhere. Murat, left in command of the Grand Army at Vilna, abandoned his charge and in the next year made overtures to the allies who coalesced against Napoleon. For his vacillations at this time and his final fate, see MURAT. Here it must suffice to say that the uncertainty caused by his policy in 1813–1814 had no small share in embarrassing Napoleon and in precipitating the downfall of his power in Italy. Eugène Beauharnais, viceroy of the kingdom of Italy, showed both constancy and courage; but after the battle of Leipzig (October 16–19, 1813) his power crumbled away under the assaults of the now victorious Austrians. By an arrangement with Bavaria, they were able to march through Tirol and down the valley of the Adige in force, and overpowered the troops of Eugène whose position was fatally compromised by the defection of Murat and the dissensions among the Italians. Very many of them, distrusting both of these kings, sought to act independently in favour of an Italian republic. Lord William Bentinck with an Anglo-Sicilian force landed at Leghorn on the 8th of March 1814, and issued a proclamation to the Italians bidding them rise against Napoleon in the interests of their own freedom. A little later he gained possession of Genoa. Amidst these schisms the defence of Italy collapsed. On the 16th of April 1814 Eugène, on hearing of Napoleon's overthrow at Paris, signed an armistice at Mantua by which he was enabled to send away the French troops beyond the Alps and entrust himself to the consideration of the allies. The Austrians, under General Bellegarde, entered Milan without resistance; and this event precluded the restoration of the old political order.

Character of Napoleon's rule.

Collapse of Napoleon's rule.

The arrangements made by the allies in accordance with the treaty of Paris (June 12, 1814) and the Final Act of the congress of Vienna (June 9, 1815), imposed on Italy boundaries which, roughly speaking, corresponded to those of the pre-Napoleonic era. To the kingdom of Sardinia, now reconstituted under Victor Emmanuel I., France ceded its old provinces, Savoy and Nice; and the allies, especially Great Britain and Austria, insisted on the addition to that monarchy of the territories of the former republic of Genoa, in respect of which the king took the title of duke of Genoa, in order to strengthen it for the duty of acting as a buffer state between France and the smaller states of central Italy. Austria recovered the Milanese, and all the possessions of the old Venetian Republic on the mainland, including Istria and Dalmatia. The Ionian Islands, formerly belonging to Venice, were, by a treaty signed at Paris on the 5th of November 1815, placed under the protection of Great Britain. By an instrument signed on the 24th of April 1815, the Austrian territories in north Italy were erected into the kingdom of Lombardo-Venetia, which, though an integral part of the Austrian empire, was to enjoy a separate administration, the symbol of its separate individuality being the coronation of the emperors with the ancient iron crown of Lombardy ("Proclamation de l'empereur d'Autriche, &c.," April 7, 1815, *State Papers*, ii. 906). Francis IV., son of the archduke Ferdinand of Austria and Maria Beatrice, daughter of Ercole Rinaldo, the last of the Estensi, was reinstated as duke of Modena. Parma and Piacenza were assigned to Marie Louise, daughter of the Austrian emperor and wife of Napoleon, on behalf of her son, the little Napoleon, but by subsequent arrangements (1816–1817) the duchy was to revert at her death to the Bourbons of Parma, then reigning at Lucca. Tuscany was restored to the grand-duke Ferdinand III. of Habsburg-Lorraine. The duchy of Lucca was given to Marie Louise of Bourbon-Parma, who, at the death of Marie Louise of Austria, would

return to Parma, when Lucca would be handed over to Tuscany. The pope, Pius VII., who had long been kept under restraint by Napoleon at Fontainebleau, returned to Rome in May 1814, and was recognized by the congress of Vienna (not without some demur on the part of Austria) as the sovereign of all the former possessions of the Holy See. Ferdinand IV. of Naples, not long after the death of his consort, Maria Carolina, in Austria, returned from Sicily to take possession of his dominions on the mainland. He received them back in their entirety at the hands of the powers, who recognized his new title of Ferdinand I. of the Two Sicilies. The rash attempt of Murat in the autumn of 1815, which led to his death at Pizzo in Calabria, enabled the Bourbon dynasty to crush malcontents with all the greater severity. The reaction, which was dull and heavy in the dominions of the pope and of Victor Emmanuel, systematically harsh in the Austrian states of the north, and comparatively mild in Parma and Tuscany, excited the greatest loathing in southern Italy and Sicily, because there it was directed by a dynasty which had aroused feelings of hatred mingled with contempt.

There were special reasons why Sicily should harbour these feelings against the Bourbons. During eight years (1806–1814) the chief places of the island had been garrisoned by British troops; and the commander of the force which upheld the tottering rule of Ferdinand at Palermo naturally had great authority. The British government, which awarded a large annual subsidy to the king and queen at Palermo, claimed to have some control over the administration. Lord William Bentinck finally took over large administrative powers, seeing that Ferdinand, owing to his dulness, and Maria Carolina, owing to her very suspicious intrigues with Napoleon, could never be trusted. The contest between the royal power and that of the Sicilian estates threatened to bring matters to a deadlock, until in 1812, under the impulse of Lord William Bentinck, a constitution modelled largely on that of England was passed by the estates. After the retirement of the British troops in 1814 the constitution lapsed, and the royal authority became once more absolute. But the memory of the benefits conferred by "the English constitution" remained fresh and green amidst the arid waste of repression which followed. It lived on as one of the impalpable but powerful influences which spurred on the Sicilians and the democrats of Naples to the efforts which they put forth in 1821, 1830, 1848 and 1860.

This result, accruing from British intervention, was in some respects similar to that exerted by Napoleon on the Italians of the mainland. The brutalities of Austria's white coats in the north, the unintelligent repression then characteristic of the house of Savoy, the petty spite of the duke of Modena, the medieval obscurantism of pope and cardinals in the middle of the peninsula and the clownish excesses of Ferdinand in the south, could not blot out from the minds of the Italians the recollection of the benefits derived from the just laws, vigorous administration and enlightened aims of the great emperor. The hard but salutary training which they had undergone at his hands had taught them that they were the equals of the northern races both in the council chamber and on the field of battle. It had further revealed to them that truth, which once grasped can never be forgotten, that, despite differences of climate, character and speech, they were in all essentials a nation. (J. Hl. R.)

E. The Risorgimento, 1815–1870

As the result of the Vienna treaties, Austria became the real mistress of Italy. Not only did she govern Lombardy and Venetia directly, but Austrian princes ruled in Modena, Parma and Tuscany; Piacenza, Ferrara and Comacchio had Austrian garrisons; Prince Metternich, the Austrian chancellor, believed that he could always secure the election of an Austrophil pope, and Ferdinand of Naples, reinstated by an Austrian army, had bound himself, by a secret article of the treaty of June 12, 1815, not to introduce methods of government incompatible with those adopted in Austria's Italian possessions. Austria also concluded offensive and defensive alliances with Sardinia, Tuscany and Naples; and Metternich's ambition was to make Austrian predominance over Italy still more absolute, by placing an Austrian archduke on the Sardinian throne.

Reaction in the Italian States.

Victor Emmanuel I., the king of Sardinia, was the only native ruler in the peninsula, and the Savoy dynasty was popular with all classes. But although welcomed with enthusiasm on his return to Turin, he introduced a system of reaction which, if less brutal, was no less uncompromising than that of Austrian archdukes or Bourbon princes. His object was to restore his dominions to the conditions preceding the French occupation. The French system of taxation was maintained because it brought in ampler revenues; but feudalism, the antiquated legislation and bureaucracy were revived, and all the officers and officials still living who had served the state before the Revolution, many of them now in their dotage, were restored to their posts; only nobles were eligible for the higher government appointments; all who had served under the French administration were dismissed or reduced in rank; and in the army beardless scions of the aristocracy were placed over the heads of war-worn veterans who had commanded regiments in Spain and Russia. The influence of a bigoted priesthood was re-established, and "every form of intellectual and moral torment, everything save actual persecution and physical torture that could be inflicted on the 'impure' was inflicted" (Cesare Balbo's *Autobiography*). All this soon provoked discontent among the educated classes. In Genoa the government was particularly unpopular, for the Genoese resented being handed over to their old enemy Piedmont like a flock of sheep. Nevertheless the king strongly disliked the Austrians, and would willingly have seen them driven from Italy.

Austrian rule in Italy.

In Lombardy French rule had ended by making itself unpopular, and even before the fall of Napoleon a national party, called the *Italici puri*, had begun to advocate the independence of Lombardy, or even its union with Sardinia. At first a part of the population were content with Austrian rule, which provided an honest and efficient administration; but the rigid system of centralization which, while allowing the semblance of local autonomy, sent every minute question for settlement to Vienna; the severe police methods; the bureaucracy, in which the best appointments were usually conferred on Germans or Slavs wholly dependent on Vienna, proved galling to the people, and in view of the growing disaffection the country was turned into a vast armed camp. In Modena Duke Francis proved a cruel tyrant. In Parma, on the other hand, there was very little oppression, the French codes were retained, and the council of state was consulted on all legislative matters. Lucca too enjoyed good government, and the peasantry were well cared for and prosperous. In Tuscany the rule of Ferdinand and of his minister Fossombroni was mild and benevolent, but enervating and demoralizing. The Papal States were ruled by a unique system of theocracy, for not only the head of the state but all the more important officials were ecclesiastics, assisted by the Inquisition, the Index and all the paraphernalia of medieval church government. The administration was inefficient and corrupt, the censorship uncompromising, the police ferocious and oppressive, although quite unable to cope with the prevalent anarchy and brigandage; the antiquated pontifical statutes took the place of the French laws, and every vestige of the vigorous old communal independence was swept away. In Naples King Ferdinand retained some of the laws and institutions of Murat's régime, and many of the functionaries of the former government entered his service; but he revived the Bourbon tradition, the odious police system and the censorship; and a degrading religious bigotry, to which the masses were all too much inclined, became the basis of government and social life. The upper classes were still to a large extent inoculated with French ideas, but the common people were either devoted to the dynasty or indifferent. In Sicily, which for centuries had enjoyed a feudal constitution modernized and Anglicized under British auspices in 1812, and where anti-Neapolitan feeling was strong, autonomy

Reaction in Rome.

Naples.

was suppressed, the constitution abolished in 1816, and the island, as a reward for its fidelity to the dynasty, converted into a Neapolitan province governed by Neapolitan bureaucrats.

To the mass of the people the restoration of the old governments undoubtedly brought a sense of relief, for the terrible drain in men and money caused by Napoleon's wars had caused much discontent, whereas now there was a prospect of peace and rest. But the restored governments in their terror of revolution would not realize that the late régime had wafted a breath of new life over the country and left ineffaceable traces in the way of improved laws, efficient administration, good roads and the sweeping away of old abuses; while the new-born idea of Italian unity, strengthened by a national pride revived on many a stricken field from Madrid to Moscow, was a force to be reckoned with. The oppression and follies of the restored governments made men forget the evils of French rule and remember only its good side. The masses were still more or less indifferent, but among the nobility and the educated middle classes, cut off from all part in free political life, there was developed either the spirit of despair at Italy's moral degradation, as expressed in the writings of Foscolo and Leopardi, or a passion of hatred and revolt, which found its manifestation, in spite of severe laws, in the development of secret societies. The most important of these were the Carbonari lodges, whose objects were the expulsion of the foreigner and the achievement of constitutional freedom (see CARBONARI).

Secret societies. The Carbonari.

When Ferdinand returned to Naples in 1815 he found the kingdom, and especially the army, honeycombed with Carbonarism, to which many noblemen and officers were affiliated; and although the police instituted prosecutions and organized the counter-movement of the *Calderai*, who may be compared to the "Black Hundreds" of modern Russia, the revolutionary spirit continued to grow, but it was not at first anti-dynastic. The granting of the Spanish constitution of 1820 proved the signal for the beginning of the Italian liberationist movement; a military mutiny led by two officers, Silvati and Morelli, and the priest Menichini, broke out at Monteforte, to the cry of "God, the King, and the Constitution!" The troops sent against them commanded by General Guglielmo Pepe, himself a Carbonaro, hesitated to act, and the king, finding that he could not count on the army, granted the constitution (July 13, 1820), and appointed his son Francis regent. The events that followed are described in the article on the history of Naples (*q.v.*). Not only did the constitution, which was modelled on the impossible Spanish constitution of 1812, prove unworkable, but the powers of the Grand Alliance, whose main object was to keep the peace of Europe, felt themselves bound to interfere to prevent the evil precedent of a successful military revolution. The diplomatic developments that led to the intervention of Austria are sketched elsewhere (see EUROPE: *History*); in general the result of the deliberations of the congresses of Troppau and Laibach was to establish, not the general right of intervention claimed in the Troppau Protocol, but the special right of Austria to safeguard her interests in Italy. The defeat of General Pepe by the Austrians at Rieti (March 7, 1821) and the re-establishment of King Ferdinand's autocratic power under the protection of Austrian bayonets were the effective assertion of this principle.

Revolution in Naples, 1820.

The movement in Naples had been purely local, for the Neapolitan Carbonari had at that time no thought save of Naples; it was, moreover, a movement of the middle and upper classes in which the masses took little interest. Immediately after the battle of Rieti a Carbonarist mutiny broke out in Piedmont independently of events in the south. Both King Victor Emmanuel and his brother Charles Felix had no sons, and the heir presumptive to the throne was Prince Charles Albert, of the Carignano branch of the house of Savoy. Charles Albert felt a certain interest in Liberal ideas and was always surrounded by young nobles of Carbonarist and anti-Austrian tendencies, and was therefore regarded with suspicion by his royal relatives. Metternich, too, had an instinctive dislike for him, and proposed to exclude him from the succession by marrying one of the king's daughters to Francis of Modena, and getting the Salic law abolished so that the succession would pass to the duke and Austria would thus dominate Piedmont. The Liberal movement had gained ground in Piedmont as in Naples among the younger nobles and officers, and the events of Spain and southern Italy aroused much excitement. In March 1821, Count Santorre di Santarosa and other conspirators informed Charles Albert of a constitutional and anti-Austrian plot, and asked for his help. After a momentary hesitation he informed the king; but at his request no arrests were made, and no precautions were taken. On the 10th of March the garrison of Alessandria mutinied, and its example was followed on the 12th by that of Turin, where the Spanish constitution was demanded, and the black, red and blue flag of the Carbonari paraded the streets. The next day the king abdicated after appointing Charles Albert regent. The latter immediately proclaimed the constitution, but the new king, Charles Felix, who was at Modena at the time, repudiated the regent's acts and exiled him to Tuscany; and, with his consent, an Austrian army invaded Piedmont and crushed the constitutionalists at Novara. Many of the conspirators were condemned to death, but all succeeded in escaping. Charles Felix was most indignant with the ex-regent, but he resented, as an unwarrantable interference, Austria's attempt to have him excluded from the succession at the congress of Verona (1822). Charles Albert's somewhat equivocal conduct also roused the hatred of the Liberals, and for a long time the *esecrato Carignano* was regarded, most unjustly, as a traitor even by many who were not republicans.

Military revolt in Piedmont.

Carbonarism had been introduced into Lombardy by two Romagnols, Count Laderchi and Pietro Maroncelli, but the leader of the movement was Count F. Confalonieri, who was in favour of an Italian federation composed of northern Italy under the house of Savoy, central Italy under the pope, and the kingdom of Naples. There had been some mild plotting against Austria in Milan, and an attempt was made to co-operate with the Piedmontese movement of 1821; already in 1820 Maroncelli and the poet Silvio Pellico had been arrested as Carbonari, and after the movement in Piedmont more arrests were made. The mission of Gaetano Castiglia and Marquis Giorgio Pallavicini to Turin, where they had interviewed Charles Albert, although without any definite result—for Confalonieri had warned the prince that Lombardy was not ready to rise—was accidentally discovered, and Confalonieri was himself arrested. The plot would never have been a menace to Austria but for her treatment of the conspirators. Pellico and Maroncelli were immured in the Spielberg; Confalonieri and two dozen others were condemned to death, their sentences being, however, commuted to imprisonment in that same terrible fortress. The heroism of the prisoners, and Silvio Pellico's account of his imprisonment (*Le mie Prigioni*), did much to enlist the sympathy of Europe for the Italian cause.

Liberalism in Lombardy.

During the next few years order reigned in Italy, save for a few unimportant outbreaks in the Papal States; there was, however, perpetual discontent and agitation, especially in Romagna, where misgovernment was extreme. Under Pius VII. and his minister Cardinal Consalvi oppression had not been very severe, and Metternich's proposal to establish a central inquisitorial tribunal for political offences throughout Italy had been rejected by the papal government. But on the death of Pius in 1823, his successor Leo XII. (Cardinal Della Genga) proved a ferocious reactionary under whom barbarous laws were enacted and torture frequently applied. The secret societies, such as the Carbonari, the Adelfi and the Bersaglieri d'America, which flourished in Romagna, replied to these persecutions by assassinating the more brutal officials ans spies. The events of 1820–1821 increased the agitation in Romagna, and in 1825 large numbers of persons were condemned to death, imprisonment or exile. The society of the Sanfedisti, formed of the dregs of the populace, whose object was to murder every Liberal, was openly protected and encouraged. Leo died

The Papal States.

in 1829, and the mild, religious Pius VIII. (Cardinal Castiglioni) only reigned until 1830, when Gregory XVI. (Cardinal Cappellari) was elected through Austrian influence, and proved another *zelante*. The July revolution in Paris and the declaration of the new king, Louis Philippe, that France, as a Liberal monarchy, would not only not intervene in the internal affairs of other countries, but would not permit other powers to do so, aroused great hopes among the oppressed peoples, and was the immediate cause of a revolution in Romagna and the Marches. In February 1831 these provinces rose, raised the red, white and green tricolor (which henceforth took the place of the Carbonarist colours as the Italian flag), and shook off the papal yoke with surprising ease.[1] At Parma too there was an outbreak and a demand for the constitution; Marie Louise could not grant it because of her engagements with Austria, and, therefore, abandoned her dominions. In Modena Duke Francis, ambitious of enlarging his territories, coquetted with the Carbonari of Paris, and opened indirect negotiations with Menotti, the revolutionary leader in his state, believing that he might assist him in his plans. Menotti, for his part, conceived the idea of a united Italian state under the duke. A rising was organized for February 1831; but Francis got wind of it, and, repenting of his dangerous dallying with revolution, arrested Menotti and fled to Austrian territory with his prisoner. In his absence the insurrection took place, and Biagio Nardi, having been elected dictator, proclaimed that "Italy is one; the Italian nation one sole nation." But the French king soon abandoned his principle of non-intervention on which the Italian revolutionists had built their hopes; the Austrians intervened unhindered; the old governments were re-established in Parma, Modena and Romagna; and Menotti and many other patriots were hanged. The Austrians evacuated Romagna in July, but another insurrection having broken out immediately afterwards which the papal troops were unable to quell, they returned. This second intervention gave umbrage to France, who by way of a counterpoise sent a force to occupy Ancona. These two foreign occupations, which were almost as displeasing to the pope as to the Liberals, lasted until 1838. The powers, immediately after the revolt, presented a memorandum to Gregory recommending certain moderate reforms, but no attention was paid to it. These various movements proved in the first place that the masses were by no means ripe for revolution, and that the idea of unity, although now advocated by a few revolutionary leaders, was far from being generally accepted even by the Liberals; and, secondly, that, in spite of the indifference of the masses, the despotic governments were unable to hold their own without the assistance of foreign bayonets.

Revolutions of 1830.

On the 27th of April 1831, Charles Albert succeeded Charles Felix on the throne of Piedmont. Shortly afterwards he received a letter from an unknown person, in which he was exhorted with fiery eloquence to place himself at the head of the movement for liberating and uniting Italy and expelling the foreigner, and told that he was free to choose whether he would be "the first of men or the last of Italian tyrants." The author was Giuseppe Mazzini, then a young man of twenty-six years, who, though in theory a republican, was ready to accept the leadership of a prince of the house of Savoy if he would guide the nation to freedom. The only result of his letter, however, was that he was forbidden to re-enter Sardinian territory. Mazzini, who had learned to distrust Carbonarism owing to its lack of a guiding principle and its absurd paraphernalia of ritual and mystery, had conceived the idea of a more serious political association for the emancipation of his country not only from foreign and domestic despotism but from national faults of character; and this idea he had materialized in the organization of a society called the *Giovane Italia* (Young Italy) among the Italian refugees at Marseilles. After the events of 1831 he declared that the liberation of Italy could only be achieved through unity, and his great merit lies in having inspired a large number of Italians with that idea at a time when provincial jealousies and the difficulty of communications maintained separatist feelings. Young Italy spread to all centres of Italian exiles, and by means of literature carried on an active propaganda in Italy itself, where the party came to be called "Ghibellini," as though reviving the traditions of medieval anti-Papalism. Though eventually this activity of the Giovane Italia supplanted that of the older societies, in practice it met with no better success; the two attempts to invade Savoy in the hope of seducing the army from its allegiance failed miserably, and only resulted in a series of barbarous sentences of death and imprisonment which made most Liberals despair of Charles Albert, while they called down much criticism on Mazzini as the organizer of raids in which he himself took no part. He was now forced to leave France, but continued his work of agitation from London. The disorders in Naples and Sicily in 1837 had no connexion with Mazzini, but the forlorn hope of the brothers Bandiera, who in 1844 landed on the Calabrian coast, was the work of the Giovane Italia. The rebels were captured and shot, but the significance of the attempt lies in the fact that it was the first occasion on which north Italians (the Bandieras were Venetians and officers in the Austrian navy) had tried to raise the standard of revolt in the south.

Mazzini and "Young Italy."

Romagna had continued a prey to anarchy ever since 1831; the government organized armed bands called the Centurioni (descended from the earlier Sanfedisti), to terrorize the Liberals, while the secret societies continued their "propaganda by deeds." It is noteworthy that Romagna was the only part of Italy where the revolutionary movement was accompanied by murder. In 1845 several outbreaks occurred, and a band led by Pietro Renzi captured Rimini, whence a proclamation drawn up by L. C. Farini was issued demanding the reforms advocated by the powers' memorandum of 1831. But the movement collapsed without result, and the leaders fled to Tuscany.

Side by side with the Mazzinian propaganda in favour of a united Italian republic, which manifested itself in secret societies, plots and insurrections, there was another Liberal movement based on the education of opinion and on economic development. In Piedmont, in spite of the government's reactionary methods, a large part of the population were genuinely attached to the Savoy dynasty, and the idea of a regeneration of Italy under its auspices began to gain ground. Some writers proclaimed the necessity of building railways, developing agriculture and encouraging industries, before resorting to revolution; while others, like the Tuscan Gino Capponi, inspired by the example of England and France, wished to make the people fit for freedom by means of improved schools, books and periodicals. Vincenzo Gioberti (*q.v.*) published in 1843 his famous treatise *Del primato morale e civile degli Italiani*, a work, which, in striking contrast to the prevailing pessimism of the day, extolled the past greatness and achievements of the Italian people and their present virtues. His political ideal was a federation of all the Italian states under the presidency of the pope, on a basis of Catholicism, but without a constitution. In spite of all its inaccuracies and exaggerations the book served a useful purpose in reviving the self-respect of a despondent people. Another work of a similar kind was *Le Speranze d'Italia* (1844) by the Piedmontese Count Cesare Balbo (*q.v.*). Like Gioberti he advocated a federation of Italian states, but he declared that before this could be achieved Austria must be expelled from Italy and compensation found for her in the Near East by making her a Danubian power—a curious forecast that Italy's liberation would begin with an eastern war. He extolled Charles Albert and appealed to his patriotism; he believed that the church was necessary and the secret societies harmful; representative government was undesirable, but he advocated a consultative assembly. Above all Italian character must be reformed and the nation educated. A third important publication was Massimo d'Azeglio's *Degli ultimi casi di Romagna*, in which the author, another Piedmontese nobleman, exposed papal misgovernment while condemning the secret societies and advocating open resistance and protest. He upheld the papacy in principle, regarded Austria as the great enemy of Italian regeneration, and believed that the means of expelling her were only to be found in Piedmont.

Liberalism and economic development.

Besides the revolutionists and republicans who promoted conspiracy and insurrection whenever possible, and the moderates or "Neo-Guelphs," as Gioberti's followers were called, we must mention the Italian exiles who were learning the art of war in foreign countries—in Spain, in Greece, in Poland, in South America—and those other exiles who, in Paris or London, eked out a bare subsistence by teaching Italian or

The Italian exiles.

[1] Among the insurgents of Romagna was Louis Napoleon, afterwards emperor of the French.

by their pen, and laid the foundations of that love of Italy which, especially in England, eventually brought the weight of diplomacy into the scales for Italian freedom. All these forces were equally necessary—the revolutionists to keep up agitation and make government by bayonets impossible; the moderates to curb the impetuosity of the revolutionists and to present a scheme of society that was neither reactionary nor anarchical; the volunteers abroad to gain military experience; and the more peaceful exiles to spread the name of Italy among foreign peoples. All the while a vast amount of revolutionary literature was being printed in Switzerland, France and England, and smuggled into Italy; the poet Giusti satirized the Italian princes, the dramatist G. B. Niccolini blasted tyranny in his tragedies, the novelist Guerrazzi re-evoked the memories of the last struggle for Florentine freedom in *L'Assedio di Firenze*, and Verdi's operas bristled with political *double entendres* which escaped the censor but were understood and applauded by the audience.

On the death of Pope Gregory XVI. in 1846 Austria hoped to secure the election of another zealot; but the Italian cardinals, who did not want an Austrophil, finished the conclave before the arrival of Cardinal Gaysrück, Austria's mouthpiece, and in June elected Giovanni Maria Mastai Ferretti as Pius IX. The new pope, who while bishop of Imole had evinced a certain interest in Liberalism, was a kindly man, of inferior intelligence, who thought that all difficulties could be settled with a little good-will, some reforms and a political amnesty. The amnesty which he granted was the beginning of the immense if short-lived popularity which he was to enjoy. But he did not move so fast in the path of reform as was expected, and agitation continued throughout the papal states.[1] In 1847 some administrative reforms were enacted, the laity were admitted to certain offices, railways were talked about, and political newspapers permitted. In April Pius created a *Consulta*, or consultative assembly, and soon afterwards a council of ministers and a municipality for Rome. Here he would willingly have stopped, but he soon realized that he had hardly begun. Every fresh reform edict was greeted with demonstrations of enthusiasm, but the ominous cry "Viva Pio Nono solo!" signified dissatisfaction with the whole system of government. A lay ministry was now demanded, a constitution, and an Italian federation for war against Austria. Rumours of a reactionary plot by Austria and the Jesuits against Pius, induced him to create a national guard and to appoint Cardinal Ferretti as secretary of state.

Election of Pius IX.

Events in Rome produced widespread excitement throughout Europe. Metternich had declared that the one thing which had not entered into his calculations was a Liberal pope, only that was an impossibility; still he was much disturbed by Pius's attitude, and tried to stem the revolutionary tide by frightening the princes. Seizing the agitation in Romagna as a pretext, he had the town of Ferrara occupied by Austrian troops, which provoked the indignation not only of the Liberals but also of the pope, for according to the treaties Austria had the right of occupying the citadel alone. There was great resentment throughout Italy, and in answer to the pope's request Charles Albert declared that he was with him in everything, while from South America Giuseppe Garibaldi wrote to offer his services to His Holiness. Charles Albert, although maintaining his reactionary policy, had introduced administrative reforms, built railways, reorganized the army and developed the resources of the country. He had little sympathy with Liberalism and abhorred revolution, but his hatred of Austria and his resentment at the galling tutelage to which she subjected him had gained strength year by year. Religion was still his dominant passion, and when a pope in Liberal guise appeared on the scene and was bullied by Austria, his two strongest feelings—piety and hatred of Austria—ceased to be incompatible. In 1847 Lord Minto visited the Italian courts to try to induce the recalcitrant despots to mend their ways, so as to avoid revolution and war, the latter being England's especial anxiety; this mission, although not destined to produce much effect, aroused extravagant hopes among the Liberals. Charles Louis, the operabouffe duke of Lucca, who had coquetted with Liberalism in the past, now refused to make any concessions to his subjects, and in 1847 sold his duchy to Leopold II. of Tuscany (the successor of Ferdinand III. since 1824) to whom it would have reverted in any case at the death of the duchess of Parma. At the same time Leopold ceded Lunigiana to Parma and Modena in equal parts, an arrangement which provoked the indignation of the inhabitants of the district (especially of those destined to be ruled by Francis V. of Modena, who had succeeded to Francis IV. in 1846), and led to disturbances at Fivizzano. In September 1847, Leopold gave way to the popular agitation for a national guard, in spite of Metternich's threats, and allowed greater freedom of the press; every concession made by the pope was followed by demands for a similar measure in Tuscany.

Revolutionary agitation, 1847.

Ferdinand I. of the Two Sicilies had died in 1825, and was succeeded by Francis I. At the latter's death in 1830 Ferdinand II. succeeded, and although at first he gave promise of proving a wiser ruler, he soon reverted to the traditional Bourbon methods. An ignorant bigot, he concentrated the whole of the executive into his own hands, was surrounded by priests and monks, and served by an army of spies. In 1847 there were unimportant disturbances in various parts of the kingdom, but there was no anti-dynastic outbreak, the jealousy between Naples and Sicily largely contributing to the weakness of the movement. On the 12th of January, however, a revolution, the first of the many throughout Europe that was to make the year 1848 memorable, broke out at Palermo under the leadership of Ruggiero Settimo. The Neapolitan army sent to crush the rising was at first unsuccessful, and the insurgents demanded the constitution of 1812 or complete independence. Disturbances occurred at Naples also, and the king, who could not obtain Austrian help, as the pope refused to allow Austrian troops to pass through his dominions, on the advice of his prime minister, the duke of Serracapriola, granted a constitution, freedom of the press, the national guard, &c. (January 28).

The news from Naples strengthened the demand for a constitution in Piedmont. Count Camillo Cavour, then editor of a new and influential paper called *Il Risorgimento*, had advocated it strongly, and monster demonstrations were held every day. The king disliked the idea, but great pressure was brought to bear on him, and finally, on the 4th of March 1848, he granted the charter which was destined to be the constitution of the future Italian kingdom. It provided for a nominated senate and an elective chamber of deputies, the king retaining the right of veto; the press censorship was abolished, and freedom of meeting, of the press and of speech were guaranteed. Balbo was called upon to form the first constitutional ministry. Three days later the grand-duke of Tuscany promised similar liberties, and a charter, prepared by a commission which included Gino Capponi and Bettino Ricasoli, was promulgated on the 17th.

Revolutions of 1848.

In the Austrian provinces the situation seemed calmer, and the government rejected the moderate proposals of Daniele Manin and N. Tommaseo. A demonstration in favour of Pius IX. on the 3rd of January at Milan was dispersed with unnecessary severity, and martial law was proclaimed the following month. The revolution which broke out on the 8th of March in Vienna itself and the subsequent flight of Metternich (see AUSTRIA-HUNGARY: *History*), led to the granting of feeble concessions to Lombardy and Venetia, which were announced in Milan on the 18th. But it was too late; and in spite of the exhortations of the mayor, Gabrio Casati, and of the republican C. Cattaneo, who believed that a rising against 15,000 Austrian soldiers under Field-Marshal Radetzky was madness, the famous Five Days' revolution began. It was a popular outburst of pent-up hate, unprepared by leaders, although leaders such as Luciano Manara soon arose. Radetzky occupied the citadel and other points of vantage; but in the night barricades sprang up by the hundred and were manned by citizens of all classes, armed with every kind of weapon. The desperate struggle lasted until the 22nd, when the Austrians, having lost 5000 killed and wounded, were forced to evacuate the city. The rest of Lombardy and Venetia

[1] In Rome itself a certain Angelo Brunetti, known as Ciceruacchio, a forage merchant of lowly birth and a Carbonaro, exercised great influence over the masses and kept the peace where the authorities would have failed.

now flew to arms, and the Austrian garrisons, except in the Quadrilateral (Verona, Peschiera, Mantua and Legnano) were expelled. In Venice the people, under the leadership of Manin, rose in arms and forced the military and civil governors (Counts Zichy and Palffy) to sign a capitulation on the 22nd of March, after which the republic was proclaimed. At Milan, where there was a division of opinion between the monarchists under Casati and the republicans under Cattaneo, a provisional administration was formed and the question of the form of government postponed for the moment. The duke of Modena and Charles Louis of Parma (Marie Louise was now dead) abandoned their capitals; in both cities provisional governments were set up which subsequently proclaimed annexation to Piedmont. In Rome the pope gave way to popular clamour, granting one concession after another, and on the 8th of February he publicly called down God's blessing on Italy—that Italy hated by the Austrians, whose name it had hitherto been a crime to mention. On the 10th of March he appointed a new ministry, under Cardinal Antonelli, which included several Liberal laymen, such as Marco Minghetti, G. Pasolini, L. C. Farini and Count G. Recchi. On the 11th a constitution drawn up by a commission of cardinals, without the knowledge of the ministry, was promulgated, a constitution which attempted the impossible task of reconciling the pope's temporal power with free institutions. In the meanwhile preparations for war against Austria were being carried on with Pius's sanction.

There were now three main political tendencies, viz. the union of north Italy under Charles Albert and an alliance with the pope and Naples, a federation of the different states under their present rulers, and a united republic of all Italy. All parties, however, were agreed in favour of war against Austria, for which the peoples forced their unwilling rulers to prepare. But the only state capable of taking the initiative was Piedmont, and the king still hesitated. Then came the news of the Five Days of Milan, which produced the wildest excitement in Turin; unless the army were sent to assist the struggling Lombards at once the dynasty was in jeopardy. Cavour's stirring articles in the *Risorgimento* hastened the king's decision, and on the 23rd of March he declared war (see for the military events ITALIAN WARS, 1848–70). But much precious time had been lost, and even then the army was not ready. Charles Albert could dispose of 90,000 men, including some 30,000 from central Italy, but he took the field with only half his force. He might yet have cut off Radetzky on his retreat, or captured Mantua, which was only held by 300 men. But his delays lost him both chances and enabled Radetzky to receive reinforcements from Austria. The pope, unable to resist the popular demand for war, allowed his army to depart (March 23) under the command of General Durando, with instructions to act in concert with Charles Albert, and he corresponded with the grand-duke of Tuscany and the king of Naples with a view to a military alliance. But at the same time, fearing a schism in the church should he attack Catholic Austria, he forbade his troops to do more than defend the frontier, and in his Encyclical of the 29th of April stated that, as head of the church, he could not declare war, but that he was unable to prevent his subjects from following the example of other Italians. He then requested Charles Albert to take the papal troops under his command, and also wrote to the emperor of Austria asking him voluntarily to relinquish Lombardy and Venetia. Tuscany and Naples had both joined the Italian league; a Tuscan army started for Lombardy on the 30th of April, and 17,000 Neapolitans commanded by Pepe (who had returned after 28 years of exile) went to assist Durando in intercepting the Austrian reinforcements under Nugent. The Piedmontese defeated the enemy at Pastrengo (April 30), but did not profit by the victory. The Neapolitans reached Bologna on the 17th of May, but in the meantime a dispute had broken out at Naples between the king and parliament as to the nature of the royal oath; a cry of treason was raised by a group of factious youngsters, barricades were erected and street fighting ensued (May 15). On the 17th Ferdinand dissolved parliament and recalled the army.

First war of Italy against Austria.

On receiving the order to return, Pepe, after hesitating for some time between his oath to the king and his desire to fight for Italy, finally resigned his commission and crossed the Po with a few thousand men, the rest of his force returning south. The effects of this were soon felt. A force of Tuscan volunteers was attacked by a superior body of Austrians at Curtatone and Montanaro and defeated after a gallant resistance on the 27th of May; Charles Albert, after wasting precious time round Peschiera, which capitulated on the 30th of May, defeated Radetzky at Goito. But the withdrawal of the Neapolitans left Durando too weak to intercept Nugent and his 30,000 men; and the latter, although harassed by the inhabitants of Venetia and repulsed at Vicenza, succeeded in joining Radetzky, who was soon further reinforced from Tirol. The whole Austrian army now turned on Vicenza, which after a brave resistance surrendered on the 10th of June. All Venetia except the capital was thus once more occupied by the Austrians. On the 23rd, 24th and 25th of July (first battle of Custozza) the Piedmontese were defeated and forced to retire on Milan with Radetzky's superior force in pursuit. The king was the object of a hostile demonstration in Milan, and although he was ready to defend the city to the last, the town council negotiated a capitulation with Radetzky. The mob, egged on by the republicans, attacked the palace where the king was lodged, and he escaped with difficulty, returning to Piedmont with the remnants of his army. On the 6th of August Radetzky re-entered Milan, and three days later an armistice was concluded between Austria and Piedmont, the latter agreeing to evacuate Lombardy and Venetia. The offer of French assistance, made after the proclamation of the republic in the spring of 1848, had been rejected mainly because France, fearing that the creation of a strong Italian state would be a danger to her, would have demanded the cession of Nice and Savoy, which the king refused to consider.

Meanwhile, the republic had been proclaimed in Venice; but on the 7th of July the assembly declared in favour of fusion with Piedmont, and Manin, who had been elected president, resigned his powers to the royal commissioners. Soon after Custozza, however, the Austrians blockaded the city on the land side. In Rome the pope's authority weakened day by day, and disorder increased. The Austrian attempt to occupy Bologna was repulsed by the citizens, but unfortunately this success was followed by anarchy and murder, and Farini only with difficulty restored a semblance of order. The Mamiani ministry having failed to achieve anything, Pius summoned Pellegrino Rossi, a learned lawyer who had long been exiled in France, to form a cabinet. On the 15th of November he was assassinated, and as no one was punished for this crime the insolence of the disorderly elements increased, and shots were exchanged with the Swiss Guard. The terrified pope fled in disguise to Gaeta (November 25), and when parliament requested him to return he refused even to receive the deputation. This meant a complete rupture; on the 5th of February 1849 a constituent assembly was summoned, and on the 9th it voted the downfall of the temporal power and proclaimed the republic. Mazzini hurried to Rome to see his dream realized, and was chosen head of the Triumvirate. On the 18th Pius invited the armed intervention of France, Austria, Naples and Spain to restore his authority. In Tuscany the government drifted from the moderates to the extreme democrats; the Ridolfi ministry was succeeded after Custozza by that of Ricasoli, and the latter by that of Capponi. The lower classes provoked disorders, which were very serious at Leghorn, and were only quelled by Guerrazzi's energy. Capponi resigned in October 1848, and Leopold reluctantly consented to a democratic ministry led by Guerrazzi and Montanelli, the former a very ambitious and unscrupulous man, the latter honest but fantastic. Following the Roman example, a constituent assembly was demanded to vote on union with Rome and eventually with the rest of Italy. The grand-duke, fearing an excommunication from the pope, refused the request, and left Florence for Siena and

Daniele Manin and Venice.

Proclamation of the Roman Republic.

S. Stefano; on the 8th of February 1849 the republic was proclaimed, and on the 21st, at the pressing request of the pope and the king of Naples, Leopold went to Gaeta.

Ferdinand did not openly break his constitutional promises until Sicily was reconquered. His troops had captured Messina after a bombardment which earned him the sobriquet of "King Bomba"; Catania and Syracuse fell soon after, hideous atrocities being everywhere committed with his sanction. He now prorogued parliament, adopted stringent measures against the Liberals, and retired to Gaeta, the haven of refuge for deposed despots.

But so long as Piedmont was not completely crushed none of the princes dared to take decisive measures against their subjects; in spite of Custozza, Charles Albert still had an army, and Austria, with revolutions in Vienna, Hungary and Bohemia on her hands, could not intervene. In Piedmont the Pinelli-Revel ministry, which had continued the negotiations for an alliance with Leopold and the pope, resigned as it could not count on a parliamentary majority, and in December the returned exile Gioberti formed a new ministry. His proposal to reinstate Leopold and the pope with Piedmontese arms, so as to avoid Austrian intervention, was rejected by both potentates, and met with opposition even in Piedmont, which would thereby have forfeited its prestige throughout Italy. Austrian mediation was now imminent, as the Vienna revolution had been crushed, and the new emperor, Francis Joseph, refused to consider any settlement other than on the basis of the treaties of 1815. But Charles Albert, who, whatever his faults, had a generous nature, was determined that so long as he had an army in being he could not abandon the Lombards and the Venetians, whom he had encouraged in their resistance, without one more effort, though he knew full well that he was staking all on a desperate chance. On the 12th of March 1849, he denounced the armistice, and, owing to the want of confidence in Piedmontese strategy after 1848, gave the chief command to the Polish General Chrzanowski. His forces amounted to 80,000 men, including a Lombard corps and some Roman, Tuscan and other volunteers. But the discipline and moral of the army were shaken and its organization faulty. General Ramorino, disobeying his instructions, failed to prevent a corps of Austrians under Lieut. Field-Marshal d'Aspre from seizing Mortara, a fault for which he was afterwards court-martialled and shot, and after some preliminary fighting Radetzky won the decisive battle of Novara (March 23) which broke up the Piedmontese army. The king, who had sought death in vain all day, had to ask terms of Radetzky; the latter demanded a slice of Piedmont and the heir to the throne (Victor Emmanuel) as a hostage, without a reservation for the consent of parliament. Charles Albert, realizing his own failure and thinking that his son might obtain better terms, abdicated and departed at once for Portugal, where he died in a monastery a few months later. Victor Emmanuel went in person to treat with Radetzky on the 24th of March. The Field-Marshal received him most courteously and offered not only to waive the demand for a part of Piedmontese territory, but to enlarge the kingdom, on condition that the constitution should be abolished and the blue Piedmontese flag substituted for the tricolor. But the young king was determined to abide by his father's oath, and had therefore to agree to an Austrian occupation of the territory between the Po, the Ticino and the Sesia, and of half the citadel of Alessandria, until peace should be concluded, the evacuation of all districts occupied by his troops outside Piedmont, the dissolution of his corps of Lombard, Polish and Hungarian volunteers and the withdrawal of his fleet from the Adriatic.

Charles Albert renews the war.

Accession of Victor Emmanuel II.

Novara set Austria free to reinstate the Italian despots. Ferdinand at once re-established autocracy in Naples; though the struggle in Sicily did not end until May, when Palermo, after a splendid resistance, capitulated. In Tuscany disorder continued, and although Guerrazzi, who had been appointed dictator, saved the country from complete anarchy, a large part of the population, especially among the peasantry, was still loyal to the grand-duke. After Novara the chief question was how to avoid an Austrian occupation, and owing to the prevailing confusion the town council of Florence took matters into its own hands and declared the grand-duke reinstated, but on a constitutional basis and without foreign help (April 12). Leopold accepted as regards the constitution, but said nothing about foreign intervention. Count Serristori, the grand-ducal commissioner, arrived in Florence on the 4th of May 1849; the national guard was disbanded; and on the 25th, the Austrians under d'Aspre entered Florence.

On the 28th of July Leopold returned to his capital, and while that event was welcomed by a part of the people, the fact that he had come under Austrian protection ended by destroying all loyalty to the dynasty, and consequently contributed not a little to Italian unity.

In Rome the triumvirate decided to defend the republic to the last. The city was quieter and more orderly than it had ever been before, for Mazzini and Ciceruacchio successfully opposed all class warfare; and in April the defenders received a priceless addition to their strength in the person of Garibaldi, who, on the outbreak of the revolution in 1848, had returned with a few of his followers from his exile in South America, and in April 1849 entered Rome with some 500 men to fight for the republic. At this time France, as a counterpoise to Austrian intervention in other parts of Italy, decided to restore the pope, regardless of the fact that this action would necessitate the crushing of a sister republic. As yet, however, no such intention was publicly avowed. On the 25th of April General Oudinot landed with 8000 men at Civitavecchia, and on the 30th attempted to capture Rome by suprise, but was completely defeated by Garibaldi, who might have driven the French into the sea, had Mazzini allowed him to leave the city. The French republican government, in order to gain time for reinforcements to arrive, sent Ferdinand de Lesseps to pretend to treat with Mazzini, the envoy himself not being a party to this deception. Mazzini refused to allow the French into the city, but while the negotiations were being dragged on Oudinot's force was increased to 35,000 men. At the same time an Austrian army was marching through the Legations, and Neapolitan and Spanish troops were advancing from the south. The Roman army (20,000 men) was commanded by General Rosselli, and included, besides Garibaldi's red-shirted legionaries, volunteers from all parts of Italy, mostly very young men, many of them wealthy and of noble family. The Neapolitans were ignominiously beaten in May and retired to the frontier; on the 1st of June Oudinot declared that he would attack Rome on the 4th, but by beginning operations on the 3rd, when no attack was expected, he captured an important position in the Pamphili gardens.

Garibaldi.

France and the Roman Republic.

In spite of this success, however, it was not until the end of the month, and after desperate fighting, that the French penetrated within the walls and the defence ceased (June 29). The Assembly, which had continued in session, was dispersed by the French troops on the 2nd of July, but Mazzini escaped a week later. Garibaldi quitted the city, followed by 4000 of his men, and attempted to join the defenders of Venice. In spite of the fact that he was pursued by the armies of four Powers, he succeeded in reaching San Marino; but his force melted away and, after hiding in the marshes of Ravenna, he fled across the peninsula, assisted by nobles, peasants and priests, to the Tuscan coast, whence he reached Piedmont and eventually America, to await a new call to fight for Italy (see GARIBALDI).

After a heroic defence, conducted by Giuseppe Martinengo, Brescia was recaptured in April by the Austrians under Lieut. Field-Marshal von Haynau, the atrocities which followed earning for Haynau the name of "The Hyena of Brescia." In May they seized Bologna, and Ancona in June, restoring order in those towns by the same methods as at Brescia. Venice alone still held out; after Novara the Piedmontese commissioners withdrew and Manin again took charge of the government. The assembly

Reduction of Venice by Austria.

voted: "Venice resists the Austrians at all costs," and the citizens and soldiers, strengthened by the arrival of volunteers from all parts of Italy, including Pepe, who was given the chief command of the defenders, showed the most splendid devotion in their hopeless task. By the end of May the city was blockaded by land and sea, and in July the bombardment began. On the 24th the city, reduced by famine, capitulated on favourable terms. Manin, Pepe and a few others were excluded from the amnesty and went into exile.

Thus were despotism and foreign predominance re-established throughout Italy save in Piedmont. Yet the "terrible year" was by no means all loss. The Italian cause had been crushed, but revolution and war had strengthened the feeling of unity, for Neapolitans had fought for Venice, Lombards for Rome, Piedmontese for all Italy. Piedmont was shown to possess the qualities necessary to constitute the nucleus of a great nation. It was now evident that the federal idea was impossible, for none of the princes except Victor Emmanuel could be trusted, and that unity and freedom could not be achieved under a republic, for nothing could be done without the Piedmontese army, which was royalist to the core. All reasonable men were now convinced that the question of the ultimate form of the Italian government was secondary, and that the national efforts should be concentrated on the task of expelling the Austrians; the form of government could be decided afterwards. Liberals were by no means inclined to despair of accomplishing this task; for hatred of the foreigners, and of the despots restored by their bayonets, had been deepened by the humiliations and cruelties suffered during the war into a passion common to all Italy.

When the terms of the Austro-Piedmontese armistice were announced in the Chamber at Turin they aroused great indignation, but the king succeeded in convincing the deputies that they were inevitable. The peace negotiations dragged on for several months, involving two changes of ministry, and D'Azeglio became premier. Through Anglo-French mediation Piedmont's war indemnity was reduced from 230,000,000 to 75,000,000 lire, but the question of the amnesty remained. The king declared himself ready to go to war again if those compromised in the Lombard revolution were not freely pardoned, and at last Austria agreed to amnesty all save a very few, and in August the peace terms were agreed upon. The Chamber, however, refused to ratify them, and it was not until the king's eloquent appeal from Moncalieri to his people's loyalty, and after a dissolution and the election of a new parliament, that the treaty was ratified (January 9, 1850). The situation in Piedmont was far from promising, the exchequer was empty, the army disorganized, the country despondent and suspicious of the king. If Piedmont was to be fitted for the part which optimists expected it to play, everything must be built up anew. Legislation had to be entirely reformed, and the bill for abolishing the special jurisdiction for the clergy (*foro ecclesiastico*) and other mediæval privileges aroused the bitter opposition of the Vatican as well as of the Piedmontese clericals. This same year (1850) Cavour, who had been in parliament for some time and had in his speech of the 7th of March struck the first note of encouragement after the gloom of Novara, became minister of agriculture, and in 1851 also assumed the portfolio of finance. He ended by dominating the cabinet, but owing to his having negotiated a union of the Right Centre and the Left Centre (the *Connubio*) in the conviction that the country needed the moderate elements of both parties, he quarrelled with D'Azeglio (who, as an uncompromising conservative, failed to see the value of such a move) and resigned. But D'Azeglio was not equal to the situation, and he, too, resigned in November 1852; whereupon the king appointed Cavour prime minister, a position which with short intervals he held until his death.

Piedmont after the war.

Cavour.

The Austrians in the period from 1849 to 1859, known as the *decennio della resistenza* (decade of resistance), were made to feel that they were in a conquered country where they could have no social intercourse with the people; for no self-respecting Lombard or Venetian would even speak to an Austrian. Austria, on the other hand, treated her Italian subjects with great severity. The Italian provinces were the most heavily taxed in the whole empire, and much of the money thus levied was spent either for the benefit of other provinces or to pay for the huge army of occupation and the fortresses in Italy. The promise of a constitution for the empire, made in 1849, was never carried out; the government of Lombardo-Venetia was vested in Field-Marshal Radetzky; and although only very few of the revolutionists were excluded from the amnesty, the carrying of arms or the distribution or possession of revolutionary literature was punished with death. Long terms of imprisonment and the bastinado, the latter even inflicted on women, were the penalties for the least expression of anti-Austrian opinion.

Austrian rule after 1849.

The Lombard republicans had been greatly weakened by the events of 1848, but Mazzini still believed that a bold act by a few revolutionists would make the people rise *en masse* and expel the Austrians. A conspiracy, planned with the object, among others, of kidnapping the emperor while on a visit to Venice and forcing him to make concessions, was postponed in consequence of the *coup d'état* by which Louis Napoleon became emperor of the French (1852); but a chance discovery led to a large number of arrests, and the state trials at Mantua, conducted in the most shamelessly inquisitorial manner, resulted in five death sentences, including that of the priest Tazzoli, and many of imprisonment for long terms. Even this did not convince Mazzini of the hopelessness of such attempts, for he was out of touch with Italian public opinion, and he greatly weakened his influence by favouring a crack-brained outbreak at Milan on the 6th of February 1853, which was easily quelled, numbers of the insurgents being executed or imprisoned. Radetzky, not satisfied with this, laid an embargo on the property of many Lombard emigrants who had settled in Piedmont and become naturalized, accusing them of complicity. The Piedmontese government rightly regarded this measure as a violation of the peace treaty of 1850, and Cavour recalled the Piedmontese minister from Vienna, an action which was endorsed by Italian public opinion generally, and won the approval of France and England.

Cavour's ideal for the present was the expulsion of Austria from Italy and the expansion of Piedmont into a north Italian kingdom; and, although he did not yet think of Italian unity as a question of practical policy, he began to foresee it as a future possibility. But in reorganizing the shattered finances of the state and preparing it for its greater destinies, he had to impose heavy taxes, which led to rioting and involved the minister himself in considerable though temporary unpopularity. His ecclesiastical legislation, too, met with bitter opposition from the Church.

But the question was soon forgotten in the turmoil caused by the Crimean War. Cavour believed that by taking part in the war his country would gain for itself a military status and a place in the councils of the great Powers, and establish claims on Great Britain and France for the realization of its Italian ambitions. One section of public opinion desired to make Piedmont's co-operation subject to definite promises by the Powers; but the latter refused to bind themselves, and both Victor Emmanuel and Cavour realized that, even without such promises, participation would give Piedmont a claim. There was also the danger that Austria might join the allies first and Piedmont be left isolated; but there were also strong arguments on the other side, for while the Radical party saw no obvious reason why Piedmont should fight other people's battles, and therefore opposed the alliance, there was the risk that Austria might join the alliance together with Piedmont, which would have constituted a disastrous situation. Da Bormida, the minister for foreign affairs, resigned rather than agree to the proposal, and other statesmen were equally opposed to it. But after long negotiations the treaty of alliance was signed in January 1855, and while Austria remained neutral, a well-equipped Piedmontese force of 15,000 men, under General La Marmora, sailed for the Crimea. Everything turned out as Cavour had hoped.

Crimean War.

Italy and the Congress of Paris, 1856.

The Piedmontese troops distinguished themselves in the field, gaining the sympathies of the French and English; and at the subsequent congress of Paris (1856), where Cavour himself was Sardinian representative, the Italian question was discussed, and the intolerable oppression of the Italian peoples by Austria and the despots ventilated.

Austria at last began to see that a policy of coercion was useless and dangerous, and made tentative efforts at conciliation. Taxation was somewhat reduced, the censorship was made less severe, political amnesties were granted, humaner officials were appointed and the Congregations (a sort of shadowy consultative assembly) were revived. In 1856 the emperor and empress visited their Italian dominions, but were received with icy coldness; the following year, on the retirement of Radetzky at the age of ninety-three, the archduke Maximilian, an able, cultivated and kind-hearted man, was appointed viceroy. He made desperate efforts to conciliate the population, and succeeded with a few of the nobles, who were led to believe in the possibility of an Italian confederation, including Lombardy and Venetia which would be united to Austria by a personal union alone; but the immense majority of all classes rejected these advances, and came to regard union with Piedmont with increasing favour.[1]

Meanwhile Francis V. of Modena, restored to his duchy by Austrian bayonets, continued to govern according to the traditions of his house. Charles II. of Parma, after having been reinstated by the Austrians, abdicated in favour of his son Charles III. a drunken libertine and a cruel tyrant (May 1849); the latter was assassinated in 1854, and a regency under his widow, Marie Louise, was instituted during which the government became somewhat more tolerable, although by no means free from political persecution; in 1857 the Austrian troops evacuated the duchy. Leopold of Tuscany suspended the constitution, and in 1852 formally abolished it by order from Vienna; he also concluded a treaty of semi-subjection with Austria and a Concordat with the pope for granting fresh privileges to the Church. His government, however, was not characterized by cruelty like those of his brother despots, and Guerrazzi and the other Liberals of 1849, although tried and sentenced to long terms of imprisonment, were merely exiled. Yet the opposition gained recruits among all the ablest and most respectable Tuscans. In Rome, after the restoration of the temporal power by the French troops, the pope paid no attention to Louis Napoleon's advice to maintain some form of constitution, to grant a general amnesty, and to secularize the administration. He promised, indeed, a consultative council of state, and granted an amnesty from which no less than 25,000 persons were excluded; but on his return to Rome (12th April 1850), after he was quite certain that France had given up all idea of imposing constitutional limitations on him, he re-established his government on the old lines of priestly absolutism, and, devoting himself to religious practices, left political affairs mostly to the astute cardinal Antonelli, who repressed with great severity the political agitation which still continued. At Naples a trifling disturbance in September 1849, led to the arrest of a large number of persons connected with the *Unità Italiana*, a society somewhat similar to the Carbonari. The prisoners included Silvio Spaventa, Luigi Settembrini, Carlo Poerio and many other cultured and worthy citizens. Many condemnations followed, and hundreds of "politicals" were immured in hideous dungeons, a state of things which provoked Gladstone's famous letters to Lord Aberdeen, in which Bourbon rule was branded for all time as "the negation of God erected into a system of government." But oppressive, corrupt and inefficient as it was, the government was not confronted by the uncompromising hostility of the whole people; the ignorant priest-ridden masses were either indifferent or of mildly Bourbon sympathies; the opposition was constituted by the educated middle classes and a part of the nobility. The revolutionary attempts of Bentivegna in Sicily (1856) and of the Mazzinian Carlo Pisacane, who landed at Sapri in Calabria with a few followers in 1857, failed from lack of popular support, and the leaders were killed.

Restored governments after 1849.

Persecution of Liberals in Naples.

The decline of Mazzini's influence was accompanied by the rise of a new movement in favour of Italian unity under Victor Emmanuel, inspired by the Milanese marquis Giorgio Pallavicini, who had spent 14 years in the Spielberg, and by Manin, living in exile in Paris, both of them ex-republicans who had become monarchists. The propaganda was organized by the Sicilian La Farina by means of the *Società Nazionale*. All who accepted the motto "Unity, Independence and Victor Emmanuel" were admitted into the society. Many of the republicans and Mazzinians joined it, but Mazzini himself regarded it with no sympathy. In the Austrian provinces and in the duchies it carried all before it, and gained many adherents in the Legations, Rome and Naples, although in the latter regions the autonomist feeling was still strong even among the Liberals. In Piedmont itself it was at first less successful; and Cavour, although he aspired ultimately to a united Italy with Rome as the capital,[2] openly professed no ambition beyond the expulsion of Austria and the formation of a North Italian kingdom. But he gave secret encouragement to the movement, and ended by practically directing its activity through La Farina. The king, too, was in close sympathy with the society's aims, but for the present it was necessary to hide this attitude from the eyes of the Powers, whose sympathy Cavour could only hope to gain by professing hostility to everything that savoured of revolution. Both the king and his minister realized that Piedmont alone, even with the help of the National Society, could not expel Austria from Italy without foreign assistance. Piedmontese finances had been strained to breaking-point to organize an army obviously intended for other than merely defensive purposes. Cavour now set himself to the task of isolating Austria and securing an alliance for her expulsion. A British alliance would have been preferable, but the British government was too much concerned with the preservation of European peace. The emperor Napoleon, almost alone among Frenchmen, had genuine Italian sympathies. But were he to intervene in Italy, the intervention would not only have to be successful; it would have to bring tangible advantages to France. Hence his hesitations and vacillations, which Cavour steadily worked to overcome. Suddenly on the 14th of January 1858 Napoleon's life was attempted by Felice Orsini (*q.v.*) a Mazzinian Romagnol, who believed that Napoleon was the chief obstacle to the success of the revolution in Italy. The attempt failed and its author was caught and executed, but while it appeared at first to destroy Napoleon's Italian sympathies and led to a sharp interchange of notes between Paris and Turin, the emperor was really impressed by the attempt and by Orsini's letter from prison exhorting him to intervene in Italy. He realized how deep the Italian feeling for independence must be, and that a refusal to act now might result in further attempts on his life, as indeed Orsini's letter stated. Consequently negotiations with Cavour were resumed, and a meeting with him was arranged to take place at Plombières (20th and 21st of July 1858). There it was agreed that France should supply 200,000 men and Piedmont 100,000 for the expulsion of the Austrians from Italy, that Piedmont should be expanded into a kingdom of North Italy, that central Italy should form a separate kingdom, on the throne of which the emperor contemplated placing one of his own relatives, and Naples another, possibly under Lucien Murat; the pope, while retaining only the "Patrimony of St Peter" (the Roman province), would be president of the Italian confederation. In exchange for French assistance Piedmont would cede Savoy and perhaps Nice to France; and a marriage between Victor Emmanuel's daughter Clothilde and Jerome Bonaparte, to which Napoleon attached great importance, although not made a definite condition, was also discussed. No written agreement, however, was signed.

New Unionist movement.

Napoleon III. and Italy.

[1] The popular cry of "Viva Verdi!" did not merely express enthusiasm for Italy's most eminent musician, but signified, in initials: "Viva Vittorio Emanuèle Re d' Italia!"

[2] La Farina's *Epistolario*, ii. 426.

On the 1st of January 1859, Napoleon astounded the diplomatic world by remarking to Baron Hübner, the Austrian ambassador, at the New Year's reception at the Tuileries, that he regretted that relations between France and Austria were "not so good as they had been"; and at the opening of the Piedmontese parliament on the 10th Victor Emmanuel pronounced the memorable words that he could not be insensible to the cry of pain (*il grido di dolore*) which reached him from all parts of Italy. Yet after these warlike declarations and after the signing of a military convention at Turin, the king agreeing to all the conditions proposed by Napoleon, the latter suddenly became pacific again, and adopted the Russian suggestion that Italian affairs should be settled by a congress. Austria agreed on condition that Piedmont should disarm and should not be admitted to the congress. Lord Malmesbury urged the Sardinian government to yield; but Cavour refused to disarm, or to accept the principle of a congress, unless Piedmont were admitted to it on equal terms with the other Powers. As neither the Sardinian nor the Austrian government seemed disposed to yield, the idea of a congress had to be abandoned. Lord Malmesbury now proposed that all three Powers should disarm simultaneously and that, as suggested by Austria, the precedent of Laibach should be followed and all the Italian states invited to plead their cause at the bar of the Great Powers. To this course Napoleon consented, to the despair of King Victor Emmanuel and Cavour, who saw in this a proof that he wished to back out of his engagement and make war impossible. When war seemed imminent volunteers from all parts of Italy, especially from Lombardy, had come pouring into Piedmont to enrol themselves in the army or in the specially raised volunteer corps (the command of which was given to Garibaldi), and "to go to Piedmont" became a test of patriotism throughout the country. Urged by a peremptory message from Napoleon, Cavour saw the necessity of bowing to the will of Europe, of disbanding the volunteers and reducing the army to a peace footing. The situation, however, was saved by a false move on the part of Austria. At Vienna the war party was in the ascendant; the convention for disarmament had been signed, but so far from its being carried out, the reserves were actually called out on the 12th of April; and on the 23rd, before Cavour's decision was known at Vienna, an Austrian ultimatum reached Turin, summoning Piedmont to disarm within three days on pain of invasion. Cavour was filled with joy at the turn affairs had taken, for Austria now appeared as the aggressor. On the 29th Francis Joseph declared war, and the next day his troops crossed the Ticino, a move which was followed, as Napoleon had stated it would be, by a French declaration of war. The military events of the Italian war of 1859 are described under ITALIAN WARS. The actions of Montebello (May 20), Palestro (May 31) and Melegnano (June 8) and the battles of Magenta (June 4) and Solferino (June 24) all went against the Austrians. Garibaldi's volunteers raised the standard of insurrection and held the field in the region of the Italian lakes. After Solferino the allies prepared to besiege the Quadrilateral. Then Napoleon suddenly drew back, unwilling, for many reasons, to continue the campaign. Firstly, he doubted whether the allies were strong enough to attack the Quadrilateral, for he saw the defects of his own army's organization; secondly, he began to fear intervention by Prussia, whose attitude appeared menacing; thirdly, although really anxious to expel the Austrians from Italy, he did not wish to create a too powerful Italian state at the foot of the Alps, which, besides constituting a potential danger to France, might threaten the pope's temporal power, and Napoleon believed that he could not stand without the clerical vote; fourthly, the war had been declared against the wishes of the great majority of Frenchmen and was even now far from popular. Consequently, to the surprise of all Europe, while the allied forces were drawn up ready for battle, Napoleon, without consulting Victor Emmanuel, sent General Fleury on the 6th of July to Francis Joseph to ask for an armistice, which was agreed to. The king was now informed, and on the 8th Generals Vaillant, Della Rocca and Hess met at Villafranca and arranged an armistice until the 15th of August. But the king and Cavour were terribly upset by this move, which meant peace without Venetia; Cavour hurried to the king's headquarters at Monzambano and in excited, almost disrespectful, language implored him not to agree to peace and to continue the war alone, relying on the Piedmontese army and a general Italian revolution. But Victor Emmanuel on this occasion proved the greater statesman of the two; he understood that, hard as it was, he must content himself with Lombardy for the present, lest all be lost. On the 11th the two emperors met at Villafranca, where they agreed that Lombardy should be ceded to Piedmont, and Venetia retained by Austria but governed by Liberal methods; that the rulers of Tuscany, Parma and Modena, who had been again deposed, should be restored, the Papal States reformed, the Legations given a separate administration and the pope made president of an Italian confederation including Austria as mistress of Venetia. It was a revival of the old impossible federal idea, which would have left Italy divided and dominated by Austria and France. Victor Emmanuel regretfully signed the peace preliminaries, adding, however, *pour ce qui me concerne* (which meant that he made no undertaking with regard to central Italy), and Cavour resigned office.

Italian war of 1859.

Armistice of Villafranca.

The Lombard campaign had produced important effects throughout the rest of Italy. The Sardinian government had formally invited that of Tuscany to participate in the war of liberation, and on the grand-duke rejecting the proposal, moderates and democrats combined to present an ultimatum to Leopold demanding that he should abdicate in favour of his son, grant a constitution and take part in the campaign. On his refusal Florence rose as one man, and he, feeling that he could not rely on his troops, abandoned Tuscany on the 27th of April 1859. A provisional government was formed, led by Ubaldino Peruzzi, and was strengthened on the 8th of May by the inclusion of Baron Bettino Ricasoli, a man of great force of character, who became the real head of the administration, and all through the ensuing critical period aimed unswervingly at Italian unity. Victor Emmanuel, at the request of the people, assumed the protectorate over Tuscany, where he was represented by the Sardinian minister Boncompagni. On the 23rd of May Prince Napoleon, with a French army corps, landed at Leghorn, his avowed object being to threaten the Austrian flank;[1] and in June these troops, together with a Tuscan contingent, departed for Lombardy. In the duchy of Modena an insurrection had broken out, and after Magenta Duke Francis joined the Austrian army in Lombardy, leaving a regency in charge. But on the 14th of June the municipality formed a provisional government and proclaimed annexation to Piedmont; L. C. Farini was chosen dictator, and 4000 Modenese joined the allies. The duchess-regent of Parma also withdrew to Austrian territory, and on the 11th of June annexation to Piedmont was proclaimed. At the same time the Austrians evacuated the Legations and Cardinal Milesi, the papal representative, departed. The municipality of Bologna formed a *Giunta*, to which Romagna and the Marches adhered, and invoked the dictatorship of Victor Emmanuel; at Perugia, too, a provisional government was constituted under F. Guardabassi. But the Marches were soon reoccupied by pontifical troops, and Perugia fell, its capture being followed by an indiscriminate massacre of men, women and children. In July the marquis D'Azeglio arrived at Bologna as royal commissioner.

Unionist movements in Central Italy.

After the meetings at Villafranca Napoleon returned to France. The question of the cession of Nice and Savoy had not been raised; for the emperor had not fulfilled his part of the bargain, that he would drive the Austrians out of Italy, since Venice was yet to be freed. At the same time he was resolutely opposed to the Piedmontese annexations in central Italy. But here Cavour intervened, for he was determined to maintain the annexations, at all costs. Although he had resigned, he remained

[1] In reality the emperor was contemplating an Etrurian kingdom with the prince at its head.

in office until Rattazzi could form a new ministry; and while officially recalling the royal commissioners according to the preliminaries of Villafranca, he privately encouraged them to remain and organize resistance to the return of the despots, if necessary by force (see CAVOUR). Farini, who in August was elected dictator of Parma as well as Modena, and Ricasoli, who since, on the withdrawal of the Sardinian commissioner Boncompagni, had become supreme in Tuscany, were now the men who by their energy and determination achieved the annexation of central Italy to Piedmont, in spite of the strenuous opposition of the French emperor and the weakness of many Italian Liberals. In August Marco Minghetti succeeded in forming a military league and a customs union between Tuscany, Romagna and the duchies, and in procuring the adoption of the Piedmontese codes; and envoys were sent to Paris to mollify Napoleon. Constituent assemblies met and voted for unity under Victor Emmanuel, but the king could not openly accept the proposal owing to the emperor's opposition, backed by the presence of French armies in Lombardy; at a word from Napoleon there might have been an Austrian, and perhaps a Franco-Austrian, invasion of central Italy. But to Napoleon's statement that he could not agree to the unification of Italy, as he was bound by his promises to Austria at Villafranca, Victor Emmanuel replied that he himself, after Magenta and Solferino, was bound in honour to link his fate with that of the Italian people; and General Manfredo Fanti was sent by the Turin government to organize the army of the Central League, with Garibaldi under him.

The terms of the treaty of peace signed at Zürich on the 10th of November were practically identical with those of the preliminaries of Villafranca. It was soon evident, however, that the Italian question was far from being settled. Central Italy refused to be bound by the treaty, and offered the dictatorship to Prince Carignano, who, himself unable to accept owing to Napoleon's opposition, suggested Boncompagni, who was accordingly elected. Napoleon now realized that it would be impossible, without running serious risks, to oppose the movement in favour of unity. He suggested an international congress on the question; inspired a pamphlet, *Le Pape et le Congrès*, which proposed a reduction of the papal territory, and wrote to the pope advising him to cede Romagna in order to obtain better guarantees for the rest of his dominions. The proposed congress fell through, and Napoleon thereupon raised the question of the cession of Nice and Savoy as the price of his consent to the union of the central provinces with the Italian kingdom. In January 1866 the Rattazzi ministry fell, after completing the fusion of Lombardy with Piedmont, and Cavour was again summoned by the king to the head of affairs.

Treaty of Zürich.

Cavour well knew the unpopularity that would fall upon him by consenting to the cession of Nice, the birthplace of Garibaldi, and Savoy, the cradle of the royal house; but he realized the necessity of the sacrifice, if central Italy was to be won. The negotiations were long drawn out; for Cavour struggled to save Nice and Napoleon was anxious to make conditions, especially as regards Tuscany. At last, on the 24th of March, the treaty was signed whereby the cession was agreed upon, but subject to the vote of the populations concerned and ratification by the Italian parliament. The king having formally accepted the voluntary annexation of the duchies, Tuscany and Romagna, appointed the prince of Carignano viceroy with Ricasoli as governor-general (22nd of March), and was immediately afterwards excommunicated by the pope. On the 2nd of April 1860 the new Italian parliament, including members from central Italy, assembled at Turin. Three weeks later the treaty of Turin ceding Savoy and Nice to France was ratified, though not without much opposition, and Cavour was fiercely reviled for his share in the transaction, especially by Garibaldi, who even contemplated an expedition to Nice, but was induced to desist by the king.

In May 1859 Ferdinand of Naples was succeeded by his son Francis II., who gave no signs of any intention to change his father's policy, and, in spite of Napoleon's advice, refused to grant a constitution or to enter into an alliance with Sardinia. The result was a revolutionary agitation which in Sicily, stirred up by Mazzini's agents, Rosalino Pilo and Francesco Crispi, culminated, on the 5th of April 1860, in open revolt. An invitation had been sent Garibaldi to put himself at the head of the movement; at first he had refused, but reports of the progress of the insurrection soon determined him to risk all on a bold stroke, and on the 5th of May he embarked at Quarto, near Genoa, with Bixio, the Hungarian Türr and some 1000 picked followers, on two steamers. The preparations for the expedition, openly made, were viewed by Cavour with mixed feelings. With its object he sympathized; yet he could not give official sanction to an armed attack on a friendly power, nor on the other hand could he forbid an action enthusiastically approved by public opinion. He accordingly directed the Sardinian admiral Persano only to arrest the expedition should it touch at a Sardinian port; while in reply to the indignant protests of the continental powers he disclaimed all knowledge of the affair. On the 11th Garibaldi landed at Marsala, without opposition, defeated the Neapolitan forces at Calatafimi on the 15th, and on the 27th entered Palermo in triumph, where he proclaimed himself, in King Victor Emmanuel's name, dictator of Sicily. By the end of July, after the hard-won victory of Milazzo, the whole island, with the exception of the citadel of Messina and a few unimportant ports, was in his hands.

Naples under Francis II.

From Cavour's point of view, the situation was now one of extreme anxiety. It was certain that, his work in Sicily done, Garibaldi would turn his attention to the Neapolitan dominions on the mainland; and beyond these lay Umbria and the Marches and—Rome. It was all-important that whatever victories Garibaldi might win should be won for the Italian kingdom, and, above all, that no ill-timed attack on the Papal States should provoke an intervention of the powers. La Farina was accordingly sent to Palermo to urge the immediate annexation of Sicily to Piedmont. But Garibaldi, who wished to keep a free hand, distrusted Cavour and scorned all counsels of expediency, refused to agree; Sicily was the necessary base for his projected invasion of Naples; it would be time enough to announce its union with Piedmont when Victor Emmanuel had been proclaimed king of United Italy in Rome. Foiled by the dictator's stubbornness, Cavour had once more to take to underhand methods; and, while continuing futile negotiations with King Francis, sent his agents into Naples to stir up disaffection and create a sentiment in favour of national unity strong enough, in any event, to force Garibaldi's hand.

On the 8th of August, in spite of the protests and threats of most of the powers, the Garibaldians began to cross the Straits, and in a short time 20,000 of them were on the mainland. The Bourbonists in Calabria, utterly disorganized, broke before the invincible red-shirts, and the 40,000 men defending the Salerno-Avellino line made no better resistance, being eventually ordered to fall back on the Volturno. On the 6th of September King Francis, with his family and several of the ministers, sailed for Gaeta, and the next day Garibaldi entered Naples alone in advance of the army, and was enthusiastically welcomed. He proclaimed himself dictator of the kingdom, with Bertani as secretary of state, but as a proof of his loyalty he consigned the Neapolitan fleet to Persano.

Garibaldi in Naples.

His rapid success, meanwhile, inspired both the French emperor and the government of Turin with misgivings. There was a danger that Garibaldi's *entourage*, composed of ex-Mazzinians, might induce him to proclaim a republic and march on Rome; which would have meant French intervention and the undoing of all Cavour's work. King Victor Emmanuel and Cavour both wrote to Garibaldi urging him not to spoil all by aiming at too much. But Garibaldi poured scorn on all suggestions of compromise; and Cavour saw that the situation could only be saved by the armed participation of Piedmont in the liberation of south Italy.

Intervention of Piedmont.

The situation was, indeed, sufficiently critical. The unrest in Naples had spread into Umbria and the Marches, and the papal troops, under General Lamoricière, were preparing to suppress it. Had they succeeded, the position of the Piedmontese in Romagna would have been imperilled; had they failed, the road would have been open for Garibaldi to march on Rome. In the circumstances, Cavour decided that Piedmont must anticipate Garibaldi, occupy Umbria and the Marches and place Italy between the red-shirts and Rome. His excuse was the pope's refusal to dismiss his foreign levies (September 7). On the 11th of September a Piedmontese army of 35,000 men crossed the frontier at La Cattolica; on the 18th the pontifical army was crushed at Castelfidardo; and when, on the 29th, Ancona fell, Umbria and the Marches were in the power of Piedmont. On the 15th of October King Victor Emmanuel crossed the Neapolitan border at the head of his troops.

It had been a race between Garibaldi and the Piedmontese. "If we do not arrive at the Volturno before Garibaldi reaches La Cattolica," Cavour had said, "the monarchy is lost, and Italy will remain in the prison-house of the Revolution."[1] Fortunately for his policy, the red-shirts had encountered a formidable obstacle to their advance in the Neapolitan army entrenched on the Volturno under the guns of Capua. On the 19th of September the Garibaldians began their attack on this position with their usual impetuous valour; but they were repulsed again and again, and it was not till the 2nd of October, after a two days' pitched battle, that they succeeded in carrying the position. The way was now open for the advance of the Piedmontese, who, save at Isernia, encountered practically no resistance. On the 29th Victor Emmanuel and Garibaldi met, and on the 7th of November they entered Naples together. Garibaldi now resigned his authority into the king's hands and, refusing the title and other honours offered to him, retired to his island home of Caprera.[2]

Gaeta remained still to be taken. The Piedmontese under Cialdini had begun the siege on the 5th of November, but it was not until the 10th of January 1861, when at the instance of Great Britain Napoleon withdrew his squadron, that the blockade could be made complete. On the 13th of February the fortress surrendered, Francis and his family having departed by sea for papal territory. The citadel of Messina capitulated on the 22nd, and Civitella del Tronto, the last stronghold of Bourbonism, on the 21st of March. On the 18th of February the first Italian parliament met at Turin, and Victor Emmanuel was proclaimed king of Italy. The new kingdom was recognized by Great Britain within a fortnight, by France three months later, and subsequently by other powers. It included the whole peninsula except Venetia and Rome, and these the government and the nation were determined to annex sooner or later.

Recognition of the united kingdom of Italy.

There were, however, other serious problems calling for immediate attention. The country had to be built up and converted from an agglomeration of scattered medieval principalities into a unified modern nation. The first question which arose was that of brigandage in the south. Brigandage had always existed in the Neapolitan kingdom, largely owing to the poverty of the people; but the evil was now aggravated by the mistake of the new government in dismissing the Bourbon troops, and then calling them out again as recruits. A great many turned brigands rather than serve again, and together with the remaining adherents of Bourbon rule and malefactors of all kinds, were made use of by the ex-king and his *entourage* to harass the Italian administration. Bands of desperadoes were formed, commanded by the most infamous criminals and by foreigners who came to fight in what they were led to believe was an Italian *Vendée*, but which was in reality a campaign of butchery and plunder. Villages were sacked and burnt, men, women and children mutilated, tortured or roasted alive, and women outraged. The authors of these deeds when pursued by troops fled into papal territory, where they were welcomed by the authorities and allowed to refit and raise fresh recruits under the aegis of the Church. The prime organizers of the movement were King Francis's uncle, the count of Trapani, and Mons. de Mérode, a Belgian ecclesiastic who enjoyed immense influence at the Vatican. The task of suppressing brigandage was entrusted to Generals La Marmora and Cialdini; but in spite of extreme severity, justifiable in the circumstances, it took four or five years completely to suppress the movement. Its vitality, indeed, was largely due to the mistakes made by the new administration, conducted as this was by officials ignorant of southern conditions and out of sympathy with a people far more primitive than in any other part of the peninsula. Politically, its sole outcome was to prove the impossibility of allowing the continuance of an independent Roman state in the heart of Italy.

Problems of the new government. Brigandage.

Another of the government's difficulties was the question of what to do with Garibaldi's volunteers. Fanti, the minister of war, had three armies to incorporate in that of Piedmont, viz. that of central Italy, that of the Bourbons and that of Garibaldi. The first caused no difficulty; the rank and file of the second were mostly disbanded, but a number of the officers were taken into the Italian army; the third offered a more serious problem. Garibaldi demanded that all his officers should be given equivalent rank in the Italian army, and in this he had the support of Fanti. Cavour, on the other hand, while anxious to deal generously with the Garibaldians, recognized the impossibility of such a course, which would not only have offended the conservative spirit of the Piedmontese military caste, which disliked and despised irregular troops, but would almost certainly have introduced into the army an element of indiscipline and disorder.

Garibaldi's volunteers.

On the 18th of April the question of the volunteers was discussed in one of the most dramatic sittings of the Italian parliament. Garibaldi, elected member for Naples, denounced Cavour in unmeasured terms for his treatment of the volunteers and for the cession of Nice, accusing him of leading the country to civil war. These charges produced a tremendous uproar, but Bixio by a splendid appeal for concord succeeded in calming the two adversaries. On the 23rd of April they were formally reconciled in the presence of the king, but the scene of the 18th of April hastened Cavour's end. In May the Roman question was discussed in parliament. Cavour had often declared that in the end the capital of Italy must be Rome, for it alone of all Italian cities had an unquestioned claim to moral supremacy, and his views of a free church in a free state were well known. He had negotiated secretly with the pope through unofficial agents, and sketched out a scheme of settlement of the Roman question, which foreshadowed in its main features the law of papal guarantees. But it was not given him to see this problem solved, for his health was broken by the strain of the last few years, during which practically the whole administration of the country was concentrated in his hands. He died after a short illness on the 6th of June 1861, at a moment when Italy had the greatest need of his statesmanship.

Death of Cavour.

Ricasoli now became prime minister, Cavour having advised the king to that effect. The financial situation was far from brilliant, for the expenses of the administration of Italy were far larger than the total of those of all the separate states, and everything had to be created or rebuilt. The budget of 1861 showed a deficit of 344,000,000 lire, while the service of the debt was 110,000,000; deficits were met by new loans issued on unfavourable terms (that of July 1861 for 500,000,000 lire cost the government 714,833,000), and government stock fell as low as 36. It was now that the period of reckless finance began which, save for a lucid interval under Sella, was to last until nearly the end of the century. Considering the state of the country and the coming war for Venice, heavy expenditure was inevitable, but good management might have rendered the situation less dangerous. Ricasoli, honest and capable as he was, failed to win popularity; his attitude on the Roman question, which became more uncompromising after the failure of his attempt at conciliation, and his desire to emancipate Italy from French predominance, brought down on him the hostility of Napoleon. He fell in March 1862, and was succeeded by Rattazzi, who being more pliable and intriguing managed at first to please everybody, including Garibaldi. At this time the extremists and even the moderates were full of schemes for liberating Venice and Rome. Garibaldi had a plan, with which the premier was connected, for attacking Austria by raising a revolt in the Balkans and Hungary, and later he contemplated a raid

Ricasoli Ministry. Financial difficulties.

Rattazzi Ministry.

[1] N. Bianchi, *Cavour*, p. 118.

[2] He asked for the Neapolitan viceroyalty for life, which the king very wisely refused.

into the Trentino; but the government, seeing the danger of such an attempt, arrested several Garibaldians at Sarnico (near Brescia), and in the *émeute* which followed several persons were shot. Garibaldi now became an opponent of the ministry, and in June went to Sicily, where, after taking counsel with his former followers, he decided on an immediate raid on Rome. He summoned his legionaries, and in August crossed over to Calabria with 1000 men. His intentions in the main were still loyal, for he desired to capture Rome for the kingdom; and he did his best to avoid the regulars tardily sent against him. On the 29th of August 1862, however, he encountered a force under Pallavicini at Aspromonte, and, although Garibaldi ordered his men not to fire, some of the raw Sicilian volunteers discharged a few volleys which were returned by the regulars. Garibaldi himself was seriously wounded and taken prisoner. He was shut up in the fortress of Varignano, and after endless discussions as to whether he should be tried or not, the question was settled by an amnesty. The affair made the ministry so unpopular that it was forced to resign. Farini, who succeeded, retired almost at once on account of ill-health, and Minghetti became premier, with Visconti-Venosta as minister for foreign affairs. The financial situation continued to be seriously embarrassing; deficit was piled on deficit, loan upon loan, and the service of the debt rose from 90,000,000 lire in 1860 to 220,000,000 in 1864.

Garibaldi and Rome. Affair of Aspromonte, 1862.

Minghetti Ministry.

Negotiations were resumed with Napoleon for the evacuation of Rome by the French troops; but the emperor, though he saw that the temporal power could not for ever be supported by French bayonets, desired some guarantee that the evacuation should not be followed, at all events immediately, by an Italian occupation, lest Catholic opinion should lay the blame for this upon France. Ultimately the two governments concluded a convention on the 15th of September 1864, whereby France agreed to withdraw her troops from Rome so soon as the papal army should be reorganized, or at the outside within two years, Italy undertaking not to attack it nor permit others to do so, and to transfer the capital from Turin to some other city within six months.[1] The change of capital would have the appearance of a definite abandonment of the *Roma capitale* programme, although in reality it was to be merely a *tappa* (stage) on the way. The convention was kept secret, but the last clause leaked out and caused the bitterest feeling among the people of Turin, who would have been resigned to losing the capital provided it were transferred to Rome, but resented the fact that it was to be established in any other city, and that the convention was made without consulting parliament. Demonstrations were held which were repressed with unnecessary violence, and although the change of capital was not unpopular in the rest of Italy, where the *Piemontesismo* of the new régime was beginning to arouse jealousy, the secrecy with which the affair was arranged and the shooting down of the people in Turin raised such a storm of disapproval that the king for the first time used his privilege of dismissing the ministry. Under La Marmora's administration the September convention was ratified, and the capital was transferred to Florence the following year. This affair resulted in an important political change, for the Piedmontese deputies, hitherto the bulwarks of moderate conservatism, now shifted to the Left or constitutional opposition.

France, Italy and the Roman question.

Capital transferred to Florence, 1865.

La Marmora Ministry.

Meanwhile, the Venetian question was becoming more and more acute. Every Italian felt the presence of the Austrians in the lagoons as a national humiliation, and between 1859 and 1866 countless plots were hatched for their expulsion. But, in spite of the sympathy of the king, the attempt to raise armed bands in Venetia had no success, and it became clear that the foreigner could only be driven from the peninsula by regular war. To wage this alone Italy was still too weak, and it was necessary to look round for an ally. Napoleon was sympathetic; he desired to see the Austrians expelled, and the Syllabus of Pius IX., which had stirred up the more aggressive elements among the French clergy against his government, had brought him once more into harmony with the views of Victor Emmanuel; but he dared not brave French public opinion by another war with Austria, nor did Italy desire an alliance which would only have been bought at the price of further cessions. There remained Prussia, which, now that the Danish campaign of 1864 was over, was completing her preparations for the final struggle with Austria for the hegemony of Germany; and Napoleon, who saw in the furthering of Bismarck's plans the surest means of securing his own influence in a divided Europe, willingly lent his aid in negotiating a Prusso-Italian alliance. In the summer of 1865 Bismarck made formal proposals to La Marmora; but the *pourparlers* were interrupted by the conclusion of the convention of Gastein (August 14), to which Austria agreed partly under pressure of the Prusso-Italian *entente*. To Italy the convention seemed like a betrayal; to Napoleon it was a set-back which he tried to retrieve by suggesting to Austria the peaceful cession of Venetia to the Italian kingdom, in order to prevent any danger of its alliance with Prussia. This proposal broke on the refusal of the emperor Francis Joseph to cede Austrian territory except as the result of a struggle; and Napoleon, won over by Bismarck at the famous interview at Biarritz, once more took up the idea of a Prusso-Italian offensive and defensive alliance. This was actually concluded on the 8th of April 1866. Its terms, dictated by a natural suspicion on the part of the Italian government, stipulated that it should only become effective in the event of Prussia declaring war on Austria within three months. Peace was not to be concluded until Italy should have received Venetia, and Prussia an equivalent territory in Germany.

Venetian question.

Prusso-Italian Alliance of 1866.

The outbreak of war was postponed by further diplomatic complications. On the 12th of June Napoleon, whose policy throughout had been obscure and contradictory, signed a secret treaty with Austria, under which Venice was to be handed over to him, to be given to Italy in the event of her making a separate peace. La Marmora, however, who believed himself bound in honour to Prussia, refused to enter into a separate arrangement. On the 16th the Prussians began hostilities, and on the 20th Italy declared war.

Victor Emmanuel took the supreme command of the Italian army, and La Marmora resigned the premiership (which was assumed by Ricasoli), to become chief of the staff. La Marmora had three army corps (130,000 men) under his immediate command, to operate on the Mincio, while Cialdini with 80,000 men was to operate on the Po. The Austrian southern army consisting of 95,000 men was commanded by the archduke Albert, with General von John as chief of the staff. On the 23rd of June La Marmora crossed the Mincio, and on the 24th a battle was fought at Custozza, under circumstances highly disadvantageous to the Italians, which after a stubborn contest ended in a crushing Austrian victory. Bad generalship, bad organization and the jealousy between La Marmora and Della Rocca were responsible for this defeat. Custozza might have been afterwards retrieved, for the Italians had plenty of fresh troops besides Cialdini's army; but nothing was done, as both the king and La Marmora believed the situation to be much worse than it actually was. On the 3rd of July the Prussians completely defeated the Austrians at Königgrätz, and on the 5th Austria ceded Venetia to Napoleon, accepting his mediation in favour of peace. The Italian iron-clad fleet commanded by the incapable Persano, after wasting much time at Taranto and Ancona, made an unsuccessful attack on the Dalmatian island of Lissa on the 18th of July, and on the 20th was completely defeated by the Austrian squadron, consisting of wooden ships, but commanded by the capable Admiral Tegethoff.

Ricasoli Ministry.

Battle of Königgrätz.

On the 22nd Prussia, without consulting Italy, made an armistice with Austria, while Italy obtained an eight days' truce on condition of evacuating the Trentino, which had almost entirely

[1] The counterblast of Pius IX. to this convention was the encyclical *Quanta Cura* of Dec. 8, 1864, followed by the famous *Syllabus*.

fallen into the hands of Garibaldi and his volunteers. Ricasoli wished to go on with the war, rather than accept Venetia as a gift from France; but the king and La Marmora saw that peace must be made, as the whole Austrian army of 350,000 men was now free to fall on Italy. An armistice was accordingly signed at Cormons on the 12th of August; Austria handed Venetia over to General Leboeuf, representing Napoleon; and on the 3rd of October peace between Austria and Italy was concluded at Vienna. On the 19th Leboeuf handed Venetia over to the Venetian representatives, and at the plebiscite held on the 21st and 22nd, 647,246 votes were returned in favour of union with Italy, only 69 against it. When this result was announced to the king by a deputation from Venice he said: "This is the finest day of my life; Italy is made, but it is not complete." Rome was still wanting.

Venice united to Italy.

Custozza and Lissa were not Italy's only misfortunes in 1866. There had been considerable discontent in Sicily, where the government had made itself unpopular. The priesthood and the remnants of the Bourbon party fomented an agitation, which in September culminated in an attack on Palermo by 3000 armed insurgents, and in similar outbreaks elsewhere. The revolt was put down owing to the energy of the mayor of Palermo, Marquis A. Di Rudini, and the arrival of reinforcements. The Ricasoli cabinet fell over the law against the religious houses, and was succeeded by that of Rattazzi, who with the support of the Left was apparently more fortunate. The French regular troops were withdrawn from Rome in December 1866; but the pontifical forces were largely recruited in France and commanded by officers of the imperial army, and service under the pope was considered by the French war office as equivalent to service in France. This was a violation of the letter as well as of the spirit of the September convention, and a stronger and more straightforward statesman than Rattazzi would have declared Italy absolved from its provisions. Mazzini now wanted to promote an insurrection in Roman territory, whereas Garibaldi advocated an invasion from without. He delivered a series of violent speeches against the papacy, and made open preparations for a raid, which were not interfered with by the government; but on the 23rd of September 1867 Rattazzi had him suddenly arrested and confined to Caprera. In spite of the vigilance of the warships he escaped on the 14th of October and landed in Tuscany. Armed bands had already entered papal territory, but achieved nothing in particular. Their presence, however, was a sufficient excuse for Napoleon, under pressure of the clerical party, to send another expedition to Rome (26th of October). Rattazzi, after ordering a body of troops to enter papal territory with no definite object, now resigned, and was succeeded by Menabrea. Garibaldi joined the bands on the 23rd, but his ill-armed and ill-disciplined force was very inferior to his volunteers of '49, '60 and '66. On the 24th he captured Monte Rotondo, but did not enter Rome as the expected insurrection had not broken out. On the 29th a French force, under de Failly, arrived, and on the 3rd of November a battle took place at Mentana between 4000 or 5000 redshirts and a somewhat superior force of French and pontificals. The Garibaldians, mowed down by the new French *chassepôt* rifles, fought until their last cartridges were exhausted, and retreated the next day towards the Italian frontier, leaving 800 prisoners.

Revolt in Sicily, 1866.

Rattazzi Ministry.

Garibaldi attacks Rome.

Menabrea Ministry.

Battle of Mentana.

The affair of Mentana caused considerable excitement throughout Europe, and the Roman question entered on an acute stage. Napoleon suggested his favourite expedient of a congress, but the proposal broke down owing to Great Britain's refusal to participate; and Rouher, the French premier, declared in the Chamber (5th of December 1867) that France could never permit the Italians to occupy Rome. The attitude of France strengthened that anti-French feeling in Italy which had begun with Villafranca; and Bismarck was not slow to make use of this hostility, with a view to preventing Italy from taking sides with France against Germany in the struggle between the two powers which he saw to be inevitable. At the same time Napoleon was making overtures both to Austria and to Italy, overtures which were favourably received. Victor Emmanuel was sincerely anxious to assist Napoleon, for in spite of Nice and Savoy and Mentana he felt a chivalrous desire to help the man who had fought for Italy. But with the French at Civitavecchia (they had left Rome very soon after Mentana) a war for France was not to be thought of, and Napoleon would not promise more than the literal observance of the September convention. Austria would not join France unless Italy did the same, and she realized that that was impossible unless Napoleon gave way about Rome. Consequently the negotiations were suspended. A scandal concerning the tobacco monopoly led to the fall of Menabrea, who was succeeded in December 1869 by Giovanni Lanza, with Visconti-Venosta at the foreign office and Q. Sella as finance minister. The latter introduced a sounder financial policy, which was maintained until the fall of the Right in 1876. Mazzini, now openly hostile to the monarchy, was seized with a perfect monomania for insurrections, and promoted various small risings, the only effect of which was to show how completely his influence was gone.

Lanza Ministry.

In December 1869 the XXI. oecumenical council began its sittings in Rome, and on the 18th of July 1870 proclaimed the infallibility of the pope (see VATICAN COUNCIL). Two days previously Napoleon had declared war on Prussia, and immediately afterwards he withdrew his troops from Civitavecchia; but he persuaded Lanza to promise to abide by the September convention, and it was not until after Wörth and Gravelotte that he offered to give Italy a free hand to occupy Rome. Then it was too late; Victor Emmanuel asked Thiers if he could give his word of honour that with 100,000 Italian troops France could be saved, but Thiers remained silent. Austria replied like Italy: "It is too late." On the 9th of August Italy made a declaration of neutrality, and three weeks later Visconti-Venosta informed the powers that Italy was about to occupy Rome. On the 3rd of September the news of Sédan reached Florence, and with the fall of Napoleon's empire the September convention ceased to have any value. The powers having engaged to abstain from intervention in Italian affairs, Victor Emmanuel addressed a letter to Pius IX. asking him in the name of religion and peace to accept Italian protection instead of the temporal power, to which the pope replied that he would only yield to force. On the 11th of September General Cadorna at the head of 60,000 men entered papal territory. The garrison of Civitavecchia surrendered to Bixio, but the 10,000 men in Rome, mostly French, Belgians, Swiss and Bavarians, under Kanzler, were ready to fight. Cardinal Antonelli would have come to terms, but the pope decided on making a sufficient show of resistance to prove that he was yielding to force. On the 20th the Italians began the attack, and General Mazé de la Roche's division having effected a breach in the Porta Pia, the pope ordered the garrison to cease fire and the Italians poured into the Eternal City followed by thousands of Roman exiles. By noon the whole city on the left of the Tiber was occupied and the garrison laid down their arms; the next day, at the pope's request, the Leonine City on the right bank was also occupied. It had been intended to leave that part of Rome to the pope, but by the earnest desire of the inhabitants it too was included in the Italian kingdom. At the plebiscite there were 133,681 votes for union and 1507 against it. In July 1872 King Victor Emmanuel made his solemn entry into Rome, which was then declared the capital of Italy. Thus, after a struggle of more than half a century, in spite of apparently insuperable obstacles, the liberation and the unity of Italy were accomplished.

Italian occupation of Rome.

BIBLIOGRAPHY.—A vast amount of material on the Risorgimento has been published both in Italy and abroad as well as numerous works of a literary and critical nature. The most detailed Italian history of the period is Carlo Tivaroni's *Storia critica del Risorgimento Italiano* in 9 vols. (Turin, 1888–1897), based on a diligent study of the original authorities and containing a large amount of information; the author is a Mazzinian, which fact should be taken into

account, but he generally quotes the opinions of those who disagree with him as well. Another voluminous but less valuable work is F. Bertolini's *Storia d'Italia dal 1814 al 1878*, in 2 parts (Milan, 1880–1881). L. Chiala's *Lettere del Conte di Cavour* (7 vols., Turin, 1883–1887) and D. Zanichelli's *Scritti del Conte di Cavour* (Bologna, 1892) are very important, and so are Prince Metternich's *Mémoires* (7 vols., Paris, 1881). P. Orsi's *L'Italia moderna* (Milan, 1901) should also be mentioned. N. Bianchi's *Storia della diplomazia europea in Italia* (8 vols., Turin, 1865) is an invaluable and thoroughly reliable work. See also Zini's *Storia d' Italia* (4 vols., Milan, 1875); Gualterio's *Gli ultimi rivolgimenti italiani* (4 vols., Florence, 1850) is important for the period from 1831 to 1847, and so also is L. Farina's *Storia d'Italia dal 1815 al 1849* (5 vols., Turin, 1851); W. R. Thayer's *Dawn of Italian Independence* (Boston, 1893) is gushing and not always accurate; C. Cantù's *Dell' indipendenza italiana cronistoria* (Naples, 1872–1877) is reactionary and often unreliable; V. Bersezio, *Il Regno di Vittorio Emanuele II* (8 vols., Turin, 1889, &c.). For English readers Countess E. Martinengo Cesaresco's *Liberation of Italy* (London, 1895) is to be strongly recommended, and is indeed, for accuracy, fairness and synthesis, as well as for charm of style, one of the very best books on the subject in any language; Bolton King's *History of Italian Unity* (2 vols., London, 1899) is bulkier and less satisfactory, but contains a useful bibliography. A succinct account of the chief events of the period will be found in Sir Spencer Walpole's *History of Twenty-Five Years* (London, 1904). See also the *Cambridge Modern History*, vols. x. and xi. (Cambridge, 1907, &c.), where full bibliographies will be found. (L. V.*)

F. History, 1870–1902

The downfall of the temporal power was hailed throughout Italy with unbounded enthusiasm. Abroad, Catholic countries at first received the tidings with resignation, and Protestant countries with joy. In France, where the Government of National Defence had replaced the Empire, Crémieux, as president of the government delegation at Tours, hastened to offer his congratulations to Italy. The occupation of Rome caused no surprise to the French government, which had been forewarned on 11th September of the Italian intentions. On that occasion Jules Favre had recognized the September convention to be dead, and, while refusing explicitly to denounce it, had admitted that unless Italy went to Rome the city would become a prey to dangerous agitators. At the same time he made it clear that Italy would occupy Rome upon her own responsibility. Agreeably surprised by this attitude on the part of France, Visconti-Venosta lost no time in conveying officially the thanks of Italy to the French government. He doubtless foresaw that the language of Favre and Crémieux would not be endorsed by the French Clericals. Prussia, while satisfied at the fall of the temporal power, seemed to fear lest Italy might recompense the absence of French opposition to the occupation of Rome by armed intervention in favour of France. Bismarck, moreover, was indignant at the connivance of the Italian government in the Garibaldian expedition to Dijon, and was irritated by Visconti-Venosta's plea in the Italian parliament for the integrity of French territory. The course of events in France, however, soon calmed German apprehensions. The advent of Thiers, his attitude towards the petition of French bishops on behalf of the pope, the recall of Senard, the French minister at Florence—who had written to congratulate Victor Emmanuel on the capture of Rome—and the instructions given to his successor, the comte de Choiseul, to absent himself from Italy at the moment of the king's official entry into the new capital (2nd July 1871), together with the haste displayed in appointing a French ambassador to the Holy See, rapidly cooled the cordiality of Franco-Italian relations, and reassured Bismarck on the score of any dangerous intimacy between the two governments.

Italian occupation of Rome.

The friendly attitude of France towards Italy during the period immediately subsequent to the occupation of Rome seemed to cow and to dishearten the Vatican. For a few weeks the relations between the Curia and the Italian authorities were marked by a conciliatory spirit. The secretary-general of the Italian foreign office, Baron Blanc, who had accompanied General Cadorna to Rome, was received almost daily by Cardinal Antonelli, papal secretary of state, in order to settle innumerable questions arising out of the Italian occupation. The royal commissioner for finance, Giacomelli, had, as a precautionary measure, seized the pontifical treasury; but upon being informed by Cardinal Antonelli that among the funds deposited in the treasury were 1,000,000 crowns of Peter's Pence offered by the faithful to the pope in person, the commissioner was authorized by the Italian council of state not only to restore this sum, but also to indemnify the Holy See for moneys expended for the service of the October coupon of the pontifical debt, that debt having been taken over by the Italian state. On the 29th of September Cardinal Antonelli further apprised Baron Blanc that he was about to issue drafts for the monthly payment of the 50,000 crowns inscribed in the pontifical budget for the maintenance of the pope, the Sacred College, the apostolic palaces and the papal guards. The Italian treasury at once honoured all the papal drafts, and thus contributed a first instalment of the 3,225,000 lire per annum afterwards placed by Article 4 of the Law of Guarantees at the disposal of the Holy See. Payments would have been regularly continued had not pressure from the French Clerical party coerced the Vatican into refusing any further instalment.

Attitude of the Vatican.

Once in possession of Rome, and guarantor to the Catholic world of the spiritual independence of the pope, the Italian government prepared juridically to regulate its relations to the Holy See. A bill known as the Law of Guarantees was therefore framed and laid before parliament. The measure was an amalgam of Cavour's scheme for a "free church in a free state," of Ricasoli's Free Church Bill, rejected by parliament four years previously, and of the proposals presented to Pius IX. by Count Ponza di San Martino in September 1870. After a debate lasting nearly two months the Law of Guarantees was adopted in secret ballot on the 21st of March 1871 by 185 votes against 106.

The Law of Guarantees.

It consisted of two parts. The first, containing thirteen articles, recognized (Articles 1 and 2) the person of the pontiff as sacred and intangible, and while providing for free discussion of religious questions, punished insults and outrages against the pope in the same way as insults and outrages against the king. Royal honours were attributed to the pope (Article 3), who was further guaranteed the same precedence as that accorded to him by other Catholic sovereigns, and the right to maintain his Noble and Swiss guards. Article 4 allotted the pontiff an annuity of 3,225,000 lire (£129,000) for the maintenance of the Sacred College, the sacred palaces, the congregations, the Vatican chancery and the diplomatic service. The sacred palaces, museums and libraries were, by Article 5, exempted from all taxation, and the pope was assured perpetual enjoyment of the Vatican and Lateran buildings and gardens, and of the papal villa at Castel Gandolfo. Articles 6 and 7 forbade access of any Italian official or agent to the above-mentioned palaces or to any eventual conclave or oecumenical council without special authorization from the pope, conclave or council. Article 8 prohibited the seizure or examination of any ecclesiastical papers, documents, books or registers of purely spiritual character. Article 9 guaranteed to the pope full freedom for the exercise of his spiritual ministry, and provided for the publication of pontifical announcements on the doors of the Roman churches and basilicas. Article 10 extended immunity to ecclesiastics employed by the Holy See, and bestowed upon foreign ecclesiastics in Rome the personal rights of Italian citizens. By Article 11, diplomatists accredited to the Holy See, and papal diplomatists while in Italy, were placed on the same footing as diplomatists accredited to the Quirinal. Article 12 provided for the transmission free of cost in Italy of all papal telegrams and correspondence both with bishops and foreign governments, and sanctioned the establishment, at the expense of the Italian state, of a papal telegraph office served by papal officials in communication with the Italian postal and telegraph system. Article 13 exempted all ecclesiastical seminaries, academies, colleges and schools for the education of priests in the city of Rome from all interference on the part of the Italian government.

This portion of the law, designed to reassure foreign Catholics, met with little opposition; but the second portion, regulating the relations between state and church in Italy, was sharply criticized by deputies who, like Sella, recognized the ideal of a "free church in a free state" to be an impracticable dream. The second division of the law abolished (Article 14) all restrictions upon the right of meeting of members of the clergy. By Article 15 the government relinquished its rights to apostolic legation in Sicily, and to the appointment of its own nominees to the chief benefices throughout the kingdom. Bishops were further dispensed from swearing fealty to the king, though, except in Rome and suburbs, the choice of bishops was limited to ecclesiastics of Italian nationality. Article 16 abolished the need for royal *exequatur* and *placet* for ecclesiastical publications, but subordinated the enjoyment of temporalities by

bishops and priests to the concession of state *exequatur* and *placet*. Article 17 maintained the independence of the ecclesiastical jurisdiction in spiritual and disciplinary matters, but reserved for the state the exclusive right to carry out coercive measures.

On the 12th of July 1871, Articles 268, 269 and 270 of the Italian Penal Code were so modified as to make ecclesiastics liable to imprisonment for periods varying from six months to five years, and to fines from 1000 to 3000 lire, for spoken or written attacks against the laws of the state, or for the fomentation of disorder. An encyclical of Pius IX. to the bishops of the Catholic Church on the 15th of May 1871 repudiated the Law of Guarantees, and summoned Catholic princes to co-operate in restoring the temporal power. Practically, therefore, the law has remained a one-sided enactment, by which Italy considers herself bound, and of which she has always observed the spirit, even though the exigencies of self-defence may have led in some minor respects to non-observance of the letter. The annuity payable to the pope has, for instance, been made subject to quinquennial prescription, so that in the event of tardy recognition of the law the Vatican could at no time claim payment of more than five years' annuity with interest.

For a few months after the occupation of Rome pressing questions incidental to a new change of capital and to the administration of a new domain distracted public attention from the real condition of Italian affairs. The rise of the Tiber and the flooding of Rome in December 1870 (tactfully used by Victor Emmanuel as an opportunity for a first visit to the new capital) illustrated the imperative necessity of reorganizing the drainage of the city and of constructing the Tiber embankment. In spite of pressure from the French government, which desired Italy to maintain Florence as the political and to regard Rome merely as the moral capital of the realm, the government offices and both legislative chambers were transferred in 1871 to the Eternal City. Early in the year the crown prince Humbert with the Princess Margherita took up their residence in the Quirinal Palace, which, in view of the Vatican refusal to deliver up the keys, had to be opened by force. Eight monasteries were expropriated to make room for the chief state departments, pending the construction of more suitable edifices. The growth of Clerical influence in France engendered a belief that Italy would soon have to defend with the sword her newly-won unity, while the tremendous lesson of the Franco-Prussian War convinced the military authorities of the need for thorough military reform. General Ricotti Magnani, minister of war, therefore framed an Army Reform Bill designed to bring the Italian army as nearly as possible up to the Prussian standard. Sella, minister of finance, notwithstanding the sorry plight of the Italian exchequer, readily granted the means for the reform. "We must arm," he said, "since we have overturned the papal throne," and he pointed to France as the quarter from which attack was most likely to come.

Though perhaps less desperate than during the previous decade, the condition of Italian finance was precarious indeed. With taxation screwed up to breaking point on personal and real estate, on all forms of commercial and industrial activity, and on salt, flour and other necessaries of life; with a deficit of £8,500,000 for the current year, and the prospect of a further aggregate deficit of £12,000,000 during the next quinquennium, Sella's heroic struggle against national bankruptcy was still far from a successful termination. He chiefly had borne the brunt and won the laurels of the unprecedented fight against deficit in which Italy had been involved since 1862. As finance minister in the Rattazzi cabinet of that year he had been confronted with a public debt of nearly £120,000,000, and with an immediate deficit of nearly £18,000,000. In 1864, as minister in the La Marmora cabinet, he had again to face an excess of expenditure over income amounting to more than £14,600,000. By the seizure and sale of Church lands, by the sale of state railways, by "economy to the bone" and on one supreme occasion by an appeal to taxpayers to advance a year's quota of the land-tax, he had met the most pressing engagements of that troublous period. The king was persuaded to forgo one-fifth of his civil list, ministers and the higher civil servants were required to relinquish a portion of their meagre salaries, but, in spite of all, Sella had found himself in 1865 compelled to propose the most hated of fiscal burdens—a grist tax on cereals. This tax (*macinato*) had long been known in Italy. Vexatious methods of assessment and collection had made it so unpopular that the Italian government in 1859–1860 had thought it expedient to abolish it throughout the realm. Sella hoped by the application of a mechanical meter both to obviate the odium attaching to former methods of collection and to avoid the maintenance of an army of inspectors and tax-gatherers, whose stipends had formerly eaten up most of the proceeds of the impost. Before proposing the reintroduction of the tax, Sella and his friend Ferrara improved and made exhaustive experiments with the meter. The result of their efforts was laid before parliament in one of the most monumental and most painstaking preambles ever prefixed to a bill. Sella, nevertheless, fell before the storm of opposition which his scheme aroused. Scialoja, who succeeded him, was obliged to adopt a similar proposal, but parliament again proved refractory. Ferrara, successor of Scialoja, met a like fate; but Count Cambray-Digny, finance minister in the Menabrea cabinet of 1868–1869, driven to find means to cover a deficit aggravated by the interest on the Venetian debt, succeeded, with Sella's help, in forcing a Grist Tax Bill through parliament, though in a form of which Sella could not entirely approve. When, on the 1st of January 1869, the new tax came into force, nearly half the flour-mills in Italy ceased work. In many districts the government was obliged to open mills on its own account. Inspectors and tax-gatherers did their work under police protection, and in several parts of the country riots had to be suppressed *manu militari*. At first the net revenue from the impost was less than £1,100,000; but under Sella's firm administration (1869–1873), and in consequence of improvements gradually introduced by him, the net return ultimately exceeded £3,200,000. The parliamentary opposition to the impost, which the Left denounced as "the tax on hunger," was largely factitious. Few, except the open partisans of national bankruptcy, doubted its necessity; yet so strong was the current of feeling worked up for party purposes by opponents of the measure, that Sella's achievement in having by its means saved the financial situation of Italy deserves to rank among the most noteworthy performances of modern parliamentary statesmanship.

Finance.

Under the stress of the appalling financial conditions represented by chronic deficit, crushing taxation, the heavy expenditure necessary for the consolidation of the kingdom, the reform of the army and the interest on the pontifical debt, Sella, on the 11th of December 1871, exposed to parliament the financial situation in all its nakedness. He recognized that considerable improvement had already taken place. Revenue from taxation had risen in a decade from £7,000,000 to £20,200,000; profit on state monopolies had increased from £7,000,000 to £9,400,000; exports had grown to exceed imports; income from the working of telegraphs had tripled itself; railways had been extended from 2200 to 6200 kilometres, and the annual travelling public had augmented from 15,000,000 to 25,000,000 persons. The serious feature of the situation lay less in the income than in the "intangible" expenditure, namely, the vast sums required for interest on the various forms of public debt and for pensions. Within ten years this category of outlay had increased from £8,000,000 to £28,800,000. During the same period the assumption of the Venetian and Roman debts, losses on the issue of loans and the accumulation of annual deficits, had caused public indebtedness to rise from £92,000,000 to £328,000,000, no less than £100,000,000 of the latter sum having been sacrificed in premiums and commissions to bankers and underwriters of loans. By economies and new taxes Sella had reduced the deficit to less than £2,000,000 in 1871, but for 1872 he found himself confronted with a total expenditure of £8,000,000 in excess of revenue. He therefore proposed to make over the treasury service to the state banks, to increase the forced currency, to raise the stamp and registration duties and

to impose a new tax on textile fabrics. An optional conversion of sundry internal loans into consolidated stock at a lower rate of interest was calculated to effect considerable saving. The battle over these proposals was long and fierce. But for the tactics of Rattazzi, leader of the Left, who, by basing his opposition on party considerations, impeded the secession of Minghetti and a part of the Right from the ministerial majority, Sella would have been defeated. On the 23rd of March 1872, however, he succeeded in carrying his programme, which not only provided for the pressing needs of the moment, but laid the foundation of the much-needed equilibrium between expenditure and revenue.

In the spring of 1873 it became evident that the days of the Lanza-Sella cabinet were numbered. Fear of the advent of a Radical administration under Rattazzi alone prevented the Minghettian Right from revolting against the government. The Left, conscious of its strength, impatiently awaited the moment of accession to power. Sella, the real head of the Lanza cabinet, was worn out by four years' continuous work and disheartened by the perfidious misrepresentation in which Italian politicians, particularly those of the Left, have ever excelled. By sheer force of will he compelled the Chamber early in 1873 to adopt some minor financial reforms, but on the 29th of April found himself in a minority on the question of a credit for a proposed state arsenal at Taranto. Pressure from all sides of the House, however, induced the ministry to retain office until after the debate on the application to Rome and the Papal States of the Religious Orders Bill (originally passed in 1866)—a measure which, with the help of Ricasoli, was carried at the end of May. While leaving intact the general houses of the various confraternities (except that of the Jesuits), the bill abolished the corporate personality of religious orders, handed over their schools and hospitals to civil administrators, placed their churches at the disposal of the secular clergy, and provided pensions for nuns and monks, those who had families being sent to reside with their relatives, and those who by reason of age or bereavement had no home but their monasteries being allowed to end their days in religious houses specially set apart for the purpose. The proceeds of the sale of the suppressed convents and monasteries were partly converted into pensions for monks and nuns, and partly allotted to the municipal charity boards which had undertaken the educational and charitable functions formerly exercised by the religious orders. To the pope was made over £16,000 per annum as a contribution to the expense of maintaining in Rome representatives of foreign orders; the Sacred College, however, rejected this endowment, and summoned all the suppressed confraternities to reconstitute themselves under the ordinary Italian law of association. A few days after the passage of the Religious Orders Bill, the death of Rattazzi (5th June 1873) removed all probability of the immediate advent of the Left. Sella, uncertain of the loyalty of the Right, challenged a vote on the immediate discussion of further financial reforms, and on the 23rd of June was overthrown by a coalition of the Left under Depretis with a part of the Right under Minghetti and the Tuscan Centre under Correnti. The administration which thus fell was unquestionably the most important since the death of Cavour. It had completed national unity, transferred the capital to Rome, overcome the chief obstacles to financial equilibrium, initiated military reform and laid the foundation of the relations between state and church.

Religious Orders Bill.

The succeeding Minghetti-Visconti-Venosta cabinet—which held office from the 10th of July 1873 to the 18th of March 1876—continued in essential points the work of the preceding administration. Minghetti's finance, though less clear-sighted and less resolute than that of Sella, was on the whole prudent and beneficial. With the aid of Sella he concluded conventions for the redemption of the chief Italian railways from their French and Austrian proprietors. By dint of expedients he gradually overcame the chronic deficit, and, owing to the normal increase of revenue, ended his term of office with the announcement of a surplus of some £720,000. The question whether this surplus was real or only apparent has been much debated, but there is no reason to doubt its substantial reality. It left out of account a sum of £1,000,000 for railway construction which was covered by credit, but, on the other hand, took no note of £360,000 expended in the redemption of debt. Practically, therefore, the Right, of which the Minghetti cabinet was the last representative administration, left Italian finance with a surplus of £80,000. Outside the all-important domain of finance, the attention of Minghetti and his colleagues was principally absorbed by strife between church and state, army reform and railway redemption. For some time after the occupation of Rome the pope, in order to substantiate the pretence that his spiritual freedom had been diminished, avoided the creation of cardinals and the nomination of bishops. On the 22nd of December 1873, however, he unexpectedly created twelve cardinals, and subsequently proceeded to nominate a number of bishops. Visconti-Venosta, who had retained the portfolio for foreign affairs in the Minghetti cabinet, at once drew the attention of the European powers to this proof of the pope's spiritual freedom and of the imaginary nature of his "imprisonment" in the Vatican. At the same time he assured them that absolute liberty would be guaranteed to the deliberations of a conclave. In relation to the Church in Italy, Minghetti's policy was less perspicacious. He let it be understood that the announcement of the appointment of bishops and the request for the royal *exequatur* might be made to the government impersonally by the congregation of bishops and regulars, by a municipal council or by any other corporate body—a concession of which the bishops were quick to take advantage, but which so irritated Italian political opinion that, in July 1875, the government was compelled to withdraw the temporalities of ecclesiastics who had neglected to apply for the *exequatur*, and to evict sundry bishops who had taken possession of their palaces without authorization from the state. Parliamentary pressure further obliged Bonghi, minister of public instruction, to compel clerical seminaries either to forgo the instruction of lay pupils or to conform to the laws of the state in regard to inspection and examination, an ordinance which gave rise to conflicts between ecclesiastical and lay authorities, and led to the forcible dissolution of the Mantua seminary and to the suppression of the Catholic university in Rome.

Minghetti.

More noteworthy than its management of internal affairs were the efforts of the Minghetti cabinet to strengthen and consolidate national defence. Appalled by the weakness, or rather the non-existence, of the navy, Admiral Saint-Bon, with his coadjutor Signor Brin, addressed himself earnestly to the task of recreating the fleet, which had never recovered from the effects of the disaster of Lissa. During his three years of office he laid the foundation upon which Brin was afterwards to build up a new Italian navy. Simultaneously General Ricotti Magnani matured the army reform scheme which he had elaborated under the preceding administration. His bill, adopted by parliament on the 7th of June 1875, still forms the ground plan of the Italian army.

Military and naval reform.

It was fortunate for Italy that during the whole period 1869–1876 the direction of her foreign policy remained in the experienced hands of Visconti-Venosta, a statesman whose trustworthiness, dignity and moderation even political opponents have been compelled to recognize. Diplomatic records fail to substantiate the accusations of lack of initiative and instability of political criterion currently brought against him by contemporaries. As foreign minister of a young state which had attained unity in defiance of the most formidable religious organization in the world and in opposition to the traditional policy of France, it could but be Visconti-Venosta's aim to uphold the dignity of his country while convincing European diplomacy that United Italy was an element of order and progress, and that the spiritual independence of the Roman pontiff had suffered no diminution. Prudence, moreover, counselled avoidance of all action likely to serve the predominant anti-Italian party in France as a pretext for violent intervention in favour of the pope. On the occasion of the Metrical Congress, which met in Paris in 1872, he, however, successfully protested against the recognition of the Vatican delegate, Father Secchi,

Foreign policy under the Right.

as a representative of a "state," and obtained from Count de Rémusat, French foreign minister, a formal declaration that the presence of Father Secchi on that occasion could not constitute a diplomatic precedent. The irritation displayed by Bismarck at the Francophil attitude of Italy towards the end of the Franco-German War gave place to a certain show of goodwill when the great chancellor found himself in his turn involved in a struggle against the Vatican and when the policy of Thiers began to strain Franco-Italian relations. Thiers had consistently opposed the emperor Napoleon's pro-Italian policy. In the case of Italy, as in that of Germany, he frankly regretted the constitution of powerful homogeneous states upon the borders of France. Personal pique accentuated this feeling in regard to Italy. The refusal of Victor Emmanuel II. to meet Thiers at the opening of the Mont Cenis tunnel (a refusal not unconnected with offensive language employed at Florence in October 1870 by Thiers during his European tour, and with his instructions to the French minister to remain absent from Victor Emmanuel's official entry into Rome) had wounded the *amour propre* of the French statesman, and had decreased whatever inclination he might otherwise have felt to oppose the French Clerical agitation for the restoration of the temporal power, and for French interference with the Italian Religious Orders Bill. Consequently relations between France and Italy became so strained that in 1873 both the French minister to the Quirinal and the Italian minister to the Republic remained for several months absent from their posts. At this juncture the emperor of Austria invited Victor Emmanuel to visit the Vienna Exhibition, and the Italian government received a confidential intimation that acceptance of the invitation to Vienna would be followed by a further invitation from Berlin. Perceiving the advantage of a visit to the imperial and apostolic court after the Italian occupation of Rome and the suppression of the religious orders, and convinced of the value of more cordial intercourse with the German empire, Visconti-Venosta and Minghetti advised their sovereign to accept both the Austrian and the subsequent German invitations. The visit to Vienna took place on the 17th to the 22nd of September, and that to Berlin on the 22nd to the 26th of September 1873, the Italian monarch being accorded in both capitals a most cordial reception, although the contemporaneous publication of La Marmora's famous pamphlet, *More Light on the Events of 1866*, prevented intercourse between the Italian ministers and Bismarck from being entirely confidential. Visconti-Venosta and Minghetti, moreover, wisely resisted the chancellor's pressure to override the Law of Guarantees and to engage in an Italian *Kulturkampf*. Nevertheless the royal journey contributed notably to the establishment of cordial relations between Italy and the central powers, relations which were further strengthened by the visit of the emperor Francis Joseph to Victor Emmanuel at Venice in April 1875, and by that of the German emperor to Milan in October of the same year. Meanwhile Thiers had given place to Marshal Macmahon, who effected a decided improvement in Franco-Italian relations by recalling from Civitavecchia the cruiser "Orénoque," which since 1870 had been stationed in that port at the disposal of the pope in case he should desire to quit Rome. The foreign policy of Visconti-Venosta may be said to have reinforced the international position of Italy without sacrifice of dignity, and without the vacillation and short-sightedness which was to characterize the ensuing administrations of the Left.

The fall of the Right on the 18th of March 1876 was an event destined profoundly and in many respects adversely to affect the course of Italian history. Except at rare and not auspicious intervals, the Right had held office from 1849 to 1876. Its rule was associated in the popular mind with severe administration; hostility to the democratic elements represented by Garibaldi, Crispi, Depretis and Bertani; ruthless imposition and collection of taxes in order to meet the financial engagements forced upon Italy by the vicissitudes of her Risorgimento; strong predilection for Piedmontese, Lombards and Tuscans, and a steady determination, not always scrupulous in its choice of means, to retain executive power and the most important administrative offices of the state for the *consorteria*, or close corporation, of its own adherents. For years the men of the Left had worked to inoculate the electorate with suspicion of Conservative methods and with hatred of the imposts which they nevertheless knew to be indispensable to sound finance. In regard to the grist tax especially, the agitators of the Left had placed their party in a radically false position. Moreover, the redemption of the railways by the state—contracts for which had been signed by Sella in 1875 on behalf of the Minghetti cabinet with Rothschild at Basel and with the Austrian government at Vienna—had been fiercely opposed by the Left, although its members were for the most part convinced of the utility of the operation. When, at the beginning of March 1876, these contracts were submitted to parliament, a group of Tuscan deputies, under Cesare Correnti, joined the opposition, and on the 18th of March took advantage of a chance motion concerning the date of discussion of an interpellation on the grist tax to place the Minghetti cabinet in a minority. Depretis, ex-pro-dictator of Sicily, and successor of Rattazzi in the leadership of the Left, was entrusted by the king with the formation of a Liberal ministry. Besides the premiership, Depretis assumed the portfolio of finance; Nicotera, an ex-Garibaldian of somewhat tarnished reputation, but a man of energetic and conservative temperament, was placed at the ministry of the interior; public works were entrusted to Zanardelli, a Radical doctrinaire of considerable juridical attainments; General Mezzacapo and Signor Brin replaced General Ricotti Magnani and Admiral Saint-Bon at the war office and ministry of marine; while to Mancini and Coppino, prominent members of the Left, were allotted the portfolios of justice and public instruction. Great difficulty was experienced in finding a foreign minister willing to challenge comparison with Visconti-Venosta. Several diplomatists in active service were approached, but, partly on account of their refusal, and partly from the desire of the Left to avoid giving so important a post to a diplomatist bound by ties of friendship or of interest to the Right, the choice fell upon Melegari, Italian minister at Bern.

First Depretis Cabinet.

The new ministers had long since made monarchical professions of faith, but, up to the moment of taking office, were nevertheless considered to be tinged with an almost revolutionary hue. The king alone appeared to feel no misgiving. His shrewd sense of political expediency and his loyalty to constitutional principles saved him from the error of obstructing the advent and driving into an anti-dynastic attitude politicians who had succeeded in winning popular favour. Indeed, the patriotism and loyalty of the new ministers were above suspicion. Danger lay rather in entrusting men schooled in political conspiracy and in unscrupulous parliamentary opposition with the government of a young state still beset by enemies at home and abroad. As an opposition party the Left had lived upon the facile credit of political promises, but had no well-considered programme nor other discipline nor unity of purpose than that born of the common eagerness of its leaders for office and their common hostility to the Right. Neither Depretis, Nicotera, Crispi, Cairoli nor Zanardelli was disposed permanently to recognize the superiority of any one chief. The dissensions which broke out among them within a few months of the accession of their party to power never afterwards disappeared, except at rare moments when it became necessary to unite in preventing the return of the Conservatives. Considerations such as these could not be expected to appeal to the nation at large, which hailed the advent of the Left as the dawn of an era of unlimited popular sovereignty, diminished administrative pressure, reduction of taxation and general prosperity. The programme of Depretis corresponded only in part to these expectations. Its chief points were extension of the franchise, incompatibility of a parliamentary mandate with an official position, strict enforcement of the rights of the State in regard to the Church, protection of freedom of conscience, maintenance of the military and naval policy inaugurated by the Conservatives, acceptance of the railway redemption contracts, consolidation of the financial equilibrium, abolition of the forced

Programme of the Left.

currency, and, eventually, fiscal reform. The long-promised abolition of the grist tax was not explicitly mentioned, opposition to the railway redemption contracts was transformed into approval, and the vaunted reduction of taxation replaced by lip-service to the Conservative deity of financial equilibrium. The railway redemption contracts were in fact immediately voted by parliament, with a clause pledging the government to legislate in favour of farming out the railways to private companies.

Nicotera, minister of the interior, began his administration of home affairs by a sweeping change in the *personnel* of the prefects, sub-prefects and public prosecutors, but found himself obliged to incur the wrath of his supporters by prohibiting Radical meetings likely to endanger public order, and by enunciating administrative principles which would have befitted an inveterate Conservative. In regard to the Church, he instructed the prefects strictly to prevent infraction of the law against religious orders. At the same time the cabinet, as a whole, brought in a Clerical Abuses Bill, threatening with severe punishment priests guilty of disturbing the peace of families, of opposing the laws of the state, or of fomenting disorder. Depretis, for his part, was compelled to declare impracticable the immediate abolition of the grist tax, and to frame a bill for the increase of revenue, acts which caused the secession of some sixty Radicals and Republicans from the ministerial majority, and gave the signal for an agitation against the premier similar to that which he himself had formerly undertaken against the Right. The first general election under the Left (November 1876) had yielded the cabinet the overwhelming majority of 421 Ministerialists against 87 Conservatives, but the very size of the majority rendered it unmanageable. The Clerical Abuses Bill provoked further dissensions: Nicotera was severely affected by revelations concerning his political past; Zanardelli refused to sanction the construction of a railway in Calabria in which Nicotera was interested; and Depretis saw fit to compensate the supporters of his bill for the increase of revenue by decorating at one stroke sixty ministerial deputies with the Order of the Crown of Italy. A further derogation from the ideal of democratic austerity was committed by adding £80,000 per annum to the king's civil list (14th May 1877) and by burdening the state exchequer with royal household pensions amounting to £20,000 a year. The civil list, which the law of the 10th of August 1862 had fixed at £650,000 a year, but which had been voluntarily reduced by the king to £530,000 in 1864, and to £490,000 in 1867, was thus raised to £570,000 a year. Almost the only respect in which the Left could boast a decided improvement over the administration of the Right was the energy displayed by Nicotera in combating brigandage and the mafia in Calabria and Sicily. Successes achieved in those provinces failed, however, to save Nicotera from the wrath of the Chamber, and on the 14th of December 1877 a cabinet crisis arose over a question concerning the secrecy of telegraphic correspondence. Depretis thereupon reconstructed his administration, excluding Nicotera, Melegari and Zanardelli, placing Crispi at the home office, entrusting Magliani with finance, and himself assuming the direction of foreign affairs.

In regard to foreign affairs, the début of the Left as a governing party was scarcely more satisfactory than its home policy.

Foreign policy of the Left.

Since the war of 1866 the Left had advocated an Italo-Prussian alliance in opposition to the Francophil tendencies of the Right. On more than one occasion Bismarck had maintained direct relations with the chiefs of the Left, and had in 1870 worked to prevent a Franco-Italian alliance by encouraging the "party of action" to press for the occupation of Rome. Besides, the Left stood for anti-clericalism and for the retention by the State of means of coercing the Church, in opposition to the men of the Right, who, with the exception of Sella, favoured Cavour's ideal of "a free Church in a free State," and the consequent abandonment of state control over ecclesiastical government. Upon the outbreak of the Prussian *Kulturkampf* the Left had pressed the Right to introduce an Italian counterpart to the Prussian May laws, especially as the attitude of Thiers and the hostility of the French Clericals obviated the need for sparing French susceptibilities. Visconti-Venosta and Minghetti, partly from aversion to a Jacobin policy, and partly from a conviction that Bismarck sooner or later would undertake his *Gang nach Canossa*, regardless of any tacit engagement he might have assumed towards Italy, had wisely declined to be drawn into any infraction of the Law of Guarantees. It was, however, expected that the chiefs of the Left, upon attaining office, would turn resolutely towards Prussia in search of a guarantee against the Clerical menace embodied in the régime of Marshal Macmahon. On the contrary, Depretis and Melegari, both of whom were imbued with French Liberal doctrines, adopted towards the Republic an attitude so deferential as to arouse suspicion in Vienna and Berlin. Depretis recalled Nigra from Paris and replaced him by General Cialdini, whose ardent plea for Italian intervention in favour of France in 1870, and whose comradeship with Marshal Macmahon in 1859, would, it was supposed, render him *persona gratissima* to the French government. This calculation was falsified by events. Incensed by the elevation to the rank of embassies of the Italian legation in Paris and the French legation to the Quirinal, and by the introduction of the Italian bill against clerical abuses, the French Clerical party not only attacked Italy and her representative, General Cialdini, in the Chamber of Deputies, but promoted a monster petition against the Italian bill. Even the *coup d'état* of the 16th of May 1877 (when Macmahon dismissed the Jules Simon cabinet for opposing the Clerical petition) hardly availed to change the attitude of Depretis. As a precaution against an eventual French attempt to restore the temporal power, orders were hurriedly given to complete the defences of Rome, but in other respects the Italian government maintained its subservient attitude. Yet at that moment the adoption of a clear line of policy, in accord with the central powers, might have saved Italy from the loss of prestige entailed by her bearing in regard to the Russo-Turkish War and the Austrian acquisition of Bosnia, and might have prevented the disappointment subsequently occasioned by the outcome of the Congress of Berlin. In the hope of inducing the European powers to "compensate" Italy for the increase of Austrian influence on the Adriatic, Crispi undertook in the autumn of 1877, with the approval of the king, and in spite of the half-disguised opposition of Depretis, a semi-official mission to Paris, Berlin, London and Vienna. The mission appears not to have been an unqualified success, though Crispi afterwards affirmed in the Chamber (4th March 1886) that Depretis might in 1877 "have harnessed fortune to the Italian chariot." Depretis, anxious only to avoid "a policy of adventure," let slip whatever opportunity may have presented itself, and neglected even to deal energetically with the impotent but mischievous Italian agitation for a "rectification" of the Italo-Austrian frontier. He greeted the treaty of San Stefano (3rd March 1878) with undisguised relief, and by the mouth of the king, congratulated Italy (7th March 1878) on having maintained with the powers friendly and cordial relations "free from suspicious precautions," and upon having secured for herself "that most precious of alliances, the alliance of the future"—a phrase of which the empty rhetoric was to be bitterly demonstrated by the Berlin Congress and the French occupation of Tunisia.

Crispi.

The entry of Crispi into the Depretis cabinet (December 1877) placed at the ministry of the interior a strong hand and sure eye at a moment when they were about to become imperatively necessary. Crispi was the only man of truly statesmanlike calibre in the ranks of the Left. Formerly a friend and disciple of Mazzini, with whom he had broken on the question of the monarchical form of government which Crispi believed indispensable to the unification of Italy, he had afterwards been one of Garibaldi's most efficient coadjutors and an active member of the "party of action." Passionate, not always scrupulous in his choice and use of political weapons, intensely patriotic, loyal with a loyalty based rather on reason than sentiment, quick-witted, prompt in action, determined and pertinacious, he possessed in eminent degree many qualities lacking in other

Liberal chieftains. Hardly had he assumed office when the unexpected death of Victor Emmanuel II. (9th January 1878) stirred national feeling to an unprecedented depth, and placed the continuity of monarchical institutions in Italy upon trial before Europe. For thirty years Victor Emmanuel had been the centre point of national hopes, the token and embodiment of the struggle for national redemption. He had led the country out of the despondency which followed the defeat of Novara and the abdication of Charles Albert, through all the vicissitudes of national unification to the final triumph at Rome. His disappearance snapped the chief link with the heroic period, and removed from the helm of state a ruler of large heart, great experience and civil courage, at a moment when elements of continuity were needed and vital problems of internal reorganization had still to be faced. Crispi adopted the measures necessary to ensure the tranquil accession of King Humbert with a quick energy which precluded any Radical or Republican demonstrations. His influence decided the choice of the Roman Pantheon as the late monarch's burial-place, in spite of formidable pressure from the Piedmontese, who wished Victor Emmanuel II. to rest with the Sardinian kings at Superga. He also persuaded the new ruler to inaugurate, as King Humbert I., the new dynastical epoch of the kings of Italy, instead of continuing as Humbert IV. the succession of the kings of Sardinia. Before the commotion caused by the death of Victor Emmanuel had passed away, the decease of Pius IX. (7th February 1878) placed further demands upon Crispi's sagacity and promptitude. Like Victor Emmanuel, Pius IX. had been bound up with the history of the Risorgimento, but, unlike him, had represented and embodied the anti-national, reactionary spirit. Ecclesiastically, he had become the instrument of the triumph of Jesuit influence, and had in turn set his seal upon the dogma of the Immaculate Conception, the Syllabus and Papal Infallibility. Yet, in spite of all, his jovial disposition and good-humoured cynicism saved him from unpopularity, and rendered his death an occasion of mourning. Notwithstanding the pontiff's bestowal of the apostolic benediction *in articulo mortis* upon Victor Emmanuel, the attitude of the Vatican had remained so inimical as to make it doubtful whether the conclave would be held in Rome. Crispi, whose strong anti-clerical convictions did not prevent him from regarding the papacy as pre-eminently an Italian institution, was determined both to prove to the Catholic world the practical independence of the government of the Church and to retain for Rome so potent a centre of universal attraction as the presence of the future pope. The Sacred College having decided to hold the conclave abroad, Crispi assured them of absolute freedom if they remained in Rome, or of protection to the frontier should they migrate, but warned them that, once evacuated, the Vatican would be occupied in the name of the Italian government and be lost to the Church as headquarters of the papacy. The cardinals thereupon overruled their former decision, and the conclave was held in Rome, the new pope, Cardinal Pecci, being elected on the 20th of February 1878 without let or hindrance. The Italian government not only prorogued the Chamber during the conclave to prevent unseemly inquiries or demonstrations on the part of deputies, but by means of Mancini, minister of justice, and Cardinal di Pietro, assured the new pope protection during the settlement of his outstanding personal affairs, an assurance of which Leo XIII. on the evening after his election, took full advantage. At the same time the duke of Aosta, commander of the Rome army corps, ordered the troops to render royal honours to the pontiff should he officially appear in the capital. King Humbert addressed to the pope a letter of congratulation upon his election, and received a courteous reply. The improvement thus signalized in the relations between Quirinal and Vatican was further exemplified on the 18th of October 1878, when the Italian government accepted a papal formula with regard to the granting of the royal *exequatur* for bishops, whereby they, upon nomination by the Holy See, recognized state control over, and made application for, the payment of their temporalities.

Deaths of Victor Emmanuel II. and Pius IX.

Leo XIII.

The Depretis-Crispi cabinet did not long survive the opening of the new reign. Crispi's position was shaken by a morally plausible but juridically untenable charge of bigamy, while on the 8th of March the election of Cairoli, an opponent of the ministry and head of the extremer section of the Left, to the presidency of the Chamber, induced Depretis to tender his resignation to the new king. Cairoli succeeded in forming an administration, in which his friend Count Corti, Italian ambassador at Constantinople, accepted the portfolio of foreign affairs, Zanardelli the ministry of the interior, and Seismit Doda the ministry of finance. Though the cabinet had no stable majority, it induced the Chamber to sanction a commercial treaty which had been negotiated with France and a general "autonomous" customs tariff. The commercial treaty was, however, rejected by the French Chamber in June 1878, a circumstance necessitating the application of the Italian general tariff, which implied a 10 to 20% increase in the duties on the principal French exports. A highly imaginative financial exposition by Seismit Doda, who announced a surplus of £2,400,000, paved the way for a Grist Tax Reduction Bill, which Cairoli had taken over from the Depretis programme. The Chamber, though convinced of the danger of this reform, the perils of which were incisively demonstrated by Sella, voted by an overwhelming majority for an immediate reduction of the impost by one-fourth, and its complete abolition within four years. Cairoli's premiership was, however, destined to be cut short by an attempt made upon the king's life in November 1878, during a royal visit to Naples, by a miscreant named Passanante. In spite of the courage and presence of mind of Cairoli, who received the dagger thrust intended for the king, public and parliamentary indignation found expression in a vote which compelled the ministry to resign.

Cairoli.

Though brief, Cairoli's term of office was momentous in regard to foreign affairs. The treaty of San Stefano had led to the convocation of the Berlin Congress, and though Count Corti was by no means ignorant of the rumours concerning secret agreements between Germany, Austria and Russia, and Germany, Austria and Great Britain, he scarcely seemed alive to the possible effect of such agreements upon Italy. Replying on the 9th of April 1878 to interpellations by Visconti-Venosta and other deputies on the impending Congress of Berlin, he appeared free from apprehension lest Italy, isolated, might find herself face to face with a change of the balance of power in the Mediterranean, and declared that in the event of serious complications Italy would be "too much sought after rather than too much forgotten." The policy of Italy in the congress, he added, would be to support the interests of the young Balkan nations. Wrapped in this optimism, Count Corti proceeded, as first Italian delegate, to Berlin, where he found himself obliged, on the 28th of May, to join reluctantly in sanctioning the Austrian occupation of Bosnia and Herzegovina. On the 8th of July the revelation of the Anglo-Ottoman treaty for the British occupation of Cyprus took the congress by surprise. Italy, who had made the integrity of the Ottoman empire a cardinal point of her Eastern policy, felt this change of the Mediterranean *status quo* the more severely inasmuch as, in order not to strain her relations with France, she had turned a deaf ear to Austrian, Russian and German advice to prepare to occupy Tunisia in agreement with Great Britain. Count Corti had no suspicion that France had adopted a less disinterested attitude towards similar suggestions from Bismarck and Lord Salisbury. He therefore returned from the German capital with "clean" but empty hands, a plight which found marked disfavour in Italian eyes, and stimulated anti-Austrian Irredentism. Ever since Venetia had been ceded by Austria to the emperor Napoleon, and by him to Italy, after the war of 1866, secret revolutionary committees had been formed in the northern Italian provinces to prepare for the "redemption" of Trent and Trieste. For twelve years these committees had remained comparatively inactive, but in 1878 the presence of the ex-Garibaldian Cairoli at the head of the government, and popular dissatisfaction at the

Italy and the Berlin Congress.

Irredentism.

spread of Austrian sway on the Adriatic, encouraged them to begin a series of noisy demonstrations. On the evening of the signature at Berlin of the clause sanctioning the Austrian occupation of Bosnia and Herzegovina, an Irredentist riot took place before the Austrian consulate at Venice. The Italian government attached little importance to the occurrence, and believed that a diplomatic expression of regret would suffice to allay Austrian irritation. Austria, indeed, might easily have been persuaded to ignore the Irredentist agitation, had not the equivocal attitude of Cairoli and Zanardelli cast doubt upon the sincerity of their regret. The former at Pavia (15th October 1878), and the latter at Arco (3rd November), declared publicly that Irredentist manifestations could not be prevented under existing laws, but gave no hint of introducing any law to sanction their prevention. "Repression, not prevention" became the official formula, the enunciation of which by Cairoli at Pavia caused Count Corti and two other ministers to resign.

The fall of Cairoli, and the formation of a second Depretis cabinet in 1878, brought no substantial change in the attitude of the government towards Irredentism, nor was the position improved by the return of Cairoli to power in the following July. Though aware of Bismarck's hostility towards Italy, of the conclusion of the Austro-German alliance of 1879, and of the undisguised ill-will of France, Italy not only made no attempt to crush an agitation as mischievous as it was futile, but granted a state funeral to General Avezzana, president of the Irredentist League. In Bonghi's mordant phrase, the foreign policy of Italy during this period may be said to have been characterized by "enormous intellectual impotence counterbalanced by equal moral feebleness." Home affairs were scarcely better managed. Parliament had degenerated into a congeries of personal groups, whose members were eager only to overturn cabinets in order to secure power for the leaders and official favours for themselves. Depretis, who had succeeded Cairoli in December 1878, fell in July 1879, after a vote in which Cairoli and Nicotera joined the Conservative opposition. On 12th July Cairoli formed a new administration, only to resign on 24th November, and to reconstruct his cabinet with the help of Depretis. The administration of finance was as chaotic as the condition of parliament. The £2,400,000 surplus announced by Seismit Doda proved to be a myth. Nevertheless Magliani, who succeeded Seismit Doda, had neither the perspicacity nor the courage to resist the abolition of the grist tax. The first vote of the Chamber for the immediate diminution of the tax, and for its total abolition on 1st January 1883, had been opposed by the Senate. A second bill was passed by the Chamber on 18th July 1879, providing for the immediate repeal of the grist tax on minor cereals, and for its total abolition on 1st January 1884. While approving the repeal in regard to minor cereals, the Senate (24th January 1880) again rejected the repeal of the tax on grinding wheat as prejudicial to national finance. After the general election of 1880, however, the Ministerialists, aided by a number of factious Conservatives, passed a third bill repealing the grist tax on wheat (10th July 1880), the repeal to take effect from the 1st of January 1884 onwards. The Senate, in which the partisans of the ministry had been increased by numerous appointments *ad hoc*, finally set the seal of its approval upon the measure. Notwithstanding this prospective loss of revenue, parliament showed great reluctance to vote any new impost, although hardly a year previously it had sanctioned (30th June 1879) Depretis's scheme for spending during the next eighteen years £43,200,000 in building 5000 kilometres of railway, an expenditure not wholly justified by the importance of the lines, and useful principally as a source of electoral sops for the constituents of ministerial deputies. The unsatisfactory financial condition of the Florence, Rome and Naples municipalities necessitated state help, but the Chamber nevertheless proceeded with a light heart (23rd February 1881) to sanction the issue of a foreign loan for £26,000,000, with a view to the abolition of the forced currency, thus adding to the burdens of the exchequer a load which three years later again dragged Italy into the gulf of chronic deficit.

Finance.

In no modern country is error or incompetence on the part of administrators more swiftly followed by retribution than in Italy; both at home and abroad she is hemmed in by political and economic conditions which leave little margin for folly, and still less for "mental and moral insufficiency," such as had been displayed by the Left. Nemesis came in the spring of 1881, in the form of the French invasion of Tunisia. Guiccioli, the biographer of Sella, observes that Italian politicians find it especially hard to resist "the temptation of appearing crafty." The men of the Left believed themselves subtle enough to retain the confidence and esteem of all foreign powers while coquetting at home with elements which some of these powers had reason to regard with suspicion. Italy, in constant danger from France, needed good relations with Austria and Germany, but could only attain the goodwill of the former by firm treatment of the revolutionary Irredentist agitation, and of the latter by clear demonstration of Italian will and ability to cope with all anti-monarchical forces. Depretis and Cairoli did neither the one nor the other. Hence, when opportunity offered firmly to establish Italian predominance in the central Mediterranean by an occupation of Tunisia, they found themselves deprived of those confidential relations with the central powers, and even with Great Britain, which might have enabled them to use the opportunity to full advantage. The conduct of Italy in declining the suggestions received from Count Andrássy and General Ignatiev on the eve of the Russo-Turkish War—that Italy should seek compensation in Tunisia for the extension of Austrian sway in the Balkans—and in subsequently rejecting the German suggestion to come to an arrangement with Great Britain for the occupation of Tunisia as compensation for the British occupation of Cyprus, was certainly due to fear lest an attempt on Tunisia should lead to a war with France, for which Italy knew herself to be totally unprepared. This very unpreparedness, however, rendered still less excusable her treatment of the Irredentist agitation, which brought her within a hair's-breadth of a conflict with Austria. Although Cairoli, upon learning of the Anglo-Ottoman convention in regard to Cyprus, had advised Count Corti of the possibility that Great Britain might seek to placate France by conniving at a French occupation of Tunisia, neither he nor Count Corti had any inkling of the verbal arrangement made between Lord Salisbury and Waddington at the instance of Bismarck, that, when convenient, France should occupy Tunisia, an agreement afterwards confirmed (with a reserve as to the eventual attitude of Italy) in despatches exchanged in July and August 1878 between the Quai d'Orsay and Downing Street. Almost up to the moment of the French occupation of Tunisia the Italian government believed that Great Britain, if only out of gratitude for the bearing of Italy in connexion with the Dulcigno demonstration in the autumn of 1880, would prevent French acquisition of the Regency. Ignorant of the assurance conveyed to France by Lord Granville that the Gladstone cabinet would respect the engagements of the Beaconsfield-Salisbury administration, Cairoli, in deference to Italian public opinion, endeavoured to neutralize the activity of the French consul Roustan by the appointment of an equally energetic Italian consul, Macciò. The rivalry between these two officials in Tunisia contributed not a little to strain Franco-Italian relations, but it is doubtful whether France would have precipitated her action had not General Menabrea, Italian ambassador in London, urged his government to purchase the Tunis-Goletta railway from the English company by which it had been constructed. A French attempt to purchase the line was upset in the English courts, and the railway was finally secured by Italy at a price more than eight times its real value. This pertinacity engendered a belief in France that Italy was about to undertake in Tunisia a more aggressive policy than necessary for the protection of her commercial interests. Roustan therefore hastened to extort from the bey concessions calculated to neutralize the advantages which Italy had hoped to secure by the possession of the Tunis-Goletta line, and at the same time the French government prepared at Toulon an expeditionary corps for the occupation of the Regency. In the spring of 1881

Tunisia.

the Kroumir tribe was reported to have attacked a French force on the Algerian border, and on the 9th of April Roustan informed the bey of Tunis that France would chastise the assailants. The bey issued futile protests to the powers. On the 26th of April the island of Tabarca was occupied by the French, Bizerta was seized on the 2nd of May, and on the 12th of May the bey signed the treaty of Bardo accepting the French protectorate. France undertook the maintenance of order in the Regency, and assumed the representation of Tunisia in all dealings with other countries.

Italian indignation at the French *coup de main* was the deeper on account of the apparent duplicity of the government of the Republic. On the 11th of May the French foreign minister, Barthélémy Saint Hilaire, had officially assured the Italian ambassador in Paris that France "had no thought of occupying Tunisia or any part of Tunisian territory, beyond some points of the Kroumir country." This assurance, dictated by Jules Ferry to Barthélémy Saint Hilaire in the presence of the Italian ambassador, and by him telegraphed *en clair* to Rome, was considered a binding pledge that France would not materially alter the *status quo* in Tunisia. Documents subsequently published have somewhat attenuated the responsibility of Ferry and Saint Hilaire for this breach of faith, and have shown that the French forces in Tunisia acted upon secret instructions from General Farre, minister of war in the Ferry cabinet, who pursued a policy diametrically opposed to the official declarations made by the premier and the foreign minister. Even had this circumstance been known at the time, it could scarcely have mitigated the intense resentment of the whole Italian nation at an event which was considered tantamount not only to the destruction of Italian aspirations to Tunisia, but to the ruin of the interests of the numerous Italian colony and to a constant menace against the security of the Sicilian and south Italian coasts.

Had the blow thus struck at Italian influence in the Mediterranean induced politicians to sink for a while their personal differences and to unite in presenting a firm front to foreign nations, the crisis in regard to Tunisia might not have been wholly unproductive of good. Unfortunately, on this, as on other critical occasions, deputies proved themselves incapable of common effort to promote general welfare. While excitement over Tunisia was at its height, but before the situation was irretrievably compromised to the disadvantage of Italy, Cairoli had been compelled to resign by a vote of want of confidence in the Chamber. The only politician capable of dealing adequately with the situation was Sella, leader of the Right, and to him the crown appealed. The faction leaders of the Left, though divided by personal jealousies and mutually incompatible ambitions, agreed that the worst evil which could befall Italy would be the return of the Right to power, and conspired to preclude the possibility of a Sella cabinet. An attempt by Depretis to recompose the Cairoli ministry proved fruitless, and after eleven precious days had been lost, King Humbert was obliged, on the 19th of April 1881, to refuse Cairoli's resignation. The conclusion of the treaty of Bardo on the 12th of May, however, compelled Cairoli to sacrifice himself to popular indignation. Again Sella was called upon, but again the dog-in-the-manger policy of Depretis, Cairoli, Nicotera and Baccarini, in conjunction with the intolerant attitude of some extreme Conservatives, proved fatal to his endeavours. Depretis then succeeded in recomposing the Cairoli cabinet without Cairoli, Mancini being placed at the foreign office. Except in regard to an increase of the army estimates, urgently demanded by public opinion, the new ministry had practically no programme. Public opinion was further irritated against France by the massacre of some Italian workmen at Marseilles on the occasion of the return of the French expedition from Tunisia, and Depretis, in response to public feeling, found himself obliged to mobilize a part of the militia for military exercises. In this condition of home and foreign affairs occurred disorders at Rome in connexion with the transfer of the remains of Pius IX. from St Peter's to the basilica of San Lorenzo. Most of the responsibility lay with the Vatican, which had arranged the procession in the way best calculated to irritate Italian feeling, but little excuse can be offered for the failure of the Italian authorities to maintain public order. In conjunction with the occupation of Tunisia, the effect of these disorders was to exhibit Italy as a country powerless to defend its interests abroad or to keep peace at home. The scandal and the pressure of foreign Catholic opinion compelled Depretis to pursue a more energetic policy, and to publish a formal declaration of the intangibility of the Law of Guarantees.

Meanwhile a conviction was spreading that the only way of escape from the dangerous isolation of Italy lay in closer agreement with Austria and Germany. Depretis tardily recognized the need for such agreement, if only to remove the "coldness and invincible diffidence" which, by subsequent confession of Mancini, then characterized the attitude of the central powers; but he was opposed to any formal alliance, lest it might arouse French resentment, while the new Franco-Italian treaty was still unconcluded, and the foreign loan for the abolition of the forced currency had still to be floated. He, indeed, was not disposed to concede to public opinion anything beyond an increase of the army, a measure insistently demanded by Garibaldi and the Left. The Right likewise desired to strengthen both army and navy, but advocated cordial relations with Berlin and Vienna as a guarantee against French domineering, and as a pledge that Italy would be vouchsafed time to effect her armaments without disturbing financial equilibrium. The Right also hoped that closer accord with Germany and Austria would compel Italy to conform her home policy more nearly to the principles of order prevailing in those empires. More resolute than Right or Left was the Centre, a small group led by Sidney Sonnino, a young politician of unusual fibre, which sought in the press and in parliament to spread a conviction that the only sound basis for Italian policy would be close alliance with the central powers and a friendly understanding with Great Britain in regard to Mediterranean affairs. The principal Italian public men were divided in opinion on the subject of an alliance. Peruzzi, Lanza and Bonghi pleaded for equal friendship with all powers, and especially with France; Crispi, Minghetti, Cadorna and others, including Blanc, secretary-general to the foreign office, openly favoured a pro-Austrian policy. Austria and Germany, however, scarcely reciprocated these dispositions. The Irredentist agitation had left profound traces at Berlin as well as at Vienna, and had given rise to a distrust of Depretis which nothing had yet occurred to allay. Nor, in view of the comparative weakness of Italian armaments, could eagerness to find an ally be deemed conclusive proof of the value of Italian friendship. Count di Robilant, Italian ambassador at Vienna, warned his government not to yield too readily to pro-Austrian pressure, lest the dignity of Italy be compromised, or her desire for an alliance be granted on onerous terms. Mancini, foreign minister, who was as anxious as Depretis for the conclusion of the Franco-Italian commercial treaty, gladly followed this advice, and limited his efforts to the maintenance of correct diplomatic relations with the central powers. Except in regard to the Roman question, the advantages and disadvantages of an Italian alliance with Austria and Germany counterbalanced each other. A *rapprochement* with France and a continuance of the Irredentist movement could not fail to arouse Austro-German hostility; but, on the other hand, to draw near to the central powers would inevitably accentuate the diffidence of France. In the one hypothesis, as in the other, Italy could count upon the moral support of Great Britain, but could not make of British friendship the keystone of a Continental policy. Apart from resentment against France on account of Tunisia there remained the question of the temporal power of the pope to turn the scale in favour of Austria and Germany. Danger of foreign interference in the relations between Italy and the papacy had never been so great since the Italian occupation of Rome, as when, in the summer of 1881, the disorders during the transfer of the remains of Pius IX. had lent an unwonted ring of plausibility to the papal complaint concerning the "miserable" position of the Holy See. Bismarck at that moment had entered upon his "pilgrimage to Canossa," and was anxious to obtain from the

Growth of the Triple Alliance.

Vatican the support of German Catholics. What resistance could Italy have offered had the German chancellor, seconded by Austria, and assuredly supported by France, called upon Italy to revise the Law of Guarantees in conformity with Catholic exigencies, or had he taken the initiative of making papal independence the subject of an international conference? Friendship and alliance with Catholic Austria and powerful Germany could alone lay this spectre. This was the only immediate advantage Italy could hope to obtain by drawing nearer the central Powers.

The political conditions of Europe favoured the realization of Italian desires. Growing rivalry between Austria and Russia in the Balkans rendered the continuance of the "League of the Three Emperors" a practical impossibility. The Austro-German alliance of 1879 formally guaranteed the territory of the contracting parties, but Austria could not count upon effectual help from Germany in case of war, since Russian attack upon Austria would certainly have been followed by French attack upon Germany. As in 1869–1870, it therefore became a matter of the highest importance for Austria to retain full disposal of all her troops by assuring herself against Italian aggression. The tsar, Alexander III., under the impression of the assassination of his father, desired, however, the renewal of the *Dreikaiserbund*, both as a guarantee of European peace and as a conservative league against revolutionary parties. The German emperor shared this desire, but Bismarck and the Austrian emperor wished to substitute for the imperial league some more advantageous combination. Hence a tacit understanding between Bismarck and Austria that the latter should profit by Italian resentment against France to draw Italy into the orbit of the Austro-German alliance. For the moment Germany was to hold aloof lest any active initiative on her part should displease the Vatican, of whose help Bismarck stood in need.

At the beginning of August 1881 the Austrian press mooted the idea of a visit from King Humbert to the emperor Francis Joseph. Count di Robilant, anxious that Italy should not seem to beg a smile from the central Powers, advised Mancini to receive with caution the suggestions of the Austrian press. Depretis took occasion to deny, in a form scarcely courteous, the probability of the visit. Robilant's opposition to a precipitate acceptance of the Austrian hint was founded upon fear lest King Humbert at Vienna might be pressed to disavow Irredentist aspirations, and upon a desire to arrange for a visit of the emperor Francis Joseph to Rome in return for King Humbert's visit to Vienna. Seeing the hesitation of the Italian government, the Austrian and German semi-official press redoubled their efforts to bring about the visit. By the end of September the idea had gained such ground in Italy that the visit was practically settled, and on the 7th of October Mancini informed Robilant (who was then in Italy) of the fact. Though he considered such precipitation impolitic, Robilant, finding that confidential information of Italian intentions had already been conveyed to the Austrian government, sought an interview with King Humbert, and on the 17th of October started for Vienna to settle the conditions of the visit. Depretis, fearing to jeopardize the impending conclusion of the Franco-Italian commercial treaty, would have preferred the visit to take the form of an act of personal courtesy between sovereigns. The Austrian government, for its part, desired that the king should be accompanied by Depretis, though not by Mancini, lest the presence of the Italian foreign minister should lend to the occasion too marked a political character. Mancini, unable to brook exclusion, insisted, however, upon accompanying the king. King Humbert with Queen Margherita reached Vienna on the morning of the 27th of October, and stayed at the Hofburg until the 31st of October. The visit was marked by the greatest cordiality, Count Robilant's fears of inopportune pressure with regard to Irredentism proving groundless. Both in Germany and Austria the visit was construed as a preliminary to the adhesion of Italy to the Austro-German alliance. Count Hatzfeldt, on behalf of the German Foreign Office, informed the Italian ambassador in Berlin that whatever was done at Vienna would be regarded as having been done in the German capital. Nor did nascent irritation in France prevent the conclusion of the Franco-Italian commercial treaty, which was signed at Paris on the 3rd of November.

In Italy public opinion as a whole was favourable to the visit, especially as it was not considered an obstacle to the projected increase of the army and navy. Doubts, however, soon sprang up as to its effect upon the minds of Austrian statesmen, since on the 8th of November the language employed by Kállay and Count Andrássy to the Hungarian delegations on the subject of Irredentism was scarcely calculated to soothe Italian susceptibilities. But on 9th November the European situation was suddenly modified by the formation of the Gambetta cabinet, and, in view of the policy of revenge with which Gambetta was supposed to be identified, it became imperative for Bismarck to assure himself that Italy would not be enticed into a Francophil attitude by any concession Gambetta might offer. As usual when dealing with weaker nations, the German chancellor resorted to intimidation. He not only re-established the Prussian legation to the Vatican, suppressed since 1874, and omitted from the imperial message to the Reichstag (17th November 1881) all reference to King Humbert's visit to Vienna, but took occasion on the 29th of November to refer to Italy as a country tottering on the verge of revolution, and opened in the German semi-official press a campaign in favour of an international guarantee for the independence of the papacy. These manœuvres produced their effect upon Italian public opinion. In the long and important debate upon foreign policy in the Italian Chamber of Deputies (6th to 9th December) the fear was repeatedly expressed lest Bismarck should seek to purchase the support of German Catholics by raising the Roman question. Mancini, still unwilling frankly to adhere to the Austro-German alliance, found his policy of "friendship all round" impeded by Gambetta's uncompromising attitude in regard to Tunisia. Bismarck nevertheless continued his press campaign in favour of the temporal power until, reassured by Gambetta's decision to send Roustan back to Tunis to complete as minister the anti-Italian programme begun as consul, he finally instructed his organs to emphasize the common interests of Germany and Italy on the occasion of the opening of the St Gothard tunnel. But the effect of the German press campaign could not be effaced in a day. At the new year's reception of deputies King Humbert aroused enthusiasm by a significant remark that Italy intended to remain "mistress in her own house"; while Mancini addressed to Count de Launay, Italian ambassador in Berlin, a haughty despatch, repudiating the supposition that the pope might (as Bismarckian emissaries had suggested to the Vatican) obtain abroad greater spiritual liberty than in Rome, or that closer relations between Italy and Germany, such as were required by the interests and aspirations of the two countries, could be made in any way contingent upon a modification of Italian freedom of action in regard to home affairs.

The sudden fall of Gambetta (26th January 1882) having removed the fear of immediate European complications, the cabinets of Berlin and Vienna again displayed diffidence towards Italy. So great was Bismarck's distrust of Italian parliamentary instability, his doubts of Italian capacity for offensive warfare and his fear of the Francophil tendencies of Depretis, that for many weeks the Italian ambassador at Berlin was unable to obtain audience of the chancellor. But for the Tunisian question Italy might again have been drawn into the wake of France. Mancini tried to impede the organization of French rule in the Regency by refusing to recognize the treaty of Bardo, yet so careless was Bismarck of Italian susceptibilities that he instructed the German consul at Tunis to recognize French decrees. Partly under the influence of these circumstances, and partly in response to persuasion by Baron Blanc, secretary-general for foreign affairs, Mancini instructed Count di Robilant to open negotiations for an Italo-Austrian alliance—instructions which Robilant neglected until questioned by Count Kalnóky on the subject. The first exchange of ideas between the two Governments

proved fruitless, since Kalnóky, somewhat Clerical-minded, was averse from guaranteeing the integrity of all Italian territory, and Mancini was equally unwilling to guarantee to Austria permanent possession of Trent and Trieste. Mancini, moreover, wished the treaty of alliance to provide for reciprocal protection of the chief interests of the contracting Powers, Italy undertaking to second Austria-Hungary in the Balkans, and Austria and Germany pledging themselves to support Italy in Mediterranean questions. Without some such proviso Italy would, in Mancini's opinion, be exposed single-handed to French resentment. At the request of Kalnóky, Mancini defined his proposal in a memorandum, but the illness of himself and Depretis, combined with an untoward discussion in the Italian press on the failure of the Austrian emperor to return in Rome King Humbert's visit to Vienna, caused negotiations to drag. The pope, it transpired, had refused to receive the emperor if he came to Rome on a visit to the Quirinal, and Francis Joseph, though anxious to return King Humbert's visit, was unable to offend the feelings of his Catholic subjects. Meanwhile (11th May 1882) the Italian parliament adopted the new Army Bill, involving a special credit of £5,100,000 for the creation of two new army corps, by which the war footing of the regular army was raised to nearly 850,000 men and the ordinary military estimates to £8,000,000 per annum. Garibaldi, who, since the French occupation of Tunis, had ardently worked for the increase of the army, had thus the satisfaction of seeing his desire realized before his death at Caprera, on the 2nd of June 1882. "In spirit a child, in character a man of classic mould," Garibaldi had remained the nation's idol, an almost legendary hero whose place none could aspire to fill. Gratitude for his achievements and sorrow for his death found expression in universal mourning wherein king and peasant equally joined. Before his death, and almost contemporaneously with the passing of the Army Bill, negotiations for the alliance were renewed. Encouraged from Berlin, Kalnóky agreed to the reciprocal territorial guarantee, but declined reciprocity in support of special interests. Mancini had therefore to be content with a declaration that the allies would act in mutually friendly intelligence. Depretis made some opposition, but finally acquiesced, and the treaty of triple alliance was signed on the 20th of May 1882, five days after the promulgation of the Franco-Italian commercial treaty in Paris. Though partial revelations have been made, the exact tenor of the treaty of triple alliance has never been divulged. It is known to have been concluded for a period of five years, to have pledged the contracting parties to join in resisting attack upon the territory of any one of them, and to have specified the military disposition to be adopted by each in case attack should come either from France, or from Russia, or from both simultaneously. The Italian General Staff is said to have undertaken, in the event of war against France, to operate with two armies on the north-western frontier against the French armée des Alpes, of which the war strength is about 250,000 men. A third Italian army would, if expedient, pass into Germany, to operate against either France or Russia. Austria undertook to guard the Adriatic on land and sea, and to help Germany by checkmating Russia on land. Germany would be sufficiently employed in carrying on war against two fronts. Kalnóky desired that both the terms of the treaty and the fact of its conclusion should remain secret, but Bismarck and Mancini hastened to hint at its existence, the former in the Reichstag on the 12th of June 1882, and the latter in the Italian semi-official press. A revival of Irredentism in connexion with the execution of an Austrian deserter named Oberdank, who after escaping into Italy endeavoured to return to Austria with explosive bombs in his possession, and the cordial references to France made by Depretis at Stradella (8th October 1882), prevented the French government from suspecting the existence of the alliance, or from ceasing to strive after a Franco-Italian understanding. Suspicion was not aroused until March 1883, when Mancini, in defending himself against strictures upon his refusal to co-operate with Great Britain in Egypt, practically revealed the existence of the treaty, thereby irritating France and destroying Depretis's secret hope of finding in the triple alliance the advantage of an Austro-German guarantee without the disadvantage of French enmity. In Italy the revelation of the treaty was hailed with satisfaction except by the Clericals, who were enraged at the blow thus struck at the restoration of the pope's temporal power, and by the Radicals, who feared both the inevitable breach with republican France and the reinforcement of Italian constitutional parties by intimacy with strong monarchical states such as Germany and Austria. These very considerations naturally combined to recommend the fact to constitutionalists, who saw in it, besides the territorial guarantee, the elimination of the danger of foreign interference in the relations between Italy and the Vatican, such as Bismarck had recently threatened and such as France was believed ready to propose.

Death of Garibaldi.

Signature of the Treaty, 1882.

Nevertheless, during its first period (1882–1887) the triple alliance failed to ensure cordiality between the contracting Powers. Mancini exerted himself in a hundred ways to soothe French resentment. He not only refused to join Great Britain in the Egyptian expedition, but agreed to suspend Italian consular jurisdiction in Tunis, and deprecated suspicion of French designs upon Morocco. His efforts were worse than futile. France remained cold, while Bismarck and Kalnóky, distrustful of the Radicalism of Depretis and Mancini, assumed towards their ally an attitude almost hostile. Possibly Germany and Austria may have been influenced by the secret treaty signed between Austria, Germany and Russia on the 21st of March 1884, and ratified during the meeting of the three emperors at Skierniewice in September of that year, by which Bismarck, in return for "honest brokerage" in the Balkans, is understood to have obtained from Austria and Russia a promise of benevolent neutrality in case Germany should be "forced" to make war upon a fourth power—France. Guaranteed thus against Russian attack, Italy became in the eyes of the central powers a negligible quantity, and was treated accordingly. Though kept in the dark as to the Skierniewice arrangement, the Italian government soon discovered from the course of events that the triple alliance had practically lost its object, European peace having been assured without Italian co-operation. Meanwhile France provided Italy with fresh cause for uneasiness by abating her hostility to Germany. Italy in consequence drew nearer to Great Britain, and at the London conference on the Egyptian financial question sided with Great Britain against Austria and Germany. At the same time negotiations took place with Great Britain for an Italian occupation of Massawa, and Mancini, dreaming of a vast Anglo-Italian enterprise against the Mahdi, expatiated in the spring of 1885 upon the glories of an Anglo-Italian alliance, an indiscretion which drew upon him a scarcely-veiled *démenti* from London. Again speaking in the Chamber, Mancini claimed for Italy the principal merit in the conclusion of the triple alliance, but declared that the alliance left Italy full liberty of action in regard to interests outside its scope, "especially as there was no possibility of obtaining protection for such interests from those who by the alliance had not undertaken to protect them." These words, which revealed the absence of any stipulation in regard to the protection of Italian interests in the Mediterranean, created lively dissatisfaction in Italy and corresponding satisfaction in France. They hastened Mancini's downfall (17th June 1885), and prepared the advent of count di Robilant, who three months later succeeded Mancini at the Italian Foreign Office. Robilant, for whom the Skierniewice pact was no secret, followed a firmly independent policy throughout the Bulgarian crisis of 1885–1886, declining to be drawn into any action beyond that required by the treaty of Berlin and the protection of Italian interests in the Balkans. Italy, indeed, came out of the Eastern crisis with enhanced prestige and with her relations to Austria greatly improved. Towards Prince Bismarck Robilant maintained an attitude of dignified independence, and as, in the spring of 1886, the moment for the renewal of the triple alliance drew near, he profited by the development of the Bulgarian crisis and the

threatened Franco-Russian understanding to secure from the central powers "something more" than the bare territorial guarantee of the original treaty. This "something more" consisted, at least in part, of the arrangement, with the help of Austria and Germany, of an Anglo-Italian naval understanding having special reference to the Eastern question, but providing for common action by the British and Italian fleets in the Mediterranean in case of war. A vote of the Italian Chamber on the 4th of February 1887, in connexion with the disaster to Italian troops at Dogali, in Abyssinia, brought about the resignation of the Depretis-Robilant cabinet. The crisis dragged for three months, and before its definitive solution by the formation of a Depretis-Crispi ministry, Robilant succeeded (17th March 1887) in renewing the triple alliance on terms more favourable to Italy than those obtained in 1882. Not only did he secure concessions from Austria and Germany corresponding in some degree to the improved state of the Italian army and navy, but, in virtue of the Anglo-Italian understanding, assured the practical adhesion of Great Britain to the European policy of the central powers, a triumph probably greater than any registered by Italian diplomacy since the completion of national unity.

First renewal of the Triple Alliance.

The period between May 1881 and July 1887 occupied, in the region of foreign affairs, by the negotiation, conclusion and renewal of the triple alliance, by the Bulgarian crisis and by the dawn of an Italian colonial policy, was marked at home by urgent political and economic problems, and by the parliamentary phenomena known as *trasformismo*. On the 29th of June 1881 the Chamber adopted a Franchise Reform Bill, which increased the electorate from 600,000 to 2,000,000 by lowering the fiscal qualification from 40 to 19·80 lire in direct taxation, and by extending the suffrage to all persons who had passed through the two lower standards of the elementary schools, and practically to all persons able to read and write. The immediate result of the reform was to increase the political influence of large cities where the proportion of illiterate workmen was lower than in the country districts, and to exclude from the franchise numbers of peasants and small proprietors who, though of more conservative temperament and of better economic position than the artizan population of the large towns, were often unable to fulfil the scholarship qualification. On the 12th of April 1883 the forced currency was formally abolished by the resumption of treasury payments in gold with funds obtained through a loan of £14,500,000 issued in London on the 5th of May 1882. Owing to the hostility of the French market, the loan was covered with difficulty, and, though the gold premium fell and commercial exchanges were temporarily facilitated by the resumption of cash payments, it is doubtful whether these advantages made up for the burden of £640,000 additional annual interest thrown upon the exchequer. On the 6th of March 1885 parliament finally sanctioned the conventions by which state railways were farmed out to three private companies—the Mediterranean, Adriatic and Sicilian. The railways redeemed in 1875–1876 had been worked in the interval by the government at a heavy loss. A commission of inquiry reported in favour of private management. The conventions, concluded for a period of sixty years, but terminable by either party after twenty or forty years, retained for the state the possession of the lines (except the southern railway, viz. the line from Bologna to Brindisi belonging to the Società Meridionale to whom the Adriatic lines were now farmed), but sold rolling stock to the companies, arranged various schedules of state subsidy for lines projected or in course of construction, guaranteed interest on the bonds of the companies and arranged for the division of revenue between the companies, the reserve fund and the state. National control of the railways was secured by a proviso that the directors must be of Italian nationality. Depretis and his colleague Genala, minister of public works, experienced great difficulty in securing parliamentary sanction for the conventions, not so much on account of their defective character, as from the opposition of local interests anxious to extort new lines from the government. In fact, the conventions were only voted by a majority of twenty-three votes after the government had undertaken to increase the length of new state-built lines from 1500 to 2500 kilometres. Unfortunately, the calculation of probable railway revenue on which the conventions had been based proved to be enormously exaggerated. For many years the 37½% of the gross revenue (less the cost of maintaining the rolling stock, incumbent on the state) scarcely sufficed to pay the interest on debts incurred for railway construction and on the guaranteed bonds. Gradually the increase of traffic consequent upon the industrial development of Italy decreased the annual losses of the state, but the position of the government in regard to the railways still remained so unsatisfactory as to render the resumption of the whole system by the state on the expiration of the first period of twenty years in 1905 inevitable.

Internal reforms.

The railway conventions.

Intimately bound up with the forced currency, the railway conventions and public works was the financial question in general. From 1876, when equilibrium between expenditure and revenue had first been attained, taxation yielded steady annual surpluses, which in 1881 reached the satisfactory level of £2,120,000. The gradual abolition of the grist tax on minor cereals diminished the surplus in 1882 to £236,000, and in 1883 to £110,000, while the total repeal of the grist tax on wheat, which took effect on the 1st of January 1884, coincided with the opening of a new and disastrous period of deficit. True, the repeal of the grist tax was not the only, nor possibly even the principal, cause of the deficit. The policy of "fiscal transformation" inaugurated by the Left increased revenue from indirect taxation from £17,000,000 in 1876 to more than £24,000,000 in 1887, by substituting heavy corn duties for the grist tax, and by raising the sugar and petroleum duties to unprecedented levels. But partly from lack of firm financial administration, partly through the increase of military and naval expenditure (which in 1887 amounted to £9,000,000 for the army, while special efforts were made to strengthen the navy), and principally through the constant drain of railway construction and public works, the demands upon the exchequer grew largely to exceed the normal increase of revenue, and necessitated the contraction of new debts. In their anxiety to remain in office Depretis and the finance minister, Magliani, never hesitated to mortgage the financial future of their country. No concession could be denied to deputies, or groups of deputies, whose support was indispensable to the life of the cabinet, nor, under such conditions, was it possible to place any effective check upon administrative abuses in which politicians or their electors were interested. Railways, roads and harbours which contractors had undertaken to construct for reasonable amounts were frequently made to cost thrice the original estimates. Minghetti, in a trenchant exposure of the parliamentary condition of Italy during this period, cites a case in which a credit for certain public works was, during a debate in the Chamber, increased by the government from £6,600,000 to £9,000,000 in order to conciliate local political interests. In the spring of 1887 Genala, minister of public works, was taken to task for having sanctioned expenditure of £80,000,000 on railway construction while only £40,000,000 had been included in the estimates. As most of these credits were spread over a series of years, succeeding administrations found their financial liberty of action destroyed, and were obliged to cover deficit by constant issues of consolidated stock. Thus the deficit of £940,000 for the financial year 1885–1886 rose to nearly £2,920,000 in 1887–1888, and in 1888–1889 attained the terrible level of £9,400,000.

Finance.

Nevertheless, in spite of many and serious shortcomings, the long series of Depretis administrations was marked by the adoption of some useful measures. Besides the realization of the formal programme of the Left, consisting of the repeal of the grist tax, the abolition of the forced currency, the extension of the suffrage and the development of the railway system, Depretis laid the foundation for land tax re-assessment by introducing a new cadastral survey. Unfortunately, the new survey was made largely optional, so that provinces which had reason

to hope for a diminution of land tax under a revised assessment hastened to complete their survey, while others, in which the average of the land tax was below a normal assessment, neglected to comply with the provisions of the scheme. An important undertaking, known as the Agricultural Inquiry, brought to light vast quantities of information valuable for future agrarian legislation. The year 1885 saw the introduction and adoption of a measure embodying the principle of employers' liability for accidents to workmen, a principle subsequently extended and more equitably defined in the spring of 1899. An effort to encourage the development of the mercantile marine was made in the same year, and a convention was concluded with the chief lines of passenger steamers to retain their fastest vessels as auxiliaries to the fleet in case of war. Sanitation and public hygiene received a potent impulse from the cholera epidemic of 1884, many of the unhealthiest quarters in Naples and other cities being demolished and rebuilt, with funds chiefly furnished by the state. The movement was strongly supported by King Humbert, whose intrepidity in visiting the most dangerous spots at Busca and Naples while the epidemic was at its height, reassuring the panic-stricken inhabitants by his presence, excited the enthusiasm of his people and the admiration of Europe.

During the accomplishment of these and other reforms the condition of parliament underwent profound change. By degrees the administrations of the Left had ceased to rely solely upon the Liberal sections of the Chamber, and had carried their most important bills with the help of the Right. This process of transformation was not exclusively the work of Depretis, but had been initiated as early as 1873, when a portion of the Right under Minghetti had, by joining the Left, overturned the Lanza-Sella cabinet. In 1876 Minghetti himself had fallen a victim to a similar defection of Conservative deputies. The practical annihilation of the old Right in the elections of 1876 opened a new parliamentary era. Reduced in number to less than one hundred, and radically changed in spirit and composition, the Right gave way, if not to despair, at least to a despondency unsuited to an opposition party. Though on more than one occasion personal rancour against the men of the Moderate Left prevented the Right from following Sella's advice and regaining, by timely coalition with cognate parliamentary elements, a portion of its former influence, the bulk of the party, with singular inconsistency, drew nearer and nearer to the Liberal cabinets. The process was accelerated by Sella's illness and death (14th March 1884), an event which cast profound discouragement over the more thoughtful of the Conservatives and Moderate Liberals, by whom Sella had been regarded as a supreme political reserve, as a statesman whose experienced vigour and patriotic sagacity might have been trusted to lift Italy from any depth of folly or misfortune. By a strange anomaly the Radical measures brought forward by the Left diminished instead of increasing the distance between it and the Conservatives. Numerically insufficient to reject such measures, and lacking the fibre and the cohesion necessary for the pursuance of a far-sighted policy, the Right thought prudent not to employ its strength in uncompromising opposition, but rather, by supporting the government, to endeavour to modify Radical legislation in a Conservative sense. In every case the calculation proved fallacious. Radical measures were passed unmodified, and the Right was compelled sadly to accept the accomplished fact. Thus it was with the abolition of the grist tax, the reform of the suffrage, the railway conventions and many other bills. When, in course of time, the extended suffrage increased the Republican and Extreme Radical elements in the Chamber, and the Liberal "Pentarchy" (composed of Crispi, Cairoli, Nicotera, Zanardelli and Baccarini) assumed an attitude of bitter hostility to Depretis, the Right, obeying the impulse of Minghetti, rallied openly to Depretis, lending him aid without which his prolonged term of office would have been impossible. The result was parliamentary chaos, baptized *trasformismo*. In May 1883 this process received official recognition by the elimination of the Radicals Zanardelli and Baccarini from the Depretis cabinet, while in the course of 1884 a Conservative, Signor Biancheri, was elected to the presidency of the Chamber, and another Conservative, General Ricotti, appointed to the War Office. Though Depretis, at the end of his life in 1887, showed signs of repenting of the confusion thus created, he had established a parliamentary system destined largely to sterilize and vitiate the political life of Italy.

"Trasformismo."

Contemporaneously with the vicissitudes of home and foreign policy under the Left there grew up in Italy a marked tendency towards colonial enterprise. The tendency itself dated from 1869, when a congress of the Italian chambers of commerce at Genoa had urged the Lanza cabinet to establish a commercial depôt on the Red Sea. On the 11th of March 1870 an Italian shipper, Signor Rubattino, had bought the bay of Assab, with the neighbouring island of Darmakich, from Beheran, sultan of Raheita, for £1880, the funds being furnished by the government. The Egyptian government being unwilling to recognize the sovereignty of Beheran over Assab or his right to sell territory to a foreign power, Visconti-Venosta thought it opportune not then to occupy Assab. No further step was taken until, at the end of 1879, Rubattino prepared to establish a commercial station at Assab. The British government made inquiry as to his intentions, and on the 19th of April 1880 received a formal undertaking from Cairoli that Assab would never be fortified nor be made a military establishment. Meanwhile (January 1880) stores and materials were landed, and Assab was permanently occupied. Eighteen months later a party of Italian sailors and explorers under Lieutenant Biglieri and Signor Giulietti were massacred in Egyptian territory. Egypt, however, refused to make thorough inquiry into the massacre, and was only prevented from occupying Raheita and coming into conflict with Italy by the good offices of Lord Granville, who dissuaded the Egyptian government from enforcing its sovereignty. On the 20th of September 1881 Beheran formally accepted Italian protection, and in the following February an Anglo-Italian convention established the Italian title to Assab on condition that Italy should formally recognise the suzerainty of the Porte and of the khedive over the Red Sea coast, and should prevent the transport of arms and munitions of war through the territory of Assab. This convention was never recognized by the Porte nor by the Egyptian government. A month later (10th March 1882) Rubattino made over his establishment to the Italian government, and on the 12th of June the Chamber adopted a bill constituting Assab an Italian crown colony.

Colonial policy.

Within four weeks of the adoption of this bill the bombardment of Alexandria by the British fleet (11th July 1882) opened an era destined profoundly to affect the colonial position of Italy. The revolt of Arabi Pasha (September 1881) had led to the meeting of an ambassadorial conference at Constantinople, promoted by Mancini, Italian minister for foreign affairs, in the hope of preventing European intervention in Egypt and the permanent establishment of an Anglo-French condominium to the detriment of Italian influence. At the opening of the conference (23rd June 1882) Italy secured the signature of a self-denying protocol whereby all the great powers undertook to avoid isolated action; but the rapid development of the crisis in Egypt, and the refusal of France to co-operate with Great Britain in the restoration of order, necessitated vigorous action by the latter alone. In view of the French refusal, Lord Granville on the 27th of July invited Italy to join in restoring order in Egypt; but Mancini and Depretis, in spite of the efforts of Crispi, then in London, declined the offer. Financial considerations, lack of proper transports for an expeditionary corps, fear of displeasing France, dislike of a "policy of adventure," misplaced deference towards the ambassadorial conference in Constantinople, and unwillingness to thwart the current of Italian sentiment in favour of the Egyptian "nationalists," were the chief motives of the Italian refusal, which had the effect of somewhat estranging Great Britain and Italy. Anglo-Italian relations, however, regained their normal cordiality two years later, and found expression in the support

The Egyptian Question.

lent by Italy to the British proposal at the London conference on the Egyptian question (July 1884). About the same time Mancini was informed by the Italian agent in Cairo that Great Britain would be well disposed towards an extension of Italian influence on the Red Sea coast. Having sounded Lord Granville, Mancini received encouragement to seize Beilul and Massawa, in view of the projected restriction of the Egyptian zone of military occupation consequent on the Mahdist rising in the Sudan. Lord Granville further inquired whether Italy would co-operate in pacifying the Sudan, and received an affirmative reply. Italian action was hastened by news that, in December 1884, an exploring party under Signor Bianchi, royal commissioner for Assab, had been massacred in the Aussa (Danakil) country, an event which aroused in Italy a desire to punish the assassins and to obtain satisfaction for the still unpunished massacre of Signor Giulietti and his companions. Partly to satisfy public opinion, partly in order to profit by the favourable disposition of the British government, and partly in the hope of remedying the error committed in 1882 by refusal to co-operate with Great Britain in Egypt, the Italian government in January 1885 despatched an expedition under Admiral Caimi and Colonel Saletta to occupy Massawa and Beilul. The occupation, effected on the 5th of February, was accelerated by fear lest Italy might be forestalled by France or Russia, both of which powers were suspected of desiring to establish themselves firmly on the Red Sea and to exercise a protectorate over Abyssinia. News of the occupation reached Europe simultaneously with the tidings of the fall of Khartum, an event which disappointed Italian hopes of military co-operation with Great Britain in the Sudan. The resignation of the Gladstone-Granville cabinet further precluded the projected Italian occupation of Suakin, and the Italians, wisely refraining from an independent attempt to succour Kassala, then besieged by the Mahdists, bent their efforts to the increase of their zone of occupation around Massawa. The extension of the Italian zone excited the suspicions of John, negus of Abyssinia, whose apprehensions were assiduously fomented by Alula, ras of Tigré, and by French and Greek adventurers. Measures, apparently successful, were taken to reassure the negus, but shortly afterwards protection inopportunely accorded by Italy to enemies of Ras Alula, induced the Abyssinians to enter upon hostilities. In January 1886 Ras Alula raided the village of Wa, to the west of Zula, but towards the end of the year (23rd November) Wa was occupied by the irregular troops of General Gené, who had superseded Colonel Saletta at Massawa. Angered by this step, Ras Alula took prisoners the members of an Italian exploring party commanded by Count Salimbeni, and held them as hostages for the evacuation of Wa. General Gené nevertheless reinforced Wa and pushed forward a detachment to Saati. On the 25th of January 1887 Ras Alula attacked Saati, but was repulsed with loss. On the following day, however, the Abyssinians succeeded in surprising, near the village of Dogali, an Italian force of 524 officers and men under Colonel De Cristoforis, who were convoying provisions to the garrison of Saati. The Abyssinians, 20,000 strong, speedily overwhelmed the small Italian force, which, after exhausting its ammunition, was destroyed where it stood. One man only escaped. Four hundred and seven men and twenty-three officers were killed outright, and one officer and eighty-one men wounded. Dead and wounded alike were horribly mutilated by order of Alula. Fearing a new attack, General Gené withdrew his forces from Saati, Wa and Arafali; but the losses of the Abyssinians at Saati and Dogali had been so heavy as to dissuade Alula from further hostilities.

Disaster of Dogali.

In Italy the disaster of Dogali produced consternation, and caused the fall of the Depretis-Robilant cabinet. The Chamber, eager for revenge, voted a credit of £200,000, and sanctioned the despatch of reinforcements. Meanwhile Signor Crispi, who, though averse from colonial adventure, desired to vindicate Italian honour, entered the Depretis cabinet as minister of the interior, and obtained from parliament a new credit of £800,000. In November 1887 a strong expedition under General di San Marzano raised the strength of the Massawa garrison to nearly 20,000 men. The British government, desirous of preventing an Italo-Abyssinian conflict, which could but strengthen the position of the Mahdists, despatched Mr (afterwards Sir) Gerald Portal from Massawa on the 29th of October to mediate with the negus. The mission proved fruitless. Portal returned to Massawa on the 25th of December 1887, and warned the Italians that John was preparing to attack them in the following spring with an army of 100,000 men. On the 28th of March 1888 the negus indeed descended from the Abyssinian high plateau in the direction of Saati, but finding the Italian position too strong to be carried by assault, temporized and opened negotiations for peace. His tactics failed to entice the Italians from their position, and on the 3rd of April sickness among his men compelled John to withdraw the Abyssinian army. The negus next marched against Menelek, king of Shoa, whose neutrality Italy had purchased with 5000 Remington rifles and a supply of ammunition, but found him with 80,000 men too strongly entrenched to be successfully attacked. Tidings of a new Mahdist incursion into Abyssinian territory reaching the negus induced him to postpone the settlement of his quarrel with Menelek until the dervishes had been chastised. Marching towards the Blue Nile, he joined battle with the Mahdists, but on the 10th of March 1889 was killed, in the hour of victory, near Gallabat. His death gave rise to an Abyssinian war of succession between Mangashà, natural son of John, and Menelek, grandson of the Negus Sella-Sellassié. Menelek, by means of Count Antonelli, resident in the Shoa country, requested Italy to execute a diversion in his favour by occupying Asmarà and other points on the high plateau. Antonelli profited by the situation to obtain Menelek's signature to a treaty fixing the frontiers of the Italian colony and defining Italo-Abyssinian relations. The treaty, signed at Uccialli on the 2nd of May 1899, arranged for regular intercourse between Italy and Abyssinia and conceded to Italy a portion of the high plateau, with the positions of Halai, Saganeiti and Asmarà. The main point of the treaty, however, lay in clause 17:—

Abyssinia.

Treaty of Uccialli.

"His Majesty the king of kings of Ethiopia *consents* to make use of the government of His Majesty the king of Italy for the treatment of all questions concerning other powers and governments."

Upon this clause Italy founded her claim to a protectorate over Abyssinia. In September 1889 the treaty of Uccialli was ratified in Italy by Menelek's lieutenant, the Ras Makonnen. Makonnen further concluded with the Italian premier, Crispi, a convention whereby Italy recognized Menelek as emperor of Ethiopia, Menelek recognized the Italian colony, and arranged for a special Italo-Abyssinian currency and for a loan. On the 11th of October Italy communicated article 17 of the treaty of Uccialli to the European powers, interpreting it as a valid title to an Italian protectorate over Abyssinia. Russia alone neglected to take note of the communication, and persisted in the hostile attitude she had assumed at the moment of the occupation of Massawa. Meanwhile the Italian mint coined thalers bearing the portrait of King Humbert, with an inscription referring to the Italian protectorate, and on the 1st of January 1890 a royal decree conferred upon the colony the name of "Eritrea."

In the colony itself General Baldissera, who had replaced General Saletta, delayed the movement against Mangashà desired by Menelek. The Italian general would have preferred to wait until his intervention was requested by both pretenders to the Abyssinian throne. Pressed by the home government, he, however, instructed a native ally to occupy the important positions of Keren and Asmarà, and prepared himself to take the offensive against Mangashà and Ras Alula. The latter retreated south of the river Mareb, leaving the whole of the cis-Mareb territory, including the provinces of Hamasen, Agameh, Seraè and Okulè-Kusai, in Italian hands. General Orero, successor of Baldissera, pushed offensive action more vigorously, and on the 26th of January 1890 entered Adowa, a city considerably to the south of the Mareb—an imprudent step which aroused Menelek's suspicions, and had hurriedly to be retraced. Mangashà, seeing further resistance to be useless, submitted to Menelek, who at the end

Operations in Abyssinia.

of February ratified at Makallé the additional convention to the treaty of Uccialli, but refused to recognize the Italian occupation of the Mareb. The negus, however, conformed to article 17 of the treaty of Uccialli by requesting Italy to represent Abyssinia at the Brussels anti-slavery conference, an act which strengthened Italian illusions as to Menelek's readiness to submit to their protectorate. Menelek had previously notified the chief European powers of his coronation at Entotto (14th December 1889), but Germany and Great Britain replied that such notification should have been made through the Italian government. Germany, moreover, wounded Menelek's pride by employing merely the title of "highness." The negus took advantage of the incident to protest against the Italian text of article 17, and to contend that the Amharic text contained no equivalent for the word "*consent*," but merely stipulated that Abyssinia "*might*" make use of Italy in her relations with foreign powers. On the 28th of October 1890 Count Antonelli, negotiator of the treaty, was despatched to settle the controversy, but on arriving at Adis Ababa, the new residence of the negus, found agreement impossible either with regard to the frontier or the protectorate. On the 10th of April 1891, Menelek communicated to the powers his views with regard to the Italian frontier, and announced his intention of re-establishing the ancient boundaries of Ethiopia as far as Khartum to the north-west and Victoria Nyanza to the south. Meanwhile the marquis de Rudini, who had succeeded Crispi as Italian premier, had authorized the abandonment of article 17 even before he had heard of the failure of Antonelli's negotiations. Rudini was glad to leave the whole dispute in abeyance and to make with the local ras, or chieftains, of the high plateau an arrangement securing for Italy the cis-Mareb provinces of Seraè and Okulè-Kusai under the rule of an allied native chief named Bath-Agos. Rudini, however, was able to conclude two protocols with Great Britain (March and April 1891) whereby the British government definitely recognized Abyssinia as within the Italian sphere of influence in return for an Italian recognition of British rights in the Upper Nile.

The period 1887–1890 was marked in Italy by great political activity. The entry of Crispi into the Depretis cabinet as minister of the interior (4th April 1887) introduced into the government an element of vigour which had long been lacking. Though sixty-eight years of age, Crispi possessed an activity, a rapidity of decision and an energy in execution with which none of his contemporaries could vie. Within four months the death of Depretis (29th July 1887) opened for Crispi the way to the premiership. Besides assuming the presidency of the council of ministers and retaining the ministry of the interior, Crispi took over the portfolio of foreign affairs which Depretis had held since the resignation of Count di Robilant. One of the first questions with which he had to deal was that of conciliation between Italy and the Vatican. At the end of May the pope, in an allocution to the cardinals, had spoken of Italy in terms of unusual cordiality, and had expressed a wish for peace. A few days later Signor Bonghi, one of the framers of the Law of Guarantees, published in the *Nuova Antologia* a plea for reconciliation on the basis of an amendment to the Law of Guarantees and recognition by the pope of the Italian title to Rome. The chief incident of the movement towards conciliation consisted, however, in the publication of a pamphlet entitled *La Conciliazione* by Father Tosti, a close friend and confidant of the pope, extolling the advantages of peace between Vatican and Quirinal. Tosti's pamphlet was known to represent papal ideas, and Tosti himself was *persona grata* to the Italian government. Reconciliation seemed within sight when suddenly Tosti's pamphlet was placed on the Index, ostensibly on account of a phrase, "The whole of Italy entered Rome by the breach of Porta Pia; the king cannot restore Rome to the pope, since Rome belongs to the Italian people." On the 4th of June 1887 the official Vatican organ, the *Osservatore Romano*, published a letter written by Tosti to the pope conditionally retracting the views expressed in the pamphlet. The letter had been written at the pope's request, on the understanding that it should not be published. On the 15th of June the pope addressed to Cardinal Rampolla del Tindaro, secretary of state, a letter reiterating in uncompromising terms the papal claim to the temporal power, and at the end of July Cardinal Rampolla reformulated the same claim in a circular to the papal nuncios abroad. The dream of conciliation was at an end, but the Tosti incident had served once more to illustrate the true position of the Vatican in regard to Italy. It became clear that neither the influence of the regular clergy, of which the Society of Jesus is the most powerful embodiment, nor that of foreign clerical parties, which largely control the Peter's Pence fund, would ever permit renunciation of the papal claim to temporal power. France, and the French Catholics especially, feared lest conciliation should diminish the reliance of the Vatican upon France, and consequently French hold over the Vatican. The Vatican, for its part, felt its claim to temporal power to be too valuable a pecuniary asset and too efficacious an instrument of church discipline lightly to be thrown away. The legend of an "imprisoned pope," subject to every whim of his gaolers, had never failed to arouse the pity and loosen the purse-strings of the faithful; dangerous innovators and would-be reformers within the church could be compelled to bow before the symbol of the temporal power, and their spirit of submission tested by their readiness to forgo the realization of their aims until the head of the church should be restored to his rightful domain. More important than all was the interest of the Roman curia, composed almost exclusively of Italians, to retain in its own hands the choice of the pontiff and to maintain the predominance of the Italian element and the Italian spirit in the ecclesiastical hierarchy. Conciliation with Italy would expose the pope and his Italian *entourage* to suspicion of being unduly subject to Italian political influence—of being, in a word, more Italian than Catholic. Such a suspicion would inevitably lead to a movement in favour of the internationalization of the curia and of the papacy. In order to avoid this danger it was therefore necessary to refuse all compromise, and, by perpetual reiteration of a claim incompatible with Italian territorial unity, to prove to the church at large that the pope and the curia were more Catholic than Italian. Such rigidity of principle need not be extended to the affairs of everyday contact between the Vatican and the Italian authorities, with regard to which, indeed, a tacit *modus vivendi* was easily attainable. Italy, for her part, could not go back upon the achievements of the Risorgimento by restoring Rome or any portion of Italian territory to the pope. She had hoped by conciliation to arrive at an understanding which should have ranged the church among the conservative and not among the disruptive forces of the country, but she was keenly desirous to retain the papacy as a preponderatingly Italian institution, and was ready to make whatever formal concessions might have appeared necessary to reassure foreign Catholics concerning the reality of the pope's spiritual independence. The failure of the conciliation movement left profound irritation between Vatican and Quirinal, an irritation which, on the Vatican side, found expression in vivacious protests and in threats of leaving Rome; and, on the Italian side, in the deposition of the syndic of Rome for having visited the cardinal-vicar, in the anti-clerical provisions of the new penal code, and in the inauguration (9th June 1889) of a monument to Giordano Bruno on the very site of his martyrdom.

First Crispi Cabinet.

Tosti and conciliation.

Terms of the "Roman Question."

The internal situation inherited by Crispi from Depretis was very unsatisfactory. Extravagant expenditure on railways and public works, loose administration of finance, the cost of colonial enterprise, the growing demands for the army and navy, the impending tariff war with France, and the over-speculation in building and in industrial ventures, which had absorbed all the floating capital of the country, had combined to produce a state of affairs calling for firm and radical treatment. Crispi, burdened by the premiership and by the two most important portfolios in the cabinet, was, however, unable to exercise efficient control over all departments of state. Nevertheless his administration was by no means unfruitful. Zanardelli,

minister of justice, secured in June 1888 the adoption of a new penal code; state surveillance was extended to the *opere pie*, or charitable institutions; municipal franchise was reformed by granting what was practically manhood suffrage with residential qualification, provision being made for minority representation; and the central state administration was reformed by a bill fixing the number and functions of the various ministries. The management of finance was scarcely satisfactory, for though Giolitti, who had succeeded Magliani and Perazzi at the treasury, suppressed the former's illusory "pension fund," he lacked the fibre necessary to deal with the enormous deficit of nearly £10,000,000 in 1888–1889, the existence of which both Perazzi and he had recognized. The most successful feature of Crispi's term of office was his strict maintenance of order and the suppression of Radical and Irredentist agitation. So vigorous was his treatment of Irredentism that he dismissed without warning his colleague Seismit Doda, minister of finance, for having failed to protest against Irredentist speeches delivered in his presence at Udine. Firmness such as this secured for him the support of all constitutional elements, and after three years' premiership his position was infinitely stronger than at the outset. The general election of 1890 gave the cabinet an almost unwieldy majority, comprising four-fifths of the Chamber. A lengthy term of office seemed to be opening out before him when, on the 31st of January 1891, Crispi, speaking in a debate upon an unimportant bill, angrily rebuked the Right for its noisy interruptions. The rebuke infuriated the Conservative deputies, who, protesting against Crispi's words in the name of the "sacred memories" of their party, precipitated a division and placed the cabinet in a minority. The incident, whether due to chance or guile, brought about the resignation of Crispi. A few days later he was succeeded in the premiership by the marquis di Rudini, leader of the Right, who formed a coalition cabinet with Nicotera and a part of the Left.

Rudini.

The sudden fall of Crispi wrought a great change in the character of Italian relations with foreign powers. His policy had been characterized by extreme cordiality towards Austria and Germany, by a close understanding with Great Britain in regard to Mediterranean questions, and by an apparent animosity towards France, which at one moment seemed likely to lead to war. Shortly before the fall of the Depretis-Robilant cabinet Count Robilant had announced the intention of Italy to denounce the commercial treaties with France and Austria, which would lapse on the 31st of December 1887, and had intimated his readiness to negotiate new treaties. On the 24th of June 1887, in view of a possible rupture of commercial relations with France, the Depretis-Crispi cabinet introduced a new general tariff. The probability of the conclusion of a new Franco-Italian treaty was small, both on account of the protectionist spirit of France and of French resentment at the renewal of the triple alliance, but even such slight probability vanished after a visit paid to Bismarck by Crispi (October 1887) within three months of his appointment to the premiership. Crispi entertained no a priori animosity towards France, but was strongly convinced that Italy must emancipate herself from the position of political dependence on her powerful neighbour which had vitiated the foreign policy of the Left. So far was he from desiring a rupture with France, that he had subordinated acceptance of the portfolio of the interior in the Depretis cabinet to an assurance that the triple alliance contained no provision for offensive warfare. But his ostentatious visit to Friedrichsruh, and a subsequent speech at Turin, in which, while professing sentiments of friendship and esteem for France, he eulogized the personality of Bismarck, aroused against him a hostility on the part of the French which he was never afterwards able to allay. France was equally careless of Italian susceptibilities, and in April 1888 Goblet made a futile but irritating attempt to enforce at Massawa the Ottoman régime of the capitulations in regard to non-Italian residents. In such circumstances the negotiations for the new commercial treaty could but fail, and though the old treaty was prolonged by special arrangement for two months, differential tariffs were put in force on both sides of the frontier on the 29th of February 1888. The value of French exports into Italy decreased immediately by one-half, while Italian exports to France decreased by nearly two-thirds. At the end of 1889 Crispi abolished the differential duties against French imports and returned to the general Italian tariff, but France declined to follow his lead and maintained her prohibitive dues. Meanwhile the enthusiastic reception accorded to the young German emperor on the occasion of his visit to Rome in October 1888, and the cordiality shown towards King Humbert and Crispi at Berlin in May 1889, increased the tension of Franco-Italian relations; nor was it until after the fall of Prince Bismarck in March 1890 that Crispi adopted towards the Republic a more friendly attitude by sending an Italian squadron to salute President Carnot at Toulon. The chief advantage derived by Italy from Crispi's foreign policy was the increase of confidence in her government on the part of her allies and of Great Britain. On the occasion of the incident raised by Goblet with regard to Massawa, Bismarck made it clear to France that, in case of complications, Italy would not stand alone; and when in February 1888 a strong French fleet appeared to menace the Italian coast, the British Mediterranean squadron demonstrated its readiness to support Italian naval dispositions. Moreover, under Crispi's hand Italy awoke from the apathy of former years and gained consciousness of her place in the world. The conflict with France, the operations in Eritrea, the vigorous interpretation of the triple alliance, the questions of Morocco and Bulgaria, were all used by him as means to stimulate national sentiment. With the instinct of a true statesman, he felt the pulse of the people, divined their need for prestige, and their preference for a government heavy-handed rather than lax. How great had been Crispi's power was seen by contrast with the policy of the Rudini cabinet which succeeded him in February 1891. Crispi's so-called "megalomania" gave place to retrenchment in home affairs and to a deferential attitude towards all foreign powers. The premiership of Rudini was hailed by the Radical leader, Cavallotti, as a pledge of the non-renewal of the triple alliance, against which the Radicals began a vociferous campaign. Their tactics, however, produced a contrary effect, for Rudini, accepting proposals from Berlin, renewed the alliance in June 1891 for a period of twelve years. None of Rudini's public utterances justify the supposition that he assumed office with the intention of allowing the alliance to lapse on its expiry in May 1892; indeed, he frankly declared it to form the basis of his foreign policy. The attitude of several of his colleagues was more equivocal, but though they coquetted with French financiers in the hope of obtaining the support of the Paris Bourse for Italian securities, the precipitate renewal of the alliance destroyed all probability of a close understanding with France. The desire of Rudini to live on the best possible terms with all powers was further evinced in the course of a visit paid to Monza by M. de Giers in October 1891, when the Russian statesman was apprised of the entirely defensive nature of Italian engagements under the triple alliance. At the same time he carried to a successful conclusion negotiations begun by Crispi for the renewal of commercial treaties with Austria and Germany upon terms which to some extent compensated Italy for the reduction of her commerce with France, and concluded with Great Britain conventions for the delimitation of British and Italian spheres of influence in north-east Africa. In home affairs his administration was weak and vacillating, nor did the economies effected in naval and military expenditure and in other departments suffice to strengthen the position of a cabinet which had disappointed the hopes of its supporters. On the 14th of April 1892 dissensions between ministers concerning the financial programme led to a cabinet crisis, and though Rudini succeeded in reconstructing his administration, he was defeated in the Chamber on the 5th of May and obliged to resign. King Humbert, who, from lack of confidence in Rudini, had declined to allow him to dissolve parliament, entrusted Signor Giolitti, a Piedmontese deputy, sometime treasury minister in the Crispi cabinet, with the formation of a ministry of

Second renewal of the Triple Alliance.

Giolitti.

the Left, which contrived to obtain six months' supply on account, and dissolved the Chamber.

The ensuing general election (November 1892), marked by unprecedented violence and abuse of official pressure upon the electorate, fitly ushered in what proved to be the most unfortunate period of Italian history since the completion of national unity. The influence of Giolitti was based largely upon the favour of a court clique, and especially of Rattazzi, minister of the royal household. Early in 1893 a scandal arose in connexion with the management of state banks, and particularly of the Banca Romana, whose managing director, Tanlongo, had issued £2,500,000 of duplicate bank-notes. Giolitti scarcely improved matters by creating Tanlongo a member of the senate, and by denying in parliament the existence of any mismanagement. The senate, however, manifested the utmost hostility to Tanlongo, whom Giolitti, in consequence of an interpellation in the Chamber, was compelled to arrest. Arrests of other prominent persons followed, and on the 3rd of February the Chamber authorized the prosecution of De Zerbi, a Neapolitan deputy accused of corruption. On the 20th of February De Zerbi suddenly expired. For a time Giolitti successfully opposed inquiry into the conditions of the state banks, but on the 21st of March was compelled to sanction an official investigation by a parliamentary commission composed of seven members. On the 23rd of November the report of the commission was read to the Chamber amid intense excitement. It established that all Italian cabinets since 1880 had grossly neglected the state banks; that the two preceding cabinets had been aware of the irregularities committed by Tanlongo; that Tanlongo had heavily subsidized the press, paying as much as £20,000 for that purpose in 1888 alone; that a number of deputies, including several ex-ministers, had received from him loans of a considerable amount, which they had apparently made no effort to refund; that Giolitti had deceived the Chamber with regard to the state banks, and was open to suspicion of having, after the arrest of Tanlongo, abstracted a number of documents from the latter's papers before placing the remainder in the hands of the judicial authorities. In spite of the gravity of the charges formulated against many prominent men, the report merely "deplored" and "disapproved" of their conduct, without proposing penal proceedings. Fear of extending still farther a scandal which had already attained huge dimensions, and the desire to avoid any further shock to national credit, convinced the commissioners of the expediency of avoiding a long series of prosecutions. The report, however, sealed the fate of the Giolitti cabinet, and on the 24th of November it resigned amid general execration.

Bank scandals.

Apart from the lack of scruple manifested by Giolitti in the bank scandals, he exhibited incompetence in the conduct of foreign and home affairs. On the 16th and 18th of August 1893 a number of Italian workmen were massacred at Aigues-Mortes. The French authorities, under whose eyes the massacre was perpetrated, did nothing to prevent or repress it, and the mayor of Marseilles even refused to admit the wounded Italian workmen to the municipal hospital. These occurrences provoked anti-French demonstrations in many parts of Italy, and revived the chronic Italian rancour against France. The Italian foreign minister, Brin, began by demanding the punishment of the persons guilty of the massacre, but hastened to accept as satisfactory the anodyne measures adopted by the French government. Giolitti removed the prefect of Rome for not having prevented an expression of popular anger, and presented formal excuses to the French consul at Messina for a demonstration against that consulate. In the following December the French tribunal at Angoulême acquitted all the authors of the massacre. At home Giolitti displayed the same weakness. Riots at Naples in August 1893 and symptoms of unrest in Sicily found him, as usual, unprepared and vacillating. The closing of the French market to Sicilian produce, the devastation wrought by the phylloxera and the decrease of the sulphur trade had combined to produce in Sicily a discontent of which Socialist agitators took advantage to organize the workmen of the towns and the peasants of the country into groups known as *fasci*. The movement had no well-defined object. Here and there it was based upon a bastard Socialism, in other places it was made a means of municipal party warfare under the guidance of the local mafia, and in some districts it was simply popular effervescence against the local octrois on bread and flour. As early as January 1893 a conflict had occurred between the police and the populace, in which several men, women and children were killed, an occurrence used by the agitators further to inflame the populace. Instead of maintaining a firm policy, Giolitti allowed the movement to spread until, towards the autumn of 1893, he became alarmed and drafted troops into the island, though in numbers insufficient to restore order. At the moment of his fall the movement assumed the aspect of an insurrection, and during the interval between his resignation (24th November) and the formation of a new Crispi cabinet (10th December) conflicts between the public forces and the rioters were frequent. The return of Crispi to power—a return imposed by public opinion as that of the only man capable of dealing with the desperate situation—marked the turning-point of the crisis. Intimately acquainted with the conditions of his native island, Crispi adopted efficacious remedies. The *fasci* were suppressed, Sicily was filled with troops, the reserves were called out, a state of siege proclaimed, military courts instituted and the whole movement crushed in a few weeks. The chief agitators were either sentenced to heavy terms of imprisonment or were compelled to flee the country. A simultaneous insurrection at Massa-Carrara was crushed with similar vigour. Crispi's methods aroused great outcry in the Radical press, but the severe sentences of the military courts were in time tempered by the Royal prerogative of amnesty.

Aigues-Mortes massacre.

Insurrection in Sicily.

But it was not alone in regard to public order that heroic measures were necessary. The financial situation inspired serious misgivings. While engagements contracted by Depretis in regard to public works had more than neutralized the normal increase of revenue from taxation, the whole credit of the state had been affected by the severe economic and financial crises of the years 1889–1893. The state banks, already hampered by maladministration, were encumbered by huge quantities of real estate which had been taken over as compensation for unredeemed mortgages. Baron Sidney Sonnino, minister of finance in the Crispi cabinet, found a prospective deficit of £7,080,000, and in spite of economies was obliged to face an actual deficit of more than £6,000,000. Drastic measures were necessary to limit expenditure and to provide new sources of revenue. Sonnino applied, and subsequently amended, the Bank Reform Bill passed by the previous Administration (August 10, 1893) for the creation of a supreme state bank, the Bank of Italy, which was entrusted with the liquidation of the insolvent Banca Romana. The new law forbade the state banks to lend money on real estate, limited their powers of discounting bills and securities, and reduced the maximum of their paper currency. In order to diminish the gold premium, which under Giolitti had risen to 16%, forced currency was given to the existing notes of the banks of Italy, Naples and Sicily, while special state notes were issued to meet immediate currency needs. Measures were enforced to prevent Italian holders of consols from sending their coupons abroad to be paid in gold, with the result that, whereas in 1893 £3,240,000 had been paid abroad in gold for the service of the January coupons and only £680,000 in paper in Italy, the same coupon was paid a year later with only £1,360,000 abroad and £2,540,000 at home. Economies for more than £1,000,000, were immediately effected, taxes, calculated to produce £2,440,000, were proposed to be placed upon land, incomes, salt and corn, while the existing income-tax upon consols (fixed at 8% by Cambray-Digny in 1868, and raised to 13·20% by Sella in 1870) was increased to 20% irrespectively of the stockholders' nationality. These proposals met with opposition so fierce as to cause a cabinet crisis, but Sonnino who resigned office as minister of finance,

Financial crisis.

returned to power as minister of the treasury, promulgated some of his proposals by royal decree, and in spite of vehement opposition secured their ratification by the Chamber. The tax upon consols, which, in conjunction with the other severe fiscal measures, was regarded abroad as a pledge that Italy intended at all costs to avoid bankruptcy, caused a rise in Italian stocks. When the Crispi cabinet fell in March 1896 Sonnino had the satisfaction of seeing revenue increased by £3,400,000, expenditure diminished by £2,800,000, the gold premium reduced from 16 to 5%, consolidated stock at 95 instead of 72, and, notwithstanding the expenditure necessitated by the Abyssinian War, financial equilibrium practically restored.

Attacks on Crispi.

While engaged in restoring order and in supporting Sonnino's courageous struggle against bankruptcy, Crispi became the object of fierce attacks from the Radicals, Socialists and anarchists. On the 16th of June an attempt by an anarchist named Lega was made on Crispi's life; on the 24th of June President Carnot was assassinated by the anarchist Caserio; and on the 30th of June an Italian journalist was murdered at Leghorn for a newspaper attack upon anarchism —a series of outrages which led the government to frame and parliament to adopt (11th July) a Public Safety Bill for the prevention of anarchist propaganda and crime. At the end of July the trial of the persons implicated in the Banca Romana scandal revealed the fact that among the documents abstracted by Giolitti from the papers of the bank manager, Tanlongo, were several bearing upon Crispi's political and private life. On the 11th of December Giolitti laid these and other papers before the Chamber, in the hope of ruining Crispi, but upon examination most of them were found to be worthless, and the rest of so private a nature as to be unfit for publication. The effect of the incident was rather to increase detestation of Giolitti than to damage Crispi. The latter, indeed, prosecuted the former for libel and for abuse of his position when premier, but after many vicissitudes, including the flight of Giolitti to Berlin in order to avoid arrest, the Chamber refused authorization for the prosecution, and the matter dropped. A fresh attempt of the same kind was then made against Crispi by the Radical leader Cavallotti, who advanced unproven charges of corruption and embezzlement. These attacks were, however, unavailing to shake Crispi's position, and in the general election of May 1895 his government obtained a majority of nearly 200 votes. Nevertheless public confidence in the efficacy of the parliamentary system and in the honesty of politicians was seriously diminished by these unsavoury occurrences, which, in combination with the acquittal of all the defendants in the Banca Romana trial, and the abandonment of the proceedings against Giolitti, reinforced to an alarming degree the propaganda of the revolutionary parties.

Complications in Eritrea.

The foreign policy of the second Crispi Administration, in which the portfolio of foreign affairs was held by Baron Blanc, was, as before, marked by a cordial interpretation of the triple alliance, and by close accord with Great Britain. In the Armenian question Italy seconded with energy the diplomacy of Austria and Germany, while the Italian fleet joined the British Mediterranean squadron in a demonstration off the Syrian coast. Graver than any foreign question were the complications in Eritrea. Under the arrangement concluded in 1891 by Rudini with native chiefs in regard to the Italo-Abyssinian frontier districts, relations with Abyssinia had remained comparatively satisfactory. Towards the Sudan, however, the Mahdists, who had recovered from a defeat inflicted by an Italian force at Agordat in 1890, resumed operations in December 1893. Colonel Arimondi, commander of the colonial forces in the absence of the military governor, General Baratieri, attacked and routed a dervish force 10,000 strong on the 21st of December. The Italian troops, mostly native levies, numbered only 2200 men. The dervish loss was more than 1000 killed, while the total Italian casualties amounted to less than 250. General Baratieri, upon returning to the colony, decided to execute a *coup de main* against the dervish base at Kassala, both in order to relieve pressure from that quarter and to preclude a combined Abyssinian and dervish attack upon the colony at the end of 1894. The protocol concluded with Great Britain on the 15th of April 1891, already referred to, contained a clause to the effect that, were Kassala occupied by the Italians, the place should be transferred to the Egyptian government as soon as the latter should be in a position to restore order in the Sudan. Concentrating a little army of 2600 men, Baratieri surprised and captured Kassala on the 17th of July 1894, and garrisoned the place with native levies under Italian officers. Meanwhile Menelek, jealous of the extension of Italian influence to a part of northern Somaliland and to the Benadir coast, had, with the support of France and Russia, completed his preparations for asserting his authority as independent ruler of Ethiopia. On the 11th of May 1893 he denounced the treaty of Uccialli, but the Giolitti cabinet, absorbed by the bank scandals, paid no heed to his action. Possibly an adroit repetition in favour of Mangashà and against Menelek of the policy formerly followed in favour of Menelek against the negus John might have consolidated Italian influence in Abyssinia by preventing the ascendancy of any single chieftain. The Italian government, however, neglected this opening, and Mangashà came to terms with Menelek. Consequently the efforts of Crispi and his envoy, Colonel Piano, to conclude a new treaty with Menelek in June 1894 not only proved unsuccessful, but formed a prelude to troubles on the Italo-Abyssinian frontier. Bath-Agos, the native chieftain who ruled the Okulé-Kusai and the cis-Mareb provinces on behalf of Italy, intrigued with Mangashà, ras of the trans-Mareb province of Tigré, and with Menelek, to raise a revolt against Italian rule on the high plateau. In December 1894 the revolt broke out, but Major Toselli with a small force marched rapidly against Bath-Agos, whom he routed and killed at Halai. General Baratieri, having reason to suspect the complicity of Mangashà in the revolt, called upon him to furnish troops for a projected Italo-Abyssinian campaign against the Mahdists. Mangashà made no reply, and Baratieri crossing the Mareb advanced to Adowa, but four days later was obliged to return northwards. Mangashà thereupon took the offensive and attempted to occupy the village of Coatit in Okulé-Kusai, but was forestalled and defeated by Baratieri on the 13th of January 1895. Hurriedly retreating to Senafé, hard pressed by the Italians, who shelled Senafé on the evening of the 15th of January, Mangashà was obliged to abandon his camp and provisions to Baratieri, who also secured a quantity of correspondence establishing the complicity of Menelek and Mangashà in the revolt of Bath-Agos.

Conquest of Tigre.

The comparatively facile success achieved by Baratieri against Mangashà seems to have led him to undervalue his enemy, and to forget that Menelek, negus and king of Shoa, had an interest in allowing Mangashà to be crushed, in order that the imperial authority and the superiority of Shoan over Tigrin arms might be the more strikingly asserted. After obtaining the establishment of an apostolic prefecture in Eritrea under the charge of Italian Franciscans, Baratieri expelled from the colony the French Lazarist missionaries for their alleged complicity in the Bath-Agos insurrection, and in March 1895 undertook the conquest of Tigré. Occupying Adigrat and Makallè, he reached Adowa on the 1st of April, and thence pushed forward to Axum, the holy city of Abyssinia. These places were garrisoned, and during the rainy season Baratieri returned to Italy, where he was received with unbounded enthusiasm. Whether he or the Crispi cabinet had any inkling of the enterprise to which they were committed by the occupation of Tigré is more than doubtful. Certainly Baratieri made no adequate preparations to repel an Abyssinian attempt to reconquer the province. Early in September both Mangashà and Menelek showed signs of activity, and on the 20th of September Makonnen, ras of Harrar, who up till then had been regarded as a friend and quasi-ally by Italy, expelled all Italians from his territory and marched with 30,000 men to join the negus. On returning to Eritrea, Baratieri mobilized his native reserves and pushed forward columns under Major Toselli and General Arimondi as far south as Amba Alagi. Mangashà fell back before the Italians, who obtained several minor successes; but on the 6th of December Toselli's column, 2000 strong, which

through a misunderstanding continued to hold Amba Alagi, was almost annihilated by the Abyssinian vanguard of 40,000 men. Toselli and all but three officers and 300 men fell at their posts after a desperate resistance. Arimondi, collecting the survivors of the Toselli column, retreated to Makallè and Adigrat. At Makallè, however, he left a small garrison in the fort, which on the 7th of January 1896 was invested by the Abyssinian army. Repeated attempts to capture the fort having failed, Menelek and Makonnen opened negotiations with Baratieri for its capitulation, and on the 21st of January the garrison, under Major Galliano, who had heroically defended the position, were permitted to march out with the honours of war. Meanwhile Baratieri received reinforcements from Italy, but remained undecided as to the best plan of campaign. Thus a month was lost, during which the Abyssinian army advanced to Hausen, a position slightly south of Adowa. The Italian commander attempted to treat with Menelek, but his negotiations merely enabled the Italian envoy, Major Salsa, to ascertain that the Abyssinians were nearly 100,000 strong mostly armed with rifles and well supplied with artillery. The Italians, including camp-followers, numbered less than 25,000 men, a force too small for effective action, but too large to be easily provisioned at 200 m. from its base, in a roadless, mountainous country, almost devoid of water. For a moment Baratieri thought of retreat, especially as the hope of creating a diversion from Zaila towards Harrar had failed in consequence of the British refusal to permit the landing of an Italian force without the consent of France. The defection of a number of native allies (who, however, were attacked and defeated by Colonel Stevani on the 18th of February) rendered the Italian position still more precarious; but Baratieri, unable to make up his mind, continued to manœuvre in the hope of drawing an Abyssinian attack. These futile tactics exasperated the home government, which on the 22nd of February despatched General Baldissera, with strong reinforcements, to supersede Baratieri. On the 25th of February Crispi telegraphed to Baratieri, denouncing his operations as "military phthisis," and urging him to decide upon some strategic plan. Baratieri, anxious probably to obtain some success before the arrival of Baldissera, and alarmed by the rapid diminution of his stores, which precluded further immobility, called a council of war (29th of February) and obtained the approval of the divisional commanders for a plan of attack. During the night the army advanced towards Adowa in three divisions, under Generals Dabormida, Arimondi and Albertone, each division being between 4000 and 5000 strong, and a brigade 5300 strong under General Ellena remaining in reserve. All the divisions, save that of Albertone, consisted chiefly of Italian troops. During the march Albertone's native division mistook the road, and found itself obliged to delay in the Arimondi column by retracing its steps. Marching rapidly, however, Albertone outdistanced the other columns, but, in consequence of allowing his men an hour's rest, arrived upon the scene of action when the Abyssinians, whom it had been hoped to surprise at dawn, were ready to receive the attack. Pressed by overwhelming forces, the Italians, after a violent combat, began to give way. The Dabormida division, unsupported by Albertone, found itself likewise engaged in a separate combat against superior numbers. Similarly the Arimondi brigade was attacked by 30,000 Shoans, and encumbered by the débris of Albertone's troops. Baratieri vainly attempted to push forward the reserve, but the Italians were already overwhelmed, and the battle—or rather, series of distinct engagements—ended in a general rout. The Italian loss is estimated to have been more than 6000, of whom 3125 were whites. Between 3000 and 4000 prisoners were taken by the Abyssinians, including General Albertone, while Generals Arimondi and Dabormida were killed and General Ellena wounded. The Abyssinians lost more than 5000 killed and 8000 wounded. Baratieri, after a futile attempt to direct the retreat, fled in haste and reached Adi-Cajè before the débris of his army. Thence he despatched telegrams to Italy throwing blame for the defeat upon his troops, a proceeding which subsequent evidence proved to be as unjustifiable as it was unsoldierlike. Placed under court-martial for his conduct, Baratieri was acquitted of the charge for having been led to give battle by other than military considerations, but the sentence "deplored that in such difficult circumstances the command should have been given to a general so inferior to the exigencies of the situation."

Battle of Adowa.

In Italy the news of the defeat of Adowa caused deep discouragement and dismay. On the 5th of March the Crispi cabinet resigned before an outburst of indignation which the Opposition had assiduously fomented, and five days later a new cabinet was formed by General Ricotti-Magnani, who, however, made over the premiership to the marquis di Rudini. The latter, though leader of the Right, had long been intriguing with Cavallotti, leader of the Extreme Left, to overthrow Crispi, but without the disaster of Adowa his plan would scarcely have succeeded. The first act of the new cabinet was to confirm instructions given by its predecessor to General Baldissera (who had succeeded General Baratieri on the 2nd of March) to treat for peace with Menelek if he thought desirable. Baldissera opened negotiations with the negus through Major Salsa, and simultaneously reorganized the Italian army. The negotiations having failed, he marched to relieve the beleaguered garrison of Adigrat; but Menelek, discouraged by the heavy losses at Adowa, broke up his camp and returned southwards to Shoa. At the same time Baldissera detached Colonel Stevani with four native battalions to relieve Kassala, then hard pressed by the Mahdists. Kassala was relieved on the 1st of April, and Stevani a few days later severely defeated the dervishes at Jebel Mokram and Tucruff. Returning from Kassala Colonel Stevani rejoined Baldissera, who on the 4th of May relieved Adigrat after a well-executed march. By adroit negotiations with Mangashà the Italian general obtained the release of the Italian prisoners in Tigré, and towards the end of May withdrew his whole force north of the Mareb. Major Nerazzini was then despatched as special envoy to the negus to arrange terms of peace. On the 26th of October Nerazzini succeeded in concluding, at Adis Ababa, a provisional treaty annulling the treaty of Uccialli; recognizing the absolute independence of Ethiopia; postponing for one year the definitive delimitation of the Italo-Abyssinian boundary, but allowing the Italians meanwhile to hold the strong Mareb-Belesa-Muna line; and arranging for the release of the Italian prisoners after ratification of the treaty in exchange for an indemnity of which the amount was to be fixed by the Italian government. The treaty having been duly ratified, and an indemnity of £400,000 paid to Menelek, the Shoan prisoners were released, and Major Nerazzini once more returned to Abyssinia with instructions to secure, if possible, Menelek's assent to the definitive retention of the Mareb-Belesa-Muna line by Italy. Before Nerazzini could reach Adis Ababa, Rudini, in order partially to satisfy the demands of his Radical supporters for the abandonment of the colony, announced in the Chamber the intention of Italy to limit her occupation to the triangular zone between the points Asmarà, Keren and Massawa, and, possibly, to withdraw to Massawa alone. This declaration, of which Menelek was swiftly apprised by French agents, rendered it impossible to Nerazzini to obtain more than a boundary leaving to Italy but a small portion of the high plateau and ceding to Abyssinia the fertile provinces of Seraè and Okulé-Kusai. The fall of the Rudini cabinet in June 1898, however, enabled Signor Ferdinando Martini and Captain Cicco di Cola, who had been appointed respectively civil governor of Eritrea and minister resident at Adis Ababa, to prevent the cession of Seraè and Okulé-Kusai, and to secure the assent of Menelek to Italian retention of the Mareb-Belesa-Muna frontier. Eritrea has now approximately the same extent as before the revolt of Bath-Agos, except in regard (1) to Kassala, which was transferred to the Anglo-Egyptian authorities on the 25th of December 1897, in pursuance of the above-mentioned Anglo-Italian convention; and (2) to slight rectifications of its northern and eastern boundaries by conventions concluded between the Eritrean and the

Abyssinian settlement.

Anglo-Egyptian authorities. Under Signor Ferdinando Martini's able administration (1898–1906) the cost of the colony to Italy was reduced and its trade and agriculture have vastly improved.

While marked in regard to Eritrea by vacillation and undignified readiness to yield to Radical clamour, the policy of the marquis di Rudini was in other respects chiefly characterized by a desire to demolish Crispi and his supporters. Actuated by rancour against Crispi, he, on the 29th of April 1896, authorized the publication of a Green Book on Abyssinian affairs, in which, without the consent of Great Britain, the confidential Anglo-Italian negotiations in regard to the Abyssinian war were disclosed. This publication, which amounted to a gross breach of diplomatic confidence, might have endangered the cordiality of Anglo-Italian relations, had not the esteem of the British government for General Ferrero, Italian ambassador in London, induced it to overlook the incident. Fortunately for Italy, the marquis Visconti Venosta shortly afterwards consented to assume the portfolio of foreign affairs, which had been resigned by Duke Caetani di Sermoneta, and again to place, after an interval of twenty years, his unrivalled experience at the service of his country. In September 1896 he succeeded in concluding with France a treaty with regard to Tunisia in place of the old Italo-Tunisian treaty, denounced by the French Government a year previously. During the Greco-Turkish War of 1897 Visconti Venosta laboured to maintain the European concert, joined Great Britain in preserving Greece from the worst consequences of her folly, and lent moral and material aid in establishing an autonomous government in Crete. At the same time he mitigated the Francophil tendencies of some of his colleagues, accompanied King Humbert and Queen Margherita on their visit to Homburg in September 1897, and, by loyal observance of the spirit of the triple alliance, retained for Italy the confidence of her allies without forfeiting the goodwill of France.

The home administration of the Rudini cabinet compared unfavourably with that of foreign affairs. Bound by a secret understanding with the Radical leader Cavallotti, an able but unscrupulous demagogue, Rudini was compelled to bow to Radical exigencies. He threw all the influence of the government against Crispi, who was charged with complicity in embezzlements perpetrated by Favilla, managing director of the Bologna branch of the Bank of Naples. After being subjected to persecution for nearly two years, Crispi's character was substantially vindicated by the report of a parliamentary commission appointed to inquire into his relations with Favilla. True, the commission proposed and the Chamber adopted a vote of censure upon Crispi's conduct in 1894, when, as premier and minister of the interior, he had borrowed £12,000 from Favilla to replenish the secret service fund, and had subsequently repaid the money as instalments for secret service were in due course furnished by the treasury. Though irregular, his action was to some extent justified by the depletion of the secret service fund under Giolitti and by the abnormal circumstances prevailing in 1893–1894, when he had been obliged to quell the insurrections in Sicily and Massa-Carrara. But the Rudini-Cavallotti alliance was destined to produce other results than those of the campaign against Crispi. Pressed by Cavallotti, Rudini in March 1897 dissolved the Chamber and conducted the general election in such a way as to crush by government pressure the partisans of Crispi, and greatly to strengthen the (Socialist, Republican and Radical) revolutionary parties. More than ever at the mercy of the Radicals and of their revolutionary allies, Rudini continued so to administer public affairs that subversive propaganda and associations obtained unprecedented extension. The effect was seen in May 1898, when, in consequence of a rise in the price of bread, disturbances occurred in southern Italy. The corn duty was reduced to meet the emergency, but the disturbed area extended to Naples, Foggia, Bari, Minervino-Murge, Molfetta and thence along the line of railway which skirts the Adriatic coast. At Faenza, Piacenza, Cremona, Pavia and Milan, where subversive associations were stronger, it assumed the complexion of a political revolt. From the 7th to the 9th of May Milan remained practically in the hands of the mob. A palace was sacked, barricades were erected and for forty-eight hours the troops under General Bava-Beccaris, notwithstanding the employment of artillery, were unable to restore order. In view of these occurrences, Rudini authorized the proclamation of a state of siege at Milan, Florence, Leghorn and Naples, delegating the suppression of disorder to special military commissioners. By these means order was restored, though not without considerable loss of life at Milan and elsewhere. At Milan alone the official returns confessed to eighty killed and several hundred wounded, a total generally considered below the real figures. As in 1894, excessively severe sentences were passed by the military tribunals upon revolutionary leaders and other persons considered to have been implicated in the outbreak, but successive royal amnesties obliterated these condemnations within three years.

Riots of May, 1898.

No Italian administration since the death of Depretis underwent so many metamorphoses as that of the marquis di Rudini. Modified a first time within five months of its formation (July 1896) in connexion with General Ricotti's Army Reform Bill, and again in December 1897, when Zanardelli entered the cabinet, it was reconstructed for a third time at the end of May 1898 upon the question of a Public Safety Bill, but fell for the fourth and last time on the 18th of June 1898, on account of public indignation at the results of Rudini's home policy as exemplified in the May riots. On the 29th of June Rudini was succeeded in the premiership by General Luigi Pelloux, a Savoyard, whose only title to office was the confidence of the king. The Pelloux cabinet possessed no clear programme except in regard to the Public Safety Bill, which it had taken over from its predecessor. Presented to parliament in November 1898, the bill was read a second time in the following spring, but its third reading was violently obstructed by the Socialists, Radicals and Republicans of the Extreme Left. After a series of scenes and scuffles the bill was promulgated by royal decree, the decree being post-dated to allow time for the third reading. Again obstruction precluded debate, and on the 22nd of July 1899 the decree automatically acquired force of law, pending the adoption of a bill of indemnity by the Chamber. In February 1900 it was, however, quashed by the supreme court on a point of procedure, and the Public Safety Bill as a whole had again to be presented to the Chamber. In view of the violence of Extremist obstruction, an effort was made to reform the standing orders of the Lower House, but parliamentary feeling ran so high that General Pelloux thought it expedient to appeal to the country. The general election of June 1900 not only failed to reinforce the cabinet, but largely increased the strength of the extreme parties (Radicals, Republicans and Socialists), who in the new Chamber numbered nearly 100 out of a total of 508. General Pelloux therefore resigned, and on the 24th of June a moderate Liberal cabinet was formed by the aged Signor Saracco, president of the senate. Within five weeks of its formation King Humbert was shot by an anarchist assassin named Bresci while leaving an athletic festival at Monza, where his Majesty had distributed the prizes (29th July 1900). The death of the unfortunate monarch, against whom an attempt had previously been made by the anarchist Acciarito (22nd April 1897), caused an outburst of profound sorrow and indignation. Though not a great monarch, King Humbert had, by his unfailing generosity and personal courage, won the esteem and affection of his people. During the cholera epidemic at Naples and Busca in 1884, and the Ischia earthquake of 1885, he, regardless of danger, brought relief and encouragement to sufferers, and rescued many lives. More than £100,000 of his civil list was annually devoted to charitable purposes. Humbert was succeeded by his only son, Victor Emmanuel III. (b. November 11, 1869), a liberal-minded and well-educated prince, who at the time of his father's assassination was returning from a cruise in the eastern Mediterranean. The remains of King Humbert were laid to rest in the Pantheon at Rome beside those of his father, Victor Emmanuel II. (9th August). Two

Pelloux and obstruction.

Death of King Humbert.

Accession of King Victor Emmanuel III.

days later Victor Emmanuel III. swore fidelity to the constitution before the assembled Houses of Parliament and in the presence of his consort, Elena of Montenegro, whom he had married in October 1896.

Foreign affairs.

The later course of Italian foreign policy was marked by many vicissitudes. Admiral Canevaro, who had gained distinction as commander of the international forces in Crete (1896–1898), assumed the direction of foreign affairs in the first period of the Pelloux administration. His diplomacy, though energetic, lacked steadiness. Soon after taking office he completed the negotiations begun by the Rudini administration for a new commercial treaty with France (October 1898), whereby Franco-Italian commercial relations were placed upon a normal footing after a breach which had lasted for more than ten years. By the despatch of a squadron to South America he obtained satisfaction for injuries inflicted thirteen years previously upon an Italian subject by the United States of Colombia. In December 1898 he convoked a diplomatic conference in Rome to discuss secret means for the repression of anarchist propaganda and crime in view of the assassination of the empress of Austria by an Italian anarchist (Luccheni), but it is doubtful whether results of practical value were achieved. The action of the tsar of Russia in convening the Peace Conference at The Hague in May 1900 gave rise to a question as to the right of the Vatican to be officially represented, and Admiral Canevaro, supported by Great Britain and Germany, succeeded in preventing the invitation of a papal delegate. Shortly afterwards his term of office was brought to a close by the failure of an attempt to secure for Italy a coaling station at Sanmen and a sphere of influence in China; but his policy of active participation in Chinese affairs was continued in a modified form by his successor, the Marquis Visconti Venosta, who, entering the reconstructed Pelloux cabinet in May 1899, retained the portfolio of foreign affairs in the ensuing Saracco administration, and secured the despatch of an Italian expedition, 2000 strong, to aid in repressing the Chinese outbreak and in protecting Italian interests in the Far East (July 1900). With characteristic foresight, Visconti Venosta promoted an exchange of views between Italy and France in regard to the Tripolitan hinterland, which the Anglo-French convention of 1899 had placed within the French sphere of influence—a modification of the *status quo ante* considered highly detrimental to Italian aspirations in Tripoli. For this reason the Anglo-French convention had caused profound irritation in Italy, and had tended somewhat to diminish the cordiality of Anglo-Italian relations. Visconti Venosta is believed, however, to have obtained from France a formal declaration that France would not transgress the limits assigned to her influence by the convention. Similarly, in regard to Albania, Visconti Venosta exchanged notes with Austria with a view to the prevention of any misunderstanding through the conflict between Italian and Austrian interests in that part of the Adriatic coast. Upon the fall of the Saracco cabinet (9th February 1901) Visconti Venosta was succeeded at the foreign office by Signor Prinetti, a Lombard manufacturer of strong temperament, but without previous diplomatic experience. The new minister continued in most respects the policy of his predecessor. The outset of his administration was marked by Franco-Italian fêtes at Toulon (10th to 14th April 1901), when the Italian fleet returned a visit paid by the French Mediterranean squadron to Cagliari in April 1899; and by the despatch of three Italian warships to Prevesa to obtain satisfaction for damage done to Italian subjects by Turkish officials.

Zanardelli-Giolitti Cabinet.

The Saracco administration, formed after the obstructionist crisis of 1899–1900 as a cabinet of transition and pacification, was overthrown in February 1901 in consequence of its vacillating conduct towards a dock strike at Genoa. It was succeeded by a Zanardelli cabinet, in which the portfolio of the interior was allotted to Giolitti. Composed mainly of elements drawn from the Left, and dependent for a majority upon the support of the subversive groups of the Extreme Left, the formation of this cabinet gave the signal for a vast working-class movement, during which the Socialist party sought to extend its political influence by means of strikes and the organization of labour leagues among agricultural labourers and artisans. The movement was confined chiefly to the northern and central provinces. During the first six months of 1901 the strikes numbered 600, and involved more than 1,000,000 workmen. (H. W. S.)

G. 1902–1909

Labour troubles.

In 1901–1902 the social economic condition of Italy was a matter of grave concern. The strikes and other economic agitations at this time may be divided roughly into three groups: strikes in industrial centres for higher wages, shorter hours and better labour conditions generally; strikes of agricultural labourers in northern Italy for better contracts with the landlords; disturbances among the south Italian peasantry due to low wages, unemployment (particularly in Apulia), and the claims of the labourers to public land occupied illegally by the landlords, combined with local feuds and the struggle for power of the various influential families. The prime cause in most cases was the unsatisfactory economic condition of the working classes, which they realized all the more vividly for the very improvements that had been made in it, while education and better communications enabled them to organize themselves. Unfortunately these genuine grievances were taken advantage of by the Socialists for their own purposes, and strikes and disorders were sometimes promoted without cause and conciliation impeded by outsiders who acted from motives of personal ambition or profit. Moreover, while many strikes were quite orderly, the turbulent character of a part of the Italian people and their hatred of authority often converted peaceful demands for better conditions into dangerous riots, in which the dregs of the urban population (known as *teppisti* or the *mala vita*) joined.

Whereas in the past the strikes had been purely local and due to local conditions, they now appeared of more general and political character, and the "sympathy" strike came to be a frequent and undesirable addition to the ordinary economic agitation. The most serious movement at this time was that of the railway servants. The agitation had begun some fifteen years before, and the men had at various times demanded better pay and shorter hours, often with success. The next demand was for greater fixity of tenure and more regular promotion, as well as for the recognition by the companies of the railwaymen's union. On the 4th of January 1902, the employees of the Mediterranean railway advanced these demands at a meeting at Turin, and threatened to strike if they were not satisfied. By the beginning of February the agitation had spread all over Italy, and the government was faced by the possibility of a strike which would paralyse the whole economic life of the country. Then the Turin gas men struck, and a general "sympathy" strike broke out in that city in consequence, which resulted in scenes of violence lasting two days. The government called out all the railwaymen who were army reservists, but continued to keep them at their railway work, exercising military discipline over them and thus ensuring the continuance of the service. At the same time it mediated between the companies and the employees, and in June a settlement was formally concluded between the ministers of public works and of the treasury and the directors of the companies concerning the grievances of the employees.

One consequence of the agrarian agitations was the increased use of machinery and the reduction in the number of hands employed, which if it proved advantageous to the landlord and to the few labourers retained, who received higher wages, resulted in an increase of unemployment. The Socialist party, which had grown powerful under a series of weak-kneed administrations, now began to show signs of division; on the one hand there was the revolutionary wing, led by Signor Enrico Ferri, the Mantuan deputy, which advocated a policy of uncompromising class warfare, and on the other the *riformisti*, or moderate Socialists, led by Signor Filippo Turati, deputy for Milan, who adopted a more conciliatory attitude and were ready to ally themselves with other parliamentary parties. Later the division took another

aspect, the extreme wing being constituted by the *sindacalisti*, who were opposed to all legislative parliamentary action and favoured only direct revolutionary propaganda by means of the *sindacati* or unions which organized strikes and demonstrations. In March 1902 agrarian strikes organized by the *leghe* broke out in the district of Copparo and Polesine (lower valley of the Po), owing to a dispute about the labour contracts, and in Apulia on account of unemployment. In August there were strikes among the dock labourers of Genoa and the iron workers of Florence; the latter agitation developed into a general strike in that city, which aroused widespread indignation among the orderly part of the population and ended without any definite result. At Como 15,000 textile workers remained on strike for nearly a month, but there were no disorders.

The year 1903, although not free from strikes and minor disturbances, was quieter, but in September 1904 a very serious situation was brought about by a general economic and political agitation. The troubles began with the disturbances at Buggeru in Sardinia and Castelluzzo in Sicily, in both of which places the troops were compelled to use their arms and several persons were killed and wounded; at a demonstration at Sestri Ponente in Liguria to protest against what was called the Buggeru "massacre," four carabineers and eleven rioters were injured. The Monza labour exchange then took the initiative of proclaiming a general strike throughout Italy (September 15th) as a protest against the government for daring to maintain order. The strike spread to nearly all the industrial centres, although in many places it was limited to a few trades. At Milan it was more serious and lasted longer than elsewhere, as the movement was controlled by the anarchists under Arturo Labriola; the hooligans committed many acts of savage violence, especially against those workmen who refused to strike, and much property was wilfully destroyed. At Genoa, which was in the hands of the *teppisti* for a couple of days, three persons were killed and 50 wounded, including 14 policemen, and railway communications were interrupted for a short time. Venice was cut off from the mainland for two days and all the public services were suspended. Riots broke out also in Naples, Florence, Rome and Bologna. The deputies of the Extreme Left, instead of using their influence in favour of pacification, could think of nothing better than to demand an immediate convocation of parliament in order that they might present a bill forbidding the troops and police to use their arms in all conflicts between capital and labour, whatever the provocation might be. This preposterous proposal was of course not even discussed, and the movement caused a strong feeling of reaction against Socialism and of hostility to the government for its weakness; for, however much sympathy there might be with the genuine grievances of the working classes, the September strikes were of a frankly revolutionary character and had been fomented by professional agitators and kept going by the dregs of the people. The mayor of Venice sent a firm and dignified protest to the government for its inaction, and the people of Liguria raised a large subscription in favour of the troops, in recognition of their gallantry and admirable discipline during the troubles.

General strike of 1904.

Early in 1905 there was a fresh agitation among the railway servants, who were dissatisfied with the clauses concerning the personnel in the bill for the purchase of the lines by the state. They initiated a system of obstruction which hampered and delayed the traffic without altogether suspending it. On the 17th of April a general railway strike was ordered by the union, but owing to the action of the authorities, who for once showed energy, the traffic was carried on. Other disturbances of a serious character occurred among the steelworkers of Terni, at Grammichele in Sicily and at Alessandria. The extreme parties now began to direct especial attention to propaganda in the army, with a view to destroying its cohesion and thus paralysing the action of the government. The campaign was conducted on the lines of the anti-militarist movement in France identified with the name of Hervé. Fortunately, however, this policy was not successful, as military service is less unpopular in Italy than in many other countries; aggressive militarism is quite unknown, and without it anti-militarism can gain no foothold. No serious mutinies have ever occurred in the Italian army, and the only results of the propaganda were occasional meetings of hooligans, where Hervéist sentiments were expressed and applauded, and a few minor disturbances among reservists unexpectedly called back to the colours. In the army itself the *esprit de corps* and the sense of duty and discipline nullified the work of the propagandists.

Unrest of 1905.

In June and July 1907 there were again disturbances among the agricultural labourers of Ferrara and Rovigo, and a widespread strike organized by the *leghe* throughout those provinces caused very serious losses to all concerned. The *leghisti*, moreover, were guilty of much criminal violence; they committed one murder and established a veritable reign of terror, boycotting, beating and wounding numbers of peaceful labourers who would not join the unions, and brutally maltreating solitary policemen and soldiers. The authorities, however, by arresting a number of the more prominent leaders succeeded in restoring order. Almost immediately afterwards an agitation of a still less defensible character broke out in various towns under the guise of anti-clericalism. Certain scandals had come to light in a small convent school at Greco near Milan. This was seized upon as a pretext for violent anti-clerical demonstrations all over Italy and for brutal and unprovoked attacks on unoffending priests; at Spezia a church was set on fire and another dismantled, at Marino Cardinal Merry del Val was attacked by a gang of hooligans, and at Rome the violence of the *teppisti* reached such a pitch as to provoke reaction on the part of all respectable people, and some of the aggressors were very roughly handled. The Socialists and the Freemasons were largely responsible for the agitation, and they filled the country with stories of other priestly and conventual immoralities, nearly all of which, except the original case at Greco, proved to be without foundation. In September 1907 disorders in Apulia over the repartition of communal lands broke out anew, and were particularly serious at Ruvo, Bari, Cerignola and Satriano del Colle. In some cases there was foundation for the labourers' claims, but unfortunately the movement got into the hands of professional agitators and common swindlers, and the leader, a certain Giampetruzzi, who at one time seemed to be a worthy colleague of Marcelin Albert, was afterwards tried and condemned for having cheated his own followers.

Strikes in 1907.

In October 1907 there was again a general strike at Milan, which was rendered more serious on account of the action of the railway servants, and extended to other cities; traffic was disorganized over a large part of northern Italy, until the government, being now owner of the railways, dismissed the ringleaders from the service. This had the desired effect, and although the *Sindacato dei ferrovieri* (railway servants' union) threatened a general railway strike if the dismissed men were not reinstated, there was no further trouble. In the spring of 1908 there were agrarian strikes at Parma; the labour contracts had pressed hardly on the peasantry, who had cause for complaint; but while some improvement had been effected in the new contracts, certain unscrupulous demagogues, of whom Alceste De Ambris, representing the "syndacalist" wing of the Socialist party, was the chief, organized a widespread agitation. The landlords on their part organized an agrarian union to defend their interests and enrolled numbers of non-union labourers to carry on the necessary work and save the crops. Conflicts occurred between the strikers and the independent labourers and the police; the trouble spread to the city of Parma, where violent scenes occurred when the labour exchange was occupied by the troops, and many soldiers and policemen, whose behaviour as usual was exemplary throughout, were seriously wounded. The agitation ceased in June with the defeat of the strikers, but not until a vast amount of damage had been done to the crops and all had suffered heavy losses, including the government, whose expenses for the maintenance of public order ran into tens of millions of lire. The failure of the strike caused the Socialists to quarrel among themselves and to accuse each other of dishonesty in the management of party funds; it appeared in fact

that the large sums collected throughout Italy on behalf of the strikers had been squandered or appropriated by the "syndacalist" leaders. The spirit of indiscipline had begun to reach the lower classes of state employees, especially the school teachers and the postal and telegraph clerks, and at one time it seemed as though the country were about to face a situation similar to that which arose in France in the spring of 1909. Fortunately, however, the government, by dismissing the ringleader, Dr Campanozzi, in time nipped the agitation in the bud, and it did attempt to redress some of the genuine grievances. Public opinion upheld the government in its attitude, for all persons of common sense realized that the suspension of the public services could not be permitted for a moment in a civilized country.

Internal politics, 1902.

In parliamentary politics the most notable event in 1902 was the presentation of a divorce bill by Signor Zanardelli's government; this was done not because there was any real demand for it, but to please the doctrinaire anti-clericals and freemasons, divorce being regarded not as a social institution but as a weapon against Catholicism. But while the majority of the deputies were nominally in favour of the bill, the parliamentary committee reported against it, and public opinion was so hostile that an anti-divorce petition received 3,500,000 signatures, including not only those of professing Catholics, but of free-thinkers and Jews, who regarded divorce as unsuitable to Italian conditions. The opposition outside parliament was in fact so overwhelming that the ministry decided to drop the bill. The financial situation continued satisfactory; a new loan at 3½% was voted by the Chamber in April 1902, and by June the whole of it had been placed in Italy. In October the rate of exchange was at par, the premium on gold had disappeared, and by the end of the year the budget showed a surplus of sixteen millions.

1903–1905.

In January 1903 Signor Prinetti, the minister for foreign affairs, resigned on account of ill-health, and was succeeded by Admiral Morin, while Admiral Bettolo took the latter's place as minister of marine. The unpopularity of the ministry forced Signor Giolitti, the minister of the interior, to resign (June 1903), and he was followed by Admiral Bettolo, whose administration had been violently attacked by the Socialists; in October Signor Zanardelli, the premier, resigned on account of his health, and the king entrusted the formation of the cabinet to Signor Giolitti. The latter accepted the task, and the new administration included Signor Tittoni, late prefect of Naples, as foreign minister, Signor Luigi Luzzatti, the eminent financier, at the treasury, General Pedotti at the war office, and Admiral Mirabello as minister of marine. Almost immediately after his appointment Signor Tittoni accompanied the king and queen of Italy on a state visit to France and then to England, where various international questions were discussed, and the cordial reception which the royal pair met with in London and at Windsor served to dispel the small cloud which had arisen in the relations of the two countries on account of the Tripoli agreements and the language question in Malta. The premier's programme was not well received by the Chamber, although the treasury minister's financial statement was again satisfactory. The weakness of the government in dealing with the strike riots caused a feeling of profound dissatisfaction, and the so-called "experiment of liberty," conducted with the object of conciliating the extreme parties, proved a dismal failure. In October 1904, after the September strikes, the Chamber was dissolved, and at the general elections in November a ministerial majority was returned, while the deputies of the Extreme Left (Socialists, Republicans and Radicals) were reduced from 107 to 94, and a few mild clericals elected. The municipal elections in several of the larger cities, which had hitherto been regarded as strongholds of socialism, marked an overwhelming triumph for the constitutional parties, notably in Milan, Turin and Genoa, for the strikes had wrought as much harm to the working classes as to the bourgeoisie. In spite of its majority the Giolitti cabinet, realizing that it had lost its hold over the country, resigned in March 1905.

1905–1906.

Signor Fortis then became premier and minister of the interior, Signor Maiorano finance minister and Signor Carcano treasury minister, while Signor Tittoni, Admiral Mirabello and General Pedotti retained the portfolios they had held in the previous administration. The new government was colourless in the extreme, and the premier's programme aroused no enthusiasm in the House, the most important bill presented being that for the purchase of the railways, which was voted in June 1905. But the ministry never had any real hold over the country or parliament, and the dissatisfaction caused by the *modus vivendi* with Spain, which would have wrought much injury to the Italian wine-growers, led to demonstrations and riots, and a hostile vote in the Chamber produced a cabinet crisis (December 17, 1905); Signor Fortis, however, reconstructed the ministry, inducing the marquis di San Giuliano to accept the portfolio of foreign affairs. This last fact was significant, as the new foreign secretary, a Sicilian deputy and a specialist on international politics, had hitherto been one of Signor Sonnino's staunchest adherents; his defection, which was but one of many, showed that the more prominent members of the Sonnino party were tired of waiting in vain for their chief's access to power. Even this cabinet was still-born, and a hostile vote in the Chamber on the 30th of January 1906 brought about its fall.

1906–1909.

Now at last, after waiting so long, Signor Sonnino's hour had struck, and he became premier for the first time. This result was most satisfactory to all the best elements in the country, and great hopes were entertained that the advent of a rigid and honest statesman would usher in a new era of Italian parliamentary life. Unfortunately at the very outset of its career the composition of the new cabinet proved disappointing; for while such men as Count Guicciardini, the minister for foreign affairs, and Signor Luzzatti at the treasury commanded general approval, the choice of Signor Sacchi as minister of justice and of Signor Pantano as minister of agriculture and trade, both of them advanced and militant Radicals, savoured of an unholy compact between the premier and his erstwhile bitter enemies, which boded ill for the success of the administration. For this unfortunate combination Signor Sonnino himself was not altogether to blame; having lost many of his most faithful followers, who, weary of waiting for office, had gone over to the enemy, he had been forced to seek support among men who had professed hostility to the existing order of things and thus to secure at least the neutrality of the Extreme Left and make the public realize that the "reddest" of Socialists, Radicals and Republicans may be tamed and rendered harmless by the offer of cabinet appointments. A similar experiment had been tried in France not without success. Unfortunately in the case of Signor Sonnino public opinion expected too much and did not take to the idea of such a compromise. The new premier's first act was one which cannot be sufficiently praised: he suppressed all subsidies to journalists, and although this resulted in bitter attacks against him in the columns of the "reptile press" it commanded the approval of all right-thinking men. Signor Sonnino realized, however, that his majority was not to be counted on: "The country is with me," he said to a friend, "but the Chamber is against me." In April 1906 an eruption of Mount Etna caused the destruction of several villages and much loss of life and damage to property; in appointing a committee to distribute the relief funds the premier refused to include any of the deputies of the devastated districts among its members, and when asked by them for the reason of this omission, he replied, with a frankness more characteristic of the man than politic, that he knew they would prove more solicitous in the distribution of relief for their own electors than for the real sufferers. A motion presented by the Socialists in the Chamber for the immediate discussion of a bill to prevent "the massacres of the proletariate" having been rejected by an enormous majority, the 28 Socialist deputies resigned their seats; on presenting themselves for re-election their number was reduced to 25. A few days later the ministry, having received an adverse vote on a question of procedure, sent in its resignation (May 17).

The fall of Signor Sonnino, the disappointment caused by the non-fulfilment of the expectations to which his advent to power had given rise throughout Italy and the dearth of influential statesmen, made the return to power of Signor Giolitti inevitable. An appeal to the country might have brought about a different result, but it is said that opposition from the highest quarters rendered this course practically impossible. The change of government brought Signor Tittoni back to the foreign office; Signor Maiorano became treasury minister, General Viganò minister of war, Signor Cocco Ortu, whose chief claim to consideration was the fact of his being a Sardinian (the island had rarely been represented in the cabinet) minister of agriculture, Signor Gianturco of justice, Signor Massimini of finance, Signor Schanzer of posts and telegraphs and Signor Fusinato of education. The new ministry began auspiciously with the conversion of the public debt from 4% to 3¾%, to be eventually reduced to 3½%. This operation had been prepared by Signor Luzzatti under Signor Sonnino's leadership, and although carried out by Signor Maiorano it was Luzzatti who deservedly reaped the honour and glory; the bill was presented, discussed and voted by both Houses on the 29th of June, and by the 7th of July the conversion was completed most successfully, showing on how sound a basis Italian finance was now placed. The surplus for the year amounted to 65,000,000 lire. In November Signor Gianturco died, and Signor Pietro Bertolini took his place as minister of public works; the latter proved perhaps the ablest member of the cabinet, but the acceptance of office under Giolitti of a man who had been one of the most trusted and valuable lieutenants of Signor Sonnino marked a further step in the *dégringolade* of that statesman's party, and was attributed to the fact that Signor Bertolini resented not having had a place in the late Sonnino ministry. General Viganò was succeeded in December by Senator Casana, the first civilian to become minister of war in Italy. He made various reforms which were badly wanted in army administration, but on the whole the experiment of a civilian "War Lord" was not a complete success, and in April 1909 Senator Casana retired and was succeeded by General Spingardi, an appointment which received general approval.

The elections of March 1909 returned a chamber very slightly different from its predecessor. The ministerial majority was over three hundred, and although the Extreme Left was somewhat increased in numbers it was weakened in tone, and many of the newly elected "reds" were hardly more than pale pink.

Meanwhile, the relations between Church and State began to show signs of change. The chief supporters of the claims of the papacy to temporal power were the clericals of France and Austria, but in the former country they had lost all influence, and the situation between the Church and the government was becoming every day more strained. With the rebellion of her "Eldest Daughter," the Roman Church could not continue in her old attitude of uncompromising hostility towards United Italy, and the Vatican began to realize the folly of placing every Italian in the dilemma of being *either* a good Italian *or* a good Catholic, when the majority wished to be both. Outside of Rome relations between the clergy and the authorities were as a rule quite cordial, and in May 1903 Cardinal Sarto, the patriarch of Venice, asked for and obtained an audience with the king when he visited that city, and the meeting which followed was of a very friendly character. In July following Leo XIII. died, and that same Cardinal Sarto became pope under the style of Pius X. The new pontiff, although nominally upholding the claims of the temporal power, in practice attached but little importance to it. At the elections for the local bodies the Catholics had already been permitted to vote, and, availing themselves of the privilege, they gained seats in many municipal councils and obtained the majority in some. At the general parliamentary elections of 1904 a few Catholics had been elected as such, and the encyclical of the 11th of June 1905 on the political organization of the Catholics, practically abolished the *non expedit*. In September of that year a number of religious institutions in the Near East, formerly under the protectorate of the French government, in view of the rupture between Church and State in France, formally asked to be placed under Italian protection, which was granted in January 1907. The situation thus became the very reverse of what it had been in Crispi's time, when the French government, even when anti-clerical, protected the Catholic Church abroad for political purposes, whereas the conflict between Church and State in Italy extended to foreign countries, to the detriment of Italian political interests. A more difficult question was that of religious education in the public elementary schools. Signor Giolitti wished to conciliate the Vatican by facilitating religious education, which was desired by the majority of the parents, but he did not wish to offend the Freemasons and other anti-clericals too much, as they could always give trouble at awkward moments. Consequently the minister of education, Signor Rava, concocted a body of rules which, it was hoped, would satisfy every one: religious instruction was to be maintained as a necessary part of the curriculum, but in communes where the majority of the municipal councillors were opposed to it it might be suppressed; the council in that case must, however, facilitate the teaching of religion to those children whose parents desire it. In practice, however, when the council has suppressed religious instruction no such facilities are given. At the general elections of March 1909, over a score of Clerical deputies were returned, Clericals of a very mild tone who had no thought of the temporal power and were supporters of the monarchy and anti-socialists; where no Clerical candidate was in the field the Catholic voters plumped for the constitutional candidate against all representatives of the Extreme Left. On the other hand, the attitude of the Vatican towards Liberalism within the Church was one of uncompromising reaction, and under the new pope the doctrines of Christian Democracy and Modernism were condemned in no uncertain tone. Don Romolo Murri, the Christian Democratic leader, who exercised much influence over the younger and more progressive clergy, having been severely censured by the Vatican, made formal submission, and declared his intention of retiring from the struggle. But he appeared again on the scene in the general elections of 1909, as a Christian Democratic candidate; he was elected, and alone of the Catholic deputies took his seat in the Chamber on the Extreme Left, where all his neighbours were violent anti-clericals.

Church and State.

At 5 A.M. on the 28th of December 1908, an earthquake of appalling severity shook the whole of southern Calabria and the eastern part of Sicily, completely destroying the cities of Reggio and Messina, the smaller towns of Canitello, Scilla, Villa San Giovanni, Bagnara, Palmi, Melito, Porto Salvo and Santa Eufemia, as well as a large number of villages. In the case of Messina the horror of the situation was heightened by a tidal wave. The catastrophe was the greatest of its kind that has ever occurred in any country; the number of persons killed was approximately 150,000, while the injured were beyond calculation.

Earthquake of December 1908.

The characteristic feature of Italy's foreign relations during this period was the weakening of the bonds of the Triple Alliance and the improved relations with France, while the traditional friendship with England remained unimpaired. Franco-Italian friendship was officially cemented by the visit of King Victor Emmanuel and Queen Elena in October 1903 to Paris where they received a very cordial welcome. The visit was returned in April 1904 when M. Loubet, the French president, came to Rome; this action was strongly resented by the pope, who, like his predecessor since 1870, objected to the presence of foreign Catholic rulers in Rome, and led to the final rupture between France and the Vatican. The Franco-Italian understanding had the effect of raising Italy's credit, and the Italian *rente*, which had been shut out of the French bourses, resumed its place there once more, a fact which contributed to increase its price and to reduce the unfavourable rate of exchange. That agreement also served to clear up the situation in Tripoli; while Italian aspirations towards Tunisia had been ended by the French occupation of that territory, Tripoli and Bengazi were now recognized as coming within the Italian "sphere of influence." The Tripoli hinterland,

Foreign affairs.

however, was in danger of being absorbed by other powers having large African interests; the Anglo-French declaration of the 21st of March 1899 in particular seemed likely to interfere with Italian activity.

The Triple Alliance was maintained and renewed as far as paper documents were concerned (in June 1902 it was reconfirmed for 12 years), but public opinion was no longer so favourably disposed towards it. Austria's petty persecutions of her Italian subjects in the *irredente* provinces, her active propaganda incompatible with Italian interests in the Balkans, and the anti-Italian war talk of Austrian military circles, imperilled the relations of the two "allies"; it was remarked, indeed, that the object of the alliance between Austria and Italy was to prevent war between them. Austria had persistently adopted a policy of pin-pricks and aggravating police provocation towards the Italians of the Adriatic Littoral and of the Trentino, while encouraging the Slavonic element in the former and the Germans in the latter. One of the causes of ill-feeling was the university question; the Austrian government had persistently refused to create an Italian university for its Italian subjects, fearing lest it should become a hotbed of "irredentism," the Italian-speaking students being thus obliged to attend the German-Austrian universities. An attempt at compromise resulted in the institution of an Italian law faculty at Innsbruck, but this aroused the violent hostility of the German students and populace, who gave proof of their superior civilization by an unprovoked attack on the Italians in October 1902. Further acts of violence were committed by the Germans in 1903, which led to anti-Austrian demonstrations in Italy. The worst tumults occurred in November 1904, when Italian students and professors were attacked at Innsbruck without provocation; being outnumbered by a hundred to one the Italians were forced to use their revolvers in self-defence, and several persons were wounded on both sides. Anti-Italian demonstrations occurred periodically also at Vienna, while in Dalmatia and Croatia Italian fishermen and workmen (Italian citizens, not natives) were subject to attacks by gangs of half-savage Croats, which led to frequent diplomatic "incidents." A further cause of resentment was Austria's attitude towards the Vatican, inspired by the strong clerical tendencies of the imperial family, and indeed of a large section of the Austrian people. But the most serious point at issue was the Balkan question. Italian public opinion could not view without serious misgivings the active political propaganda which Austria was conducting in Albania. The two governments frequently discussed the situation, but although they had agreed to a self-denying ordinance whereby each bound itself not to occupy any part of Albanian territory, Austria's declarations and promises were hardly borne out by the activity of her agents in the Balkans. Italy, therefore, instituted a counter-propaganda by means of schools and commercial agencies. The Macedonian troubles of 1903 again brought Austria and Italy into conflict. The acceptance by the powers of the Mürzsteg programme and the appointment of Austrian and Russian financial agents in Macedonia was an advantage for Austria and a set-back for Italy; but the latter scored a success in the appointment of General de Giorgis as commander of the international Macedonian gendarmerie; she also obtained, with the support of Great Britain, France and Russia, the assignment of the partly Albanian district of Monastir to the Italian officers of that corps.

In October 1908 came the bombshell of the Austrian annexation of Bosnia, announced to King Victor Emmanuel and to other rulers by autograph letters from the emperor-king. The news caused the most widespread sensation, and public opinion in Italy was greatly agitated at what it regarded as an act of brigandage on the part of Austria, when Signor Tittoni in a speech at Carate Brianza (October 6th) declared that "Italy might await events with serenity, and that these could find her neither unprepared nor isolated." These words were taken to mean that Italy would receive compensation to restore the balance of power upset in Austria's favour. When it was found that there was to be no direct compensation for Italy a storm of indignation was aroused against Austria, and also against Signor Tittoni.

On the 29th of October, however, Austria abandoned her military posts in the sandjak of Novibazar, and the frontier between Austria and Turkey, formerly an uncertain one, which left Austria a half-open back door to the Aegean, was now a distinct line of demarcation. Thus the danger of a "pacific penetration" of Macedonia by Austria became more remote. Austria also gave way on another point, renouncing her right to police the Montenegrin coast and to prevent Montenegro from having warships of its own (paragraphs 5, 6 and 11 of art. 29 of the Berlin Treaty) in a note presented to the Italian foreign office on the 12th of April 1909. Italy had developed some important commercial interests in Montenegro, and anything which strengthened the position of that principality was a guarantee against further Austrian encroachments. The harbour works in the Montenegrin port of Antivari, commenced in March 1905 and completed early in 1909, were an Italian concern, and Italy became a party to the agreement for the Danube-Adriatic Railway (June 2, 1908) together with Russia, France and Servia; Italy was to contribute 35,000,000 lire out of a total capital of 100,000,000, and to be represented by four directors out of twelve. But the whole episode was a warning to Italy, and the result was a national movement for security. Credits for the army and navy were voted almost without a dissentient voice; new battleships were laid down, the strength of the army was increased, and the defences of the exposed eastern border were strengthened. It was clear that so long as Austria, bribed by Germany, could act in a way so opposed to Italian interests in the Balkans, the Triple Alliance was a mockery, and Italy could only meet the situation by being prepared for all contingencies.

BIBLIOGRAPHY.—It is difficult to indicate in a short space the most important sources of general Italian history. Muratori's great collection, the *Rerum Italicarum scriptores*, in combination with his *Dissertationes*, the chronicles and other historical material published by the *Archivio Storico Italiano*, and the works of detached annalists of whom the Villani are the most notable, take first rank. Next we may mention Muratori's *Annali d' Italia*, together with Guicciardini's *Storia d' Italia* and its modern continuation by Carlo Botta. Among the more recent contributions S. de Sismondi's *Républiques italiennes* (Brussels, 1838) and Carlo Troya's *Storia d' Italia nel medio evo* are among the most valuable general works, while the large *Storia Politica d' Italia* by various authors, published at Milan, is also important—F. Bertolini, *I Barbari*; F. Lanzani, *Storia dei comuni italiani dalle origini fino al 1313* (1882); C. Cipolla, *Storia delle Signorie Italiane dal 1313 al 1530* (1881); A. Cosci, *L' Italia durante le preponderanze straniere, 1530–1789* (1875); A. Franchetti, *Storia d' Italia dal 1789 al 1799*; G. de Castro, *Storia d' Italia dal 1789 al 1814* (1881). For the beginnings of Italian history the chief works are T. Hodgkin's *Italy and her Invaders* (Oxford, 1892–1899) and P. Villari's *Le Invasioni barbariche* (Milan, 1900), both based on original research and sound scholarship. The period from 1494 to modern times is dealt with in various volumes of the *Cambridge Modern History*, especially in vol. i., "The Renaissance," which contains valuable bibliographies. Giuseppe Ferrari's *Rivoluzioni d' Italia* (1858) deserves notice as a work of singular vigour, though no great scientific importance, and Cesare Balbo's *Sommario* (Florence, 1856) presents the main outlines of the subject with brevity and clearness. For the period of the French revolution and the Napoleonic wars see F. Lemmi's *Le Origini del risorgimento italiano* (Milan, 1906); E. Bonnal de Ganges, *La Chute d'une république* [*Venise*] (Paris, 1885); D. Carutti, *Storia della corte di Savoia durante la rivoluzione e l' impero francese* (2 vols., Turin, 1892); G. de Castro, *Storia d' Italia dal 1797 al 1814* (Milan, 1881); A. Dufourcq, *Le Régime jacobin en Italie, 1796–1799* (Paris, 1900); A. Franchetti, *Storia d' Italia dal 1789 al 1799* (Milan, 1878); P. Gaffarel, *Bonaparte et les républiques italiennes (1796–1799)* (Paris, 1895); R. M. Johnston, *The Napoleonic Empire in Southern Italy* (2 vols., with full bibliography, London, 1904); E. Ramondini, *L' Italia durante la dominazione francese* (Naples, 1882); E. Ruth, *Geschichte des italienischen Volkes unter der napoleonischen Herrschaft* (Leipzig, 1859). For modern times, see Bolton King's *History of Italian Unity* (1899) and Bolton King and Thomas Okey's *Italy To-day* (1901). With regard to the history of separate provinces it may suffice to notice N. Machiavelli's *Storia fiorentina*, B. Corio's *Storia di Milano*, G. Capponi's *Storia della repubblica di Firenze* (Florence, 1875), P. Villari's *I primi due secoli della storia di Firenze* (Florence, 1905), F. Pagano's *Istoria del regno di Napoli* (Palermo-Naples, 1832, &c.), P. Romanin's *Storia documentata di Venezia* (Venice, 1853), M. Amari's *Musulmani di Sicilia* (1854–1875), F. Gregorovius's *Geschichte der Stadt Rom* (Stuttgart, 1881), A. von Reumont's *Geschichte der Stadt Rom* (Berlin, 1867), L. Cibrario's *Storia della monarchia piemontese* (Turin, 1840), and D. Carutti's

Storia della diplomazia della corte di Savoia (Rome, 1875). The *Archivii storici* and *Deputazioni di storia patria* of the various Italian towns and provinces contain a great deal of valuable material for local history. From the point of view of papal history, L. von Ranke's *History of the Popes* (English edition, London, 1870), M. Creighton's *History of the Papacy* (London, 1897) and L. Pastor's *Geschichte der Päpste* (Freiburg i. B., 1886–1896), should be mentioned. From the point of view of general culture, Jacob Burckhardt's *Cultur der Renaissance in Italien* (Basel, 1860), E. Guinet's *Révolutions d'Italie* (Paris, 1857), and J. A. Symonds's *Renaissance in Italy* (5 vols., London, 1875, &c.) should be consulted. (L. V.*)

ITEM (a Latin adverb meaning "also," "likewise"), originally used adverbially in English at the beginning of each separate head in a list of articles, or each detail in an account book or ledger or in a legal document. The word is thus applied, as a noun, to the various heads in any such enumeration and also to a piece of information or news.

ITHACA (Ἰθάκη), vulgarly Thiaki (Θιάκη), next to Paxo the smallest of the seven Ionian Islands, with an area of about 44 sq. m. It forms an eparchy of the nomos of Cephalonia in the kingdom of Greece, and its population, which was 9873 in 1870, is now about 13,000. The island consists of two mountain masses, connected by a narrow isthmus of hills, and separated by a wide inlet of the sea known as the Gulf of Molo. The northern and greater mass culminates in the heights of Anoi (2650 ft.), and the southern in Hagios Stephanos, or Mount Merovigli (2100 ft.). Vathy (Βαθύ = "deep"), the chief town and port of the island, lies at the northern foot of Mount Stephanos, its whitewashed houses stretching for about a mile round the deep bay in the Gulf of Molo, to which it owes its name. As there are only one or two small stretches of arable land in Ithaca, the inhabitants are dependent on commerce for their grain supply; and olive oil, wine and currants are the principal products obtained by the cultivation of the thin stratum of soil that covers the calcareous rocks. Goats are fed in considerable number on the brushwood pasture of the hills; and hares (in spite of Aristotle's supposed assertion of their absence) are exceptionally abundant. The island is divided into four districts: Vathy, Aeto (or Eagle's Cliff), Anoge (Anoi) or Upland, and Exoge (Exoi) or Outland.

The name has remained attached to the island from the earliest historical times with but little interruption of the tradition; though in Brompton's travels (12th century) and in the old Venetian maps we find it called Fale or Val de Compar, and at a later date it not unfrequently appears as Little Cephalonia. This last name indicates the general character of Ithacan history (if history it can be called) in modern and indeed in ancient times; for the fame of the island is almost solely due to its position in the Homeric story of Odysseus. Ithaca, according to the Homeric epos, was the royal seat and residence of King Odysseus. The island is incidentally described with no small variety of detail, picturesque and topographical; the Homeric localities for which counterparts have been sought are Mount Neritos, Mount Neion, the harbour of Phorcys, the town and palace of Odysseus, the fountain of Arethusa, the cave of the Naiads, the stalls of the swineherd Eumaeus, the orchard of Laertes, the Korax or Raven Cliff and the island Asteris, where the suitors lay in ambush for Telemachus. Among the "identificationists" there are two schools, one placing the town at Polis on the west coast in the northern half of the island (Leake, Gladstone, &c.), and the other at Aeto on the isthmus. The latter site, which was advocated by Sir William Gell (*Topography and Antiquities of Ithaca*, London, 1807), was supported by Dr H. Schliemann, who carried on excavations in 1873 and 1878 (see H. Schliemann, *Ithaque, le Péloponnèse, Troie*, Paris, 1869, also published in German; his letter to *The Times*, 26th of September, 1878; and the author's life prefixed to *Ilios*, London, 1880). But his results were mainly negative. The fact is that no amount of ingenuity can reconcile the descriptions given in the *Odyssey* with the actual topography of this island. Above all, the passage in which the position of Ithaca is described offers great difficulties. "Now Ithaca lies low, farthest up the sea line towards the darkness, but those others face the dawning and the sun" (Butcher and Lang). Such a passage fits very ill an island lying, as Ithaca does, just to the east of Cephalonia. Accordingly Professor W. Dörpfeld has suggested that the Homeric Ithaca is not the island which was called Ithaca by the later Greeks, but must be identified with Leucas (Santa Maura, *q.v.*). He succeeds in fitting the Homeric topography to this latter island, and suggests that the name may have been transferred in consequence of a migration of the inhabitants. There is no doubt that Leucas fits the Homeric descriptions much better than Ithaca; but, on the other hand, many scholars maintain that it is a mistake to treat the imaginary descriptions of a poet as if they were portions of a guide-book, or to look, in the author of the *Odyssey*, for a close familiarity with the geography of the Ionian islands.

See, besides the works already referred to, the separate works on Ithaca by Schreiber (Leipzig, 1829); Rühle von Lilienstern (Berlin, 1832); N. Karavias Grivas (*Ἱστορία τῆς νήσου Ἰθάκης*) (Athens, 1849); Bowen (London, 1851); and Gandar, (Paris, 1854); Hercher, in *Hermes* (1866); Leake's *Northern Greece*; Mure's *Tour in Greece*; Bursian's *Geogr. von Griechenland*; Gladstone, "The Dominions of Ulysses," in *Macmillan's Magazine* (1877). A history of the discussions will be found in Buchholz, *Die Homerischen Realien* (Leipzig, 1871); Partsch, *Kephallenia und Ithaka* (1890); W. Dörpfeld in *Mélanges Perrot*, pp. 79-93 (1903); P. Goessler, *Leukas-Ithaka* (Stuttgart, 1904). (E. Gr.)

ITHACA, a city and the county-seat of Tompkins county, New York, U.S.A., at the southern end of Cayuga Lake, 60 m. S.W. of Syracuse. Pop. (1890) 11,079, (1900) 13,136, of whom 1310 were foreign-born, (1910 census) 14,802. It is served by the Delaware, Lackawanna & Western and the Lehigh Valley railways and by interurban electric line; and steamboats ply on the lake. Most of the city is in the level valley, from which it spreads up the heights on the south, east and west. The finest residential district is East Hill, particularly Cornell and Cayuga Heights (across Fall Creek from the Cornell campus). Renwick Beach, at the head of the lake, is a pleasure resort. The neighbouring region is one of much beauty, and is frequented by summer tourists. Near the city are many waterfalls, the most notable being Taughannock Falls (9 m. N.), with a fall of 215 ft. Through the city from the east run Fall, Cascadilla and Six Mile Creeks, the first two of which have cut deep gorges and have a number of cascades and waterfalls, the largest, Ithaca Fall in Fall Creek, being 120 ft. high. Six Mile Creek crosses the south side of the city and empties into Cayuga Inlet, which crosses the western and lower districts, often inundated in the spring. The Inlet receives the waters of a number of small streams descending from the south-western hills. Among the attractions in this direction are Buttermilk Falls and ravine, on the outskirts of the city, Lick Brook Falls and glen and Enfield Falls and glen, the last 7 m. distant. Fall Creek furnishes good water-power. The city has various manufactures, including fire-arms, calendar clocks, traction engines, electrical appliances, patent chains, incubators, autophones, artesian well drills, salt, cement, window glass and wall-paper. The value of the factory product increased from $1,500,604 in 1900 to $2,080,002 in 1905, or 38·6%. Ithaca is also a farming centre and coal market, and much fruit is grown in the vicinity. The city is best known as the seat of Cornell University (*q.v.*). It has also the Ezra Cornell Free Library of about 28,000 volumes, the Ithaca Conservatory of Music, the Cascadilla School and the Ithaca High School. Ithaca was settled about 1789, the name being given to it by Simeon De Witt in 1806. It was incorporated as a village in 1821, and was chartered as a city in 1888. At Buttermilk Falls stood the principal village of the Tutelo Indians, Coreorgonel, settled in 1753 and destroyed in 1779 by a detachment of Sullivan's force.

ITINERARIUM (*i.e.* road-book, from Lat. *iter*, road), a term applied to the extant descriptions of the ancient Roman roads and routes of traffic, with the stations and distances. It is usual to distinguish two classes of these, *Itineraria adnotata* or *scripta* and *Itineraria picta*—the former having the character of a book, and the latter being a kind of travelling map. Of the Itineraria Scripta the most important are: (1) *It. Antonini* (see Antonini Itinerarium), which consists of two parts, the

one dealing with roads in Europe, Asia and Africa, and the other with familiar sea-routes—the distances usually being measured from Rome; (2) *It. Hierosolymitanum* or *Burdigalense*, which belongs to the 4th century, and contains the route of a pilgrimage from Bordeaux to Jerusalem and from Heraclea by Rome to Milan (ed. G. Parthey and M. Pinder, 1848, with the *Itinerarium Antonini*); (3) *It. Alexandri*, containing a sketch of the march-route of Alexander the Great, mainly derived from Arrian and prepared for Constantius's expedition in A.D. 340–345 against the Persians (ed. D. Volkmann, 1871). A collected edition of the ancient itineraria, with ten maps, was issued by Fortia d'Urban, *Recueil des itinéraires anciens* (1845). Of the Itineraria Picta only one great example has been preserved. This is the famous *Tabula Peutingeriana*, which, without attending to the shape or relative position of the countries, represents by straight lines and dots of various sizes the roads and towns of the whole Roman world (facsimile published by K. Miller, 1888; see also MAP).

ITIUS PORTUS, the name given by Caesar to the chief harbour which he used when embarking for his second expedition to Britain in 54 B.C. (*De bello Gallico*, v. 2). It was certainly near the uplands round Cape Grisnez (*Promuntorium Itium*), but the exact site has been violently disputed ever since the renaissance of learning. Many critics have assumed that Caesar used the same port for his first expedition, but the name does not appear at all in that connexion (*B. G.* iv. 21-23). This fact, coupled with other considerations, makes it probable that the two expeditions started from different places. It is generally agreed that the first embarked at Boulogne. The same view was widely held about the second, but T. Rice Holmes in an article in the *Classical Review* (May 1909) gave strong reasons for preferring Wissant, 4 m. east of Grisnez. The chief reason is that Caesar, having found he could not set sail from the small harbour of Boulogne with even 80 ships simultaneously, decided that he must take another point for the sailing of the "more than 800" ships of the second expedition. Holmes argues that, allowing for change in the foreshore since Caesar's time, 800 specially built ships could have been hauled above the highest spring-tide level, and afterwards launched simultaneously at Wissant, which would therefore have been "commodissimus" (v. 2) or opposed to "brevissimus traiectus" (iv. 21).

See T. R. Holmes in *Classical Review* (May 1909), in which he partially revises the conclusions at which he arrived in his *Ancient Britain* (1907), pp. 552-594; that the first expedition started from Boulogne is accepted, *e.g.* by H. Stuart Jones, in *English Historical Review* (1909), xxiv. 115; other authorities in Holmes's article.

ITO, HIROBUMI, PRINCE (1841–1909), Japanese statesman, was born in 1841, being the son of Ito Jūzō, and (like his father) began life as a retainer of the lord of Choshu, one of the most powerful nobles of Japan. Choshu, in common with many of his fellow Daimyos, was bitterly opposed to the rule of the shôgun or tycoon, and when this rule resulted in the conclusion of the treaty with Commodore M. C. Perry in 1854, the smouldering discontent broke out into open hostility against both parties to the compact. In these views Ito cordially agreed with his chieftain, and was sent on a secret mission to Yedo to report to his lord on the doings of the government. This visit had the effect of causing Ito to turn his attention seriously to the study of the British and of other military systems. As a result he persuaded Choshu to remodel his army, and to exchange the bows and arrows of his men for guns and rifles. But Ito felt that his knowledge of foreigners, if it was to be thorough, should be sought for in Europe, and with the connivance of Choshu he, in company with Inouye and three other young men of the same rank as himself, determined to risk their lives by committing the then capital offence of visiting a foreign country. With great secrecy they made their way to Nagasaki, where they concluded an arrangement with the agent of Messrs Jardine, Matheson & Co. for passages on board a vessel which was about to sail for Shanghai (1863). At that port the adventurers separated, three of their number taking ship as passengers to London, while Ito and Inouye preferred to work their passages before the mast in the "Pegasus," bound for the same destination. For a year these two friends remained in London studying English methods, but then events occurred in Japan which recalled them to their country. The treaties lately concluded by the shôgun with the foreign powers conceded the right to navigate the strait of Shimonoseki, leading to the Inland Sea. On the northern shores of this strait stretched the feudal state ruled over by Prince Choshu, who refused to recognize the clause opening the strait, and erected batteries on the shore, from which he opened fire on all ships which attempted to force the passage. The shôgun having declared himself unable in the circumstances to give effect to the provision, the treaty powers determined to take the matter into their own hands. Ito, who was better aware than his chief of the disproportion between the fighting powers of Europe and Japan, memorialized the cabinets, begging that hostilities should be suspended until he should have had time to use his influence with Choshu in the interests of peace. With this object Ito hurried back to Japan. But his efforts were futile. Choshu refused to give way, and suffered the consequences of his obstinacy in the destruction of his batteries and in the infliction of a heavy fine. The part played by Ito in these negotiations aroused the animosity of the more reactionary of his fellow-clansmen, who made repeated attempts to assassinate him. On one notable occasion he was pursued by his enemies into a tea-house, where he was concealed by a young lady beneath the floor of her room. Thus began a romantic acquaintance, which ended in the lady becoming the wife of the fugitive. Subsequently (1868) Ito was made governor of Hiogo, and in the course of the following year became vice-minister of finance. In 1871 he accompanied Iwakura on an important mission to Europe, which, though diplomatically a failure, resulted in the enlistment of the services of European authorities on military, naval and educational systems.

After his return to Japan Ito served in several cabinets as head of the bureau of engineering and mines, and in 1886 he accepted office as prime minister, a post which, when he resigned in 1901, he had held four times. In 1882 he was sent on a mission to Europe to study the various forms of constitutional government; on this occasion he attended the coronation of the tsar Alexander III. On his return to Japan he was entrusted with the arduous duty of drafting a constitution. In 1890 he reaped the fruits of his labours, and nine years later he was destined to witness the abrogation of the old treaties, and the substitution in their place of conventions which place Japan on terms of equality with the European states. In all the great reforms in the Land of the Rising Sun Ito played a leading part. It was mainly due to his active interest in military and naval affairs that he was able to meet Li Hung-chang at the end of the Chinese and Japanese War (1895) as the representative of the conquering state, and the conclusion of the Anglo-Japanese Alliance in 1902 testified to his triumphant success in raising Japan to the first rank among civilized powers. As a reward for his conspicuous services in connexion with the Chinese War Ito was made a marquis, and in 1897 he accompanied Prince Arisugawa as a joint representative of the Mikado at the Diamond Jubilee of Queen Victoria. At the close of 1901 he again, though in an unofficial capacity, visited Europe and the United States; and in England he was created a G.C.B. After the Russo-Japanese War (1905) he was appointed resident general in Korea, and in that capacity he was responsible for the steps taken to increase Japanese influence in that country. In September 1907 he was advanced to the rank of prince. He retired from his post in Korea in July 1909, and became president of the privy council in Japan. But on the 26th of October, when on a visit to Harbin, he was shot dead by a Korean assassin.

He is to be distinguished from Admiral Count Yuko Ito (b. 1843), the distinguished naval commander.

ITRI, a town of Campania, Italy, in the province of Caserta, 6 m. by road N.W. of Formia. Pop. (1901) 5797. The town is picturesquely situated 690 ft. above sea-level, in the mountains which the Via Appia traverses between Fondi and Formia.

Interesting remains of the substruction wall supporting the ancient road are preserved in Itri itself; and there are many remains of ancient buildings near it. The brigand Fra Diavolo, the hero of Auber's opera, was a native of Itri, and the place was once noted for brigandage.

ITURBIDE (or YTURBIDE), **AUGUSTIN DE** (1783–1824), emperor of Mexico from May 1822 to March 1823, was born on the 27th of September 1783, at Valladolid, now Morelia, in Mexico, where his father, an Old Spaniard from Pampeluna, had settled with his creole wife. After enjoying a better education than was then usual in Mexico, Iturbide entered the military service, and in 1810 held the post of lieutenant in the provincial regiment of his native city. In that year the insurrection under Hidalgo broke out, and Iturbide, more from policy, it would seem, than from principle, served in the royal army. Possessed of splendid courage and brilliant military talents, which fitted him especially for guerilla warfare, the young creole did signal service, and rapidly rose in military rank. In December 1813 Colonel Iturbide, along with General Llano, dealt a crushing blow to the revolt by defeating Morelos, the successor of Hidalgo, in the battle of Valladolid; and the former followed it up by another decisive victory at Puruaran in January 1814. Next year Don Augustin was appointed to the command of the army of the north and to the governorship of the provinces of Valladolid and Guanajuato, but in 1816 grave charges of extortion and violence were brought against him, which led to his recall. Although the general was acquitted, or at least although the inquiry was dropped, he did not resume his commands, but retired into private life for four years, which, we are told, he spent in a rigid course of penance for his former excesses. In 1820 Apodaca, viceroy of Mexico, received instructions from the Spanish cortes to proclaim the constitution promulgated in Spain in 1812, but although obliged at first to submit to an order by which his power was much curtailed, he secretly cherished the design of reviving the absolute power for Ferdinand VII. in Mexico. Under pretext of putting down the lingering remains of revolt, he levied troops, and, placing Iturbide at their head, instructed him to proclaim the absolute power of the king. Four years of reflection, however, had modified the general's views, and now, led both by personal ambition and by patriotic regard for his country, Iturbide resolved to espouse the cause of national independence. His subsequent proceedings—how he issued the *Plan of Iguala*, on the 24th of February 1821, how by the refusal of the Spanish cortes to ratify the treaty of Cordova, which he had signed with O'Donoju, he was transformed from a mere champion of monarchy into a candidate for the crown, and how, hailed by the soldiers as Emperor Augustin I. on the 18th of May 1822, he was compelled within ten months, by his arrogant neglect of constitutional restraints, to tender his abdication to a congress which he had forcibly dissolved—will be found detailed under MEXICO. Although the congress refused to accept his abdication on the ground that to do so would be to recognize the validity of his election, it permitted the ex-emperor to retire to Leghorn in Italy, while in consideration of his services in 1820 a yearly pension of £5000 was conferred upon him. But Iturbide resolved to make one more bid for power; and in 1824, passing from Leghorn to London, he published a *Statement*, and on the 11th of May set sail for Mexico. The congress immediately issued an act of outlawry against him, forbidding him to set foot on Mexican soil on pain of death. Ignorant of this, the ex-emperor landed in disguise at Soto la Marina on the 14th of July. He was almost immediately recognized and arrested, and on the 19th of July 1824 was shot at Padilla, by order of the state of Tamaulipas, without being permitted an appeal to the general congress. Don Augustin de Iturbide is described by his contemporaries as being of handsome figure and ingratiating manner. His brilliant courage and wonderful success made him the idol of his soldiers, though towards his prisoners he displayed the most cold-blooded cruelty, boasting in one of his despatches of having honoured Good Friday by shooting three hundred excommunicated wretches. Though described as amiable in his private life, he seems in his public career to have been ambitious and unscrupulous, and by his haughty Spanish temper, impatient of all resistance or control, to have forfeited the opportunity of founding a secure imperial dynasty. His grandson Augustin was chosen by the ill-fated emperor Maximilian as his successor.

See *Statement of some of the principal events in the public life of Augustin de Iturbide*, written by himself (Eng. trans., 1824).

ITZA, an American-Indian people of Mayan stock, inhabiting the country around Lake Peten in northern Guatemala. Chichen-Itza, among the most wonderful of the ruined cities of Yucatan, was the capital of the Itzas. Thence, according to their traditions they removed, on the breaking up of the Mayan kingdom in 1420, to an island in the lake where another city was built. Cortes met them in 1525, but they preserved their independence till 1697, when the Spaniards destroyed the city and temples, and a library of sacred books, written in hieroglyphics on bark fibre. The Itzas were one of the eighteen semi-independent Maya states, whose incessant internecine wars at length brought about the dismemberment of the empire of Xibalba and the destruction of Mayan civilization.

ITZEHOE, a town of Germany, in the Prussian province of Schleswig-Holstein, on the Stör, a navigable tributary of the Elbe, 32 m. north-west of Hamburg and 15 m. north of Glückstadt. Pop. (1900) 15,649. The church of St Lawrence, dating from the 12th century, and the building in which the Holstein estates formerly met, are noteworthy. The town has a convent founded in 1256, a high school, a hospital and other benevolent institutions. Itzehoe is a busy commercial place. Its sugar refineries are among the largest in Germany. Ironfounding, shipbuilding and wool-spinning are also carried on, and the manufactures include machinery, tobacco, fishing-nets, chicory, soap, cement and beer. Fishing employs some of the inhabitants, and the markets for cattle and horses are important. A considerable trade is carried on in agricultural products and wood, chiefly with Hamburg and Altona.

Itzehoe is the oldest town in Holstein. Its nucleus was a castle, built in 809 by Egbert, one of Charlemagne's counts, against the Danes. The community which sprang up around it was diversely called Esseveldoburg, Eselsfleth and Ezeho. In 1201 the town was destroyed, but it was restored in 1224. To the new town the Lübeck rights were granted by Adolphus IV. in 1238, and to the old town in 1303. During the Thirty Years' War Itzehoe was twice destroyed by the Swedes, in 1644 and 1657, but was rebuilt on each occasion. It passed to Prussia in 1867, with the duchy of Schleswig-Holstein.

IUKA, the county-seat of Tishomingo county, Mississippi, U.S.A., about 25 m. S.E. of Corinth in the N.E. corner of the state and 8 m. S. of the Tennessee river. Pop. (1900) 882; (1910) 1221. It is served by the Southern railway, and has a considerable trade in cotton and farm products. Its mineral springs make it a health resort. In the American Civil War, a Confederate force under General Sterling Price occupied the town on the 14th of September 1862, driving out a small Union garrison; and on the 19th of September a partial engagement took place between Price and a Federal column commanded by General Rosecrans, in which the Confederate losses were 700 and the Union 790. Price, whose line of retreat was threatened by superior forces under General Grant, withdrew from Iuka on the morning of the 20th of September.

IULUS, in Roman legend: (*a*) the eldest son of Ascanius and grandson of Aeneas, founder of the Julian gens (*gens Iulia*), deprived of his kingdom of Latium by his younger brother Silvius (Dion. Halic. i. 70); (*b*) another name for, or epithet of, Ascanius.

IVAN (JOHN), the name of six grand dukes of Muscovy and tsars of Russia.

IVAN I., called *Kalita*, or Money-Bag (d. 1341), grand duke of Vladimir, was the first *sobiratel*, or "gatherer" of the scattered Russian lands, thereby laying the foundations of the future autocracy as a national institution. This he contrived to do by adopting a policy of complete subserviency to the khan of the Golden Horde, who, in return for a liberal and punctual tribute, permitted him to aggrandize himself at the expense of the lesser

grand dukes. Moscow and Tver were the first to fall. The latter Ivan received from the hand of the khan, after devastating it with a host of 50,000 Tatars (1327). When Alexander of Tver fled to the powerful city of Pskov, Ivan, not strong enough to attack Pskov, procured the banishment of Alexander by the aid of the metropolitan, Theognost, who threatened Pskov with an interdict. In 1330 Ivan extended his influence over Rostov by the drastic methods of blackmail and hanging. But Great Novgorod was too strong for him, and twice he threatened that republic in vain. In 1340 Ivan assisted the khan to ravage the domains of Prince Ivan of Smolensk, who had refused to pay the customary tribute to the Horde. Ivan's own domains, at any rate during his reign, remained free from Tatar incursions, and prospered correspondingly, thus attracting immigrants and their wealth from the other surrounding principalities. Ivan was a most careful, not to say niggardly economist, keeping an exact account of every village or piece of plate that his money-bags acquired, whence his nickname. The most important event of his reign was the transference of the metropolitan see from Vladimir to Moscow, which gave Muscovy the pre-eminence over all the other Russian states, and made the metropolitan the ecclesiastical police-superintendent of the grand duke. The Metropolitan Peter built the first stone cathedral of Moscow, and his successor, Theognost, followed suit with three more stone churches. Simultaneously Ivan substituted stone walls for the ancient wooden ones of the Kreml', or citadel, which made Moscow a still safer place of refuge.

See S. M. Solov'ev, *History of Russia* (Rus.), vol. iii. (St Petersburg, 1895); Polezhaev, *The Principality of Moscow in the first half of the 14th Century* (Rus.) (St Petersburg, 1878).

IVAN II. (1326–1359), grand duke of Vladimir, a younger son of Ivan Kalita, was born in 1326. In 1353 he succeeded his elder brother Simeon as grand duke, despite the competition of Prince Constantine of Suzdal, the Khan Hanibek preferring to bestow the *yarluik*, or letter of investiture, upon Ivan rather than upon Constantine. At first the principalities of Suzdal, Ryazan and the republic of Novgorod refused to recognize him as grand duke, and waged war with him till 1354. The authority of the grand duchy sensibly diminished during the reign of Ivan II. The surrounding principalities paid but little attention to Moscow, and Ivan, "a meek, gentle and merciful prince," was ruled to a great extent by the *tuisyatsky*, or chiliarch, Alexis Khvost, and, after his murder by the jealous boyars in 1357, by Bishop Alexis. He died in 1359. Like most of his predecessors, Ivan, by his last will, divided his dominions among his children.

See Dmitry Ilovaisky, *History of Russia* (Rus.), vol. ii. (Moscow, 1876–1894).

IVAN III. (1440–1505), grand duke of Muscovy, son of Vasily (Basil) Vasilievich the Blind, grand duke of Moscow, and Maria Yaroslavovna, was born in 1440. He was co-regent with his father during the latter years of his life and succeeded him in 1462. Ivan tenaciously pursued the unifying policy of his predecessors. Nevertheless, cautious to timidity, like most of the princes of the house of Rurik, he avoided as far as possible any violent collision with his neighbours until all the circumstances were exceptionally favourable, always preferring to attain his ends gradually, circuitously and subterraneously. Muscovy had by this time become a compact and powerful state, whilst her rivals had grown sensibly weaker, a condition of things very favourable to the speculative activity of a statesman of Ivan III.'s peculiar character. His first enterprise was a war with the republic of Novgorod, which, alarmed at the growing dominancy of Muscovy, had placed herself beneath the protection of Casimir IV., king of Poland, an alliance regarded at Moscow as an act of apostasy from orthodoxy. Ivan took the field against Novgorod in 1470, and after his generals had twice defeated the forces of the republic, at Shelona and on the Dvina, during the summer of 1471, the Novgorodians were forced to sue for peace, which they obtained on engaging to abandon for ever the Polish alliance, ceding a considerable portion of their northern colonies, and paying a war indemnity of 15,500 roubles. From henceforth Ivan sought continually a pretext for destroying Novgorod altogether; but though he frequently violated its ancient privileges in minor matters, the attitude of the republic was so wary that his looked-for opportunity did not come till 1477. In that year the ambassadors of Novgorod played into his hands by addressing him in public audience as "Gosudar" (sovereign) instead of "Gospodin" ("Sir") as heretofore. Ivan at once seized upon this as a recognition of his sovereignty, and when the Novgorodians repudiated their ambassadors, he marched against them. Deserted by Casimir IV., and surrounded on every side by the Muscovite armies, which included a Tatar contingent, the republic recognized Ivan as autocrat, and surrendered (January 14, 1478) all her prerogatives and possessions (the latter including the whole of northern Russia from Lapland to the Urals) into his hands. Subsequent revolts (1479–1488) were punished by the removal *en masse* of the richest and most ancient families of Novgorod to Moscow, Vyatka and other central Russian cities. After this, Novgorod, as an independent state, ceased to exist. The rival republic of Pskov owed the continuance of its own political existence to the readiness with which it assisted Ivan against its ancient enemy. The other principalities were virtually absorbed, by conquest, purchase or marriage contract—Yaroslavl in 1463, Rostov in 1474, Tver in 1485.

Ivan's refusal to share his conquests with his brothers, and his subsequent interference with the internal politics of their inherited principalities, involved him in several wars with them, from which, though the princes were assisted by Lithuania, he emerged victorious. Finally, Ivan's new rule of government, formally set forth in his last will to the effect that the domains of all his kinsfolk, after their deaths, should pass directly to the reigning grand duke instead of reverting, as hitherto, to the princes' heirs, put an end once for all to these semi-independent princelets. The further extension of the Muscovite dominion was facilitated by the death of Casimir IV. in 1492, when Poland and Lithuania once more parted company. The throne of Lithuania was now occupied by Casimir's son Alexander, a weak and lethargic prince so incapable of defending his possessions against the persistent attacks of the Muscovites that he attempted to save them by a matrimonial compact, and wedded Helena, Ivan's daughter. But the clear determination of Ivan to appropriate as much of Lithuania as possible at last compelled Alexander in 1499 to take up arms against his father-in-law. The Lithuanians were routed at Vedrosha (July 14, 1500), and in 1503 Alexander was glad to purchase peace by ceding to Ivan Chernigov, Starodub, Novgorod-Syeversk and sixteen other towns.

It was in the reign of Ivan III. that Muscovy rejected the Tatar yoke. In 1480 Ivan refused to pay the customary tribute to the grand Khan Ahmed. When, however, the grand khan marched against him, Ivan's courage began to fail, and only the stern exhortations of the high-spirited bishop of Rostov, Vassian, could induce him to take the field. All through the autumn the Russian and Tatar hosts confronted each other on opposite sides of the Ugra, till the 11th of November, when Ahmed retired into the steppe. In the following year the grand khan, while preparing a second expedition against Moscow, was suddenly attacked, routed and slain by Ivak, the khan of the Nogai Tatars, whereupon the Golden Horde suddenly fell to pieces. In 1487 Ivan reduced the khanate of Kazan (one of the offshoots of the Horde) to the condition of a vassal-state, though in his later years it broke away from his suzerainty. With the other Mahommedan powers, the khan of the Crimea and the sultan of Turkey, Ivan's relations were pacific and even amicable. The Crimean khan, Mengli Girai, helped him against Lithuania and facilitated the opening of diplomatic intercourse between Moscow and Constantinople, where the first Russian embassy appeared in 1495.

The character of the government of Muscovy under Ivan III. changed essentially and took on an autocratic form which it had never had before. This was due not merely to the natural consequence of the hegemony of Moscow over the other Russian lands, but even more to the simultaneous growth of new and

exotic principles falling upon a soil already prepared for them. After the fall of Constantinople, orthodox canonists were inclined to regard the Muscovite grand dukes as the successors by the Byzantine emperors. This movement coincided with a change in the family circumstances of Ivan III. After the death of his first consort, Maria of Tver (1467), at the suggestion of Pope Paul II. (1469), who hoped thereby to bind Russia to the holy see, Ivan III. wedded the Catholic Zoe Palaeologa (better known by her orthodox name of Sophia), daughter of Thomas, despot of the Morea, who claimed the throne of Constantinople as the nearest relative of the last Greek emperor. The princess, however, clave to her family traditions, and awoke imperial ideas in the mind of her consort. It was through her influence that the ceremonious etiquette of Constantinople (along with the imperial double-headed eagle and all that it implied) was adopted by the court of Moscow. The grand duke henceforth held aloof from his boyars. The old patriarchal systems of government vanished. The boyars were no longer consulted on affairs of state. The sovereign became sacrosanct, while the boyars were reduced to the level of slaves absolutely dependent on the will of the sovereign. The boyars naturally resented so insulting a revolution, and struggled against it, at first with some success. But the clever Greek lady prevailed in the end, and it was her son Vasily, not Maria of Tver's son, Demetrius, who was ultimately crowned co-regent with his father (April 14, 1502). It was in the reign of Ivan III. that the first Russian "Law Book," or code, was compiled by the scribe Gusev. Ivan did his utmost to promote civilization in his realm, and with that object invited many foreign masters and artificers to settle in Muscovy, the most noted of whom was the Italian Ridolfo di Fioravante, nicknamed Aristotle because of his extraordinary knowledge, who built the cathedrals of the Assumption (Uspenski) and of Saint Michael or the Holy Archangels in the Kreml.

See P. Pierling, *Mariage d'un tsar au Vatican, Ivan III et Sophie Paléologue* (Paris, 1891); E. I. Kashprovsky, *The Struggle of Ivan III. with Sigismund I.* (Rus.) (Nizhni, 1899); S. M. Solov'ev, *History of Russia* (Rus.), vol. v. (St Petersburg, 1895).

IVAN IV., called "the Terrible" (1530–1584), tsar of Muscovy, was the son of Vasily [Basil] III. Ivanovich, grand duke of Muscovy, by his second wife, Helena Glinska. Born on the 25th of August 1530, he was proclaimed grand duke on the death of his father (1533), and took the government into his own hands in 1544, being then fourteen years old. Ivan IV. was in every respect precocious; but from the first there was what we should now call a neurotic strain in his character. His father died when he was three, his mother when he was only seven, and he grew up in a brutal and degrading environment where he learnt to hold human life and human dignity in contempt. He was maltreated by the leading boyars whom successive revolutions placed at the head of affairs, and hence he conceived an inextinguishable hatred of their whole order and a corresponding fondness for the merchant class, their natural enemies. At a very early age he entertained an exalted idea of his own divine authority, and his studies were largely devoted to searching in the Scriptures and the Slavonic chronicles for sanctions and precedents for the exercise and development of his right divine. He first asserted his power by literally throwing to the dogs the last of his boyar tyrants, and shortly afterwards announced his intention of assuming the title of tsar, a title which his father and grandfather had coveted but never dared to assume publicly. On the 16th of January 1547, he was crowned the first Russian tsar by the metropolitan of Moscow; on the 3rd of February in the same year he selected as his wife from among the virgins gathered from all parts of Russia for his inspection, Anastasia Zakharina-Koshkina, the scion of an ancient and noble family better known by its later name of Romanov.

Hitherto, by his own showing, the private life of the young tsar had been unspeakably abominable, but his sensitive conscience (he was naturally religious) induced him, in 1550, to summon a *Zemsky Sobor* or national assembly, the first of its kind, to which he made a curious public confession of the sins of his youth, and at the same time promised that the realm of Russia (for whose dilapidation he blamed the boyar regents) should henceforth be governed justly and mercifully. In 1551 the tsar submitted to a synod of prelates a hundred questions as to the best mode of remedying existing evils, for which reason the decrees of this synod are generally called *stoglav* or *centuria*. The decennium extending from 1550 to 1560 was the good period of Ivan IV.'s reign, when he deliberately broke away from his disreputable past and surrounded himself with good men of lowly origin. It was not only that he hated and distrusted the boyars, but he was already statesman enough to discern that they could not be fitted into the new order of things which he aimed at introducing. Ivan meditated the regeneration of Muscovy, and the only men who could assist him in his task were men who could look steadily forward to the future because they had no past to look back upon, men who would unflinchingly obey their sovereign because they owed their whole political significance to him alone. The chief of these men of good-will were Alexis Adashev and the monk Sylvester, men of so obscure an origin that almost every detail of their lives is conjectural, but both of them, morally, the best Muscovites of their day. Their influence upon the young tsar was profoundly beneficial, and the period of their administration coincides with the most glorious period of Ivan's reign—the period of the conquest of Kazan and Astrakhan.

In the course of 1551 one of the factions of Kazan offered the whole khanate to the young tsar, and on the 20th of August 1552 he stood before its walls with an army of 150,000 men and 50 guns. The siege was long and costly; the army suffered severely; and only the tenacity of the tsar kept it in camp for six weeks. But on the 2nd of October the fortress, which had been heroically defended, was taken by assault. The conquest of Kazan was an epoch-making event in the history of eastern Europe. It was not only the first territorial conquest from the Tatars, before whom Muscovy had humbled herself for generations; at Kazan Asia, in the name of Mahomet, had fought behind its last trench against Christian Europe marshalled beneath the banner of the tsar of Muscovy. For the first time the Volga became a Russian river. Nothing could now retard the natural advance of the young Russian state towards the east and the south-east. In 1554 Astrakhan fell almost without a blow. By 1560 all the Finnic and Tatar tribes between the Oka and the Kama had become Russian subjects. Ivan was also the first tsar who dared to attack the Crimea. In 1555 he sent Ivan Sheremetev against Perekop, and Sheremetev routed the Tatars in a great two days' battle at Sudbishenska. Some of Ivan's advisers, including both Sylvester and Adashev, now advised him to make an end of the Crimean khanate, as he had already made an end of the khanates of Kazan and Astrakhan. But Ivan, wiser in his generation, knew that the thing was impossible, in view of the immense distance to be traversed, and the predominance of the Grand Turk from whom it would have to be wrested. It was upon Livonia that his eyes were fixed, which was comparatively near at hand and promised him a seaboard and direct communication with western Europe. Ivan IV., like Peter I. after him, clearly recognized the necessity of raising Muscovy to the level of her neighbours. He proposed to do so by promoting a wholesale immigration into his tsardom of master-workmen and skilled artificers. But all his neighbours, apprehensive of the consequences of a civilized Muscovy, combined to thwart him. Charles V. even went so far as to disperse 123 skilled Germans whom Ivan's agent had collected and brought to Lübeck for shipment to a Baltic port. After this, Ivan was obliged to help himself as best he could. His opportunity seemed to have come when, in the middle of the 16th century, the Order of the Sword broke up, and the possession of Livonia was fiercely contested between Sweden, Poland and Denmark. Ivan intervened in 1558 and quickly captured Narva, Dorpat and a dozen smaller fortresses; then, in 1560, Livonia placed herself beneath the protection of Poland, and King Sigismund II. warned Ivan off the premises.

By this time, Ivan had entered upon the second and evil portion of his reign. As early as 1553 he had ceased to trust

Sylvester and Adashev, owing to their extraordinary backwardness in supporting the claims of his infant son to the throne while he himself lay at the point of death. The ambiguous and ungrateful conduct of the tsar's intimate friends and protégés on this occasion has never been satisfactorily explained, and he had good reason to resent it. Nevertheless, on his recovery, much to his credit, he overlooked it, and they continued to direct affairs for six years longer. Then the dispute about the Crimea arose, and Ivan became convinced that they were mediocre politicians as well as untrustworthy friends. In 1560 both of them disappeared from the scene, Sylvester into a monastery at his own request, while Adashev died the same year, in honourable exile as a general in Livonia. The death of his deeply beloved consort Anastasia and his son Demetrius, and the desertion of his one bosom friend Prince Kurbsky, about the same time, seem to have infuriated Ivan against God and man. During the next ten years (1560–1570) terrible and horrible things happened in the realm of Muscovy. The tsar himself lived in an atmosphere of apprehension, imagining that every man's hand was against him. On the 3rd of December 1564 he quitted Moscow with his whole family. On the 3rd of January 1565 he declared in an open letter addressed to the metropolitan his intention to abdicate. The common people, whom he had always favoured at the expense of the boyars, thereupon implored him to come back on his own terms. He consented to do so, but entrenched himself within a peculiar institution, the *oprichina* or "separate estate." Certain towns and districts all over Russia were separated from the rest of the realm, and their revenues were assigned to the maintenance of the tsar's new court and household, which was to consist of 1000 carefully selected boyars and lower dignitaries, with their families and suites, in the midst of whom Ivan henceforth lived exclusively. The *oprichina* was no constitutional innovation. The *duma*, or council, still attended to all the details of the administration; the old boyars still retained their ancient offices and dignities. The only difference was that the tsar had cut himself off from them, and they were not even to communicate with him except on extraordinary and exceptional occasions. The *oprichniki*, as being the exclusive favourites of the tsar, naturally, in their own interests, hardened the tsar's heart against all outsiders, and trampled with impunity upon every one beyond the charmed circle. Their first and most notable victim was Philip, the saintly metropolitan of Moscow, who was strangled for condemning the *oprichina* as an unchristian institution, and refusing to bless the tsar (1569). Ivan had stopped at Tver, to murder St Philip, while on his way to destroy the second wealthiest city in his tsardom—Great Novgorod. A delator of infamous character, one Peter, had accused the authorities of the city to the tsar of conspiracy; Ivan, without even confronting the Novgorodians with their accuser, proceeded at the end of 1569 to punish them. After ravaging the land, his own land, like a wild beast, he entered the city on the 8th of January 1570, and for the next five weeks, systematically and deliberately, day after day, massacred batches of every class of the population. Every monastery, church, manor-house, warehouse and farm within a circuit of 100 m. was then wrecked, plundered and left roofless, all goods were pillaged, all cattle destroyed. Not till the 13th of February were the miserable remnants of the population permitted to rebuild their houses and cultivate their fields once more.

An intermittent and desultory war, with Sweden and Poland simultaneously, for the possession of Livonia and Esthonia, went on from 1560 to 1582. Ivan's generals (he himself rarely took the field) were generally successful at first, and bore down their enemies by sheer numbers, capturing scores of fortresses and towns. But in the end the superior military efficiency of the Swedes and Poles invariably prevailed. Ivan was also unfortunate in having for his chief antagonist Stephen Báthory, one of the greatest captains of the age. Thus all his strenuous efforts, all his enormous sacrifices, came to nothing. The West was too strong for him. By the peace of Zapoli (January 15th, 1582) he surrendered Livonia with Polotsk to Báthory, and by the truce of Ilyusa he at the same time abandoned Ingria to the Swedes. The Baltic seaboard was lost to Muscovy for another century and a half. In his latter years Ivan cultivated friendly relations with England, in the hope of securing some share in the benefits of civilization from the friendship of Queen Elizabeth, one of whose ladies, Mary Hastings, he wished to marry, though his fifth wife, Martha Nagaya, was still alive. Towards the end of his life Ivan was partially consoled for his failure in the west by the unexpected acquisition of the kingdom of Siberia in the east, which was first subdued by the Cossack hetman Ermak or Yermak in 1581.

In November 1580 Ivan in a fit of ungovernable fury at some contradiction or reproach, struck his eldest surviving son Ivan, a prince of rare promise, whom he passionately loved, a blow which proved fatal. In an agony of remorse, he would now have abdicated "as being unworthy to reign longer"; but his trembling boyars, fearing some dark ruse, refused to obey any one but himself. Three years later, on the 18th of March 1584, while playing at chess, he suddenly fell backwards in his chair and was removed to his bed in a dying condition. At the last moment he assumed the hood of the strictest order of hermits, and died as the monk Jonah.

Ivan IV. was undoubtedly a man of great natural ability. His political foresight was extraordinary. He anticipated the ideals of Peter the Great, and only failed in realizing them because his material resources were inadequate. But admiration of his talents must not blind us to his moral worthlessness, nor is it right to cast the blame for his excesses on the brutal and vicious society in which he lived. The same society which produced his infamous favourites also produced St Philip of Moscow, and by refusing to listen to St Philip Ivan sank below even the not very lofty moral standard of his own age. He certainly left Muscovite society worse than he found it, and so prepared the way for the horrors of "the Great Anarchy." Personally, Ivan was tall and well-made, with high shoulders and a broad chest. His eyes were small and restless, his nose hooked, he had a beard and moustaches of imposing length. His face had a sinister, troubled expression; but an enigmatical smile played perpetually around his lips. He was the best educated and the hardest worked man of his age. His memory was astonishing, his energy indefatigable. As far as possible he saw to everything personally, and never sent away a petitioner of the lower orders.

See S. M. Solov'ev, *History of Russia* (Rus.) vol. v. (St Petersburg, 1895); A. Brückner, *Geschichte Russlands bis zum Ende des 18ten Jahrhunderts* (Gotha, 1896); E. Tikhomirov, *The first Tsar of Moscovy, Ivan IV.* (Rus.) (Moscow, 1888); L. G. T. Tidander, *Kriget mellan Sverige och Ryssland åren 1555–1557* (Vesterås, 1888); P. Pierling, *Un Arbitrage pontifical au XVIe siècle entre la Pologne et la Russie* (Bruxelles, 1890); V. V. Novodvorsky, *The Struggle for Livonia, 1570–1582* (Rus.) (St Petersburg, 1904); K. Waliszewski, *Ivan le terrible* (Paris, 1904); R. N. Bain, *Slavonic Europe*, ch. 5 (Cambridge, 1907).

IVAN V.[1] (1666–1696), tsar of Russia, was the son of Tsar Alexius Mikhailovich and his first consort Miloslavzkoya. Physically and mentally deficient, Ivan was the mere tool of the party in Muscovy who would have kept the children of the tsar Alexis, by his second consort Natalia Naruishkina, from the throne. In 1682 the party of progress, headed by Artamon Matvyeev and the tsaritsa Natalia, passed Ivan over and placed his half-brother, the vigorous and promising little tsarevich Peter, on the throne. On the 23rd of May, however, the Naruishkin faction was overthrown by the *stryeltsi* (musketeers), secretly worked upon by Ivan's half-sister Sophia, and Ivan was associated as tsar with Peter. Three days later he was proclaimed "first tsar," in order still further to depress the Naruishkins, and place the government in the hands of Sophia exclusively. In 1689 the name of Ivan was used as a pretext by Sophia in her attempt to oust Peter from the throne altogether. Ivan was made to distribute beakers of wine to his sister's adherents with his own hands, but subsequently, beneath the influence of his uncle Prozorovsky, he openly declared that "even for his sister's

[1] Ivan V., if we count from the first grand duke of that name, as most Russian historians do; Ivan II., if, with the minority, we reckon from Ivan the Terrible as the first Russian tsar.

sake, he would quarrel no longer with his dear brother." During the reign of his colleague Peter, Ivan V. took no part whatever in affairs, but devoted himself "to incessant prayer and rigorous fasting." On the 9th of January 1684 he married Praskovia Saltuikova, who bore him five daughters, one of whom, Anne, ultimately ascended the Russian throne. In his last years Ivan was a paralytic. He died on the 29th of January 1696.

See R. Nisbet Bain, *The First Romanovs* (London, 1905); M. P. Pogodin, *The First Seventeen Years of the Life of Peter the Great* (Rus.) (Moscow, 1875).

IVAN VI. (1740–1764), emperor of Russia, was the son of Prince Antony Ulrich of Brunswick, and the princess Anna Leopoldovna of Mecklenburg, and great-nephew of the empress Anne, who adopted him and declared him her successor on the 5th of October 1740, when he was only eight weeks old. On the death of Anne (October 17th) he was proclaimed emperor, and on the following day Ernest Johann Biren, duke of Courland, was appointed regent. On the fall of Biren (November 8th), the regency passed to the baby tsar's mother, though the government was in the hands of the capable vice-chancellor, Andrei Osterman. A little more than twelve months later, a *coup d'état* placed the tsesarevna Elizabeth on the throne (December 6, 1741), and Ivan and his family were imprisoned in the fortress of Dünamünde (Ust Dvinsk) (December 13, 1742) after a preliminary detention at Riga, from whence the new empress had at first decided to send them home to Brunswick. In June 1744 they were transferred to Kholmogory on the White Sea, where Ivan, isolated from his family, and seeing nobody but his gaoler, remained for the next twelve years. Rumours of his confinement at Kholmogory having leaked out, he was secretly transferred to the fortress of Schlüsselburg (1756), where he was still more rigorously guarded, the very commandant of the fortress not knowing who "a certain arrestant" committed to his care really was. On the accession of Peter III. the condition of the unfortunate prisoner seemed about to be ameliorated, for the kind-hearted emperor visited and sympathized with him; but Peter himself was overthrown a few weeks later. In the instructions sent to Ivan's guardian, Prince Churmtyev, the latter was ordered to chain up his charge, and even scourge him should he become refractory. On the accession of Catherine still more stringent orders were sent to the officer in charge of "the nameless one." If any attempt were made from outside to release him, the prisoner was to be put to death; in no circumstances was he to be delivered alive into any one's hands, even if his deliverers produced the empress's own sign-manual authorizing his release. By this time, twenty years of solitary confinement had disturbed Ivan's mental equilibrium, though he does not seem to have been actually insane. Nevertheless, despite the mystery surrounding him, he was well aware of his imperial origin,and always called himself *gosudar* (sovereign). Though instructions had been given to keep him ignorant, he had been taught his letters and could read his Bible. Nor could his residence at Schlüsselburg remain concealed for ever, and its discovery was the cause of his ruin. A sub-lieutenant of the garrison, Vasily Mirovich, found out all about him, and formed a plan for freeing and proclaiming him emperor. At midnight on the 5th of July 1764, Mirovich won over some of the garrison, arrested the commandant, Berednikov, and demanded the delivery of Ivan, who there and then was murdered by his gaolers in obedience to the secret instructions already in their possession.

See R. Nisbet Bain, *The Pupils of Peter the Great* (London, 1897); M. Semevsky, *Ivan VI. Antonovich* (Rus.) (St Petersburg, 1866); A. Brückner, *The Emperor Ivan VI. and his Family* (Rus.) (Moscow, 1874); V. A. Bilbasov, *Geschichte Catherine II.* (vol. ii., Berlin, 1891–1893). (R. N. B.)

IVANGOROD, a fortified town of Russian Poland, in the government of Lublin, 64 m. by rail S.E. from Warsaw, at the confluence of the Wieprz with the Vistula. It is defended by nine forts on the right bank of the Vistula and by three on the left bank, and, with Warsaw, Novo-Georgievsk and Brest-Litovsk, forms the Polish "quadrilateral."

IVANOVO-VOZNESENSK, a town of middle Russia, in the government of Vladimir, 86 m. by rail N. of the town of Vladimir. Pop. (1887) 22,000; (1900) 64,628. It consists of what were originally two villages—Ivanovo, dating from the 16th century, and Voznesensk, of much more recent date—united into a town in 1861. Of best note among the public buildings are the cathedral, and the church of the Intercession of the Virgin, formerly associated with an important monastery founded in 1579 and abandoned in 1754. One of the colleges of the town contains a public library. Linen-weaving was introduced in 1751, and in 1776 the manufacture of chintzes was brought from Schlüsselburg. The town has cotton factories, calico print-works, iron-works and chemical works.

IVARR BEINLAUSI (d. 873), son of Ragnar Lothbrok, the great Viking chieftain, is known in English and Continental annals as Inuaer, Ingwar or Hingwar. He was one of the Danish leaders in the Sheppey expedition of 855 and was perhaps present at the siege of York in 867. The chief incident in his life was his share in the martyrdom of St Edmund in 870. He seems to have been the leader of the Danes on that occasion, and by this act he probably gained the epithet "crudelissimus" by which he is usually described. It is probable that he is to be identified with Imhar, king of the Norsemen of all Ireland and Britain, who was active in Ireland between the years 852 and 873, the year of his death.

IVIZA, IBIZA or IVIÇA, an island in the Mediterranean Sea, belonging to Spain, and forming part of the archipelago known as the Balearic Islands (*q.v.*). Pop. (1900) 23,524; area 228 sq. m. Iviza lies 50 m. S.W. of Majorca and about 60 m. from Cape San Martin on the coast of Spain. Its greatest length from north-east to south-west is about 25 m. and its greatest breadth about 13 m. The coast is indented by numerous small bays, the principal of which are those of San Antonio on the north-west, and of Iviza on the south-east. Of all the Balearic group, Iviza is the most varied in its scenery and the most fruitful. The hilly parts which culminate in the Pico de Atalayasa (1560 ft.), are richly wooded. The climate is for the most part mild and agreeable, though the hot winds from the African coast are sometimes troublesome. Oil, corn and fruits (of which the most important are the fig, prickly pear, almond and carob-bean) are the principal products; hemp and flax are also grown, but the inhabitants are rather indolent, and their modes of culture are very primitive. There are numerous salt-pans along the coast, which were formerly worked by the Spanish government. Fruit, salt, charcoal, lead and stockings of native manufacture are exported. The imports are rice, flour, sugar, woollen goods and cotton. The capital of the island, and, indeed, the only town of much importance—for the population is remarkably scattered—is Iviza or La Ciudad (6527), a fortified town on the south-east coast, consisting of a lower and upper portion, and possessing a good harbour, a 13th-century Gothic collegiate church and an ancient castle. Iviza was the see of a bishop from 1782 to 1851.

South of Iviza lies the smaller and more irregular island of Formentera (pop., 1900, 2243; area, 37 sq. m.), which is said to derive its name from the production of wheat. With Iviza it agrees both in general appearance and in the character of its products, but it is altogether destitute of streams. Goats and sheep are found in the mountains, and the coasts are greatly frequented by flamingoes. Iviza and Formentera are the principal islands of the lesser or western Balearic group, formerly known as the Pityusae or Pine Islands.

IVORY, SIR JAMES (1765–1842), Scottish mathematician, was born in Dundee in 1765. In 1779 he entered the university of St Andrews, distinguishing himself especially in mathematics. He then studied theology; but, after two sessions at St Andrews and one at Edinburgh, he abandoned all idea of the church, and in 1786 he became an assistant-teacher of mathematics and natural philosoghy in a newly established academy at Dundee. Three years later he became partner in and manager of a flax-spinning company at Douglastown in Forfarshire, still, however, prosecuting in moments of leisure his favourite studies. He was essentially a self-trained mathematician, and was not only deeply

versed in ancient and modern geometry, but also had a full knowledge of the analytical methods and discoveries of the continental mathematicians. His earliest memoir, dealing with an analytical expression for the rectification of the ellipse, is published in the *Transactions of the Royal Society of Edinburgh* (1796); and this and his later papers on "Cubic Equations" (1799) and "Kepler's Problem" (1802) evince great facility in the handling of algebraic formulae. In 1804 after the dissolution of the flax-spinning company of which he was manager, he obtained one of the mathematical chairs in the Royal Military College at Marlow (afterwards removed to Sandhurst); and till the year 1816, when failing health obliged him to resign, he discharged his professional duties with remarkable success. During this period he published in the *Philosophical Transactions* several important memoirs, which earned for him the Copley medal in 1814 and ensured his election as a Fellow of the Royal Society in 1815. Of special importance in the history of attractions is the first of these earlier memoirs (*Phil. Trans.*, 1809), in which the problem of the attraction of a homogeneous ellipsoid upon an external point is reduced to the simpler case of the attraction of another but related ellipsoid upon a corresponding point interior to it. This theorem is known as Ivory's theorem. His later papers in the *Philosophical Transactions* treat of astronomical refractions, of planetary perturbations, of equilibrium of fluid masses, &c. For his investigations in the first named of these he received a royal medal in 1826 and again in 1839. In 1831, on the recommendation of Lord Brougham, King William IV. granted him a pension of £300 per annum, and conferred on him the Hanoverian Guelphic order of knighthood. Besides being directly connected with the chief scientific societies of his own country, the Royal Society of Edinburgh, the Royal Irish Academy, &c., he was corresponding member of the Royal Academy of Sciences both of Paris and Berlin, and of the Royal Society of Göttingen. He died at London on the 21st of September 1842.

A list of his works is given in the *Catalogue of Scientific Papers of the Royal Society of London.*

IVORY (Fr. *ivoire*, Lat. *ebur*), strictly speaking a term confined to the material represented by the tusk of the elephant, and for commercial purposes almost entirely to that of the male elephant. In Africa both the male and female elephant produce good-sized tusks; in the Indian variety the female is much less bountifully provided, and in Ceylon perhaps not more than 1% of either sex have any tusks at all. Ivory is in substance very dense, the pores close and compact and filled with a gelatinous solution which contributes to the beautiful polish which may be given to it and makes it easy to work. It may be placed between bone and horn; more fibrous than bone and therefore less easily torn or splintered. For a scientific definition it would be difficult to find a better one than that given by Sir Richard Owen. He says:[1] "The name ivory is now restricted to that modification of dentine or tooth substance which in transverse sections or fractures shows lines of different colours, or striae, proceeding in the arc of a circle and forming by their decussations minute curvilinear lozenge-shaped spaces." These spaces are formed by an immense number of exceedingly minute tubes placed very close together, radiating outwards in all directions. It is to this arrangement of structure that ivory owes its fine grain and almost perfect elasticity, and the peculiar marking resembling the engine-turning on the case of a watch, by which many people are guided in distinguishing it from celluloid or other imitations. Elephants' tusks are the upper incisor teeth of the animal, which, starting in earliest youth from a semi-solid vascular pulp, grow during the whole of its existence, gathering phosphates and other earthy matters and becoming hardened as in the formation of teeth generally. The tusk is built up in layers, the inside layer being the last produced. A large proportion is embedded in the bone sockets of the skull, and is hollow for some distance up in a conical form, the hollow becoming less and less as it is prolonged into a narrow channel which runs along as a thread or as it is sometimes called, nerve, towards the point of the tooth. The outer layer, or bark, is enamel of similar density to the central part. Besides the elephant's tooth or tusk we recognize as ivory, for commercial purposes, the teeth of the hippopotamus, walrus, narwhal, cachalot or sperm-whale and of some animals of the wild boar class, such as the warthog of South Africa. Practically, however, amongst these the hippo and walrus tusks are the only ones of importance for large work, though boars' tusks come to the sale-rooms in considerable quantities from India and Africa.

[1] Lecture before the Society of Arts (1856).

Generally speaking, the supply of ivory imported into Europe comes from Africa; some is Asiatic, but much that is shipped from India is really African, coming by way of Zanzibar and Mozambique to Bombay. A certain amount is furnished by the vast stores of remains of prehistoric animals still existing throughout Russia, principally in Siberia in the neighbourhood of the Lena and other rivers discharging into the Arctic Ocean. The mammoth and mastodon seem at one time to have been common over the whole surface of the globe. In England tusks have been recently dug up—for instance at Dungeness—as long as 12 ft. and weighing 200 lb. The Siberian deposits have been worked for now nearly two centuries. The store appears to be as inexhaustible as a coalfield. Some think that a day may come when the spread of civilization may cause the utter disappearance of the elephant in Africa, and that it will be to these deposits that we may have to turn as the only source of animal ivory. Of late years in England the use of mammoth ivory has shown signs of decline. Practically none passed through the London sale-rooms during 1903–1906. Before that, parcels of 10 to 20 tons were not uncommon. Not all of it is good; perhaps about half of what comes to England is so, the rest rotten; specimens, however, are found as perfect and in as fine condition as if recently killed, instead of having lain hidden and preserved for thousands of years in the icy ground. There is a considerable literature (see SHOOTING) on the subject of big-game hunting, which includes that of the elephant, hippopotamus and smaller tusk-bearing animals. Elephants until comparatively recent times roamed over the whole of Africa from the northern deserts to the Cape of Good Hope. They are still abundant in Central Africa and Uganda, but civilization has gradually driven them farther and farther into the wilds and impenetrable forests of the interior.

The quality of ivory varies according to the districts whence it is obtained, the soft variety of the eastern parts of the continent being the most esteemed. When in perfect condition African ivory should be if recently cut of a warm, transparent, mellow tint, with as little as possible appearance of grain or mottling. Asiatic ivory is of a denser white, more open in texture and softer to work. But it is apt to turn yellow sooner, and is not so easy to polish. Unlike bone, ivory requires no preparation, but is fit for immediate working. That from the neighbourhood of Cameroon is very good, then ranks the ivory from Loango, Congo, Gabun and Ambriz; next the Gold Coast, Sierra Leone and Cape Coast Castle. That of French Sudan is nearly always "ringy," and some of the Ambriz variety also. We may call Zanzibar and Mozambique varieties soft; Angola and Ambriz all hard. Ambriz ivory was at one time much esteemed, but there is comparatively little now. Siam ivory is rarely if ever soft. Abyssinian has its soft side, but Egypt is practically the only place where both descriptions are largely distributed. A drawback to Abyssinian ivory is a prevalence of a rather thick bark. Egyptian is liable to be cracked, from the extreme variations of temperature; more so formerly than now, since better methods of packing and transit are used. Ivory is extremely sensitive to sudden extremes of temperature; for this reason billiard balls should be kept where the temperature is fairly equable.

The market terms by which descriptions of ivory are distinguished are liable to mislead. They refer to ports of shipment rather than to places of origin. For instance, "Malta" ivory is a well-understood term, yet there are no ivory producing animals in that island.

Tusks should be regular and tapering in shape, not very curved or twisted, for economy in cutting; the coat fine, thin, clear and transparent. The substance of ivory is so elastic

and flexible that excellent riding-whips have been cut longitudinally from whole tusks. The size to which tusks grow and are brought to market depends on race rather than on size of elephants. The latter run largest in equatorial Africa. Asiatic bull elephant tusks seldom exceed 50 lb in weight, though lengths of 9 ft. and up to 150 lb weight are not entirely unknown. Record lengths for African tusks are the one presented to George V., when prince of Wales, on his marriage (1893), measuring 8 ft. 7½ in. and weighing 165 lb, and the pair of tusks which were brought to the Zanzibar market by natives in 1898, weighing together over 450 lb. One of the latter is now in the Natural History Museum at South Kensington; the other is in Messrs Rodgers & Co.'s collection at Sheffield. For length the longest known are those belonging to Messrs Rowland Ward, Piccadilly, which measure 11 ft. and 11 ft. 5 in. respectively, with a combined weight of 293 lb. Osteodentine, resulting from the effects of injuries from spearheads or bullets, is sometimes found in tusks. This formation, resembling stalactites, grows with the tusk, the bullets or iron remaining embedded without trace of their entry.

The most important commercial distinction of the qualities of ivory is that of the *hard* and *soft* varieties. The terms are difficult to define exactly. Generally speaking, hard or bright ivory is distinctly harder to cut with the saw or other tools. It is, as it were, glassy and transparent. Soft contains more moisture, stands differences of climate and temperature better, and does not crack so easily. The expert is guided by the shape of the tooth, by the colour and quality of the bark or skin, and by the transparency when cut, or even before, as at the point of the tooth. Roughly, a line might be drawn almost centrally down the map of Africa, on the west of which the hard quality prevails, on the east the soft. In choosing ivory for example for knife-handles—people rather like to see a pretty grain, strongly marked; but the finest quality in the hard variety, which is generally used for them, is the closest and freest from grain. The curved or canine teeth of the hippopotamus are valuable and come in considerable quantities to the European markets. Owen describes this variety as "an extremely dense, compact kind of dentine, partially defended on the outside by a thin layer of enamel as hard as porcelain; so hard as to strike fire with steel." By reason of this hardness it is not at all liked by the turner and ivory workers, and before being touched by them the enamel has to be removed by acid, or sometimes by heating and sudden cooling, when it can be scaled off. The texture is slightly curdled, mottled or damasked. Hippo ivory was at one time largely used for artificial teeth, but now mostly for umbrella and stick-handles; whole (in their natural form) for fancy door-handles and the like. In the trade the term is not "riverhorse" but "seahorse teeth." Walrus ivory is less dense and coarser than hippo, but of fine quality—what there is of it, for the oval centre which has more the character of coarse bone unfortunately extends a long way up. At one time a large supply came to the market, but of late years there has been an increasing scarcity, the animals having been almost exterminated by the ruthless persecution to which they have been subjected in their principal haunts in the northern seas. It is little esteemed now, though our ancestors thought highly of it. Comparatively large slabs are to be found in medieval sculpture of the 11th and 12th centuries, and the grips of most oriental swords, ancient and modern, are made from it. The ivory from the single tusk or horn of the narwhal is not of much commercial value except as an ornament or curiosity. Some horns attain a length of 8 to 10 ft., 4 in. thick at the base. It is dense in substance and of a fair colour, but owing to the central cavity there is little of it fit for anything larger than napkin-rings.

Ivory in Commerce, and its Industrial Applications.—Almost the whole of the importation of ivory to Europe was until recent years confined to London, the principal distributing mart of the world. But the opening up of the Congo trade has placed the port of Antwerp in a position which has equalled and, for a time, may surpass that of London. Other important markets are Liverpool and Hamburg; and Germany, France and Portugal have colonial possessions in Africa, from which it is imported. America is a considerable importer for its own requirements. From the German Cameroon alone, according to Schilling, there were exported during the ten years ending 1905, 452,100 kilos of ivory. Mr Buxton estimates the amount of ivory imported into the United Kingdom at about 500 tons. If we give the same to Antwerp we have from these two ports alone no less than 1000 tons a year to be provided. Allowing a weight so high as 30 lb per pair of tusks (which is far too high, perhaps twice too high) we should have here alone between thirty and forty thousand elephants to account for. It is true that every pair of tusks that comes to the market represents a dead elephant, but not necessarily by any means a slain or even a recently killed one, as is popularly supposed and unfortunately too often repeated. By far the greater proportion is the result of stores accumulated by natives, a good part coming from animals which have died a natural death. Not 20% is *live* ivory or recently killed; the remainder is known in the trade as *dead* ivory.

In 1827 the principal London ivory importers imported 3000 cwt. in 1850, 8000 cwt. The highest price up to 1855 was £55 per cwt. At the July sales in 1905 a record price was reached for billiard-ball teeth of £167 per cwt. The total imports into the United Kingdom were, according to Board of Trade returns, in 1890, 14,349 cwt.; in 1895, 10,911 cwt.; in 1900, 9889 cwt.; in 1904, 9045 cwt.

From Messrs Hale & Son's (ivory brokers, 10 Fenchurch Avenue) Ivory Report of the second quarterly sales in London, April 1906, it appears that the following were offered:—

	Tons.
From Zanzibar, Bombay, Mozambique and Siam	17
Egyptian	19½
West Coast African	11
Lisbon	1
Abyssinian	6¾
	55
Sea horse (hippopotamus teeth)	1¾
Walrus	¼
Waste ivory	10¼
	67¼

Hard ivory was scarce. West Coast African was principally of the Gabun description, and some of very fine quality. There was very little inquiry for walrus. The highest prices ranged as follows: Soft East Coast tusks (Zanzibar, Mozambique, Bombay and Siam), 102 to 143 lb. each £66, 10s. to £75, 10s. per cwt. Billiard-ball scrivelloes, £104 per cwt. Cut points for billiard-balls (3¼ in. to 2¾ to 3 in.) £114 to £151 per cwt. Seahorse (for best), 3s. 6d. to 4s. 1d. per lb. Boars' tusks, 6d. to 7d. per lb.

Quantities of ivory offered to Public auction (from Messrs Hale & Son's Reports).

	1903.	1904.	1905.
	Tons.	Tons.	Tons.
Zanzibar, Bombay, Mozambique and Siam	81	75	76
Egyptian	49¾	72¾	81¾
Abyssinian	22¾	9¾	23¼
West Coast African	46¾	39½	41½
Lisbon	3	3	1¾
	203¼	200	224½
Seahorse teeth and Boars' tusks	7	9¾	7¼
	210¼	209¾	231½

Fluctuations in prices of ivory at the London Sale-Room (from Messrs Hale & Son's Charts, which show the prices at each quarterly sale from 1870).

	1870.	1880.	1890.	1900.	1905.
Billiard Ball pieces	£55	£90	£112	£68	£167
Averages—					
Hard Egyptian 36 to 50 lb.	30	38	50	29	48
Soft East Indian 50 to 70 lb.	67	55	88	57	72
West Coast African 50 to 70 lb.	36	57	65	48	61
Hard East African 50 to 70 lb.	37	49	64	48	61

In October 1889 soft East Indian fetched an average of £82 per cwt., but in several instances higher prices were realized, and one lot reached £88 per cwt. At the Liverpool April sales 1906 about 7¼ tons

were offered from Gabun, Angola, and Cameroon (from the last 5¾ tons). To the port of Antwerp the imports were 6830 cwt. in 1904 and 6570 cwt. in 1905; of which 5310 cwt. and 4890 cwt. respectively were from the Congo State.

The leading London sales are held quarterly in Mincing Lane, a very interesting and wonderful display of tusks and ivory of all kinds being laid out previously for inspection in the great warehouses known as the "Ivory Floor" in the London docks. The quarterly Liverpool sales follow the London ones, with a short interval.

The important part which ivory plays in the industrial arts not only for decorative, but also for domestic applications is hardly sufficiently recognized. Nothing is wasted of this valuable product. Hundreds of sacks full of cuttings and shavings, and scraps returned by manufacturers after they have used what they require for their particular trade, come to the mart. The dust is used for polishing, and in the preparation of Indian ink, and even for food in the form of ivory jelly. The scraps come in for inlaying and for the numberless purposes in which ivory is used for small domestic and decorative objects. India, which has been called the backbone of the trade, takes enormous quantities of the rings left in the turning of billiard-balls, which serve as women's bangles, or for making small toys and models, and in other characteristic Indian work. Without endeavouring to enumerate all the applications, a glance may be cast at the most important of those which consume the largest quantity. Chief among these is the manufacture of billiard-balls, of cutlery handles, of piano-keys and of brushware and toilet articles. Billiard-balls demand the highest quality of ivory; for the best balls the soft description is employed, though recently, through the competition of bonzoline and similar substitutes, the hard has been more used in order that the weight may be assimilated to that of the artificial kind. Therefore the most valuable tusks of all are those adapted for the billiard-ball trade. The term used is "scrivelloes," and is applied to teeth proper for the purpose, weighing not over about 7 lb. The division of the tusk into smaller pieces for subsequent manufacture, in order to avoid waste, is a matter of importance.

The accompanying diagrams (figs. 1 and 2) show the method; the cuts are made radiating from an imaginary centre of the curve of the tusk. In after processes the various trades have their own particular methods for making the most of the material. In making a billiard-ball of the English size the first thing to be done is to rough out, from the cylindrical section, a sphere about 2⅛ in. in diameter, which will eventually be 2 1/16 or sometimes for professional players a little larger. One hemisphere—as shown in the diagrams (fig. 2)—is first turned, and the resulting ring detached with a parting tool. The diameter is accurately taken and the subsequent removals taken off in other directions. The ball is then fixed in a wooden chuck, the half cylinder reversed, and the operation repeated for the other hemisphere. It is now left five years to season and then turned dead true. The rounder and straighter the tusk selected for ball-making the better. Evidently, if the tusk is oval and the ball the size of the least diameter, its sides which come nearer to the bark or rind will be coarser and of a different density from those portions further removed from this outer skin. The matching of billiard-balls is important, for extreme accuracy in weight is essential. It is usual to bleach them, as the purchaser—or at any rate the distributing intermediary—likes to have them of a dead white. But this is a mistake, for bleaching with chemicals takes out the gelatine to some extent, alters the quality and affects the density; it also makes them more liable to crack, and they are not nearly so nice-looking. Billiard-balls should be bought in summer time when the temperature is most equable, and gently used till the winter season. On an average three balls of fine quality are got out of a tooth. The stock of more than one great manufacturer surpasses at times 30,000 in number.

AFRICAN & EGYPTIAN
WIDE HOLLOW
CLOSE HOLLOW
8 7 6 5 4 3 2 1
BILLARD BALL SCRIVELLO
They rarely give more than 5 Blocks
(3 first quality. 1 second. 1 with back on)
"Shed" or Milk Tooth
EAST INDIAN & ZANZIBAR

FIG. 1.

But although ball teeth rose in 1905 to £167 a cwt., the price of billiard-balls was the same in 1905 as it was in 1885. Roughly speaking, there are about twelve different qualities and prices of billiard-balls, and eight of pyramid-and pool-balls, the latter ranging from half a guinea to two guineas each.

The ivory for piano-keys is delivered to the trade in the shape of what are known as heads and tails, the former for the parts which come under the fingers, the latter for that running up between the black keys. The two are joined afterwards on the keyboard with extreme accuracy. Piano-keys are bleached, but organists for some reason or other prefer unbleached keys. The soft variety is mostly used for high-class work and preferably of the Egyptian type.

The great centres of the ivory industry for the ordinary objects of common domestic use are in England, for cutlery handles Sheffield, for billiard-balls and piano-keys London. For

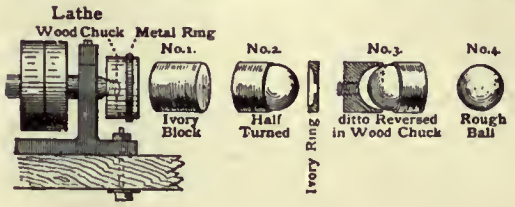


FIG. 2.

cutlery a large firm such as Rodgers & Sons uses an average of some twenty tons of ivory annually, mostly of the hard variety. But for billiard-balls and piano-keys America is now a large producer, and a considerable quantity is made in France and Germany. Brush backs are almost wholly in English hands. Dieppe has long been famous for the numberless little ornaments and useful articles such as statuettes, crucifixes, little book-covers, paper-cutters, combs, serviette-rings and *articles de Paris* generally. And St Claude in the Jura, and Geislingen in Würtemberg, and Erbach in Hesse, Germany, are amongst the most important centres of the industry. India and China supply the multitude of toys, models, chess and draughtsmen, puzzles, workbox fittings and other curiosities.

Vegetable Ivory, &c.—Some allusion may be made to vegetable ivory and artificial substitutes. The plants yielding the vegetable ivory of commerce represent two or more species of an anomalous genus of palms, and are known to botanists as *Phytelephas*. They are natives of tropical South America, occurring chiefly on the banks of the river Magdalena, Colombia, always found in damp localities, not only, however, on the lower coast region as in Darien, but also at a considerable elevation above the sea. They are mostly found in separate groves, not mixed with other trees or shrubs. The plant is severally known as the "tagua" by the Indians on the banks of the Magdalena, as the "anta" on the coast of Darien, and as the "pullipunta" and "homero" in Peru. It is stemless or short-stemmed, and crowned with from twelve to twenty very long pinnatifid leaves. The plants are dioecious, the males forming higher, more erect and robust trunks than the females. The male inflorescence is in the form of a simple fleshy cylindrical spadix covered with flowers; the female flowers are also in a single spadix, which, however, is shorter than in the male. The fruit consists of a conglomerated head composed of six or seven drupes, each containing from six to nine seeds, and the whole being enclosed in a walled woody covering forming altogether a globular head as large as that of a man. A single plant sometimes bears at the same time from six to eight of these large heads of fruit, each weighing from 20 to 25 lb. In its very young state the seed contains a clear insipid fluid, which travellers take advantage of to allay thirst. As it gets older this fluid becomes milky and of a sweet taste, and it gradually continues to change both in taste and consistence until it becomes so hard as to make it valuable as a substitute for animal ivory. In their young and fresh state the fruits are eaten with avidity by bears, hogs and other animals. The seeds, or nuts as they are usually called when fully ripe and hard, are used by the American Indians for making small ornamental articles and toys. They are imported into Britain in considerable quantities, frequently under the name of "Cŏrozo" nuts, a name by which the fruits of some species of *Attalea* (another palm with hard ivory-like seeds) are known in Central America—their uses being chiefly for small articles of turnery. Of vegetable ivory Great Britain imported in 1904 1200 tons, of which about 400 tons were re-exported, principally to Germany. It is mainly and largely used for coat buttons.

Many artificial compounds have, from time to time, been tried as substitutes for ivory; amongst them potatoes treated with sulphuric

acid. Celluloid is familiar to us nowadays. In the form of bonzoline, into which it is said to enter, it is used largely for billiard balls; and a new French substitute—a caseine made from milk, called gallalith—has begun to be much used for piano keys in the cheaper sorts of instrument. Odontolite is mammoth ivory, which through lapse of time and from surroundings becomes converted into a substance known as fossil or blue ivory, and is used occasionally in jewelry as turquoise, which it very much resembles. It results from the tusks of antediluvian mammoths buried in the earth for thousands of years, during which time under certain conditions the ivory becomes slowly penetrated with the metallic salts which give it the peculiar vivid blue colour of turquoise.

Ivory Sculpture and the Decorative Arts.—The use of ivory as a material peculiarly adapted for sculpture and decoration has been universal in the history of civilization. The earliest examples which have come down to us take us back to prehistoric times, when, so far as our knowledge goes, civilization as we understand it had attained no higher degree than that of the dwellers in caves, or of the most primitive races. Throughout succeeding ages there is continued evidence that no other substance—except perhaps wood, of which we have even fewer ancient examples—has been so consistently connected with man's art-craftsmanship. It is hardly too much to say that to follow properly the history of ivory sculpture involves the study of the whole world's art in all ages. It will take us back to the most remote antiquity, for we have examples of the earliest dynasties of Egypt and Assyria. Nor is there entire default when we come to the periods of the highest civilization of Greece and Rome. It has held an honoured place in all ages for the adornment of the palaces of the great, not only in sculpture proper but in the rich inlay of panelling, of furniture, chariots and other costly articles. The Bible teems with references to its beauty and value. And when, in the days of Pheidias, Greek sculpture had reached the highest perfection, we learn from ancient writers that colossal statues were constructed—notably the "Zeus of Olympia" and the "Athena of the Parthenon." The faces, hands and other exposed portions of these figures were of ivory, and the question, therefore, of the method of production of such extremely large slabs as perhaps were used has been often debated. A similar difficulty arises with regard to other pieces of considerable size, found, for example, amongst consular diptychs. It has been conjectured that some means of softening and moulding ivory was known to the ancients, but as a matter of fact though it may be softened it cannot be again restored to its original condition. If up to the 4th century we are unable to point to a large number of examples of sculpture in ivory, from that date onwards the chain is unbroken, and during the five or six hundred years of unrest and strife from the decline of the Roman empire in the 5th century to the dawn of the Gothic revival of art in the 11th or 12th, ivory sculpture alone of the sculptural arts carries on the preservation of types and traditions of classic times in central Europe. Most important indeed is the rôle which existing examples of ivory carving play in the history of the last two centuries of the consulates of the Western and Eastern empires. Though the evidences of decadence in art may be marked, the close of that period brings us down to the end of the reign of Justinian (527–563). Two centuries later the iconoclastic persecutions in the Eastern empire drive westward and compel to settle there numerous colonies of monks and artificers. Throughout the Carlovingian period, the examples of ivory sculpture which we possess in not inconsiderable quantity are of extreme importance in the history of the early development of Byzantine art in Europe. And when the Western world of art arose from its torpor, freed itself from Byzantine shackles and traditions, and began to think for itself, it is to the sculptures in ivory of the Gothic art of the 13th and 14th centuries that we turn with admiration of their exquisite beauty of expression. Up to about the 14th century the influence of the church was everywhere predominant in all matters relating to art. In ivories, as in mosaics, enamels or miniature painting it would be difficult to find a dozen examples, from the age of Constantine onwards, other than sacred ones or of sacred symbolism. But as the period of the Renaissance approached, the influence of romantic literature began to assert itself, and a feeling and style similar to those which are characteristic of the charming series of religious art in ivory, so touchingly conceived and executed, meet us in many objects in ivory destined for ordinary domestic uses and ornament. Mirror cases, caskets for jewelry or toilet purposes, combs, the decoration of arms, or of saddlery or of weapons of the chase, are carved and chased with scenes of real life or illustrations of the romances, which bring home to us in a vivid manner details of the manners and customs, amusements, dresses and domestic life of the times. With the Renaissance and a return to classical ideas, joined with a love of display and of gorgeous magnificence, art in ivory takes a secondary place. There is a want of simplicity and of originality. It is the period of the commencement of decadence. Then comes the period nicknamed *rococo*, which persisted so long. Ivory carving follows the vulgar fashion, is content with copying or adapting, and until the revival in our own times is, except in rare instances, no longer to be classed as a fine art. It becomes a trade and is in the hands of the mechanic of the workshop. In this necessarily brief and condensed sketch we have been concerned mainly with ivory carving in Europe. It will be necessary to give also, presently, some indications enabling the inquirer to follow the history—or at least to put him on the track of it—not only in the different countries of the West but also in India, China and Japan.

Prehistoric Ivory Carvings.—These are the result of investigations made about the middle of the 19th century in the cave dwellings of the Dordogne in France and also of the lake dwellings of Switzerland. As records they are unique in the history of art. Further than this our wonderment is excited at finding these engravings or sculptures in the round, these chiselled examples of the art of the uncultivated savage, conceived and executed with a feeling of delicacy and restraint which the most modern artist might envy. Who they were who executed them must be left to the palaeontologist and geologist to decide. We can only be certain that they were contemporary with the period when the mammoth and the reindeer still roved freely in southern France. The most important examples are the sketch of the mammoth (see PAINTING, Plate I.), on a slab of ivory now in the museum of the Jardin des Plantes, the head and shoulders of an ibex carved in the round on a piece of reindeer horn, and the figure of a woman (instances of representations of the human form are most rare) naked and wearing a necklace and bracelet. Many of the originals are in the museum at St Germain-en-Laye, and casts of a considerable number are in the British Museum.

Ancient Assyrian, Egyptian, Greek and Roman Ivories.—We know from ancient writers that the Egyptians were skilled in ivory carving and that they procured ivory in large quantities from Ethiopia. The Louvre possesses examples of a kind of flat castanets or clappers, in the form of the curve of the tusks themselves, engraved in outline, beautifully modelled hands

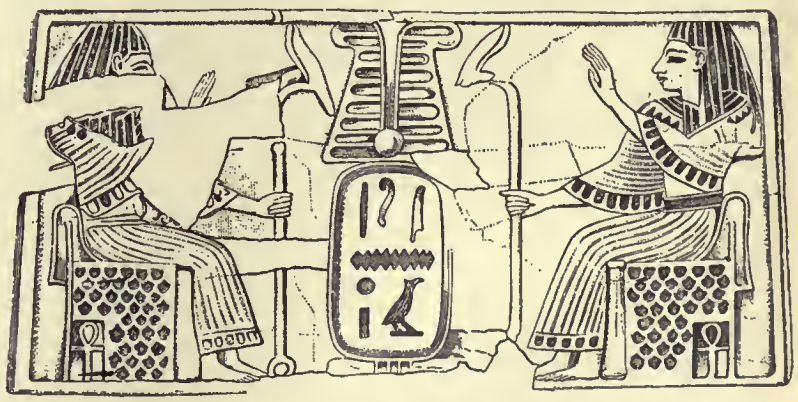


FIG. 3.—Panel with Cartouche, Nineveh.

forming the tapering points; and large quantities of small objects, including a box of plain form and simple decoration identified from the inscribed praenomen as the fifth dynasty, about 4000 B.C. The British Museum and the museum at Cairo are also comparatively rich. But no other collection in the world contains such an interesting collection of ancient Assyrian ivories as that in the British Museum. Those exhibited number some fifty important pieces, and many other fragments are, on account of their fragility or state of decay, stowed away. The collection is the result of the excavations by Layard about 1840 on the supposed site of Nineveh opposite the modern city of Mosul. When found they were so decomposed from the lapse of time as scarcely to bear touching or the contact of the external air. Layard hit upon the ingenious plan of boiling in a solution of gelatine and thus restoring to them the animal matter which had dried up in the course of centuries. Later, the explorations of Flinders Petrie and others at Abydos brought to light a considerable number of sculptured fragments which may be even two thousand years older than those of Nineveh. They have been exhibited in London and since distributed amongst various museums at home and abroad.

Consular and Official and Private Diptychs.—About fifty of the remarkable plaques called " consular diptychs," of the time of the three last centuries of the consulates of the Roman and Greek empire have been preserved. They range in date from perhaps mid-fourth to mid-sixth centuries, and as with two or three exceptions the dates are certain it would be difficult to overestimate their historic or intrinsic value. The earliest of absolutely certain date is the diptych of Aosta (A.D. 408), the first after the recognition of Christianity; or, if the Monza diptych represents, as some think, the Consul Stilicon, then we may refer back six years earlier. At any rate the edict of Theodosius in A.D. 384, concerning the restriction of the use of ivory to the diptychs of the regular consuls, is evidence that the custom must have been long established. According to some authorities the beautiful leaf of diptych in the Liverpool Museum (fig. 4) is a consular one and to be ascribed to Marcus Julius Philippus (A.D. 248). Similarly the Gherardesca leaf in the British Museum may be accepted as of the Consul Marcus Aurelius (A.D. 308). But the whole question of the half dozen earliest examples is conjectural. With a few notable exceptions they show decadence in art. Amongst the finest may be cited the leaf with the combats with stags at Liverpool, the diptych of Probianus at Berlin and the two leaves, one of Anastasius, the other of Orestes, in the Victoria and Albert Museum. The literature concerning these diptychs is voluminous, from the time of the erudite treatise by Gori published in 1759 to the present day. The latest of certain date is that of Basilius, consul of the East in 541, the last of the consuls. The diptychs of private individuals or of officials number about sixteen, and in the case of the private ones have a far greater artistic value. Of these the Victoria and Albert Museum possesses the most beautiful leaf of perhaps the finest example of ancient ivory sculpture which has come down to us, diptychon Meleretense, representing a Bacchante (fig. 5). The other half, which is much injured, is in the Cluny Museum. Other important pieces are the Aesculapius and Hygeia at Liverpool, the Hippolytus and Phaedra at Brescia, the Barberini in the Bargello and at Vienna and the Rufius Probianus at Berlin. Besides the diptychs ancient Greek and Roman ivories before the recognition of Christianity are comparatively small in number and are mostly in the great museums of the Vatican, Naples, the British Museum, the Louvre and the Cluny Museum. Amongst them are the statuette of Penthea, perhaps of the 3rd century (Cluny), a large head of a woman (museum of Vienna) and the Bellerophon (British Museum), nor must those of the Roman occupation in England and other countries be forgotten. Notable instances are the plaque and ivory mask found at Caerleon. Others are now in the Guildhall and British Museums, and most continental European museums have examples connected with their own history.

From photo by W. A. Mansell & Co.

FIG. 4.—Leaf of diptych showing combats with stags; in the Liverpool Museum.

FIG. 5.—Leaf of Roman diptych, representing a Bacchante; in the Victoria and Albert Museum.

Early Christian and Early Byzantine Ivories.—The few examples we possess of Christian ivories previous to the time of Constantine are not of great importance from the point of view of the history of art. But after that date the ivories which we may ascribe to the centuries from the end of the 4th to at least the end of the 9th become of considerable interest, on account of their connexion with the development of Byzantine art in western Europe. With regard to exact origins and dates opinions are largely divergent. In great part they are due to the carrying on of traditions and styles by which the makers of the sarcophagi were inspired, and the difficulties of ascription are increased when in addition to the primitive elements the influence of Byzantine systems introduced many new ideas derived from many extraneous sources. The questions involved are of no small archaeological, iconographical and artistic importance, but it must be admitted that we are reduced to conjecture in many cases, and compelled to theorize. And it would seem to be impossible to be more precise as to dates than within a margin of sometimes three centuries. Then, again, we are met by the question how far these ivories are connected with Byzantine art; whether they were made in the West by immigrant Greeks, or indigenous works, or purely imported productions. Some German critics have endeavoured to construct a system of schools, and to form definite groups, assigning them to Rome, Ravenna, Milan and Monza. Not only so, but they claim to be precise in dating even to a certain decade of a century. But it is certainly more than doubtful whether there is sufficient evidence on which to found such assumptions. It is at least probable that a considerable number of the ivories whose dates are given by such a number of critics so wide a range as from the 4th to the 10th century are nothing more than the work of the monks of the numerous monasteries founded throughout the Carlovingian empire, copying and adapting from whatever

came into their hands. Many of them were Greek immigrants exiled at the time of the iconoclastic persecutions. To these must be added the Celtic and Anglo-Saxon missionaries, who brought with them and disseminated their own national feeling and technique. We have to take into account also the relations which existed not only with Constantinople but also with the great governing provinces of Syria and Egypt. Where all our information is so vague, and in the face of so much conflicting opinion amongst authorities, it is not unreasonable to hold with regard to very many of these ivories that instead of assigning them to the age of Justinian or even the preceding century we ought rather to postpone their dating from one to perhaps three centuries later and to admit that we cannot be precise even within these limits. It would be impossible to follow here the whole of the arguments relating to this most important period of the development of ivory sculpture or to mention a tithe of the examples which illustrate it. Amongst the most striking the earliest is the very celebrated leaf of a diptych in the British Museum representing an archangel (fig. 6). It is generally admitted that we have no ivory of the 5th or 6th centuries or in fact of any early medieval period which can compare with it in excellence of design and workmanship. There is no record (it is believed) from whence the museum obtained the ivory. There are at least plausible grounds for surmising that it is identical with the "Angelus longus eburneus" of a bookcover among the books brought to England by St Augustine which is mentioned in a list of things belonging to Christchurch, Canterbury (see Dart, *App.* p. xviii.). The dating of the four Passion plaques, also in the British Museum, varies from the 5th to the 7th century. But although most recent authorities accept the earlier date, the present writer holds strongly that they are not anterior to, at earliest, the 7th century. Even then they will remain, with the exception of the Monza oil flask and perhaps the St Sabina doors, the earliest known representation of the crucifixion. The ivory vase, with cover, in the British Museum, appears to possess defined elements of the farther East, due perhaps to the relations between Syria and Christian India or Ceylon. Other important early Christian ivories are the series of pyxes, the diptych in the treasury of St Ambrogio at Milan, the chair of Maximian at Ravenna (most important as a type piece), the panel with the "Ascension" in the Bavarian National Museum, the Brescia casket, the "Lorsch" bookcovers of the Vatican and Victoria and Albert Museum, the Bodleian and other bookcovers, the St Paul diptych in the Bargello at Florence and the "Annunciation" plaque in the Trivulzio collection. So far as unquestionably oriental specimens of Byzantine art are concerned they are few in number, but we have in the famous Harbaville triptych in the Louvre a super-excellent example.

From photo by W. A. Mansell & Co.

FIG. 6.—Leaf of Diptych, representing Archangel; in the British Museum.

Gothic Ivories.—The most generally charming period of ivory sculpture is unquestionably that which, coincident with the Gothic revival in art, marked the beginning of a great and lasting change. The formalism imposed by Byzantine traditions gave place to a brighter, more delicate and tenderer conception. This golden age of the ivory carver—at its best in the 13th century—was still in evidence during the 14th, and although there is the beginning of a transition in style in the 15th century, the period of neglect and decadence which set in about the beginning of the 16th hardly reached the acute stage until well on into the 17th. To review the various developments both of religious art which reigned almost alone until the 14th century, or of the secular side as exemplified in the delightful mirror cases and caskets carved with subjects from the romantic stories which were so popular, would be impossible here. Almost every great museum and famous private collection abounds in examples of the well-known diptychs and triptychs and little portable oratories of this period. Some, as in a famous panel in the British Museum, are marvels of minute workmanship, others of delicate openwork and tracery. Others, again, are remarkable for the wonderful way in which, in the compass of a few inches, whole histories and episodes of the scriptural narratives are expressed in the most vivid and telling manner. Charming above all are the statuettes of the Virgin and Child which French and Flemish art, especially, have handed down to us. Of these the Victoria and Albert Museum possesses a representative collection. Another series of interest is that of the croziers or pastoral staves, the development of which the student of ivories will be careful to study in connexion with the earlier ones and the tau-headed staves. In addition there are shrines, reliquaries, bookcovers, liturgical combs, portable altars, pyxes, holy water buckets and sprinklers, *flabella* or liturgical fans, rosaries, *memento mori*, paxes, small figures and groups, and almost every conceivable adjunct of the sanctuary or for private devotion. It is to French or Flemish art that the greater number and the most beautiful must be referred. At the same time, to take one example only—the diptych and triptych of Bishop Grandison in the British Museum—we have evidence that English ivory carvers were capable of rare excellence of design and workmanship. Nor can crucifixes be forgotten, though they are of extreme rarity before the 17th century. A most beautiful 13th-century figure for one—though only a fragment—is in the Victoria and Albert Museum. Amongst secular objects of this period, besides the mirror cases (fig. 7) and caskets, there are hunting horns (the earlier ones probably oriental, or more or less faithfully copied from oriental models), chess and draughtsmen (especially the curious set from the isle of Lewis), combs, marriage coffers (at one period remarkable Italian ones of bone), memorandum tablets, seals, the pommels and cantles of saddles and a

FIG. 7.—Mirror Case, illustrating the Storming of the Castle of Love; in the Victoria and Albert Museum.

unique harp now in the Louvre. The above enumeration will alone suffice to show that the inquirer must be referred for details to the numerous works which treat of medieval ivory sculpture.

Ivory Sculpture from the 16th to the 19th Century.—Compared with the wealth of ivory carving of the two preceding centuries, the 15th, and especially the 16th, centuries are singularly poor in really fine work. But before we arrive at the period of real decadence we shall come across such things as the knife of Diana of Poitiers in the Louvre, the sceptre of Louis XIII., the Rothschild hunting horn, many Italian powder horns, the German Psyche in the Louvre, or the "Young Girl and Death" in the Munich Museum, in which there is undoubtedly originality and talent of the first order. The practice of ivory carving became extremely popular throughout the 17th and 18th centuries, especially in the Netherlands and in Germany, and the amount of ivory consumed must have been very great. But, with rare exceptions, and these for the most part Flemish, it is art of an inferior kind, which seems to have been abandoned to second-rate sculptors and the artisans of the workshop. There is little originality, the rococo styles run riot, and we seem to be condemned to wade through an interminable series of gods and goddesses, bacchanalians and satyrs, pseudo-classical copies from the antique and imitations of the schools of Rubens. As a matter of fact few great museums, except the German ones, care to include in their collections examples of these periods. Some exceptions are made in the case of Flemish sculptors of such talent as François Duquesnoy (Fiammingo), Gerard van Obstal or Lucas Fayd'herbe. In a lesser degree, in Germany, Christoph Angermair, Leonhard Kern, Bernhard Strauss, Elhafen, Kruger and Rauchmiller; and, in France, Jean Guillermin, David le Marchand and Jean Cavalier. Crucifixes were turned out in enormous numbers, some of not inconsiderable merit, but, for the most part, they represent anatomical exercises varying but slightly from a pattern of which a celebrated one atributed to Faistenberger may be taken as a type. Tankards abound, and some, notably the one in the Jones collection, than which perhaps no finer example exists, are also of a high standard. Duquesnoy's work is well illustrated by the charming series of six plaques in the Victoria and Albert Museum known as the "Fiammingo boys." Amongst the crowd of objects in ivory of all descriptions of the early 18th century, the many examples of the curious implements known as *rappoirs*, or tobacco graters, should be noticed. It may perhaps be necessary to add that although the character of art in ivory in these periods is not of the highest, the subject is not one entirely unworthy of attention and study, and there are a certain number of remarkable and even admirable examples.

Ivory Sculpture of Spain, Portugal, India, China and Japan.—Generally speaking, with regard to Spain and Portugal, there is little reason to do otherwise than confine our attention to a certain class of important Moorish or Hispano-Moresque ivories of the time of the Arab occupation of the Peninsula, from the 8th to the 15th centuries. Some fine examples are in the Victoria and Albert Museum. Of Portuguese work there is little except the hybrid productions of Goa and the Portuguese settlements in the East. Some mention must be made also of the remarkable examples of mixed Portuguese and savage art from Benin, now in the British Museum. Of Indian ivory carving the India Museum at Kensington supplies a very large and varied collection which has no equal elsewhere. But there is little older than the 17th century, nor can it be said that Indian art in ivory can occupy a very high place in the history of the art. What we know of Chinese carving in ivory is confined to those examples which are turned out for the European market, and can hardly be considered as appealing very strongly to cultivated tastes. A brief reference to the well-known delightful *netsukés* and the characteristic inlaid work must suffice here for the ivories of Japan (see JAPAN: *Art*).

Ivory Sculpture in the 19th Century and of the Present Day.—Few people are aware of the extent to which modern ivory sculpture is practised by distinguished artists. Year by year, however, a certain amount is exhibited in the Royal Academy and in most foreign salons, but in England the works—necessarily not very numerous—are soon absorbed in private collections. On the European continent, on the contrary, in such galleries as the Belgian state collections or the Luxembourg, examples are frequently acquired and exhibited. In Belgium the acquisition of the Congo and the considerable import of ivory therefrom gave encouragement to a definite revival of the art. Important exhibitions have been held in Belgium, and a notable one in Paris in 1904. Though ivory carving is as expensive as marble sculpture, all sculptors delight in following it, and the material entails no special knowledge or training. Of 19th-century artists there were in France amongst the best known, besides numerous minor workers of Dieppe and St Claude, Augustin Moreau, Vautier, Soitoux, Belleteste, Meugniot, Pradier, Triqueti and Gerôme; and in the first decade of the 20th century, besides such distinguished names in the first rank as Jean Dampt and Théodore Rivière, there were Vever, Gardet, Caron, Barrias, Allouard, Ferrary and many others. Nor must the decorative work of René Lalique be omitted. No less than forty Belgian sculptors exhibited work in ivory at the Brussels exhibition of 1887. The list included artists of such distinction as J. Dillens, Constantin Meunier, van der Stappen, Khnopff, P. Wolfers, Samuel and Paul de Vigne, and amongst contemporary Belgian sculptors are also van Beurden, G. Devreese, Vincotte, de Tombay and Lagae. In England the most notable work includes the "Lamia" of George Frampton, the "St Elizabeth" of Alfred Gilbert, the "Mors Janua Vitae" of Harry Bates, the "Launcelot" of W. Reynolds-Stephens and the use of ivory in the applied arts by Lynn Jenkins, A. G. Walker, Alexander Fisher and others.

AUTHORITIES.—See generally A. Maskell, *Ivories* (1906), and the bibliography there given.

On Early Christian and Early Byzantine ivories, the following works may be mentioned: Abbé Cabrol, *Dictionnaire de l'archéologie chrétienne* (in progress); O. M. Dalton, *Catalogue of Early Christian Antiquities in British Museum* (1902); E. Dobbert, *Zur Geschichte der Elfenbeinsculptur* (1885); H. Graeven, *Antike Schnitzereien* (1903); R. Kanzler, *Gli avori . . . Vaticana* (1903); Kondakov, *L'Art byzantin*; A. Maskell, *Cantor Lectures*, Soc. of Arts (1906) (lecture II., "Early Christian and Early Byzantine Ivories"); Strzygowski, *Byzantinische Denkmäler* (1891); V. Schulze, *Archäologie der altchristlichen Kunst* (1895); G. Stuhlfauth, *Die altchristl. Elfenbeinplastik* (1896).

On the consular diptychs, see H. F. Clinton, *Fasti Romani* (1845–1850); A. Gori, *Thesaurus veterum diptychorum* (1759); C. Lenormant, *Trésor de numismatique et de glyptique* (1834–1846); F. Pulszky, *Catalogue of the Fejérváry Ivories* (1856).

On the artistic interest generally, see also C. Alabaster, *Catalogue of Chinese Objects in the South Kensington Museum*; Sir R. Alcock, *Art and Art Industries in Japan* (1878); Barraud et Martin, *Le Bâton pastoral* (1856); Bouchot, *Les Reliures d'art à la Bibliothèque Nationale*; Bretagne, *Sur les peignes liturgiques*; H. Cole, *Indian Art at Delhi* (1904); R. Garrucci, *Storia dell' arte Christiana* (1881); A. Jacquemart, *Histoire du mobilier* (1876); J. Labarte, *Histoire des arts industriels* (1864); C. Lind, *Über den Krummstab* (1863); Sir F. Madden, "Lewis Chessmen" (in *Archaeologia*, vol. xxiv. 1832); W. Maskell, *Ivories, Ancient and Medieval in the South Kensington Museum* (1872); A. Michel, *Histoire de l'art*; E. Molinier, *Histoire générale des arts* (1896); E. Oldfield, *Catalogue of Fictile Ivories sold by the Arundel Society* (1855); A. H. Pitt Rivers, *Antique Works of Art from Benin* (1900); A. C. Quatremère de Quincy, *Le Jupiter Olympien* (1815); Charles Scherer, *Elfenbeinplastik seit der Renaissance* (1903); E. du Sommerard, *Les Arts au moyen âge* (1838–1846); G. Stephens, *Runic Caskets* (1866–1868); A. Venturi, *Storia dell' arte Italiana* (1901); Sir G. Watt, *Indian Art at Delhi* (1904); J. O. Westwood, *Fictile Ivories in the South Kensington Museum* (1876). Sir M. D. Wyatt, *Notices of Sculpture in Ivory* (1856). (A. Mr.)

IVORY COAST (*Côte d'Ivoire*), a French West African colony, bounded S. by the Gulf of Guinea, W. by Liberia and French Guinea, N. by the colony of Upper Senegal and Niger, E. by the Gold Coast. Its area is approximately 120,000 sq. m., and its population possibly 2,000,000, of whom some 600 are Europeans. Official estimates (1908) placed the native population as low as 980,000.

Physical Features.—The coast-line extends from 7° 30′ to 3° 7′ W. and has a length of 380 m. It forms an arc of a circle of which the convexity turns slightly to the north; neither bay nor promontory breaks the regularity of its outline. The shore is low, bordered in its

eastern half with lagoons, and difficult of access on account of the submarine bar of sand which stretches along nearly the whole of the coast, and also because of the heavy surf caused by the great Atlantic billows. The principal lagoons, going W. to E. are those of Grand Lahou, Grand Bassam or Ebrié and Assini. The coast plains extend inland about 40 m. Beyond the ground rises in steep slopes to a general level of over 1000 ft., the plateau being traversed in several directions by hills rising 2000 ft. and over, and cut by valleys with a general south-eastern trend. In the north-east, in the district of Kong (*q.v.*), the country becomes mountainous, Mt. Kommono attaining a height of 4757 ft. In the north-west, by the Liberian frontier, the mountains in the Gon region rise over 6000 ft. Starting from the Liberian frontier, the chief rivers are the Cavalla (or Kavalli), the San Pedro, the Sassandra (240 m. long), the Bandama (225 m.), formed by the White and the Red Bandama, the Komoe (360 m.) and the Bia. All these streams are interrupted by rapids as they descend from the highlands to the plain and are unnavigable by steamers save for a few miles from their mouths. The rivers named all drain to the Gulf of Guinea; the rivers in the extreme north of the colony belong to the Niger system, being affluents of the Bani or Mahel Balevel branch of that river. The watershed runs roughly from 9° N. in the west to 10° N. in the east, and is marked by a line of hills rising about 650 ft. above the level of the plateau. The climate is in general very hot and unhealthy, the rainfall being very heavy. In some parts of the plateau healthier conditions prevail. The fauna and flora are similar to those of the Gold Coast and Liberia. Primeval forest extends from the coast plains to about 8° N., covering nearly 50,000 sq. m.

Inhabitants.—The coast districts are inhabited by Negro tribes allied on the one hand to the Krumen (*q.v.*) and on the other to the people of Ashanti (*q.v.*). The Assinis are of Ashanti origin, and chiefly of the Ochin and Agni tribes. Farther west are found the "Jack-Jacks" and the "Kwa-Kwas," sobriquets given respectively to the Aradian and Avikom by the early European traders. The Kwa-Kwa are said to be so called because their salutation "resembles the cry of a duck." In the interior the Negro strain predominates but with an admixture of Hamitic or Berber blood. The tribes represented include Jamans, Wongaras and Mandingos (*q.v.*), some of whom are Moslems. The Mandingos have intermarried largely with the Bambara or Sienuf, an agricultural people of more than average intelligence widely spread over the country, of which they are considered to be the indigenous race. The Bambara themselves are perhaps only a distinct branch of the original Mandingo stock. The Baulé, who occupy the central part of the colony, are of Agni-Ashanti origin. The bulk of the inhabitants are fetish worshippers. On the northern confines of the great forest belt live races of cannibals, whose existence was first made known by Captain d'Ollone in 1899. In general the coast tribes are peaceful. They have the reputation of being neither industrious nor intelligent. The traders are chiefly Fanti, Sierra Leonians, Senegalese and Mandingos.

Towns.—The chief towns on the coast are Grand and Little Bassam, Jackville and Assini in the east and Grand Lahou, Sassandra and Tabu in the west. Grand and Little Bassam are built on the strip of sand which separates the Grand Bassam or Ebrié lagoon from the sea. This lagoon forms a commodious harbour, once the bar has been crossed. Grand Bassam is situated at the point where the lagoon and the river Komoe enter the sea and there is a minimum depth of 12 ft. of water over the bar. The town (pop. 5000, including about 100 Europeans) is the seat of the customs administration and of the judicial department, and is the largest centre for the trade of the colony. A wharf equipped with cranes extends beyond the surf line and the town is served by a light railway. It is notoriously unhealthy; yellow fever is endemic. Little Bassam, renamed by the French Port Bouet, possesses an advantage over the other ports on the coast, as at this point there is no bar. The sea floor is here rent by a chasm, known as the "Bottomless Pit," the waters having a depth of 65 ft. Abijean (Abidjan), on the north side of the lagoon opposite Port Bouet is the starting-point of a railway to the oil and rubber regions. The half-mile of foreshore separating the port from the lagoon was in 1904–1907 pierced by a canal, but the canal silted up as soon as cut, and in 1908 the French decided to make Grand Bassam the chief port of the colony. Assini is an important centre for the rubber trade of Ashanti. On the northern shore of the Bassam lagoon, and 19 m. from Grand Bassam, is the capital of the colony, the native name Adjame having been changed into Bingerville, in honour of Captain L. G. Binger (see below). The town is built on a hill and is fairly healthy.

In the interior are several towns, though none of any size numerically. The best known are Koroko, Kong and Bona, entrepôts for the trade of the middle Niger, and Bontuku, on the caravan route to Sokoto and the meeting-place of the merchants from Kong and Timbuktu engaged in the kola-nut trade with Ashanti and the Gold Coast. Bontuku is peopled largely by Wongara and Hausa, and most of the inhabitants, who number some 3000, are Moslems. The town, which was founded in the 15th century or earlier, is walled, contains various mosques and generally presents the appearance of an eastern city.

Agriculture and Trade.—The natives cultivate maize, plantains, bananas, pineapples, limes, pepper, cotton, &c., and live easily on the products of their gardens, with occasional help from fishing and hunting. They also weave cloth, make pottery and smelt iron. Europeans introduced the cultivation of coffee, which gives good results. The forests are rich in palm-tree products, rubber and mahogany, which constitute the chief articles of export. The rubber goes almost exclusively to England, as does also the mahogany. The palm-oil and palm kernels are sent almost entirely to France. The value of the external trade of the colony exceeded £1,000,000 for the first time in 1904. About 50% of the trade is with Great Britain. The export of ivory, for which the country was formerly famous, has almost ceased, the elephants being largely driven out of the colony. Cotton goods, by far the most important of the imports, come almost entirely from Great Britain. Gold exists and many native villages have small "placer" mines. In 1901 the government of the colony began the granting of mining concessions, in which British capital was largely invested. There are many ancient mines in the country, disused since the close of the 18th century, if not earlier.

Communications.—The railway from Little Bassam serves the east central part of the colony and runs to Katiola, in Kong, a total distance of 250 m. The line is of metre gauge. The cutting of two canals, whereby communication is effected by lagoon between Assini and Grand Lahou via Bassam, followed the construction of the railway. Grand and Little Bassam are in regular communication by steamer with Bordeaux, Marseilles, Liverpool, Antwerp and Hamburg. Grand Bassam is connected with Europe by submarine cable via Dakar. Telegraph lines connect the coast with all the principal stations in the interior, with the Gold Coast, and with the other French colonies in West Africa.

Administration, &c.—The colony is under the general superintendence of the government general of French West Africa. At the head of the local administration is a lieutenant-governor, who is assisted by a council on which nominated unofficial members have seats. To a large extent the native forms of government are maintained under European administrators responsible for the preservation of order, the colony for this purpose being divided into a number of "circles" each with its local government. The colony has a separate budget and is self-supporting. Revenue is derived chiefly from customs receipts and a capitation tax of frs. 2.50 (2s.), instituted in 1901 and levied on all persons over ten years old. The budget for 1906 balanced at £120,400.

History.—The Ivory Coast is stated to have been visited by Dieppe merchants in the 14th century, and was made known by the Portuguese discoveries towards the end of the 15th century. It was thereafter frequented by traders for ivory, slaves and other commodities. There was a French settlement at Assini, 1700–1704, and a French factory was maintained at Grand Bassam from 1700 to 1707. In the early part of the 19th century several French traders had established themselves along the coast. In 1830 Admiral (then Commandant) Bouët-Willaumez (1808–1871) began a series of surveys and expeditions which yielded valuable results. In 1842 he obtained from the native chiefs cessions of territory at Assini and Grand Bassam to France and the towns named were occupied in 1843. From that time French influence gradually extended along the coast, but no attempt was made to penetrate inland. As one result of the Franco-Prussian War, France in 1872 withdrew her garrisons, handing over the care of the establishments to a merchant named Verdier, to whom an annual subsidy of £800 was paid. This merchant sent an agent into the interior who made friendly treaties between France and some of the native chiefs. In 1883, in view of the claims of other European powers to territory in Africa, France again took over the actual administration of Assini and Bassam. Between 1887 and 1889 Captain Binger (an officer of marine infantry, and subsequently director of the African department at the colonial ministry) traversed the whole region between the coast and the Niger, visited Bontuku and the Kong country, and signed protectorate treaties with the chiefs. The kingdom of Jaman, it may be mentioned, was for a few months included in the Gold Coast hinterland. In January 1889 a British mission sent by the governor of the Gold Coast concluded a treaty with the king of Jaman at Bontuku, placing his dominions under British protection.

The king had, however, previously concluded treaties of "commerce and friendship" with the French, and by the Anglo-French agreement of August 1889 Jaman, with Bontuku, was recognized as French territory. In 1892 Captain Binger made further explorations in the interior of the Ivory Coast, and in 1893 he was appointed the first governor of the colony on its erection into an administration distinct from that of Senegal. Among other famous explorers who helped to make known the hinterland was Colonel (then Captain) Marchand. It was to the zone between the Kong states and the hinterland of Liberia that Samory (see SENEGAL) fled for refuge before he was taken prisoner (1898), and for a short time he was master of Kong. The boundary of the colony on the west was settled by Franco-Liberian agreements of 1892 and subsequent dates; that on the east by the Anglo-French agreements of 1893 and 1898. The northern boundary was fixed in 1899 on the division of the middle Niger territories (up to that date officially called the French Sudan) among the other French West African colonies. The systematic development of the colony, the opening up of the hinterland and the exploitation of its economic resources date from the appointment of Captain Binger as governor, a post he held for over three years. The work he began has been carried on zealously and effectivelv by subsequent governors, who have succeeded in winning the co-operation of the natives.

In the older books of travel are often found the alternative names for this region, Tooth Coast (*Côte des Dents*) or Kwa-Kwa Coast, and, less frequently, the Coast of the Five and Six Stripes (alluding to a kind of cotton fabric in favour with the natives). The term Côte des Dents continued in general use in France until the closing years of the 19th century.

See *Dix ans à la Côte d'Ivoire* (Paris, 1906) by F. J. Clozel, governor of the colony, and *Notre colonie de la Côte d'Ivoire* (Paris, 1903) by R. Villamur and Richaud. These two volumes deal with the history, geography, zoology and economic condition of the Ivory Coast. *La Côte d'Ivoire* by Michellet and Clement describes the administrative and land systems, &c. Another volume also called *La Côte d'Ivoire* (Paris, 1908) is an official monograph on the colony. For ethnology consult *Coutumes indigènes de la Côte d'Ivoire* (Paris, 1902) by F. J. Clozel and R. Villamur, and *Les Coutumes Agni*, by R. Villamur and Delafosse. Of books of travel see *Du Niger au Golfe de Guinée par Kong* (Paris, 1892) by L. G. Binger, and *Mission Hostains-d'Ollone 1898–1900* (Paris, 1901) by Captain d'Ollone. A *Carte de la Côte d'Ivoire* by A. Meunier, on the scale of 1:500,000 (6 sheets), was published in Paris, 1905. Annual reports on the colony are published by the French colonial and the British foreign offices.

IVREA (anc. *Eporedia*), a town and episcopal see of Piedmont, Italy, in the province of Turin, from which it is 38 m. N.N.E. by rail and 27 m. direct, situated 770 ft. above sea-level, on the Dora Baltea at the point where it leaves the mountains. Pop. (1901) 6047 (town), 11,696 (commune). The cathedral was built between 973 and 1005; the gallery round the back of the apse and the crypt have plain cubical capitals of this period. The two *campanili* flanking the apse at each end of the side aisle are the oldest example of this architectural arrangement. The isolated tower, which is all that remains of the ancient abbey of S. Stefano, is slightly later. The hill above the town is crowned by the imposing Castello delle Quattro Torri, built in 1358, and now a prison. One of the four towers was destroyed by lightning in 1676. A tramway runs to Santhià.

The ancient Eporedia, standing at the junction of the roads from Augusta Taurinorum and Vercellae, at the point where the road to Augusta Praetoria enters the narrow valley of the Duria (Dora Baltea), was a military position of considerable importance belonging to the Salassi who inhabited the whole upper valley of the Duria. The importance of the gold-mines of the district led to its seizure by the Romans in 143 B.C. The centre of the mining industry seems to have been Victumulae (see TICINUM), until in 100 B.C. a colony of Roman citizens was founded at Eporedia itself; but the prosperity of this was only assured when the Salassi were finally defeated in 25 B.C. and Augusta Praetoria founded. There are remains of a theatre of the time of the Antonines and the Ponte Vecchio rests on Roman foundations.

In the middle ages Ivrea was the capital of a Lombard duchy, and later of a marquisate; both Berengar II. (950) and Arduin (1002) became kings of Italy for a short period. Later it submitted to the marquises of Monferrato, and in the middle of the 14th century passed to the house of Savoy. (T. As.)

IVRY-SUR-SEINE, a town of northern France, in the department of Seine, near the left bank of the Seine, less than 1 m. S.S.E. of the fortifications of Paris. Pop. (1906) 30,532. Ivry has a large hospital for incurables. It manufactures organs, earthenware, wall-paper and rubber, and has engineering works, breweries, and oil-works, its trade being facilitated by a port on the Seine. The town is dominated by a fort of the older line of defence of Paris.

IVY (A.S. *ifig*, Ger. *Epheu*, perhaps connected with *apium*, *ἄπιον*), the collective designation of certain species and varieties of *Hedera*, a member of the natural order Araliaceae.

Fig. 1.—Ivy (*Hedera Helix*) fruiting branch, ¼ nat. size. 1. Flower. 2. Fruit.

There are fifty species of ivy recorded in modern books, but they may be reduced to two, or at the most, three. The European ivy, *Hedera Helix* (fig. 1), is a plant subject to infinite variety in the forms and colours of its leaves, but the tendency of which is always to a three- to five-lobed form when climbing and a regular ovate form of leaf when producing flower and fruit. The African ivy, *H. canariensis*, often regarded as a variety of *H. Helix* and known as the Irish ivy, is a native of North Africa and the adjacent islands. It is the common large-leaved climbing ivy, and also varies, but in a less degree than *H. Helix*, from which its leaves differ in their larger size, rich deep green colour, and a prevailing tendency to a five-lobed outline. When in fruit the leaves are usually three-lobed, but they are sometimes entire and broadly ovate. The Asiatic ivy, *H. colchica* (fig. 2), now considered to be a form of *H. Helix*, has ovate, obscurely three-lobed leaves of a coriaceous texture and a deep green colour; in the tree or fruiting form the leaves are narrower than in the climbing form, and without any trace of lobes. Distinctive characters are also to be found in the appendages of the pedicels and calyx, *H. Helix* having six-rayed stellate hairs, *H. canariensis* fifteen-rayed hairs and *H. colchica* yellowish two-lobed scales.

FIG. 2.—*Hedera colchica*, ¼ nat. size.

The Australian ivy, *H. australiana*, is a small glabrous shrub

with pinnate leaves. It is a native of Queensland, and is practically unknown in cultivation.

It is of the utmost importance to note the difference of characters of the same species of ivy in its two conditions of climbing and fruiting. The first stage of growth, which we will suppose to be from the seed, is essentially scandent, and the leaves are lobed more or less. This stage is accompanied with a plentiful production of the claspers or modified roots by means of which the plant becomes attached and obtains support. When it has reached the summit of the tree or tower, the stems, being no longer able to maintain a perpendicular attitude, fall over and become horizontal or pendent. Coincidently with this change they cease to produce claspers, and the leaves are strikingly modified in form, being now narrower and less lobed than on the ascending stems. In due time this tree-like growth produces terminal umbels of greenish flowers, which have the parts in fives, with the styles united into a very short one. These flowers are succeeded by smooth black or yellow berries, containing two to five seeds. The yellow-berried ivy is met with in northern India and in Italy, but in northern Europe it is known only as a curiosity of the garden, where, if sufficiently sheltered and nourished, it becomes an exceedingly beautiful and fruitful tree.

FIG. 3.—Climbing Shoot of Ivy.

It is stated in books that some forms of sylvestral ivy never flower, but a negative declaration of this kind is valueless. Sylvestral ivies of great age may be found in woods on the western coasts of Britain that have apparently never flowered, but this is probably to be explained by their inability to surmount the trees supporting them, for until the plant can spread its branches horizontally in full daylight, the flowering or tree-like growth is never formed.

A question of great practical importance arises out of the relation of the plant to its means of support. A moderate growth of ivy is not injurious to trees; still the tendency is from the first inimical to the prosperity of the tree, and at a certain stage it becomes deadly. Therefore the growth of ivy on trees should be kept within reasonable bounds, more especially in the case of trees that are of special value for their beauty, history, or the quality of their timber. In regard to buildings clothed with ivy, there is nothing to be feared so long as the plant does not penetrate the substance of the wall by means of any fissure. Should it thrust its way in, the natural and continuous expansion of its several parts will necessarily hasten the decay of the edifice. But a fair growth of ivy on sound walls that afford no entrance beyond the superficial attachment of the claspers is, without any exception whatever, beneficial. It promotes dryness and warmth, reduces to a minimum the corrosive action of the atmosphere, and is altogether as conservative as it is beautiful.

The economical uses of the ivy are not of great importance. The leaves are eaten greedily by horses, deer, cattle and sheep, and in times of scarcity have proved useful. The flowers afford a good supply of honey to bees; and, as they appear in autumn, they occasionally make amends for the shortcomings of the season. The berries are eaten by wood pigeons, blackbirds and thrushes. From all parts of the plant a balsamic bitter may be obtained, and this in the form of *hederic acid* is the only preparation of ivy known to chemists.

In the garden the uses of the ivy are innumerable, and the least known though not the least valuable of them is the cultivation of the plant as a bush or tree, the fruiting growth being selected for this purpose. The variegated tree forms of *H. Helix*, with leaves of creamy white, golden green or rich deep orange yellow, soon prove handsome miniature trees, that thrive almost as well in smoky town gardens as in the pure air of the country, and that no ordinary winter will injure in the least. The tree-form of the Asiatic ivy (*H. colchica*) is scarcely to be equalled in beauty of leafage by any evergreen shrub known to English gardens, and, although in the course of a few years it will attain to a stature of 5 or 6 ft., it is but rarely we meet with it, or indeed with tree ivies of any kind, but little attention having been given to this subject until recent years. The scandent forms are more generally appreciated, and are now much employed in the formation of marginal lines, screens and trained pyramids, as well as for clothing walls. A very striking example of the capabilities of the commonest ivies, when treated artistically as garden plants, may be seen in the Zoological Gardens of Amsterdam, where several paddocks are enclosed with wreaths, garlands and bands of ivy in a most picturesque manner.

About sixty varieties known in gardens are figured and described in *The Ivy, a Monograph*, by Shirley Hibberd (1872). To cultivate these is an extremely simple matter, as they will thrive in a poor soil and endure a considerable depth of shade, so that they may with advantage be planted under trees. The common Irish ivy is often to be seen clothing the ground beneath large yew trees where grass would not live, and it is occasionally planted in graveyards in London to form an imitation of grass turf, for which purpose it is admirably suited.

The ivy, like the holly, is a scarce plant on the American continent. In the northern United States and British America the winters are not more severe than the ivy can endure, but the summers are too hot and dry, and the requirements of the plant have not often obtained attention. In districts where native ferns abound the ivy will be found to thrive, and the varieties of *Hedera Helix* should have the preference. But in the drier districts ivies might often be planted on the north side of buildings, and, if encouraged with water and careful training for three or four years, would then grow rapidly and train themselves. A strong light is detrimental to the growth of ivy, but this enhances its value, for we have no hardy plants that may be compared with it for variety and beauty that will endure shade with equal patience.

The North American poison ivy (poison oak), *Rhus Toxicodendron* (nat. order Anacardiaceae), is a climber with pinnately compound leaves, which are very attractive in their autumn colour but poisonous to the touch to some persons, while others can handle the plant without injury. The effects are redness and violent itching followed by fever and a vesicular eruption.

The ground ivy, *Nepeta Glechoma* (nat. order Labiatae), is a small creeping plant with rounded crenate leaves and small blue-purple flowers, occurring in hedges and thickets.

IWAKURA, TOMOMI, PRINCE (1835–1883), Japanese statesman, was born in Kiōto. He was one of the court nobles (*kuge*) of Japan, and he traced his descent to the emperor Murakami (A.D. 947–967). A man of profound ability and singular force of character, he acted a leading part in the complications preceding the fall of the Tokugawa *shōgunate*, and was obliged to fly from Kiōto accompanied by his coadjutor, Prince Sanjō. They took refuge with the *Daimyō* of Chōshū, and, while there, established relations which contributed greatly to the ultimate union of the two great fiefs, Satsuma and Chōshū, for the work of the Restoration. From 1867 until the day of his death Iwakura was one of the most prominent figures on the political stage. In 1871 he proceeded to America and Europe at the head of an imposing embassy of some fifty persons, the object being to explain to foreign governments the actual conditions existing in Japan, and to pave the way for negotiating new treaties consistent with her sovereign rights. Little success attended the mission. Returning to Japan in 1873, Iwakura found the cabinet divided as to the manner of dealing with Korea's insulting attitude. He advocated peace, and his influence carried the day, thus removing a difficulty which, though apparently of minor dimensions, might have changed the whole course of Japan's modern history.

IXION, in Greek legend, son of Phlegyas, king of the Lapithae in Thessaly (or of Arẹs), and husband of Dia. According to custom he promised his father-in-law, Deïoneus, a handsome bridal present, but treacherously murdered him when he claimed the fulfilment of the promise. As a punishment, Ixion was seized with madness, until Zeus purified him of his crime and admitted him as a guest to Olympus. Ixion abused his pardon by trying to seduce Hera; but the goddess substituted for herself a cloud, by which he became the father of the Centaurs. Zeus bound him on a fiery wheel, which rolls unceasingly through the air or (according to the later version) in the underworld (Pindar, *Pythia*, ii. 21; Ovid, *Metam.* iv. 461; Virgil, *Aeneid*, vi. 601). Ixion is generally taken to represent the eternally moving sun. Another explanation connects the story with the practice (among certain peoples of central Europe) of carrying a blazing, revolving wheel through fields which needed the heat of the sun, the legend being invented to explain the custom and subsequently adopted by the Greeks (see Mannhardt, *Wald- und Feldkulte*, ii. 1905, p. 83). In view of the fact that the oak was the sun-god's tree and that the mistletoe grew upon it, it is suggested by A. B. Cook (*Class. Rev.* xvii. 420) that Ἰξίων is derived from ἶξός (mistletoe), the sun's fire being regarded as an emanation from the mistletoe. Ixion himself is probably a by-form of Zeus (Usener in *Rhein. Mus.* liii. 345).

"The Myth of Ixion" (by C. Smith, in *Classical Review*, June 1895) deals with the subject of a red-figure cantharus in the British Museum.

IXTACCIHUATL, or IZTACCIHUATL ("white woman"), a lofty mountain of volcanic origin, 10 m. N. of Popocatepetl and about 40 m. S.S.E of the city of Mexico, forming part of the short spur called the Sierra Nevada. According to Angelo Heilprin (1853–1907) its elevation is 16,960 ft.; other authorities make it much less. Its apparent height is dwarfed somewhat by its elongated summit and the large area covered. It has three summits of different heights standing on a north and south line, the central one being the largest and highest and all three rising above the permanent snow-line. As seen from the city of Mexico the three summits have the appearance of a shrouded human figure, hence the poetic Aztec appellation of "white woman" and the unsentimental Spanish designation "*La mujer gorda.*" The ascent is difficult and perilous, and is rarely accomplished.

Heilprin says that the mountain is largely composed of trachytic rocks and that it is older than Popocatepetl. It has no crater and no trace of lingering volcanic heat. It is surmised that its crater, if it ever had one, has been filled in and its cone worn away by erosion through long periods of time.

IYRCAE, an ancient nation on the north-east trade route described by Herodotus (iv. 22) beyond the Thyssagetae, somewhere about the upper basins of the Tobol and the Irtysh. They were distinguished by their mode of hunting, climbing a tree to survey their game, and then pursuing it with trained horses and dogs. They were almost certainly the ancestors of the modern Magyars, also called Jugra.

The reading Τῦρκαι is an anachronism, and when Pliny (*N.H.* vi. 19) and Mela (i. 116) speak of Tyrcae it is also probably due to a false correction. (E. H. M.)

IZBARTA, or SPARTA [anc. *Baris*], the chief town of the Hamid-abad sanjak of the Konia vilayet, in Asia Minor, well situated on the edge of a fertile plain at the foot of Aghlasun Dagh. It was once the capital of the Emirate of Hamid. It suffered severely from the earthquake of the 16th–17th of January 1889. It is a prosperous place with an enlightened Greek element in its population (hence the numerous families called "Spartali" in Levantine towns); and it is, in fact, the chief inland colony of Hellenism in Anatolia. Pop. 20,000 (Moslems 13,000, Christians 7000). The new Aidin railway extends from Dineir to Izbarta via Buldur.

IZHEVSK, a town of Russia, in the government of Vyatka, 140 m. S.W. of Perm and 22 m. W. from the Kama, on the Izh river. Pop. (1897) 21,500. It has one of the principal steel and rifle works of the Russian crown, started in 1807. The making of sporting guns is an active industry.

IZMAIL, or ISMAIL, a town of Russia, in the government of Bessarabia, on the left bank of the Kilia branch of the Danube, 35 m. below Reni railway station. Pop. (1866) 31,779, (1900) 33,607, comprising Great and Little Russians, Bulgarians, Jews and Gipsies. There are flour-mills and a trade in cereals, wool, tallow and hides. Originally a Turkish fortified post, Izmail had by the end of the 18th century grown into a place of 30,000 inhabitants. It was occupied by the Russians in 1770, and twenty years later its capture was one of the brilliant achievements of the Russian general, Count A. V. Suvarov. On that occasion the garrison was 40,000 strong, and the assault cost the assailants 10,000 and the defenders 30,000 men. The victory was the theme of one of the Russian poet G. R. Derzhavin's odes. In 1809 the town was again captured by the Russians; and, when in 1812 it was assigned to them by the Bucharest peace, they chose it as the central station for their Danube fleet. It was about this time that the town of Tuchkov, with which it was later (1830) incorporated, grew up outside of the fortifications. These were dismantled in accordance with the treaty of Paris (1856), by which Izmail was made over to Rumania. The town was again transferred to Russia by the peace of Berlin (1878).

IZU-NO-SHICHI-TŌ, the seven (*shichi*) islands (*to*) of Izu, included in the empire of Japan. They stretch in a southerly direction from a point near the mouth of Tokyo Bay, and lie between 33° and 34° 48′ N. and between 139° and 140° E. Their names, beginning from the north, are Izu-no-Oshima, To-shima, Nii-shima, Kozu-shima, Miyake-shima and Hachijo-shima. There are some islets in their immediate vicinity. Izu-no-Oshima, an island 10 m. long and 5½ m. wide, is 15 m. from the nearest point of the Izu promontory. It is known to western cartographers as Vries Island, a name derived from that of Captain Martin Gerritsz de Vries, a Dutch navigator, who is supposed to have discovered the island in 1643. But the group was known to the Japanese from a remote period, and used as convict settlements certainly from the 12th century and probably from a still earlier era. Hachijo, the most southerly, is often erroneously written "Fatsisio" on English charts. Izu-no-Oshima is remarkable for its smoking volcano, Mihara-yama (2461 ft.), a conspicuous object to all ships bound for Yokohama. Three others of the islands—Nii-shima, Kozu-shima and Miyake-shima—have active volcanoes. Those on Nii-shima and Kozu-shima are of inconsiderable size, but that on Miyake-shima, namely, Oyama, rises to a height of 2707 ft. The most southerly island, Hachijo-shima, has a still higher peak, Dsubo-take (2838 ft.), but it does not emit any smoke.

J A letter of the alphabet which, as far as form is concerned, is only a modification of the Latin I and dates back with a separate value only to the 15th century. It was first used as a special form of initial I, the ordinary form being kept for use in other positions. As, however, in many cases initial *i* had the consonantal value of the English *y* in *iugum* (yoke), &c., the symbol came to be used for the value of *y*, a value which it still retains in German: *Jal jung*, &c. Initially it is pronounced in English as an affricate *dzh*. The great majority of English words beginning with *j* are (1) of foreign (mostly French) origin, as "jaundice," "judge"; (2) imitative of sound, like "jar" (the verb); or (3) influenced by analogy, like "jaw" (influenced by *chaw*, according to Skeat). In early French *g* when palatalized by *e* or *i* sounds became confused with consonantal *i* (*y*), and both passed into the sound of *j* which is still preserved in English. A similar sound-change takes place in other languages, *e.g.* Lithuanian, where the resulting sound is spelt *dž*. Modern French and also Provençal and Portuguese have changed *j*=*dzh* into *ž* (*zh*). The sound initially is sometimes represented in English by *g*: *gem*, *gaol* as well as *jail*. At the end of modern English words the same sound is represented by *-dge* as in *judge*, French *juge*. In this position, however, the sound occurs also in genuine English words like *bridge*, *sedge*, *singe*, but this is true only for the southern dialects on which the literary language is founded. In the northern dialects the pronunciation as *brig*, *seg*, *sing* still survives. (P. Gr.)

JA'ALIN (from *Jā'al*, to settle, *i.e.* "the squatters"), an African tribe of Semitic stock. They formerly occupied the country on both banks of the Nile from Khartum to Abu Hamed. They claim to be of the Koreish tribe and even trace descent from Abbas, uncle of the prophet. They are of Arab origin, but now of very mixed blood. According to their own tradition they emigrated to Nubia in the 12th century. They were at one time subject to the Funj kings, but their position was in a measure independent. At the Egyptian invasion in 1820 they were the most powerful of Arab tribes in the Nile valley. They submitted at first, but in 1822 rebelled and massacred the Egyptian garrison at Shendi. The revolt was mercilessly suppressed, and the Jā'alin were thenceforward looked on with suspicion. They were almost the first of the northern tribes to join the mahdi in 1884, and it was their position to the north of Khartum which made communication with General Gordon so difficult. The Jā'alin are now a semi-nomad agricultural people. Many are employed in Khartum as servants, scribes and watchmen. They are a proud religious people, formerly notorious as cruel slave dealers. J. L. Burckhardt says the true Jā'alin from the eastern desert is exactly like the Bedouin of eastern Arabia.

See *The Anglo-Egyptian Sudan*, edited by Count Gleichen (London, 1905).

JABIRU, according to Marcgrave the Brazilian name of a bird, subsequently called by Linnaeus *Mycteria americana*, one of the largest of the storks, *Ciconiidae*, which occurs from Mexico southwards to the territory of the Argentine Republic. It stands between 4 and 5 ft. in height, and is conspicuous for its massive bill, slightly upturned, and its entirely white plumage; but the head and neck are bare and black, except for about the lower third part of the latter, which is bright red in the living bird. Very nearly allied to *Mycteria*, and also commonly called jabirus, are the birds of the genera *Xenorhynchus* and *Ephippiorhynchus*—the former containing one or (in the opinion of some) two species, *X. australis* and *X. indicus*, and the latter one only, *E. senegalensis*. These belong to the countries indicated by their names, and differ chiefly by their feathered head and neck, while the last is sometimes termed the saddle-billed stork from the very singular shape of its beak. Somewhat more distantly related are the gigantic birds known to Europeans in India and elsewhere as adjutant birds, belonging to the genus *Leptoptilus*, distinguished by their sad-coloured plumage, their black scabrous head, and their enormous tawny pouch, which depends occasionally some 16 in. or more in length from the lower part of the neck, and seems to be connected with the respiratory and not, as commonly believed, with the digestive system. In many parts of India *L. dubius*, the largest of these birds, the *hargila* as Hindus call it, is a most efficient scavenger, sailing aloft at a vast height and descending on the discovery of offal, though frogs and fishes also form part of its diet. It familiarly enters the large towns, in many of which an account of its services it is strictly protected from injury, and, having satisfied its appetite, seeks the repose it has earned, sitting with its feet

Jabiru.

extended in front in a most grotesque attitude. A second and smaller species, *L. javanicus*, has a more southern and eastern range; while a third, *L. crumenifer*, of African origin, and often known as the marabou-stork, gives its name to the beautifully soft feathers so called, which are the under-tail-coverts; the "marabout" feathers of the plume-trade are mostly supplied by other birds, the term being apparently applied to any downy feathers. (A. N.)

JABLOCHKOV, PAUL (1847–1894), Russian electrical engineer and inventor, was born at Serdobsk, in the government of Saratov, on the 14th of September 1847, and educated at St Petersburg. In 1871 he was appointed director of the telegraph lines between Moscow and Kursk, but in 1875 he resigned his position in order to devote himself to his researches on electric lighting by arc lamps, which he had already taken up. In 1876 he settled in Paris, and towards the end of the year brought out his famous "candles," known by his name, which consisted of two carbon parallel rods, separated by a non-conducting partition; alternating currents were employed, and the candle was operated by a high-resistance carbon match connecting the tips of the rods, a true arc forming between the parallel carbons when this burnt off, and the separators volatilizing as the carbons burnt away. For a few years his system of electric lighting was widely adopted, but it was gradually superseded

(see LIGHTING: *Electric*) and is no longer in use. Jablochkov made various other electrical inventions, but he died in poverty, having returned to Russia on the 19th of March 1894.

JABLONSKI, DANIEL ERNST (1660–1741), German theologian, was born at Nassenhuben, near Danzig, on the 20th of November 1660. His father was a minister of the Moravian Church, who had taken the name of Peter Figulus on his baptism; the son, however, preferred the Bohemian family name of Jablonski. His maternal grandfather, Johann Amos Comenius (d. 1670), was a bishop of the Moravian Church. Having studied at Frankfort-on-the-Oder and at Oxford, Jablonski entered upon his career as a preacher at Magdeburg in 1683, and then from 1686 to 1691 he was the head of the Moravian college at Lissa, a position which had been filled by his grandfather. Still retaining his connexion with the Moravians, he was appointed court preacher at Königsberg in 1691 by the elector of Brandenburg, Frederick III., and here, entering upon a career of great activity, he soon became a person of influence in court circles. In 1693 he was transferred to Berlin as court preacher, and in 1699 he was consecrated a bishop of the Moravian Church. At Berlin Jablonski worked hard to bring about a union between the followers of Luther and those of Calvin; the courts of Berlin, Hanover, Brunswick and Gotha were interested in his scheme, and his principal helper was the philosopher Leibnitz. His idea appears to have been to form a general union between the German, the English and the Swiss Protestants, and thus to establish *una eademque sancta catholica et apostolica eademque evangelica et reformata ecclesia*. For some years negotiations were carried on with a view to attaining this end, but eventually it was found impossible to surmount the many difficulties in the way; Jablonski and Leibnitz, however, did not cease to believe in the possibility of accomplishing their purpose. Jablonski's next plan was to reform the Church of Prussia by introducing into it the episcopate, and also the liturgy of the English Church, but here again he was unsuccessful. As a scholar Jablonski brought out a Hebrew edition of the Old Testament, and translated Bentley's *A Confutation of Atheism* into Latin (1696). He had some share in founding the Berlin Academy of Sciences, of which he was president in 1733, and he received a degree from the university of Oxford. He died on the 25th of May 1741.

Jablonski's son, Paul Ernst Jablonski (1693–1757), was professor of theology and philosophy at the university of Frankfort-on-the-Oder.

Editions of the letters which passed between Jablonski and Leibnitz, relative to the proposed union, were published at Leipzig in 1747 and at Dorpat in 1899.

JABORANDI, a name given in a generic manner in Brazil and South America generally to a number of different plants, all of which possess more or less marked sialogogue and sudorific properties. In the year 1875 a drug was introduced under the above name to the notice of medical men in France by Dr Coutinho of Pernambuco, its botanical source being then unknown. *Pilocarpus pennatifolius*, a member of the natural order Rutaceae, the plant from which it is obtained, is a slightly branched shrub about 10 ft. high, growing in Paraguay and the eastern provinces of Brazil. The leaves, which are placed alternately on the stem, are often 1½ ft. long, and consist of from two to five pairs of opposite leaflets, the terminal one having a longer pedicel than the others. The leaflets are oval, lanceolate, entire and obtuse, with the apex often slightly indented, from 3 to 4 in. long and 1 to 1½ in. broad in the middle. When held up to the light they may be observed to have scattered all over them numerous pellucid dots or receptacles of secretion immersed in the substance of the leaf. The leaves in size and texture bear some resemblance to those of the cherry-laurel (*Prunus laurocerasus*), but are less polished on the upper surface. The flowers, which are produced in spring and early summer, are borne on a raceme, 6 or 8 in. long, and the fruit consists of five carpels, of which not more than two or three usually arrive at maturity. The leaves are the part of the plant usually imported, although occasionally the stems and roots are attached to them. The active principle for which the name *pilocarpine*, suggested by Holmes, was ultimately adopted, was discovered almost simultaneously by Hardy in France and Gerrard in England, but was first obtained in a pure state by Petit of Paris. It is a liquid alkaloid, slightly soluble in water, and very soluble in alcohol, ether and chloroform. It strongly rotates the plane of polarization to the right, and forms crystalline salts of which the nitrate is that chiefly used in medicine. The nitrate and phosphate are insoluble in ether, chloroform and benzol, while the hydrochlorate and hydrobromate dissolve both in these menstrua and in water and alcohol; the sulphate and acetate being deliquescent are not employed medicinally. The formula of the alkaloid is $C_{11}H_{16}N_2O_2$.

Certain other alkaloids are present in the leaves. They have been named *jaborine, jaboridine and pilocarpidine*. The first of these is the most important and constant. It is possibly derived from pilocarpine, and has the formula $C_{22}H_{32}N_4O_4$. Jaborine resembles atropine pharmacologically, and is therefore antagonistic to pilocarpine. The various preparations of

Jaborandi—*a*, leaf (reduced); *b*, leaflet (natural size); *c*, flower; *d*, fruit (natural size).

jaborandi leaves are therefore undesirable for therapeutic purposes, and only the nitrate of pilocarpine itself should be used. This is a white crystalline powder, soluble in the ratio of about one part in ten of cold water. The dose is $\frac{1}{20}$–$\frac{1}{2}$ grain by the mouth, and up to one-third of a grain hypodermically, in which fashion it is usually given.

The action of this powerful alkaloid closely resembles that of physostigmine, but whereas the latter is specially active in influencing the heart, the eye and the spinal cord, pilocarpine exerts its greatest power on the secretions. It has no external action. When taken by the mouth the drug is rapidly absorbed and stimulates the secretions of the entire alimentary tract, though not of the liver. The action on the salivary glands is the most marked and the best understood. The great flow of saliva is due to an action of the drug, after absorption, on the terminations of the chorda tympani, sympathetic and other nerves of salivary secretion. The gland cells themselves are unaffected. The nerves are so violently excited that direct stimulation of them by electricity adds nothing to the rate of salivary flow. The action is antagonized by atropine, which paralyses the nerve terminals. About $\frac{1}{100}$th of a grain of atropine

antagonizes half a grain of pilocarpine. The circulation is depressed by the drug, the pulse being slowed and the blood pressure falling. The cardiac action is due to stimulation of the vagus, but the dilatation of the blood-vessels does not appear to be due to a specific action upon them. The drug does not kill by its action on the heart. Its dangerous action is upon the bronchial secretion, which is greatly increased. Pilocarpine is not only the most powerful sialogogue but also the most powerful diaphoretic known. One dose may cause the flow of nearly a pint of sweat in an hour. The action is due, as in the case of the salivation, to stimulation of the terminals of the sudorific nerves. According to K. Binz there is also in both cases an action on the medullary centres for these secretions. Just as the saliva is a true secretion containing a high proportion of ptyalin and salts, and is not a mere transudation of water, so the perspiration is found to contain a high ratio of urea and chlorides. The great diaphoresis and the depression of the circulation usually cause a fall in temperature of about 2° F. The drug is excreted unchanged in the urine. It is a mild diuretic. When given internally or applied locally to the eye it powerfully stimulates the terminals of the oculomotor nerves in the iris and ciliary muscle, causing ext eme contraction of the pupil and spasm of accommodation. The tension of the eyeball is at first raised but afterwards lowered.

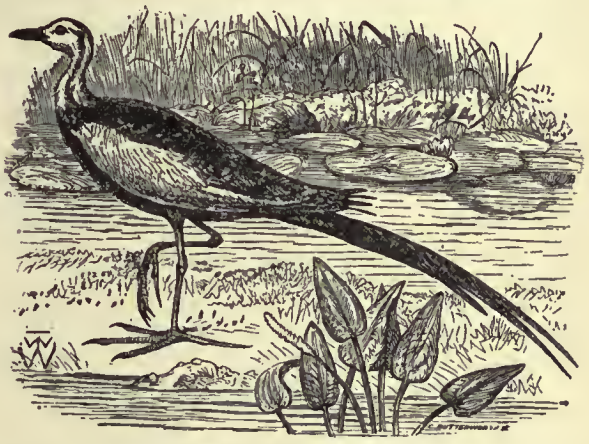
The chief therapeutic use of the drug is as a diaphoretic in chronic Bright's disease. It is also used to aid the growth of the hair—in which it is sometimes successful; in cases of inordinate thirst, when one-tenth of a grain with a little bismuth held in the mouth may be of much value; in cases of lead and mercury poisoning, where it aids the elimination of the poison in the secretions; as a galactagogue; and in cases of atropine poisoning (though here it is of doubtful value).

JACA, a city of northern Spain, in the province of Huesca, 114 m. by rail N. by W. of Saragossa, on the left bank of the river Aragon, and among the southern slopes of the Pyrenees, 2380 ft. above the sea. Pop. (1900), 4934. Jaca is an episcopal see, and was formerly the capital of the Aragonese county of Sobrarbe. Its massive Gothic cathedral dates at least from the 11th century, and possibly from the 9th. The city derives some importance from its position on the ancient frontier road from Saragossa to Pau. In August 1904 the French and Spanish governments agreed to supplement this trade-route by building a railway from Oloron in the Basses Pyrénées to Jaca. Various frontier defence works were constructed in the neighbourhood at the close of the 19th century.

The origin of the city is unknown. The Jaccetani (Ἰάκκητανοί) are mentioned as one of the most celebrated of the numerous small tribes inhabiting the basin of the Ebro by Strabo, who adds that their territory was the theatre of the wars which took place in the 1st century B.C. between Sertorius and Pompey. They are probably identical with the Lacetani of Livy (xxi. 60, 61) and Caesar (*B.C.* i. 60). Early in the 8th century Jaca fell into the possession of the Moors, by whose writers it is referred to under the name of Dyaka as one of the chief places in the province of Sarkosta (Saragossa). The date of its reconquest is uncertain, but it must have been before the time of Ramiro I. of Aragon (1035–1063), who gave it the title of "city," and in 1063 held within its walls a council, which, inasmuch as the people were called in to sanction its decrees, is regarded as of great importance in the history of the parliamentary institutions of the Peninsula. In 1705 Jaca supported King Philip V. from whom, in consequence, it received the title of *muy noble, muy leal y vencedora*, "most noble, most loyal and victorious." During the Peninsular War it surrendered to the French in 1809, and was recaptured in 1814.

JACAMAR, a word formed by Brisson from *Jacameri*, the Brazilian name of a bird, as given by Marcgrave, and since adopted in most European tongues for the species to which it was first applied and others allied to it, forming the family *Galbulidae*[1] of ornithologists, the precise position of which is uncertain, since the best authorities differ. All will agree that the jacamars belong to the great heterogeneous group called by Nitzsch Picariae, but further into detail it is hardly safe to go. The *Galbulidae* have zygodactylous or pair-toed feet, like the *Cuculidae*, *Bucconidae* and *Picidae*, they also resemble both the latter in laying glossy white eggs, but in this respect they bear the same resemblance to the *Momotidae*, *Alcedinidae*, *Meropidae* and some other groups, to which affinity has been claimed for them. In the opinion of Sclater (*A Monograph of the Jacamars and Puff-birds*) the jacamars form two groups—one consisting of the single genus and species *Jacamerops aureus* (*J. grandis* of most authors), and the other including all the rest, viz. *Urogalba* with two species, *Galbula* with nine, *Brachygalba* with five, and *Jacamaralcyon* and *Galbalcyrhynchus* with one each. They are all rather small birds, the largest known being little over 10 in. in length, with long and sharply pointed bills, and the plumage more or less resplendent with golden or bronze reflections, but at the same time comparatively soft. *Jacamaralcyon tridactyla* differs from all the rest in possessing but three toes (as its name indicates), on each foot, the hallux being deficient. With the exception of *Galbula melanogenia*, which is found also in Central America and southern Mexico, all the jacamars inhabit the tropical portions of South America eastward of the Andes, *Galbula ruficauda*, however, extending its range to the islands of Trinidad and Tobago.[2] Very little is known of the habits of any of the species. They are seen sitting motionless on trees, sometimes solitarily, at other times in companies, whence they suddenly dart off at any passing insect, catch it on the wing, and return to their perch. Of their nidification almost nothing has been recorded, but the species occurring in Tobago is said by Kirk to make its nest in marl-banks, digging a hole about an inch and a half in diameter and some 18 in. deep. (A. N.)

JAÇANÁ, the Brazilian name, according to Marcgrave, of certain birds, since found to have some allies in other parts of the world, which are also very generally called by the same appellation. They have been most frequently classed with the water-hens or rails (*Rallidae*), but are now recognized by many systematists as forming a separate family, *Parridae*,[3] whose leaning seems to be rather towards the *Limicolae*, as apparently first



Pheasant-tailed Jaçaná.

suggested by Blyth, a view which is supported by the osteological observations of Parker (*Proc. Zool. Society*, 1863, p. 513), though denied by A. Milne-Edwards (*Ois. foss. de la France*, ii. p. 110). The most obvious characteristic of this group of birds is the extraordinary length of their toes and claws, whereby they are enabled to walk with ease over water-lilies and other aquatic plants growing in rivers and lakes. The family has been divided into four genera—of which *Parra*, as now restricted, inhabits South America; *Metopidius*, hardly differing from it, has representatives in Africa, Madagascar and the Indian region; *Hydralector*, also very nearly allied to *Parra*, belongs to the

[1] *Galbula* was first applied to Marcgrave's bird by Moehring. It is another form of *Galgulus*, and seems to have been one of the many names of the golden oriole. See ICTERUS.

[2] The singular appearance, recorded by Canon Tristram (*Zoologist*, p. 3906), of a bird of this species in Lincolnshire seems to require notice. No instance seems to be known of any jacamar having been kept in confinement or brought to this country alive; but expert aviculturists are often not communicative, and many importations of rare birds have doubtless passed unrecorded.

[3] The classic *Parra* is by some authors thought to have been the golden oriole (see ICTERUS), while others suppose it was a jay or pie. The word seems to have been imported into ornithology by Aldrovandus, but the reason which prompted Linnaeus to apply it, as he seems first to have done, to a bird of this group, cannot be satisfactorily stated.

northern portion of the Australian region; and *Hydrophasianus*, the most extravagant form of the whole, is found in India, Ceylon and China. In habits the jaçanás have much in common with the water-hens, but that fact is insufficient to warrant the affinity asserted to exist between the two groups; for in their osteological structure there is much difference, and the resemblance seems to be only that of analogy. The *Parridae* lay very peculiar eggs of a rich olive-brown colour, in most cases closely marked with dark lines, thus presenting an appearance by which they may be readily known from those of any other birds, though an approach to it is occasionally to be noticed in those of certain *Limicolae*, and especially of certain *Charadriidae*. (A. N.)

JACINI, STEFANO, Count (1827–1891), Italian statesman and economist, was descended from an old and wealthy Lombard family. He studied in Switzerland, at Milan, and in German universities. During the period of the Austrian restoration in Lombardy (1849–1859) he devoted himself to literary and economic studies. For his work on *La Proprietà fondiaria in Lombardia* (Milan, 1856) he received a prize from the Milanese *Società d'incoraggiamento di scienze e lettere* and was made a member of the Istituto Lombardo. In another work, *Sulle condizioni economiche della Valtellina* (Milan, 1858, translated into English by W. E. Gladstone), he exposed the evils of Austrian rule, and he drew up a report on the general conditions of Lombardy and Venetia for Cavour. He was minister of Public Works under Cavour in 1860–1861, in 1864 under La Marmora, and down to 1867 under Ricasoli. In 1866 he presented a bill favouring Italy's participation in the construction of the St Gotthard tunnel. He was instrumental in bringing about the alliance with Prussia for the war of 1866 against Austria, and in the organization of the Italian railways. From 1881 to 1886 he was president of the commission to inquire into the agricultural conditions of Italy, and edited the voluminous report on the subject. He was created senator in 1870, and given the title of count in 1880. He died in 1891.

L. Carpi's *Risorgimento italiano*, vol. iv. (Milan, 1888), contains a short sketch of Jacini's life.

JACK, a word with a great variety of meanings and applications, all traceable to the common use of the word as a by-name of a man. The question has been much discussed whether "Jack" as a name is an adaptation of Fr. *Jacques*, *i.e.* James, from Lat. *Jacobus*, Gr. Ἰάκωβος, or whether it is a direct pet formation from John, which is its earliest and universal use in English. In the *History of the Monastery of St Augustine* at Canterbury, 1414, Jack is given as a form of John—*Mos est Saxonum . . . verba et nomina transformare . . . . ut . . . pro Johanne Jankin sive Jacke* (see E. W. B. Nicholson, *The Pedigree of Jack and other Allied Names*, 1892). "Jack" was early used as a general term for any man of the common people, especially in combination with the woman's name Jill or Gill, as in the nursery rhyme. The *New English Dictionary* quotes from the *Coventry Mysteries*, 1450: "And I wole kepe the feet this tyde Thow ther come both Iakke and Gylle." Familiar examples of this generic application of the name are Jack or Jack Tar for a sailor, which seems to date from the 17th century, and such compound uses as cheap-jack and steeple-jack, or such expressions as "jack in office," "jack of all trades," &c. It is a further extension of this that gives the name to the knave in a pack of cards, and also to various animals, as jackdaw, jack-snipe, jack-rabbit (a species of large prairie-hare); it is also used as a general name for pike.

The many applications of the word "jack" to mechanical devices and other objects follow two lines of reference, one to objects somewhat smaller than the ordinary, the other to appliances which take the place of direct manual labour or assist or save it. Of the first class may be noticed the use of the term for the small object bowl in the game of bowls or for jack rafters, those rafters in a building shorter than the main rafters, especially the end rafters in a hipped roof. The use of jack as the name for a particular form of ship's flag probably arose thus, for it is always a smaller flag than the ensign. The jack is flown on a staff on the bowsprit of a vessel. In the British navy the jack is a small Union flag. (The Union flag should not be styled a Union Jack except when it is flown as a jack.) The jack of other nations is usually the canton of the ensign, as in the German and the United States navies, or else is a smaller form of the national ensign, as in France. (See Flag.)

The more common use of "jack" is for various mechanical and other devices originally used as substitutes for men or boys. Thus the origin of the boot-jack and the meat-jack is explained in Isaac Watts's *Logic*, 1724: "So foot boys, who had frequently the common name of Jack given them, were kept to turn the spit or pull off their masters' boots, but when instruments were invented for both these services, they were both called jacks." The *New English Dictionary* finds a transitional sense in the use of the name "jack" for mechanical figures which strike the hours on a bell of a clock. Such a figure in the clock of St Lawrence Church at Reading is called a jack in the parish accounts for 1498–1499. There are many different applications of "jack," to certain levers and other parts of textile machinery, to metal plugs used for connecting lines in a telephone exchange, to wooden uprights connecting the levers of the keys with the strings in the harpsichord and virginal, to a framework forming a seat or staging which can be fixed outside a window for cleaning or painting purposes, and to many devices containing a roller or winch, as in a jack towel, a long towel hung on a roller. The principal mechanical application of the word, however, is to a machine for raising weights from below. A jack chain, so called from its use in meat-jacks, is one in which the links, formed each in a figure of eight, are set in planes at right angles to each other, so that they are seen alternately flat or edgeways.

In most European languages the word "jack" in various forms appears for a short upper outer garment, particularly in the shape of a sleeveless (quilted) leather jerkin, sometimes with plates or rings of iron sewn to it. It was the common coat of defence of the infantry of the middle ages. The word in this case is of French origin and was an adaptation of the common name *Jacques*, as being a garment worn by the common people. In French the word is *jaque*, and it appears in Italian as *giaco*, or *giacco*, in Dutch *jak*, Swedish *jacka* and German *Jacke*, still the ordinary name for a short coat, as is the English jacket, from the diminutive French *jaquette*. It was probably from some resemblance to the leather coat that the well-known leather vessels for holding liquor or for drinking were known as jacks or black jacks. These drinking vessels, which are often of great size, were not described as black jacks till the 16th century, though known as jacks much earlier. Among the important specimens that have survived to this day is one with the initials and crown of Charles I. and the date, 1646, which came from Kensington Palace and is now in the British Museum; one each at Queen's College and New College, Oxford; two at Winchester College; one at Eton College; and six at the Chelsea Hospital. Many specimens are painted with shields of arms, initials and other devices; they are very seldom mounted in silver, though spurious specimens with silver medallions of Cromwell and other prominent personages exist. At the end of the 17th century a smaller jack of a different form, like an ordinary drinking mug with a tapering cylindrical body, often mounted in silver, came into vogue in a limited degree. The black jack is a distinct type of drinking vessel from the leather botel and the bombard. The jack-boot, the heavy riding boot with long flap covering the knee and part of the thigh, and worn by troopers first during the 17th century, was so called probably from association with the leather jack or jerkin. The jack-boot is still worn by the Household Cavalry, and the name is applied to a high riding boot reaching to the knee as distinguished from the riding boot with tops, used in full hunting-kit or by grooms or coachmen.

Jack, sometimes spelled jak, is the common name for the fruit of the tree *Artiocarpus integrifolia*, found in the East Indies. The word is an adaptation of the Portuguese *jaca* from the Malay name *chakka*. (See Bread Fruit.)

The word "jackanapes," now used as an opprobrious term for a swaggering person with impertinent ways and affected airs

and graces, has a disputed and curious history. According to the *New English Dictionary* it first appears in 1450 in reference to William de la Pole, duke of Suffolk (*Political Poems*, "Rolls Series," II. 224), "Jack Napys with his clogge hath tiede Talbot oure gentille dogge." Suffolk's badge was a clog and chain, such as was often used for an ape kept in captivity, and he is alluded to (ibid. 222) as "Ape clogge." Jack Napes, Jack o' Napes, Jackanapes, was a common name for a tame ape from the 16th century, and it seems more likely that the word is a fanciful name for a monkey than that it is due to the nickname of Suffolk.

JACKAL (Turk. *chakāl*), a name properly restricted to *Canis aureus*, a wolf-like wild member of the dog family inhabiting eastern Europe and southern Asia, but extended to include a number of allied species. Jackals resemble wolves and dogs in their dentition, the round eye-pupils, the period of gestation, and to a large extent also in habits. The European species grows to a height of 15 in. at the shoulders, and to a length of about 2 ft., exclusive of its bushy tail. Typically the fur is greyish-yellow, darker on the back and lighter beneath. The range of the common jackal (*C. aureus*) extends from Dalmatia to India, the species being represented by several local races. In Senegal this species is replaced by *C. anthus*, while in Egypt occurs the much larger *C. lupaster*, commonly known as the Egyptian wolf. Nearly allied to the last is the so-called Indian wolf (*C. pallipes*). Other African species are the black-backed jackal (*C. mesomelas*),

Egyptian Jackal (*Canis lupaster*).

the variegated jackal (*C. variegatus*), and the dusky jackal (*C. adustus*). Jackals are nocturnal animals, concealing themselves until dusk in woody jungles and other natural lurking places, and then sallying forth in packs, which sometimes number two hundred individuals, and visiting farmyards, villages and towns in search of food. This consists for the most part of the smaller mammals and poultry; although the association in packs enables these marauders to hunt down antelopes and sheep. When unable to obtain living prey, they feed on carrion and refuse of all kinds, and are thus useful in removing putrescent matter from the streets. They are also fond of grapes and other fruits, and are thus the pests of the vineyard as well as the poultry-yard. The cry of the jackal is even more appalling than that of the hyena, a shriek from one member of a pack being the signal for a general chorus of screams, which is kept up during the greater part of the night. In India these animals are hunted with foxhounds or greyhounds, and from their cunning and pluck afford excellent sport. Jackals are readily tamed; and domesticated individuals are said, when called by their masters, to wag their tails, crouch and throw themselves on the ground, and otherwise behave in a dog-like fashion. The jackal, like the fox, has an offensive odour, due to the secretion of a gland at the base of the tail.

JACKDAW, or simply DAW (Old Low German, *Daha*; Dutch, *Kaauw*), one of the smallest species of the genus *Corvus* (see CROW), and a very well known inhabitant of Europe, the *C. monedula* of ornithologists. In some of its habits it much resembles its congener the rook, with which it constantly associates during a great part of the year; but, while the rook only exceptionally places its nest elsewhere than on the boughs of trees and open to the sky, the daw almost invariably chooses holes, whether in rocks, hollow trees, rabbit-burrows or buildings. Nearly every church-tower and castle, ruined or not, is more or less numerously occupied by daws. Chimneys frequently give them the accommodation they desire, much to the annoyance of the householder, who finds the funnel choked by the quantity of sticks brought together by the birds, since their industry in collecting materials for their nests is as marvellous as it often is futile. In some cases the stack of loose sticks piled up by daws in a belfry or tower has been known to form a structure 10 or 12 ft. in height, and hence this species may be accounted one of the greatest nest-builders in the world. The style of architecture practised by the daw thus brings it more than the rook into contact with man, and its familiarity is increased by the boldness of its disposition which, though tempered by discreet cunning, is hardly surpassed among birds. Its small size, in comparison with most of its congeners, alone incapacitates it from inflicting the serious injuries of which some of them are often the authors, yet its pilferings are not to be denied, though on the whole its services to the agriculturist are great, for in the destruction of injurious insects it is hardly inferior to the rook, and it has the useful habit of ridding sheep, on whose backs it may be frequently seen perched, of some of their parasites.

The daw displays the glossy black plumage so characteristic of the true crows, varied only by the hoary grey of the ear-coverts, and of the nape and sides of the neck, which is the mark of the adult; but examples from the east of Europe and western Asia have these parts much lighter, passing into a silvery white, and hence have been deemed by some authorities to constitute a distinct species (*C. collaris*, Drumm.). Further to the eastward occurs the *C. dauuricus* of Pallas, which has not only the collar broader and of a pure white, but much of the lower parts of the body white also. Japan and northern China are inhabited also by a form resembling that of western Europe, but wanting the grey nape of the latter. This is the *C. neglectus* of Professor Schlegel, and is said by Dresser, on the authority of Swinhoe, to interbreed frequently with *C. dauuricus*. These are all the birds that seem entitled to be considered daws, though Dr Bowdler Sharpe (*Cat. B. Brit. Museum*, iii. 24) associates with them (under the little-deserved separate generic distinction *Coloeus*) the fish-crow of North America, which appears both in structure and in habits to be a true crow. (A. N.)

JACKSON, ANDREW (1767–1845), seventh president of the United States, was born on the 15th of March 1767, at the Waxhaw or Warsaw settlement, in Union county, North Carolina, or in Lancaster county, South Carolina, whither his parents had immigrated from Carrickfergus, Ireland, in 1765. He played a slight part in the War of Independence, and was taken prisoner in 1781, his treatment resulting in a lifelong dislike of Great Britain. He studied law at Salisbury, North Carolina, was admitted to the bar there in 1787, and began to practise at McLeansville, Guilford county, North Carolina, where for a time he was a constable and deputy-sheriff. In 1788, having been appointed prosecuting attorney of the western district of North Carolina (now the state of Tennessee), he removed to Nashville, the seat of justice of the district. In 1791 he married Mrs Rachel Robards (*née* Donelson), having heard that her husband had obtained a divorce through the legislature of Virginia. The

legislative act, however, had only authorized the courts to determine whether or not there were sufficient grounds for a divorce and to grant or withhold it accordingly. It was more than two years before the divorce was actually granted, and only on the basis of the fact that Jackson and Mrs Robards were then living together. On receiving this information, Jackson had the marriage ceremony performed a second time.

In 1796 Jackson assisted in framing the constitution of Tennessee. From December 1796 to March 1797 he represented that state in the Federal House of Representatives, where he distinguished himself as an irreconcilable opponent of President Washington, and was one of the twelve representatives who voted against the address to him by the House. In 1797 he was elected a United States senator; but he resigned in the following year. He was judge of the supreme court of Tennessee from 1798 to 1804. In 1804–1805 he contracted a friendship with Aaron Burr; and at the latter's trial in 1807 Jackson was one of his conspicuous champions. Up to the time of his nomination for the presidency, the biographer of Jackson finds nothing to record but military exploits in which he displayed perseverance, energy and skill of a very high order, and a succession of personal acts in which he showed himself ignorant, violent, perverse, quarrelsome and astonishingly indiscreet. His combative disposition led him into numerous personal difficulties. In 1795 he fought a duel with Colonel Waitstill Avery (1745–1821), an opposing counsel, over some angry words uttered in a court room; but both, it appears, intentionally fired wild. In 1806 in another duel, after a long and bitter quarrel, he killed Charles Dickinson, and Jackson himself received a wound from which he never fully recovered. In 1813 he exchanged shots with Thomas Hart Benton and his brother Jesse in a Nashville tavern, and received a second wound. Jackson and Thomas Hart Benton were later reconciled.

In 1813–1814, as major-general of militia, he commanded in the campaign against the Creek Indians in Georgia and Alabama, defeated them (at Talladega, on the 9th of November 1813, and at Tohopeka, on the 29th of March 1814), and thus first attracted public notice by his talents. In May 1814 he was commissioned as major-general in the regular army to serve against the British; in November he captured Pensacola, Florida, then owned by Spain, but used by the British as a base of operations; and on the 8th of January 1815 he inflicted a severe defeat on the enemy before New Orleans, the contestants being unaware that a treaty of peace had already been signed. During his stay in New Orleans he proclaimed martial law, and carried out his measures with unrelenting sternness, banishing from the town a judge who attempted resistance. When civil law was restored, Jackson was fined $1000 for contempt of court; in 1844 Congress ordered the fine with interest ($2700) to be repaid. In 1818 Jackson received the command against the Seminoles. His conduct in following them up into the Spanish territory of Florida, in seizing Pensacola, and in arresting and executing two British subjects, Alexander Arbuthnot and Robert Ambrister, gave rise to much hostile comment in the cabinet and in Congress; but the negotiations for the purchase of Florida put an end to the diplomatic difficulty. In 1821 Jackson was military governor of the territory of Florida, and there again he came into collision with the civil authority. From this, as from previous troubles, John Quincy Adams, then secretary of state, extricated him.

In July 1822 the general assembly of Tennessee nominated Jackson for president; and in 1823 he was elected to the United States Senate, from which he resigned in 1825. The rival candidates for the office of president in the campaign of 1824 were Jackson, John Quincy Adams, W. H. Crawford and Henry Clay. Jackson obtained the largest number of votes (99) in the electoral college (Adams receiving 84, Crawford 41 and Clay 37); but no one had an absolute majority, and it thus became the duty of the House of Representatives to choose one of the three candidates—Adams, Jackson and Crawford—who had received the greatest numbers of electoral votes. At the election by the house (February 9, 1825) Adams was chosen, receiving the votes of 13 states, while Jackson received the votes of 7 and Crawford the votes of 4. Jackson, however, was recognized by the abler politicians as the coming man. Martin Van Buren and others, going into opposition under his banner, waged from the first a relentless and factious war on the administration. Van Buren was the most adroit politician of his time; and Jackson was in the hands of very astute men, who advised and controlled him. He was easy to lead when his mind was in solution; and he gave his confidence freely where he had once placed it. He was not suspicious, but if he withdrew his confidence he was implacable. When his mind crystallized on a notion that had a personal significance to himself, that notion became a hard fact that filled his field of vision. When he was told that he had been cheated in the matter of the presidency,[1] he was sure of it, although those who told him were by no means so.

There was great significance in the election of Jackson in 1828. A new generation was growing up under new economic and social conditions. They felt great confidence in themselves and great independence. They despised tradition and Old World ways and notions; and they accepted the Jeffersonian dogmas, not only as maxims, but as social forces—the causes of the material prosperity of the country. By this generation, therefore, Jackson was recognized as a man after their own heart. They liked him because he was vigorous, brusque, uncouth, relentless, straightforward and open. They made him president in 1828, and he fulfilled all their expectations. He had 178 votes in the electoral college against 83 given for Adams. Though the work of redistribution of offices began almost at his inauguration, it is yet an incorrect account of the matter to say that Jackson corrupted the civil service. His administration is rather the date at which a system of democracy, organized by the use of patronage, was introduced into the federal arena by Van Buren. It was at this time that the Democratic or Republican party divided, largely along personal lines, into Jacksonian Democrats and National Republicans, the latter led by such men as Henry Clay and J. Q. Adams. The administration itself had two factions in it from the first, the faction of Van Buren, the secretary of state in 1829–1831, and that of Calhoun, vice-president in 1829–1832. The refusal of the wives of the cabinet and of Mrs Calhoun to accord social recognition to Mrs J. H. Eaton brought about a rupture, and in April 1831 the whole cabinet was reorganized. Van Buren, a widower, sided with the president in this affair and grew in his favour. Jackson in the meantime had learned that Calhoun as secretary of war had wished to censure him for his actions during the Seminole war in Florida in 1818, and henceforth he regarded the South Carolina statesman as his enemy. The result was that Jackson transferred to Van Buren his support for succession in the presidency. The relations between Jackson and his cabinet were unlike those existing under his predecessors. Having a military point of view, he was inclined to look upon the cabinet members as inferior officers, and when in need of advice he usually consulted a group of personal friends, who came to be called the "Kitchen Cabinet." The principal members of this clique were William B. Lewis (1784–1866), Amos Kendall and Duff Green, the last named being editor of the *United States Telegraph*, the organ of the administration.

In 1832 Jackson was re-elected by a large majority (219 electoral votes to 49) over Henry Clay, his chief opponent. The battle raged mainly around the re-charter of the Bank of the United States. It is probable that Jackson's advisers in 1828 had told him, though erroneously, that the bank had worked against him, and then were not able to control him. The first message of his first presidency had contained a severe reflection on the bank; and in the very height of this second campaign (July 1832) he vetoed the re-charter, which had been passed in

[1] The charge was freely made then and afterwards (though, it is now believed, without justification) that Clay had supported Adams and by influencing his followers in the house had been instrumental in securing his election, as the result of a bargain by which Adams had agreed to pay him for his support by appointing him secretary of state.

the session of 1831–1832. Jackson interpreted his re-election as an approval by the people of his war on the bank, and he pushed it with energy. In September 1833 he ordered the public deposits in the bank to be transferred to selected local banks, and entered upon the "experiment" whether these could not act as fiscal agents for the government, and whether the desire to get the deposits would not induce the local banks to adopt sound rules of currency. During the next session the Senate passed a resolution condemning his conduct. Jackson protested, and after a hard struggle, in which Jackson's friends were led by Senator Thomas Hart Benton, the resolution was ordered to be expunged from the record, on the 16th of January 1837.

In 1832, when the state of South Carolina attempted to "nullify" the tariff laws, Jackson at once took steps to enforce the authority of the federal government, ordering two war vessels to Charleston and placing troops within convenient distance. He also issued a proclamation warning the people of South Carolina against the consequences of their conduct. In the troubles between Georgia and the Cherokee Indians, however, he took a different stand. Shortly after his first election Georgia passed an act extending over the Cherokee country the civil laws of the state. This was contrary to the rights of the Cherokees under a federal treaty, and the Supreme Court consequently declared the act void (1832). Jackson, however, having the frontiersman's contempt for the Indian, refused to enforce the decision of the court (see NULLIFICATION; GEORGIA: *History*).

Jackson was very successful in collecting old claims against various European nations for spoliations inflicted under Napoleon's continental system, especially the French spoliation claims, with reference to which he acted with aggressiveness and firmness. Aiming at a currency to consist largely of specie, he caused the payment of these claims to be received and imported in specie as far as possible; and in 1836 he ordered land-agents to receive for land nothing but specie. About the same time a law passed Congress for distributing among the states some $35,000,000 balance belonging to the United States, the public debt having all been paid. The eighty banks of deposit in which it was lying had regarded this sum almost as a permanent loan, and had inflated credit on the basis of it. The necessary calling in of their loans in order to meet the drafts in favour of the states, combining with the breach of the overstrained credit between America and Europe and the decline in the price of cotton, brought about a crash which prostrated the whole financial, industrial and commercial system of the country for six or seven years. The crash came just as Jackson was leaving office; the whole burden fell on his successor, Van Buren.

In the 18th century the influences at work in the American colonies developed democratic notions. In fact, the circumstances were those which create equality of wealth and condition, as far as civilized men ever can be equal. The War of Independence was attended by a grand outburst of political dogmatism of the democratic type. A class of men were produced who believed in very broad dogmas of popular power and rights. There were a few rich men, but they were almost ashamed to differ from their neighbours and, in some known cases, they affected democracy in order to win popularity. After the 19th century began the class of rich men rapidly increased. In the first years of the century a little clique at Philadelphia became alarmed at the increase of the "money power," and at the growing perils to democracy. They attacked with some violence, but little skill, the first Bank of the United States, and they prevented its re-charter. The most permanent interest of the history of the United States is the picture it offers of a primitive democratic society transformed by prosperity and the acquisition of capital into a great republican commonwealth. The denunciations of the "money power" and the reiteration of democratic dogmas deserve earnest attention. They show the development of classes or parties in the old undifferentiated mass. Jackson came upon the political stage just when a wealthy class first existed. It was an industrial and commercial class greatly interested in the tariff, and deeply interested also in the then current forms of issue banking. The southern planters also were rich, but were agriculturists and remained philosophical Democrats. Jackson was a man of low birth, uneducated, prejudiced, and marked by strong personal feeling in all his beliefs and disbeliefs. He showed, in his military work and in his early political doings, great lack of discipline. The proposal to make him president won his assent and awakened his ambition. In anything which he undertook he always wanted to carry his point almost regardless of incidental effects on himself or others. He soon became completely engaged in the effort to be made president. The men nearest to him understood his character and played on it. It was suggested to him that the money power was against him. That meant that, to the educated or cultivated class of that day, he did not seem to be in the class from which a president should be chosen. He took the idea that the Bank of the United States was leading the money power against him, and that he was the champion of the masses of democracy and of the common people. The opposite party, led by Clay, Adams, Biddle, &c., had schemes for banks and tariffs, enterprises which were open to severe criticism. The political struggle was very intense and there were two good sides to it. Men like Thomas H. Benton, Edward Livingston, Amos Kendall, and the southern statesmen, found material for strong attacks on the Whigs. The great mass of voters felt the issue as Jackson's managers stated it. That meant that the masses recognized Jackson as their champion. Therefore, Jackson's personality and name became a power on the side opposed to banks, corporations and other forms of the new growing power of capital. That Jackson was a typical man of his generation is certain. He represents the spirit and temper of the free American of that day, and it was a part of his way of thinking and acting that he put his whole life and interest into the conflict. He accomplished two things of great importance in the history: he crushed excessive state-rights and established the contrary doctrine in fact and in the political orthodoxy of the democrats; he destroyed the great bank. The subsequent history of the bank left it without an apologist, and prejudiced the whole later judgment about it. The way in which Jackson accomplished these things was such that it cost the country ten years of the severest liquidation, and left conflicting traditions of public policy in the Democratic party. After he left Washington, Jackson fell into discord with his most intimate old friends, and turned his interest to the cause of slavery, which he thought to be attacked and in danger.

Jackson is the only president of whom it may be said that he went out of office far more popular than he was when he entered. When he went into office he had no political opinions, only some popular notions. He left his party strong, perfectly organized and enthusiastic on a platform of low expenditure, payment of the debt, no expenditure for public improvement or for glory or display in any form and low taxes. His name still remained a spell to conjure with, and the politicians sought to obtain the assistance of his approval for their schemes; but in general his last years were quiet and uneventful. He died at his residence, "The Hermitage," near Nashville, Tennessee, on the 8th of June 1845.

BIBLIOGRAPHY.—Of the early biographies, that by J. H. Eaton (Philadelphia, 1824) is a history of Jackson's early military exploits, written for political purposes. Amos Kendall's *Life* (New York, 1843) is incomplete, extending only to 1814. James Parton's elaborate work (3 vols., New York, 1860) is still useful. Parton prepared a shorter biography for the "Great Commanders Series" (New York, 1893), which emphasizes Jackson's military career. W. G. Sumner's *Andrew Jackson* in the "American Statesmen Series" (Boston, 1882; revised, 1899) combines the leading facts of Jackson's life with a history of his times. W. G. Brown wrote an appreciative sketch (Boston, 1900) for the "Riverside Biographical Series." Of more recent works the most elaborate are the *History of Andrew Jackson*, by A. C. Buell (New York, 1904), marred by numerous errors, and the *Life and Times of Andrew Jackson*, by A. S. Colyar (Nashville, 1904). Charles H. Peck's *The Jacksonian Epoch* (New York, 1899) is an account of national politics from 1815 to 1840, in which the antagonism of Jackson and Clay is emphasized. (W. G. S.)

JACKSON, CYRIL (1746–1819), dean of Christ Church, Oxford, was born in Yorkshire, and educated at Westminster

and Oxford. In 1771 he was chosen to be sub-preceptor to the two eldest sons of George III., but in 1776 he was dismissed, probably through some household intrigues. He then took orders, and was appointed in 1779 to the preachership at Lincoln's Inn and to a canonry at Christ Church, Oxford. In 1783 he was elected dean of Christ Church. His devotion to the college led him to decline the bishopric of Oxford in 1799 and the primacy of Ireland in 1800. He took a leading part in framing the statute which, in 1802, launched the system of public examinations at Oxford, but otherwise he was not prominent in university affairs. On his resignation in 1809 he settled at Felpham, in Sussex, where he remained till his death.

JACKSON, FREDERICK GEORGE (1860–), British Arctic explorer, was educated at Denstone College and Edinburgh University. His first voyage in Arctic waters was on a whaling-cruise in 1886–1887, and in 1893 he made a sledge-journey of 3000 miles across the frozen *tundra* of Siberia lying between the Ob and the Pechora. His narrative of this journey was published under the title of *The Great Frozen Land* (1895). On his return, he was given the command of the Jackson-Harmsworth Arctic expediton (1894–1897), which had for its objective the general exploration of Franz Josef Land. In recognition of his services he received a knighthood of the first class of the Danish Royal Order of St Olaf in 1898, and was awarded the gold medal of the Paris Geographical Society in 1899. His account of the expedition was published under the title of *A Thousand Days in the Arctic* (1899). He served in South Africa during the Boer War, and obtained the rank of captain. His travels also include a journey across the Australian deserts.

JACKSON, HELEN MARIA (1831–1885), American poet and novelist, who wrote under the intials of "H. H." (Helen Hunt), was born in Amherst, Massachusetts, on the 18th of October 1831, the daughter of Nathan Welby Fiske (1798–1847), who was a professor in Amherst College. In October 1852 she married Lieutenant Edward Bissell Hunt (1822–1863), of the U.S. corps of engineers. In 1870 she published a little volume of meditative *Verses*, which was praised by Emerson in the preface to his *Parnassus* (1874). In 1875 she married William S. Jackson, a banker, of Colorado Springs. She became a prolific writer of prose and verse, including juvenile tales, books of travel, household hints and novels, of which the best is *Ramona* (1884), a defence of the Indian character. In 1883, as a special commissioner with Abbot Kinney (b. 1850), she investigated the condition and needs of the Mission Indians in California. *A Century of Dishonor* (1881) was an arraignment of the treatment of the Indians by the United States. She died on the 12th of August 1885 in San Francisco.

In addition to her publications referred to above, *Mercy Philbrick's Choice* (1876), *Hetty's Strange History* (1877), *Zeph* (1886), and *Sonnets and Lyrics* (1886) may be mentioned.

JACKSON, MASON (*c.* 1820–1903), British engraver, was born at Berwick-on-Tweed about 1820, and was trained as a wood engraver by his brother, John Jackson, the author of a history of this art. In the middle of the 19th century he made a considerable reputation by his engravings for the Art Union of London, and for Knight's *Shakespeare* and other standard books; and in 1860 he was appointed art editor of the *Illustrated London News*, a post which he held for thirty years. He wrote a history of the rise and progress of illustrated journalism. He died in December 1903.

JACKSON, THOMAS (1579–1640), president of Corpus Christi College, Oxford, and dean of Peterborough, was born at Witton-le-Wear, Durham, and educated at Oxford. He became a probationer fellow of Corpus in 1606, and was soon afterwards elected vice-president. In 1623 he was presented to the living of St Nicholas, Newcastle, and about 1625 to the living of Winston, Durham. Five years later he was appointed president of Corpus, and in 1632 the king presented him to the living of Witney, Oxfordshire. He was made a prebendary of Winchester in 1635, and was dean of Peterborough in 1635–1639. Although originally a Calvinist, he became in later life an Arminian.

His chief work was a series of commentaries on the Apostles' Creed, the first complete edition being entitled *The Works of Thomas Jackson, D.D.* (London, 1673). The commentaries were, however, originally published in 1613–1657, as twelve books with different titles, the first being *The Eternal Truth of Scriptures* (London, 1613).

JACKSON, THOMAS JONATHAN (1824–1863), known as "Stonewall Jackson," American general, was born at Clarksburg, Virginia (now West Viginia), on the 21st of January 1824, and was descended from an Ulster family. At an early age he was left a penniless orphan, and his education was acquired in a small country school until he procured, mainly by his own energy, a nomination to the Military Academy. Lack of social graces and the deficiencies of his early education impeded him at first, but "in the end 'Old Jack,' as he was always called, with his desperate earnestness, his unflinching straightforwardness, and his high sense of honour, came to be regarded with something like affection." Such qualities he displayed not less amongst the light-hearted cadets than afterwards at the head of troops in battle. After graduating he took part, as second lieutenant in the 1st U.S. Artillery, in the Mexican War. At Vera Cruz he won the rank of first lieutenant, and for gallant conduct at Contreras and Chapultepec respectively he was brevetted captain and major, a rank which he attained with less than one year's service. During his stay in the city of Mexico his thoughts were seriously directed towards religion, and, eventually entering the Presbyterian communion, he ruled every subsequent action of his life by his faith. In 1851 he applied for and obtained a professorship at the Virginia military institute, Lexington; and here, except for a short visit to Europe, he remained for ten years, teaching natural science, the theory of gunnery and battalion drill. Though he was not a good teacher, his influence both on his pupils and on those few intimate friends for whom alone he relaxed the gravity of his manner was profound, and, little as he was known to the white inhabitants of Lexington, he was revered by the slaves, to whom he showed uniform kindness, and for whose moral instruction he worked unceasingly. As to the great question at issue in 1861, Major Jackson's ruling motive was devotion to his state, and when Virginia seceded, on the 17th of April, and the Lexington cadets were ordered to Richmond, Jackson went thither in command of the corps. His intimate friend, Governor Letcher, appreciating his gifts, sent him as a colonel of infantry to Harper's Ferry, where the first collision with the Union forces was hourly expected. In June he received the command of a brigade, and in July promotion to the rank of brigadier-general. He had well employed the short time at his disposal for training his men, and on the first field of Bull Run they won for themselves and their brigadier, by their rigid steadiness at the critical moment of the battle, the historic name of "Stonewall."

After the battle of Bull Run Jackson spent some time in the further training of his brigade which, to his infinite regret, he was compelled to leave behind him when, in October, he was assigned as a major-general to command in the Shenandoah Valley. His army had to be formed out of local troops, and few modern weapons were available, but the Valley regiments retained the impress of Jackson's training till the days of Cedar Creek. Discipline was not acquired at once, however, and the first ventures of the force were not very successful. At Kernstown, indeed, Jackson was tactically defeated by the Federals under Shields (March 23, 1862). But the Stonewall brigade had been sent to its old leader in November, and by the time that the famous Valley Campaign (see SHENANDOAH VALLEY CAMPAIGNS) began, the forces under Jackson's command had acquired cohesion and power of manœuvre. On the 8th of May 1862 was fought the combat of McDowell, won by Jackson against the leading troops of Frémont's command from West Virginia. Three weeks later the forces under Banks were being driven over the Potomac at Harper's Ferry, and Jackson was master of the Valley. Every other plan of campaign in Virginia was at once subordinated to the scheme of "trapping Jackson." But the Confederates, marching swiftly up the Valley, slipped between the converging columns of Frémont from the west and

McDowell from the east, and concluded a most daring campaign by the victorious actions of Cross Keys and Port Republic (8th and 9th of June). While the forces of the North were still scattered, Jackson secretly left the Valley to take a decisive part in Lee's campaign before Richmond. In the "Seven Days" Jackson was frequently at fault, but his driving energy bore no small part in securing the defeat of McClellan's advance on Richmond. Here he passed for the first time under the direct orders of Robert Lee, and the rest of his career was spent in command of the II. corps of the Army of Northern Virginia. As Lee's chief and most trusted subordinate he was throughout charged with the execution of the more delicate and difficult operations of his commander's hazardous strategy. After his victory over Banks at Cedar Mountain, near Culpeper, Virginia, Jackson led the daring march round the flank of General Pope's army, which against all theoretical rules ended in the great victory of second Bull Run. In the Maryland campaign Lieut.-General Jackson was again detached from the main army. Eleven thousand Federals, surrounded in Harper's Ferry, were forced to surrender, and Jackson rejoined Lee just in time to oppose McClellan's advance. At the Antietam his corps bore the brunt of the battle, which was one of the most stubborn of modern warfare. At Fredericksburg his wing of Lee's line of battle was heavily engaged, and his last battle, before Chancellorsville, in the thickets of the Wilderness, was his greatest triumph. By one of his swift and secret flank marches he placed his corps on the flank of the enemy, and on the 2nd of May flung them against the Federal XI. corps, which was utterly routed. At the close of a day of victory he was reconnoitring the hostile positions when suddenly the Confederate outposts opened fire upon his staff, whom they mistook in the dark and tangled forest for Federal cavalry. Jackson fell wounded, and on the 10th of May he died at Guinea's station. He was buried, according to his own wish, at Lexington, where a statue and a memorial hall commemorate his connexion with the place; and on the spot where he was mortally wounded stands a plain granite pillar. The first contribution towards the bronze statue at Richmond was made by the negro Baptist congregation for which Jackson had laboured so earnestly in his Lexington years. He was twice married, first to Eleanor (d. 1854), daughter of George Junkin, president of Washington College, Virginia, and secondly in 1857 to Mary Anna Morrison, daughter of a North Carolina clergyman.

That Jackson's death, at a critical moment of the fortunes of the Confederacy, was an irreparable loss was disputed by no one. Lee said that he had lost his right arm, and, good soldiers as were the other generals, not one amongst them was comparable to Jackson, whose name was dreaded in the North like that of Lee himself. His military character was the enlargement of his personal character—"desperate earnestness, unflinching straightforwardness," and absolute, almost fatalist, trust in the guidance of providence. At the head of his troops, who idolized him, he was a Cromwell, adding to the zeal of a fanatic and the energy of the born leader the special military skill and trained soldierly spirit which the English commander had to gain by experience. His Christianity was conspicuous, even amongst deeply religious men like Lee and Stuart, and penetrated every part of his character and conduct.

See lives by R. L. Dabney (New York, 1883), J. E. Cooke (New York, 1866), M. A. Jackson (General Jackson's widow) (New York, 1892); and especially G. F. R. Henderson, *Stonewall Jackson* (London, 1898), and H. A. White, *Stonewall Jackson* (Philadelphia, 1909).

JACKSON, WILLIAM (1730–1803), English musician, was born at Exeter on the 29th of May 1730. His father, a grocer, bestowed a liberal education upon him, but, on account of the lad's strong predilection for music, was induced to place him under the care of John Silvester, the organist of Exeter Cathedral, with whom he remained about two years. In 1748 he went to London, and studied under John Travers, organist of the king's chapel. Returning to Exeter, he settled there as a teacher and composer, and in 1777 was appointed subchanter, organist, lay-vicar and master of the choristers of the cathedral. In 1755 he published his first work, *Twelve Songs*, which became at once highly popular. His next publication, *Six Sonatas for the Harpsichord*, was a failure. His third work, *Six Elegies for three voices, preceded by an Invocation, with an Accompaniment*, placed him among the first composers of his day. His fourth work was another set of *Twelve Songs*, now very scarce; and his fifth work was again a set of *Twelve Songs*, all of which are now forgotten. He next published *Twelve Hymns*, with some good remarks upon that style of composition, although his precepts were better than his practice. A set of *Twelve Songs* followed, containing some good compositions. Next came an *Ode to Fancy*, the words by Dr Warton. *Twelve Canzonets for two voices* formed his ninth work; and one of them—"Time has not thinned my Flowing Hair"—long held a place at public and private concerts. His tenth work was *Eight Sonatas for the Harpsichord*, some of which were novel and pleasing. He composed three dramatic pieces,—*Lycidas* (1767), *The Lord of the Manor*, to General Burgoyne's words (1780), and *The Metamorphoses*, a comic opera produced at Drury Lane in 1783, which did not succeed. In the second of these dramatic works, two airs—"Encompassed in an Angel's Form" and "When first this Humble Roof I knew"—were great favourites. His church music was published after his death by James Paddon (1820); most of it is poor, but "Jackson in F" was for many years popular. In 1782 he published *Thirty Letters on Various Subjects*, in which he severely attacked canons, and described William Bird's *Non nobis Domine* as containing passages not to be endured. But his anger and contempt were most strongly expressed against catches of all kinds, which he denounced as barbarous. In 1791 he put forth a pamphlet, *Observations on the Present State of Music in London*, in which he found fault with everything and everybody. He published in 1798 *The Four Ages, together with Essays on Various Subjects*,—a work which gives a favourable idea of his character and of his literary acquirements. Jackson also cultivated a taste for landscape painting, and imitated, not unsuccessfully, the style of his friend Gainsborough. He died on the 5th of July 1803.

JACKSON, a city and the county-seat of Jackson county, Michigan, U.S.A., on both sides of the Grand River, 76 m. W. of Detroit. Pop. (1890), 20,798; (1900), 25,180, of whom 3843 were foreign-born (1004 German, 941 English Canadian); (1910 census) 31,433. It is served by the Michigan Central, the Lake Shore & Michigan Southern, the Grand Trunk and the Cincinnati Northern railways, and by inter-urban electric lines. It is the seat of the state prison (established 1839). Coal is mined in the vicinity; the city has a large trade with the surrounding agricultural district (whose distinctive product is beans); the Michigan Central railway has car and machine shops here; and the city has many manufacturing establishments. The total factory product in 1904 was valued at $8,348,125, an increase of 24·4 % over that of 1900. The municipality owns and operates its water-works. The place was formerly a favourite camping ground of the Indians, and was settled by whites in 1829. In 1830 it was laid out as a town, selected for the county-seat, and named Jacksonburg in honour of Andrew Jackson; the present name was adopted in 1838. Jackson was incorporated as a village in 1843, and in 1857 was chartered as a city. It was at a convention held at Jackson on the 6th of July 1854 that the Republican party was first organized and so named by a representative state body.

JACKSON, a city and the county-seat of Hinds county, Mississippi, U.S.A., and the capital of the state, on the W. bank of the Pearl River, about 40 m. E. of Vicksburg and 185 m. N. of New Orleans, Louisiana. Pop. (1890), 5920; (1900), 7816, of whom 4447 were negroes. According to the Federal census taken in 1910 the population had increased to 21,262. Jackson is served by the Illinois Central, the Alabama & Vicksburg, the Gulf & Ship Island, New Orleans Great Northern, and the Yazoo & Mississippi Valley railways, and during the winter by small freight and passenger steamboats on the Pearl River. In Jackson is the state library, with more than 80,000 volumes. The new state capitol was finished in 1903. The old state capitol, dating from 1839, is of considerable interest; in it were held the secession

convention (1861), the "Black and Tan Convention" (1868), and the constitutional convention of 1890, and in it Jefferson Davis made his last speech (1884). Jackson is the seat of Millsaps College, chartered in 1890 and opened in 1892 (under the control of the Methodist Episcopal Church, South), and having, in 1907–1908, 12 instructors and 297 students; of Belhaven College (non-sectarian, 1894), for girls; and of Jackson College (founded in 1877 at Natchez by the American Baptist Home Mission Society; in 1883 removed to Jackson), for negroes, which had 356 students in 1907–1908. The city is a market for cotton and farm products, and has a number of manufactories. In 1821 the site was designated as the seat of the state government, and early in the following year the town, named in honour of Andrew Jackson, was laid out. The legislature first met here in December 1822. It was not until 1840 that it was chartered as a city. During the Civil War Jackson was in the theatre of active campaigning. On the 14th of May 1863 Johnston who then held the city, was attacked on both sides by Sherman and McPherson with two corps of Grant's army, which, after a sharp engagement, drove the Confederates from the town. After the fall of Vicksburg Johnston concentrated his forces at Jackson, which had been evacuated by the Federal troops, and prepared to make a stand behind the intrenchments. On the 9th of July Sherman began an investment of the place, and during the succeeding week a sharp bombardment was carried on. In the night of the 16th Johnston, taking advantage of a lull in the firing, withdrew suddenly from the city. Sherman's army entered on the 17th and remained five days, burning a considerable part of the city and ravaging the surrounding country.

JACKSON, a city and the county-seat of Madison county, Tennessee, U.S.A., situated on the Forked Deer river, about 85 m. N.E. of Memphis. Pop. (1890), 10,039; (1900), 14,511, of whom 6108 were negroes; (1910 census), 15,779. It is served by the Mobile & Ohio, the Nashville, Chattanooga & St Louis and the Illinois Central railways. The state supreme court holds its sessions here for the western district of Tennessee. The city is the seat of Union University (co-educational), chartered in 1875 as Southwestern Baptist University, and conducted under that name at Jackson until 1907, when the present name was adopted. In 1907–1908 the university had 17 instructors and 280 students. At Jackson, also, are St Mary's Academy (Roman Catholic); the Memphis Conference Female Institute (Methodist Episcopal, South, 1843), and Lane College (for negroes), under the control of the Colored Methodist Episcopal Church. Jackson is an important cotton market, and is a shipping point for the farm products and fruits of the surrounding country. It has also numerous manufactures and railway shops. The total value of the factory product in 1905 was $2,317,715. The municipality owns and operates the electric-lighting plant and the water-works. There is in the city an electro-chalybeate well with therapeutic properties. Jackson was settled about 1820, incorporated as a town in 1823, chartered as a city in 1854, and in 1907 received a new charter by which the sale of intoxicating liquors is forever prohibited. After General Grant's advance into Tennessee in 1862 Jackson was fortified and became an important base of operations for the Federal army, Grant himself establishing his headquarters here in October.

JACKSONVILLE, a city and the county-seat of Duval county, Florida, U.S.A., in the N.E. part of the state, on the left bank of the St John's River, 14 m. from the Atlantic Ocean as the crow flies and about 27 m. by water. Pop. (1890), 17,201; (1900), 28,429, of whom 16,236 were negroes and 1166 foreign-born; (1910 census) 57,699; the city being the largest in the state. It is served by the Southern, the Atlantic Coast Line, the Seaboard Air Line, the Georgia Southern & Florida and the Florida East Coast railways, and by several steamship lines.[1] It is the largest railway centre in the state, and is popularly known as the Gate City of Florida. In appearance Jacksonville is very attractive. It has many handsome buildings, and its residential streets are shaded with live-oaks, water oaks and bitter-orange trees. Jacksonville is the seat of two schools for negroes, the Florida Baptist Academy and Cookman Institute (1872; Methodist Episcopal). Many winter visitors are annually attracted by the excellent climate, the mean temperature for the winter months being about 55° F. Among the places of interest in the vicinity is the large Florida ostrich farm. There are numerous municipal and other parks. The city owns and operates its electric-lighting plant and its water-works system. The capital invested in manufacturing increased from $1,857,844 in 1900 to $4,837,281 in 1905, or 160·4%, and the value of the factory product rose from $1,798,607 in 1900 to $5,340,264 in 1905, or 196·9%. Jacksonville is the most important distributing centre in Florida, and is a port of entry. In 1909 its foreign imports were valued at $513,439; its foreign exports at $2,507,373.

The site of Jacksonville was called Cow Ford (a version of the Indian name, Wacca Pilatka), from the excellent ford of the St John's River, over which went the King's Road, a highway built by the English from St Augustine to the Georgia line. The first settlement was made in 1816. In 1822 a town was laid out here and was named in honour of General Andrew Jackson; in 1833 Jacksonville was incorporated. During the Civil War the city was thrice occupied by Federal troops. In 1888 there was an epidemic of yellow fever. On the 3rd of May 1901 a fire destroyed nearly 150 blocks of buildings, constituting nearly the whole of the business part of the city, the total loss being more than $15,000,000; but within two years new buildings greater in number than those destroyed were constructed, and up to December 1909 about 9000 building permits had been granted.

JACKSONVILLE, a city and the county-seat of Morgan county, Illinois, U.S.A., on Mauvaiseterre Creek, about 33 m. W. of Springfield. Pop. (1890), 12,935; (1900), 15,078, of whom 1497 were foreign-born; (1910 census), 15,326. It is served by the Chicago, Burlington & Quincy, the Chicago & Alton, the Chicago, Peoria & St Louis and the Wabash railways. It is the seat of several educational and philanthropic institutions. Illinois College (Presbyterian), founded in 1829 through the efforts of the Rev. John Millot Ellis (1793–1855), a missionary of the American Home Missionary Society and of the so-called Yale Band (seven Yale graduates devoted to higher education in the Middle West), is one of the oldest colleges in the Central States of the United States. The Jacksonville Female Academy (1830) and the Illinois Conservatory of Music (1871) were absorbed in 1903 by Illinois College, which then became co-educational. The college embraces, besides the collegiate department, Whipple Academy (a preparatory department), the Illinois Conservatory of Music and a School of Art, and in 1908–1909 had 21 instructors and 173 students. The Rev. Edward Beecher was the first president of the college (from 1830 to 1844), and among its prominent graduates have been Richard Yates, jun., the Rev. Thomas K. Beecher, Newton Bateman (1822–1897), superintendent of public instruction of Illinois from 1865 to 1875 and president of Knox College in 1875–1893, Bishop Theodore N. Morrison (b. 1850), Protestant Episcopal Bishop of Iowa after 1898, and William J. Bryan. The Illinois Woman's College (Methodist Episcopal; chartered in 1847 as the Illinois Conference Female Academy) received its present name in 1899. The State Central Hospital for the Insane (opened in 1851), the State School for the deaf (established in 1839, opened in 1845, and the first charitable institution of the state) and the State School for the Blind (1849) are also in Jacksonville. Morgan Lake and Duncan Park are pleasure resorts. The total value of the factory product in 1905 was $1,981,582, an increase of 17·7% since 1900. Jacksonville was laid out in 1825 as the county-seat of Morgan county, was named probably in honour of Andrew Jackson, and was incorporated as a town in 1840, chartered as a

[1] Shoals in the river and sand rock at its mouth long prevented the development of an extensive water trade, but in 1896 the United States Government made an appropriation (supplemented in 1902, 1903 and 1904) for deepening, for a width of 300 ft., the channel connecting the city and the ocean to 24 ft., and on the bar 27 ft. (mean low water), and by 1909 the work had been completed; further dredging to a 24 ft. depth between the navigable channel and pierhead lines was authorized in 1907 and completed by 1910.

city in 1867, and re-chartered in 1887. The majority of the early settlers came from the southern and border states, principally from Missouri and Kentucky; but subsequently there was a large immigration of New England and Eastern people, and these elements were stronger in the population of Jacksonville than in any other city of southern Illinois. The city was a station of the "Underground Railroad."

JACOB (Hebrew *yă'ăqōb*, derived, according to Gen. xxv. 26, xxvii. 36, from a root meaning "to seize the heel" or "supplant"), son of Isaac and Rebekah in the Biblical narrative, and the father of the twelve tribes of Israel. Jacob and his twin brother Esau are the eponyms of the Israelites and Edomites. It was said of them that they would be two nations, and that the elder would serve the younger. Esau was born first, but lost his superiority by relinquishing his birthright, and Jacob by an act of deceit gained the paternal blessing intended for Esau (Gen. xxvii., J and E).[1] The popular view regarding Israel and Edom is expressed when the story makes Jacob a tent-dweller, and Esau a hunter, a man of the field. But whilst Esau married among the Canaanite "daughters of the land" (P in xxvi. 34; xxviii. 8 seq.), Jacob was sent, or (according to a variant tradition) fled from Beer-sheba, to take a wife from among his Syrian kinsfolk at Haran. On the way he received a revelation at Bethel ("house of God") promising to him and to his descendants the whole extent of the land. The beautiful story of Jacob's fortunes at Haran is among the best examples of Hebrew narrative: how he served seven years for Rachel, "and they seemed a few days for the love he had to her," and was tricked by receiving the elder sister Leah, and how he served yet another seven years, and at last won his love. The patriarch's increasing wealth caused him to incur the jealousy of his father-in-law, Laban, and he was forced to flee in secret with his family. They were overtaken at Gilead,[2] whose name (interpreted "heap of witness") is explained by the covenant into which Jacob and Laban entered (xxxi. 47 sqq.). Passing Mahanaim ("camps"), where he saw the camps of God, Jacob sent to Esau with friendly overtures. At the Jabbok he wrestled with a divine being and prevailed (cf. Hos. xii. 3 sqq.), hence he called the place Peniel or Penuel ("the face of God"), and received the new name Israel. He then effected an unexpected reconciliation with Esau, passed to Succoth, where he built "booths" for his cattle (hence its name), and reached Shechem. Here he purchased ground from the clan Hamor (cf. Judg. ix. 28), and erected an altar to "God (El) the God of Israel." This was the scene of the rape of Dinah and of the attack of Simeon and Levi which led to their ruin (xxxiv.; see DAN, LEVITES, SIMEON). Thence Jacob went down south to Bethel, where he received a divine revelation (P), similar to that recorded by the earlier narrator (J), and was called Israel (xxxv. 9–13, 15). Here Deborah, Rebekah's nurse, died, on the way to Ephrath. Rachel died in giving birth to Benjamin (*q.v.*), and further south Reuben was guilty of a grave offence (cf. xlix. 4). According to P, Jacob came to Hebron, and it was at this juncture that Jacob and Esau separated (a second time) and the latter removed to Mount Seir (xxxvi. 6 sqq.; cf. the parallel in xiii. 5 sqq.). Compelled by circumstances, described with much fullness and vividness, Jacob ultimately migrated to Egypt, receiving on the way the promise that God would make of him a great nation, which should come again out of Egypt (see JOSEPH). After an interview with the Pharaoh (recorded only by P, xlvii. 5–11), he dwelt with his sons in the land of Goshen, and as his death drew near pronounced a formal benediction upon the two sons of Joseph (Manasseh and Ephraim), intentionally exalting the younger. Then he summoned all the "sons" to gather round his bed, and told them "what shall befall in the latter days" (xlix.). He died at the age of 147 (so P), and permission was given to carry his body to Canaan to be buried.

These narratives are full of much valuable evidence regarding marriage customs, pastoral life and duties, popular beliefs and traditions, and are evidently typical of what was currently retailed. Their historical value has been variously estimated. The *name* existed long before the traditional date of Jacob, and the Egyptian phonetic equivalent of Jacob-el (cf. Isra-el, Ishma-el) appears to be the name of a district of central Palestine (or possibly east of Jordon) about 1500 B.C. But the stories in their present form are very much later. The close relation between Jacob and Aramaeans confirms the view that some of the tribes of Israel were partly of Aramaean origin; his entrance into Palestine from beyond the Jordan is parallel to Joshua's invasion at the head of the Israelites; and his previous journey from the south finds independent support in traditions of another distinct movement from this quarter. Consequently, it would appear that these extremely elevated and richly developed narratives of Jacob-Israel embody, among a number of other features, a recollection of two distinct traditions of migration which became fused among the Israelites. See further GENESIS; JEWS. (S. A. C.)

JACOB, JOHN (1812–1858), Indian soldier and administrator, was born on the 11th of January 1812, educated at Addiscombe, and entered the Bombay artillery in 1828. He served in the first Afghan War under Sir John Keane, and afterwards led his regiment with distinction at the battles of Meeanee, Shahdadpur, and Umarkot; but it is as commandant of the Sind Horse and political superintendent of Upper Sind that he was chiefly famous. He was the pacificator of the Sind frontier, reducing the tribes to quietude as much by his commanding personality as by his ubiquitous military measures. In 1853 he foretold the Indian Mutiny, saying: "There is more danger to our Indian empire from the state of the Bengal army, from the feeling which there exists between the native and the European, and thence spreads throughout the length and breadth of the land, than from all other causes combined. Let government look to this; it is a serious and most important truth"; but he was only rebuked by Lord Dalhousie for his pains. He was a friend of Sir Charles Napier and Sir James Outram, and resembled them in his outspoken criticisms and independence of authority. He died at the early age of 46 of brain fever, brought on by excessive heat and overwork. The town of Jacobabad, which has the reputation of being the hottest place in India, is named after him.

See A. I. Shand, *General John Jacob* (1900).

JACOB BEN ASHER (1280–1340), codifier of Jewish law, was born in Germany and died in Toledo. A son of Asher ben Yeḥiel (*q.v.*), Jacob helped to re-introduce the older elaborate method of legal casuistry which had been overthrown by Maimonides (*q.v.*). The Asheri family suffered great privations but remained faithful in their devotion to the Talmud. Jacob ben Asher is known as the Ba'al ha-ṭurim (literally "Master of the Rows") from his chief work, the four *Ṭurim* or Rows (the title is derived from the four *Ṭurim* or rows of jewels in the High Priest's breastplate). In this work Jacob ben Asher codified Rabbinic law on ethics and ritual, and it remained a standard work of reference until it was edited with a commentary by Joseph Qaro, who afterwards simplified the code into the more popular *Shulḥan Aruch*. Jacob also wrote two commentaries on the Pentateuch.

See Graetz, *History of the Jews* (Eng. trans.), vol. iv. ch. iii.; Weiss, *Dor dor we-dorashav*, v. 118–123. (I. A.)

JACOB OF EDESSA, who ranks with Barhebraeus as the most distinguished for scholarship among Syriac writers,[3] was born at 'Ên-dēbhā in the province of Antioch, probably about A.D. 640. From the trustworthy account of his life by Barhebraeus (*Chron. Eccles.* i. 289) we learn that he studied first at the famous monastery of Ken-neshrē (on the left bank of the Euphrates, opposite Jerābis) and afterwards at Alexandria, which had of course been

[1] For the symbols J, E, P, as regards the sources of the book of Genesis, see GENESIS; BIBLE: *Old Test. Criticism.*

[2] Since it is some 300 m. from Haran to Gilead it is probable that Laban's home, only seven days' journey distant, was nearer Gilead than the current tradition allows (Gen. xxxi. 22 sqq.).

[3] "In the literature of his country Jacob holds much the same place as Jerome among the Latin fathers" (Wright, *Short Hist. of Syr. Lit.* p. 143).

for some time in the hands of the Moslems.[1] On his return he was appointed bishop of Edessa by his friend Athanasius II. (of Balad), probably in 684,[2] but held this office only for three or four years, as the clergy withstood his strict enforcement of the Church canons and he was not supported by Julian, the successor of Athanasius in the patriarchate. Accordingly, having in anger publicly burnt a copy of the canons in front of Julian's residence, Jacob retired to the monastery of Kaisūm near Samosāta, and from there to the monastery of Eusebhōnā,[3] where for eleven years he taught the Psalms and the reading of the Scriptures in Greek. But towards the close of this period he again encountered opposition, this time from monks "who hated the Greeks," and so proceeded to the great convent of Tell 'Addā or Teleda (? modern Tellādi, N.W. of Aleppo), where he spent nine years in revising and emending the Peshitta version of the Old Testament by the help of the various Greek versions. He was finally recalled to the bishopric of Edessa in 708, but died four months later, on the 5th of June.

In doctrine Jacob was undoubtedly Monophysite.[4] Of the very large number of his works, which are mostly in prose, not many have as yet been published, but much information may be gathered from Assemani's *Bibliotheca Orientalis* and Wright's *Catalogue of Syriac MSS. in the British Museum*. (1) Of the Syriac Old Testament Jacob produced what Wright calls "a curious eclectic or patchwork text," of which five volumes survive in Europe (Wright's *Catalogue* 38). It was "the last attempt at a revision of the Old Testament in the Monophysite Church." Jacob was also the chief founder of the Syriac Massorah among the Monophysites, which produced such MSS. as the one (Vat. cliii.) described by Wiseman in *Horae syriacae*, part iii. (2) Jacob was the author both of commentaries and of scholia on the sacred books; of these specimens are given by Assemani and Wright. They were largely quoted by later commentators, who often refer to Jacob as "the interpreter of the Scriptures." With the commentaries may be mentioned his *Hexahemeron*, or treatise on the six days of creation, MSS. of which exist at Leiden and at Lyons. It was his latest work, and being left incomplete was finished by his friend George the bishop of the Arabs. Among apocrypha, the *History of the Rechabites* composed by Zosimus was translated from Greek into Syriac by Jacob (Wright's *Catalogue* 1128, and Nau in *Revue sémitique* vi. 263, vii. 54, 136). (3) Mention has been made above of Jacob's zeal on behalf of ecclesiastical canons. In his letter to the priest Addai we possess a collection of canons from his pen, given in the form of answers to Addai's questions. These were edited by Lagarde in *Reliquiae juris eccl. syriace*, pp. 117 sqq. and Lamy in *Dissert.* pp. 98 sqq. Additional canons were given in Wright's *Notulae syriacae*. The whole have been translated and expounded by Kayser, *Die Canones Jacobs von Edessa* (Leipzig, 1886). (4) Jacob made many contributions to Syriac liturgy, both original and translated (Wright, *Short Hist.* p. 145 seq.). (5) To philosophical literature his chief original contribution was his *Enchiridion*, a tract on philosophical terms (Wright's *Catalogue* 984). The translations of works of Aristotle which have been attributed to him are probably by other hands (Wright, *Short Hist.* p. 149; Duval, *Littérature syriaque*, pp. 255, 258). The treatise *De causa omnium causarum*, which was the work of a bishop of Edessa, was formerly attributed to Jacob; but the publication of the whole by Kayser [5] has made it clear that the treatise is of much later date. (6) An important historical work by Jacob—a *Chronicle* in continuation of that of Eusebius—has unfortunately perished all except a few leaves. Of these a full account is given in Wright's *Catalogue* 1062. (7) Jacob's fame among his countrymen rests most of all on his labours as a grammarian. In his letter to George, bishop of Sĕrūgh, on Syriac orthography (published by Phillips in London 1869, and by Martin in Paris the same year) he sets forth the importance of fidelity by scribes in the copying of minutiae of spelling. In his grammar [6] (of which only some fragments remain), while expressing his sense of the disadvantage under which Syriac labours through its alphabet containing only consonants, he declined to introduce a general system of vowel-signs, lest the change should contribute to the neglect and loss of the older books written without vowels. At the same time he invented, by adaptation of the Greek vowels, such a system of signs as might serve for purposes of grammatical exposition, and elaborated the rules by which certain consonants serve to indicate vowels. He also systematized and extended the use of diacritical points. It is still a moot question how far Jacob is to be regarded as the author of the five vowel-signs derived from Greek which soon after came into use among the Jacobites.[7] In any case he made the most important contribution to Syriac grammar down to the time of Barhebraeus. (8) As a translator Jacob's greatest achievement was his Syriac version of the *Homiliae cathedrales* of Severus, the monophysite patriarch of Antioch (512–518, 535–536). This important collection is now in part known to us by E. W. Brooks's edition and translation of the 6th book of selected epistles of Severus, according to another Syriac version made by Athanasius of Nisibis in 669. (9) A large number of letters by Jacob to various correspondents have been found in various MSS. Besides those on the canon law to Addai, and on grammar to George of Sĕrūgh referred to above, there are others dealing with doctrine, liturgy, &c. A few are in verse.

Jacob impresses the modern reader mainly as an *educator* of his countrymen, and particularly of the clergy. His writings lack the fervid rhetoric and graceful style of such authors as Isaac of Antioch, Jacob of Sĕrūgh and Philoxenus of Mabbōg. But judged by the standard of his time he shows the qualities of a truly scientific theologian and scholar. (N. M.)

JACOB OF JÜTERBOGK (*c.* 1381–1465), monk and theologian. Benedict Stolzenhagen, known in religion as Jacob, was born at Jüterbogk in Brandenburg of poor peasant stock. He became a Cistercian at the monastery of Paradiz in Poland, and was sent by the abbot to the university of Cracow, where he became master in philosophy and doctor of theology. He returned to his monastery, of which he became abbot. In 1441, however, discontented with the absence of strict discipline in his community, he obtained the leave of the papal legate at the council of Basel to transfer himself to the Carthusians, entering the monastery of Salvatorberg near Erfurt, of which he became prior. He lectured on theology at the university of Erfurt, of which he was rector in 1455. He died on the 30th of April 1465.

Jacob's main preoccupation was the reform of monastic life, the grave disorders of which he deplored, and to this end he wrote his *Petitiones religiosorum pro reformatione sui status*. Another work, *De negligentia praelatorum*, was directed against the neglect of their duties by the higher clergy, and he addressed a petition for the reform of the church (*Advisamentum pro reformatione ecclesiae*) to Pope Nicholas V. This having no effect, he issued the most outspoken of his works, *De septem ecclesiae statibus*, in which he reviewed the work of the reforming councils of his time, and, without touching the question of doctrine, championed a drastic reform of life and practice of the church on the lines laid down at Constance and Basel.

His principal works are collected in Walch, *Monimenta med. aev.* i. and ii. (1757, 1771), and Engelbert Klüpfel, *Vetus bibliotheca eccles.* (Freiburg-im-Breisgau, 1780).

JACOB OF SĔRŪGH, one of the best Syriac authors, named by one of his biographers "the flute of the Holy Spirit and the harp of the believing church," was born in 451 at Kurtam, a village on the Euphrates to the west of Ḥarrān, and was probably educated at Edessa. At an early age he attracted the attention of his countrymen by his piety and his literary gifts, and entered on the composition of the long series of metrical homilies on religious themes which formed the great work of his life. Having been ordained to the priesthood, he became periodeutes or episcopal visitor of Ḥaurā, in Sĕrūgh, not far from his birthplace. His tenure of this office extended over a time of great trouble to the Christian population of Mesopotamia, due to the fierce war carried on by Kavadh II. of Persia within the Roman borders. When on the 10th of January 503 Amid was captured by the Persians after a three months' siege and all its citizens put to the sword or carried captive, a panic seized the whole district, and the Christian inhabitants of many neighbouring cities planned

[1] Merx infers that the fact of Jacob's going to Alexandria as a student tells against the view that the Arabs burned the great library (*Hist. artis gramm. apud Syros*, p. 35). On this question cf. Krehl in *Atti del iv. congr. internaz. degli Orientalisti* (Florence, 1880), pp. 433 sqq.

[2] Pseudo-Dionysius of Tell-Mahrē says 677; but Athanasius was patriarch only 684–687.

[3] According to Merx (*op. cit.* p. 43) this may be the celebrated convent of Eusebius near Apamea.

[4] Assemani tried hard to prove him orthodox (*B.O.* i. 470 sqq.) but changed his opinion on reading his biography by Barhebraeus (ib. ii. 337). See especially Lamy, *Dissert. de Syrorum fide*, pp. 206 sqq.

[5] Text at Leipzig 1889 (*Das Buch der Erkenntniss der Wahrheit oder der Ursache aller Ursachen*): translation (posthumously) at Strassburg 1893.

[6] The surviving fragments were published by Wright (London, 1871) and by Merx, *op. cit.* p. 73 sqq. of Syriac text.

[7] An affirmative answer is given by Wiseman (*Horae syr.* pp. 181–8) and Wright (*Catalogue* 1168; *Fragm. of the Syriac Grammar of Jacob of Edessa*, preface; *Short Hist.* p. 151 seq.). But Martin (in *Jour. As.* May–June 1869, pp. 456 sqq.), Duval (*Grammaire syriaque*, p. 71) and Merx (*op. cit.* p. 50) are of the opposite opinion. The date of the introduction of the seven Nestorian vowel-signs is also uncertain.

to leave their homes and flee to the west of the Euphrates. They were recalled to a more courageous frame of mind by the letters of Jacob.[1] In 519, at the age of 68, Jacob was made bishop of Baṭnān, another town in the district of Sĕrūgh, but only lived till November 521.

From the various extant accounts of Jacob's life and from the number of his known works, we gather that his literary activity was unceasing. According to Barhebraeus (*Chron. Eccles.* i. 191) he employed 70 amanuenses and wrote in all 760 metrical homilies, besides expositions, letters and hymns of different sorts. Of his merits as a writer and poet we are now well able to judge from P. Bedjan's excellent edition of selected metrical homilies, of which four volumes have already appeared (Paris 1905–1908), containing 146 pieces.[2] They are written throughout in dodecasyllabic metre, and those published deal mainly with biblical themes, though there are also poems on such subjects as the deaths of Christian martyrs, the fall of the idols, the council of Nicaea, &c.[3] Of Jacob's prose works, which are not nearly so numerous, the most interesting are his letters, which throw light upon some of the events of his time and reveal his attachment to the Monophysite doctrine which was then struggling for supremacy in the Syrian churches, and particularly at Edessa, over the opposite teaching of Nestorius.[4] (N. M.)

JACOBA, or JACQUELINE (1401–1436), countess of Holland, was the only daughter and heiress of William, duke of Bavaria and count of Holland, Zeeland and Hainaut. She was married as a child to John, duke of Touraine, second son of Charles VI., king of France, who on the death of his elder brother Louis became dauphin. John of Touraine died in April 1417, and two months afterwards Jacoba lost her father. Acknowledged as sovereign in Holland and Zeeland, Jacoba was opposed by her uncle John of Bavaria, bishop of Liége. She had the support of the Hook faction in Holland. Meanwhile she had been married in 1418 by her uncle, John the Fearless, duke of Burgundy, to her cousin John IV., duke of Brabant. By the mediation of John the Fearless, a treaty of partition was concluded in 1419 between Jacoba and John of Bavaria; but it was merely a truce, and the contest between uncle and niece soon began again and continued with varying success. In 1420 Jacoba fled to England; and there, declaring that her marriage with John of Brabant was illegal, she contracted a marriage with Humphrey, duke of Gloucester, in 1422. Two years later Jacoba, with Humphrey, invaded Holland, where she was now opposed by her former husband, John of Brabant, John of Bavaria having died of poison. In 1425 Humphrey deserted his wife, who found herself obliged to seek refuge with her cousin, Philip V., duke of Burgundy, to whom she had to submit, and she was imprisoned in the castle of Ghent. John of Brabant now mortgaged the two counties of Holland and Zeeland to Philip, who assumed their protectorate. Jacoba, however, escaped from prison in disguise, and for three years struggled gallantly to maintain herself in Holland against the united efforts of Philip of Burgundy and John of Brabant, and met at first with success. The death of the weak John of Brabant (April 1427) freed the countess from her quondam husband; but nevertheless the pope pronounced Jacoba's marriage with Humphrey illegal, and Philip, putting out his full strength, broke down all opposition. By a treaty, made in July 1428, Jacoba was left nominally countess, but Philip was to administer the government of Holland, Zeeland and Hainaut, and was declared heir in case Jacoba should die without children. Two years later Philip mortgaged Holland and Zeeland to the Borselen family, of which Francis, lord of Borselen, was the head. Jacoba now made her last effort. In 1432 she secretly married Francis of Borselen, and endeavoured to foment a rising in Holland against the Burgundian rule. Philip invaded the country, however, and threw Borselen into prison. Only on condition that Jacoba abdicated her three countships in his favour would he allow her liberty and recognize her marriage with Borselen. She submitted in April 1432, retained her title of duchess in Bavaria, and lived on her husband's estates in retirement. She died on the 9th of October 1436, leaving no children.

BIBLIOGRAPHY.—F. von Löher, *Jakobäa von Bayern und ihre Zeit* (2 vols., Nördlingen, 1862–1869); W. J. F. Nuyens, *Jacoba van Beieren en de eerste helft der XV. eeuw* (Haarlem, 1873); A. von Overstraten, *Jacoba van Beieren* (Amsterdam, 1790). (G. E.)

JACOBABAD, a town of British India, the administrative headquarters of the Upper Sind frontier district in Bombay; with a station on the Quetta branch of the North-Western railway, 37 m. from the junction at Ruk, on the main line. Pop. (1901), 10,787. It is famous as having consistently the highest temperature in India. During the month of June the thermometer ranges between 120° and 127° F. The town was founded on the site of the village of Khangarh in 1847 by General John Jacob, for many years commandant of the Sind Horse, who died here in 1858. It has cantonments for a cavalry regiment, with accommodation for caravans from Central Asia. It is watered by two canals. An annual horse show is held in January.

JACOBEAN STYLE, the name given to the second phase of the early Renaissance architecture in England, following the Elizabethan style. Although the term is generally employed of the style which prevailed in England during the first quarter of the 17th century, its peculiar decadent detail will be found nearly twenty years earlier at Wollaton Hall, Nottinghamshire, and in Oxford and Cambridge examples exist up to 1660, notwithstanding the introduction of the purer Italian style by Inigo Jones in 1619 at Whitehall. Already during Queen Elizabeth's reign reproductions of the classic orders had found their way into English architecture, based frequently upon John Shute's *The First and Chief Grounds of Architecture*, published in 1563, with two other editions in 1579 and 1584. In 1577, three years before the commencement of Wollaton Hall, a copybook of the orders was brought out in Antwerp by Jan Vredeman de Vries. Though nominally based on the description of the orders by Vitruvius, the author indulged freely not only in his rendering of them, but in suggestions of his own, showing how the orders might be employed in various buildings. Those suggestions were of a most decadent type, so that even the author deemed it advisable to publish a letter from a canon of the Church, stating that there was nothing in his architectural designs which was contrary to religion. It is to publications of this kind that Jacobean architecture owes the perversion of its forms and the introduction of strap work and pierced crestings, which appear for the first time at Wollaton (1580); at Bramshill, Hampshire (1607–1612), and in Holland House, Kensington (1624), it receives its fullest development. (R. P. S.)

JACOBI, FRIEDRICH HEINRICH (1743–1819), German philosopher, was born at Düsseldorf on the 25th of January 1743. The second son of a wealthy sugar-merchant near Düsseldorf, he was educated for a commercial career. Of a retiring, meditative disposition, Jacobi associated himself at Geneva mainly with the literary and scientific circle of which the most prominent member was Lesage. He studied closely the works of Charles Bonnet, and the political ideas of Rousseau and Voltaire. In 1763 he was called back to Düsseldorf, and in the following year he married and took over the management of his father's business. After a short period he gave up his commercial career, and in 1770 became a member of the council for the duchies of Jülich and Berg, in which capacity he distinguished himself by his ability in financial affairs, and his zeal in social reform. Jacobi kept up his interest in literary and philosophic matters by an extensive correspondence, and his mansion at Pempelfort, near Düsseldorf, was the centre of a distinguished literary circle. With C. M. Wieland he helped to found a new literary journal, *Der Teutsche Mercur*, in which some of his earliest writings, mainly on practical or economic subjects, were published. Here too appeared in part the first of his philosophic works, *Edward Allwills Briefsammlung* (1776), a combination of romance and speculation. This was followed in 1779 by *Woldemar*, a philosophic novel, of very imperfect structure, but full of genial

[1] See the contemporary *Chronicle* called that of Joshua the Stylite, chap. 54.

[2] Assemani (*Bibl. Orient.* i. 305–339) enumerates 231 which he had seen in MSS.

[3] Some other historical poems M. Bedjan has not seen fit to publish, on account of their unreliable and legendary character (vol. i. p. ix. of preface).

[4] A full list of the older editions of works by Jacob is given by Wright in *Short History of Syriac Literature*, pp. 68–72.

ideas, and giving the most complete picture of Jacobi's method of philosophizing. In 1779 he visited Munich as member of the privy council, but after a short stay there differences with his colleagues and with the authorities of Bavaria drove him back to Pempelfort. A few unimportant tracts on questions of theoretical politics were followed in 1785 by the work which first brought Jacobi into prominence as a philosopher. A conversation which he had held with Lessing in 1780, in which Lessing avowed that he knew no philosophy, in the true sense of that word, save Spinozism, led him to a protracted study of Spinoza's works. The *Briefe über die Lehre Spinozas* (1785; 2nd ed., much enlarged and with important *Appendices*, 1789) expressed sharply and clearly Jacobi's strenuous objection to a dogmatic system in philosophy, and drew upon him the vigorous enmity of the Berlin clique, led by Moses Mendelssohn. Jacobi was ridiculed as endeavouring to reintroduce into philosophy the antiquated notion of unreasoning belief, was denounced as an enemy of reason, as a pietist, and as in all probability a Jesuit in disguise, and was especially attacked for his use of the ambiguous term "belief." Jacobi's next important work, *David Hume über den Glauben, oder Idealismus und Realismus* (1787), was an attempt to show not only that the term *Glaube* had been used by the most eminent writers to denote what he had employed it for in the *Letters on Spinoza*, but that the nature of the cognition of facts as opposed to the construction of inferences could not be otherwise expressed. In this writing, and especially in the *Appendix*, Jacobi came into contact with the critical philosophy, and subjected the Kantian view of knowledge to searching examination.

The outbreak of the war with the French republic induced Jacobi in 1793 to leave his home near Düsseldorf, and for nearly ten years he resided in Holstein. While there he became intimately acquainted with Reinhold (in whose *Beiträge*, pt. iii., 1801, his important work *Über das Unternehmen des Kriticismus, die Vernunft zu Verstande zu bringen* was first published), and with Matthias Claudius, the editor of the *Wandsbecker Bote*. During the same period the excitement caused by the accusation of atheism brought against Fichte at Jena led to the publication of Jacobi's *Letter to Fichte* (1799), in which he made more precise the relation of his own philosophic principles to theology. Soon after his return to Germany, Jacobi received a call to Munich in connexion with the new academy of sciences just founded there. The loss of a considerable portion of his fortune induced him to accept this offer; he settled in Munich in 1804, and in 1807 became president of the academy. In 1811 appeared his last philosophic work, directed against Schelling specially (*Von den göttlichen Dingen und ihrer Offenbarung*), the first part of which, a review of the *Wandsbecker Bote*, had been written in 1798. A bitter reply from Schelling was left without answer by Jacobi, but gave rise to an animated controversy in which Fries and Baader took prominent part. In 1812 Jacobi retired from the office of president, and began to prepare a collected edition of his works. He died before this was completed, on the 10th of March 1819. The edition of his writings was continued by his friend F. Köppen, and was completed in 1825. The works fill six volumes, of which the fourth is in three parts. To the second is prefixed an introduction by Jacobi, which is at the same time an introduction to his philosophy. The fourth volume has also an important preface.

The philosophy of Jacobi is essentially unsystematic. A certain fundamental view which underlies all his thinking is brought to bear in succession upon those systematic doctrines which appear to stand most sharply in contradiction to it, and any positive philosophic results are given only occasionally. The leading idea of the whole is that of the complete separation between understanding and apprehension of real fact. For Jacobi understanding, or the logical faculty, is purely formal or elaborative, and its results never transcend the given material supplied to it. From the basis of immediate experience or perception thought proceeds by comparison and abstraction, establishing connexions among facts, but remaining in its nature mediate and finite. The principle of reason and consequent, the necessity of thinking each given fact of perception as conditioned, impels understanding towards an endless series of identical propositions, the records of successive comparisons and abstractions. The province of the understanding is therefore strictly the region of the conditioned; to it the world must present itself as a mechanism. If, then, there is objective truth at all, the existence of real facts must be made known to us otherwise than through the logical faculty of thought; and, as the regress from conclusion to premises must depend upon something not itself capable of logical grounding, mediate thought implies the consciousness of immediate truth. Philosophy therefore must resign the hopeless ideal of a systematic (*i.e.* intelligible) explanation of things, and must content itself with the examination of the facts of consciousness. It is a mere prejudice of philosophic thinkers, a prejudice which has descended from Aristotle, that mediate or demonstrated cognition is superior in cogency and value to the immediate perception of truths or facts.

As Jacobi starts with the doctrine that thought is partial and limited, applicable only to connect facts, but incapable of explaining their existence, it is evident that for him any demonstrative system of metaphysic which should attempt to subject all existence to the principle of logical ground must be repulsive. Now in modern philosophy the first and greatest demonstrative system of metaphysic is that of Spinoza, and it lay in the nature of things that upon Spinoza's system Jacobi should first direct his criticism. A summary of the results of his examination is thus presented (*Werke*, i. 216–223): (1) Spinozism is atheism; (2) the Kabbalistic philosophy, in so far as it is philosophy, is nothing but undeveloped or confused Spinozism; (3) the philosophy of Leibnitz and Wolff is not less fatalistic than that of Spinoza, and carries a resolute thinker to the very principles of Spinoza; (4) every demonstrative method ends in fatalism; (5) we can demonstrate only similarities (agreements, truths conditionally necessary), proceeding always in identical propositions; every proof presupposes something already proved, the principle of which is immediately given (*Offenbarung*, revelation, is the term here employed by Jacobi, as by many later writers, *e.g.* Lotze, to denote the peculiar character of an immediate, unproved truth); (6) the keystone (*Element*) of all human knowledge and activity is belief (*Glaube*). Of these propositions only the first and fourth require further notice. Jacobi, accepting the law of reason and consequent as the fundamental rule of demonstrative reasoning, and as the rule explicitly followed by Spinoza, points out that, if we proceed by applying this principle so as to recede from particular and qualified facts to the more general and abstract conditions, we land ourselves, not in the notion of an active, intelligent creator of the system of things, but in the notion of an all-comprehensive, indeterminate *Nature*, devoid of will or intelligence. Our unconditioned is either a pure *abstraction*, or else the impossible notion of a completed system of conditions. In either case the result is atheism, and this result is necessary if the demonstrative method, the method of understanding, is regarded as the only possible means of knowledge. Moreover, the same method inevitably lands in fatalism. For, if the action of the human will is to be made intelligible to understanding, it must be thought as a conditioned phenomenon, having its sufficient ground in preceding circumstances, and, in ultimate abstraction, as the outflow from nature which is the sum of conditions. But this is the fatalist conception, and any philosophy which accepts the law of reason and consequent as the essence of understanding is fatalistic. Thus for the scientific understanding there can be no God and no liberty. It is impossible that there should be a God, for if so he would of necessity be finite. But a finite God, a God that is *known*, is no God. It is impossible that there should be liberty, for if so the mechanical order of phenomena, by means of which they are comprehensible, would be disturbed, and we should have an unintelligible world, coupled with the requirement that it shall be understood. Cognition, then, in the strict sense, occupies the middle place between sense perception, which is belief in matters of sense, and reason, which is belief in supersensuous fact.

The best introduction to Jacobi's philosophy is the preface to the second volume of the *Works*, and Appendix 7 to the *Letters on Spinoza's Theory*. See also J. Kuhn, *Jacobi und die Philosophie seiner Zeit* (1834); F. Deycks, *F. H. Jacobi im Verhältnis zu seinen Zeitgenossen* (1848); H. Düntzer, *Freundesbilder aus Goethes Leben* (1853); E. Zirngiebl, *F. H. Jacobis Leben, Dichten, und Denken*, 1867; F. Harms, *Über die Lehre von F. H. Jacobi* (1876). Jacobi's *Auserlesener Briefwechsel* has been edited by F. Roth in 2 vols. (1825–1827).

JACOBI, JOHANN GEORG (1740–1814), German poet, elder brother of the philosopher, F. H. Jacobi (1743–1819), was born at Düsseldorf on the 2nd of September 1740. He studied theology at Göttingen and jurisprudence at Helmstedt, and was appointed, in 1766, professor of philosophy in Halle. In this year he made the acquaintance of J. W. L. ("Vater") Gleim, who, attracted by the young poet's *Poetische Versuche* (1764), became his warm friend, and a lively literary correspondence ensued between Gleim in Halberstadt and Jacobi in Halle. In order to have Jacobi near him, Gleim succeeded in procuring for him a prebendal stall at the cathedral of Halberstadt in 1769, and here Jacobi issued a number of anacreontic lyrics and sonnets. He

tired, however, of the lighter muse, and in 1774, to Gleim's grief, left Halberstadt, and for two years (1774–1776) edited at Düsseldorf the *Iris*, a quarterly for women readers. Meanwhile, he wrote many charming lyrics, distinguished by exquisite taste and true poetical feeling. In 1784 he became professor of literature at the university of Freiburg im Breisgau, a post which he held until his death there on the 4th of January 1814. In addition to the earlier *Iris*, to which Goethe, his brother F. H. Jacobi, Gleim and other poets contributed, he published, from 1803–1813, another periodical, also called *Iris*, in which Klopstock, Herder, Jean Paul, Voss and the brothers Stollberg also collaborated.

Jacobi's *Sämmtliche Werke* were published in 1774 (Halberstadt, 3 vols.). Other editions appeared at Zürich in 1807–1813 and 1825. See *Ungedruckte Briefe von und an Johann Georg Jacobi* (Strassburg, 1874); biographical notice by Daniel Jacoby in *Allg. Deutsche Biographie*; Longo, *Laurence Sterne und Johann Georg Jacobi* (Vienna, 1898); and *Leben J. G. Jacobis, von einem seiner Freunde* (1822).

JACOBI, KARL GUSTAV JACOB (1804–1851), German mathematician, was born at Potsdam, of Jewish parentage, on the 10th of December 1804. He studied at Berlin University, where he obtained the degree of doctor of philosophy in 1825, his thesis being an analytical discussion of the theory of fractions. In 1827 he became extraordinary and in 1829 ordinary professor of mathematics at Königsberg, and this chair he filled till 1842, when he visited Italy for a few months to recruit his health. On his return he removed to Berlin, where he lived as a royal pensioner till his death, which occurred on the 18th of February 1851.

His investigations in elliptic functions, the theory of which he established upon quite a new basis, and more particularly his development of the theta-function, as given in his great treatise *Fundamenta nova theoriae functionum ellipticarum* (Königsberg, 1829), and in later papers in *Crelle's Journal*, constitute his grandest analytical discoveries. Second in importance only to these are his researches in differential equations, notably the theory of the last multiplier, which is fully treated in his *Vorlesungen über Dynamik*, edited by R. F. A. Clebsch (Berlin, 1866). It was in analytical development that Jacobi's peculiar power mainly lay, and he made many important contributions of this kind to other departments of mathematics, as a glance at the long list of papers that were published by him in *Crelle's Journal* and elsewhere from 1826 onwards will sufficiently indicate. He was one of the early founders of the theory of determinants; in particular, he invented the functional determinant formed of the n^2 differential coefficients of n given functions of n independent variables, which now bears his name (Jacobian), and which has played an important part in many analytical investigations (see ALGEBRAIC FORMS). Valuable also are his papers on Abelian transcendents, and his investigations in the theory of numbers, in which latter department he mainly supplements the labours of K. F. Gauss. The planetary theory and other particular dynamical problems likewise occupied his attention from time to time. He left a vast store of manuscript, portions of which have been published at intervals in *Crelle's Journal*. His other works include *Commentatio de transformatione integralis duplicis indefiniti in formam simpliciorem* (1832), *Canon arithmeticus* (1839), and *Opuscula mathematica* (1846–1857). His *Gesammelte Werke* (1881–1891) were published by the Berlin Academy.

See Lejeune-Dirichlet, "Gedächtnisrede auf Jacobi" in the *Abhandlungen der Berliner Akademie* (1852).

JACOBINS, THE, the most famous of the political clubs of the French Revolution. It had its origin in the Club Breton, which was established at Versailles shortly after the opening of the States General in 1789. It was at first composed exclusively of deputies from Brittany, but was soon joined by others from various parts of France, and counted among its early members Mirabeau, Sieyès, Barnave, Pétion, the Abbé Grégoire, Charles and Alexandre Lameth, Robespierre, the duc d'Aiguillon, and La Revellière-Lépeaux. At this time its meetings were secret and little is known of what took place at them. After the émeute of the 5th and 6th of October the club, still entirely composed of deputies, followed the National Assembly to Paris, where it rented the refectory of the monastery of the Jacobins in the Rue St Honoré, near the seat of the Assembly. The name "Jacobins," given in France to the Dominicans, because their first house in Paris was in the Rue St Jacques, was first applied to the club in ridicule by its enemies. The title assumed by the club itself, after the promulgation of the constitution of 1791, was *Société des amis de la constitution séants aux Jacobins à Paris*, which was changed on the 21st of September 1792, after the fall of the monarchy, to *Société des Jacobins, amis de la liberté et de l'égalité*. It occupied successively the refectory, the library, and the chapel of the monastery.

Once transferred to Paris, the club underwent rapid modifications. The first step was its expansion by the admission as members or associates of others besides deputies; Arthur Young was so admitted on the 18th of January 1790. On the 8th of February the society was formally constituted on this broader basis by the adoption of the rules drawn up by Barnave, which were issued with the signature of the duc d'Aiguillon, the president. The objects of the club were defined as (1) to discuss in advance questions to be decided by the National Assembly; (2) to work for the establishment and strengthening of the constitution in accordance with the spirit of the preamble (*i.e.* of respect for legally constituted authority and the rights of man); (3) to correspond with other societies of the same kind which should be formed in the realm. At the same time the rules of order and forms of election were settled, and the constitution of the club determined. There were to be a president, elected every month, four secretaries, a treasurer, and committees elected to superintend elections and presentations, the correspondence, and the administration of the club. Any member who by word or action showed that his principles were contrary to the constitution and the rights of man was to be expelled, a rule which later on facilitated the "purification" of the society by the expulsion of its more moderate elements. By the 7th article the club decided to admit as associates similar societies in other parts of France and to maintain with them a regular correspondence.

This last provision was of far-reaching importance. By the 10th of August 1790 there were already one hundred and fifty-two affiliated clubs; the attempts at counter-revolution led to a great increase of their number in the spring of 1791, and by the close of the year the Jacobins had a network of branches all over France. It was this widespread yet highly centralized organization that gave to the Jacobin Club its formidable power.

At the outset the Jacobin Club was not distinguished by extreme political views. The somewhat high subscription confined its membership to men of substance, and to the last it was—so far as the central society in Paris was concerned—composed almost entirely of professional men, such as Robespierre, or well-to-do *bourgeois*, like Santerre. From the first, however, other elements were present. Besides Louis Philippe, duc de Chartres (afterwards king of the French), liberal aristocrats of the type of the duc d'Aiguillon, the prince de Broglie, or the vicomte de Noailles, and the *bourgeois* who formed the mass of the members, the club contained such figures as "Père" Michel Gérard, a peasant proprietor from Tuel-en-Montgermont, in Brittany, whose rough common sense was admired as the oracle of popular wisdom, and whose countryman's waistcoat and plaited hair were later on to become the model for the Jacobin fashion.[1] The provincial branches were from the first far more democratic, though in these too the leadership was usually in the hands of members of the educated or propertied classes. Up to the very eve of the republic, the club ostensibly supported the monarchy; it took no part in the petition of the 17th of July 1790 for the king's dethronement; nor had it any official share even in the insurrections of the 20th of June and the 10th of August 1792; it only formally recognized the republic on the 21st of September. But the character and extent of the club's influence cannot be gauged by its official acts alone, and long before it emerged as the principal focus of the Terror, its character had been profoundly changed by the secession of its more moderate elements, some to found the Club of 1789, some in 1791—among them Barnave, the Lameths, Duport and Bailly—

[1] "When I first sat among you I heard so many beautiful speeches that I might have believed myself in heaven, had there not been so many lawyers present." Instead of practical questions "we have become involved in a *galimatias* of Rights of Man of which I understand mighty little but that it is worth nothing." *Motion du Père Gérard* in the Jacobins of the 27th of April 1790 (Aulard i. 63).

to found the club of the Feuillants scoffed at by their former friends as the *club monarchique*. The main cause of this change was the admission of the public to the sittings of the club, which began on the 14th of October 1791. The result is described in a report of the Department of Paris on "the state of the empire," presented on the 12th of June 1792, at the request of Roland, the minister of the interior, and signed by the duc de La Rochefoucauld, which ascribes to the Jacobins all the woes of the state. "There exists," it runs, "in the midst of the capital committed to our care a public pulpit of defamation, where citizens of every age and both sexes are admitted day by day to listen to a criminal propaganda. . . . This establishment, situated in the former house of the Jacobins, calls itself a society; but it has less the aspect of a private society than that of a public spectacle: vast tribunes are thrown open for the audience; all the sittings are advertised to the public for fixed days and hours, and the speeches made are printed in a special journal and lavishly distributed."[1] In this society—the report continues—murder is counselled or applauded, all authorities are calumniated and all the organs of the law bespattered with abuse; as to its power, it exercises "by its influence, its affiliations and its correspondence a veritable ministerial authority, without title and without responsibility, while leaving to the legal and responsible authorities only the shadow of power" (Schmidt, *Tableaux* i. 78, &c.).

The constituency to which the club was henceforth responsible, and from which it derived its power, was in fact the *peuple bête* of Paris; the *sans-culottes*—decayed lackeys, cosmopolitan ne'er-do-weels, and starving workpeople—who crowded its tribunes. To this audience, and not primarily to the members of the club, the speeches of the orators were addressed and by its verdict they were judged. In the earlier stages of the Revolution the mob had been satisfied with the fine platitudes of the *philosophes* and the vague promise of a political millennium; but as the chaos in the body politic grew, and with it the appalling material misery, it began to clamour for the blood of the "traitors" in office by whose corrupt machinations the millennium was delayed, and only those orators were listened to who pandered to its suspicions. Hence the elimination of the moderate elements from the club; hence the ascendancy of Marat, and finally of Robespierre, the secret of whose power was that they really shared the suspicions of the populace, to which they gave a voice and which they did not shrink from translating into action. After the fall of the monarchy Robespierre was in effect the Jacobin Club; for to the tribunes he was the oracle of political wisdom, and by his standard all others were judged.[2] With his fall the Jacobins too came to an end.

Not the least singular thing about the Jacobins is the very slender material basis on which their overwhelming power rested. France groaned under their tyranny, which was compared to that of the Inquisition, with its system of espionage and denunciations which no one was too illustrious or too humble to escape. Yet it was reckoned by competent observers that, at the height of the Terror, the Jacobins could not command a force of more than 3000 men in Paris. But the secret of their strength was that, in the midst of the general disorganization, they alone were organized. The police agent Dutard, in a report to the minister Garat (April 30, 1793), describing an episode in the Palais Égalité (Royal), adds: "Why did a dozen Jacobins strike terror into two or three hundred aristocrats? It is that the former have a rallying-point and that the latter have none." When the *jeunesse dorée* did at last organize themselves, they had little difficulty in flogging the Jacobins out of the cafés into comparative silence. Long before this the Girondin government had been urged to meet organization by organization, force by force; and it is clear from the daily reports of the police agents that even a moderate display of energy would have saved the National Convention from the humiliation of being dominated by a club, and the French Revolution from the blot of the Terror. But though the Girondins were fully conscious of the evil, they were too timid, or too convinced of the ultimate triumph of their own persuasive eloquence, to act. In the session of the 30th of April 1793 a proposal was made to move the Convention to Versailles out of reach of the Jacobins, and Buzot declared that it was "impossible to remain in Paris" so long as "this abominable haunt" should exist; but the motion was not carried, and the Girondins remained to become the victims of the Jacobins.

Meanwhile other political clubs could only survive so long as they were content to be the shadows of the powerful organization of the Rue St Honoré. The Feuillants had been suppressed on the 18th of August 1792. The turn of the Cordeliers came so soon as its leaders showed signs of revolting against Jacobin supremacy, and no more startling proof of this ascendancy could he found than the ease with which Hébert and his fellows were condemned and the readiness with which the Cordeliers, after a feeble attempt at protest, acquiesced in the verdict. It is idle to speculate on what might have happened had this ascendancy been overthrown by the action of a strong government. No strong government existed, nor, in the actual conditions of the country, could exist on the lines laid down by the constitution. France was menaced by civil war within, and by a coalition of hostile powers without; the discipline of the Terror was perhaps necessary if she was to be welded into a united force capable of resisting this double peril; and the revolutionary leaders saw in the Jacobin organization the only instrument by which this discipline could be made effective. This is the apology usually put forward for the Jacobins by republican writers of later times; they were, it is said (and of some of them it is certainly true), no mere doctrinaires and visionary sectaries, but practical and far-seeing politicians, who realized that "desperate ills need desperate remedies," and, by having the courage of their convictions, saved the gains of the Revolution for France.

The Jacobin Club was closed after the fall of Robespierre on the 9th of Thermidor of the year III., and some of its members were executed. An attempt was made to re-open the club, which was joined by many of the enemies of the Thermidorians, but on the 21st of Brumaire, year III. (Nov. 11, 1794), it was definitively closed. Its members and their sympathizers were scattered among the cafés, where a ruthless war of sticks and chairs was waged against them by the young "aristocrats" known as the *jeunesse dorée*. Nevertheless the "Jacobins" survived, in a somewhat subterranean fashion, emerging again in the club of the Panthéon, founded on the 25th of November 1795, and suppressed in the following February (see BABEUF; FRANÇOIS NOEL). The last attempt to reorganize them was the foundation of the *Réunion d'amis de l'égalité et de la liberté*, in July 1799, which had its headquarters in the *Salle du Manège* of the Tuileries, and was thus known as the *Club du Manège*. It was patronized by Barras, and some two hundred and fifty members of the two councils of the legislature were enrolled as members, including many notable ex-Jacobins. It published a newspaper called the *Journal des Libres*, proclaimed the apotheosis of Robespierre and Babeuf, and attacked the Directory as a *royauté pentarchique*. But public opinion was now preponderatingly moderate or royalist, and the club was violently attacked in the press and in the streets, the suspicions of the government were aroused; it had to change its meeting-place from the Tuileries to the church of the Jacobins (Temple of Peace) in the Rue du Bac, and in August it was suppressed, after barely a month's existence. Its members revenged themselves on the Directory by supporting Napoleon Bonaparte.

Long before the suppression of the Jacobin Club the name of "Jacobins" had been popularly applied to all promulgators of extreme revolutionary opinions. In this sense the word passed beyond the borders of France and long survived the Revolution. Canning's paper, *The Anti-Jacobin*, directed against the English Radicals, consecrated its use in England; and in the

[1] *i.e. Journal des débats et de la correspondance de la Société*, &c. For the various newspapers published under the auspices of the Jacobins see Aulard i. p. cx., &c.

[2] In the published reports only the speeches of members are given, not the interruptions from the tribunes. But see the report (May 18, 1793) of Dutard to Garat on a meeting of the Jacobins (Schmidt, *Tableaux* ii. 242).

correspondence of Metternich and other leaders of the repressive policy which followed the second fall of Napoleon, "Jacobin" is the term commonly applied to anyone with Liberal tendencies, even to so august a personage as the emperor Alexander I. of Russia.

The most important source of information for the history of the Jacobins is F. A. Aulard's *La société des Jacobins, Recueil de documents* (6 vols., Paris, 1889, &c.), where a critical bibliography will be found. This collection does not contain all the printed sources—notably the official Journal of the Club is omitted—but these sources, when not included, are indicated. The documents published are furnished with valuable explanatory notes. See also W. A. Schmidt, *Tableaux de la révolution française* (3 vols., Leipzig, 1867–1870), notably for the reports of the secret police, which throw much light on the actual working of the Jacobin propaganda.

(W. A. P.)

JACOBITE CHURCH. The name of "Jacobites" is first found in a synodal decree of Nicaea A.D. 787, and was invented by hostile Greeks for the Syrian Monophysite Church as founded, or rather restored, by Jacob or James Baradaeus, who was ordained its bishop A.D. 541 or 543. The Monophysites, who like the Greeks knew themselves simply as the Orthodox, were grievously persecuted by the emperor Justinian and the graecizing patriarchs of Antioch, because they rejected the decrees of the council of Chalcedon, in which they—not without good reason—saw nothing but a thinly veiled relapse into those opinions of Nestorius which the previous council of Ephesus had condemned. James was born a little before A.D. 500 at Tella or Tela, 55 m. east of Edessa, of a priestly family, and entered the convent of Phesilta on Mount Isla. About 528 he went with a fellow-monk Sergius to Constantinople to plead the cause of his co-religionists with the empress Theodora, and livid there fifteen years. Justinian during those years imprisoned, deprived or exiled most of the recalcitrant clergy of Syria, Mesopotamia, Cilicia, Cappadocia, and the adjacent regions. Once ordained bishop of Edessa, with the connivance of Theodora, James, disguised as a ragged beggar (whence his name Baradaeus, Syriac *Burdĕānā*, Arabic *al-Barādiā*), traversed these regions preaching, teaching and ordaining new clergy to the number, it is said, of 80,000. His later years were embittered by squabbles with his own clergy, and he died in 578. His work, however, endured, and in the middle ages the Jacobite hierarchy numbered 150 archbishops and bishops under a patriarch and his *maphrian*. About the year 728 six Jacobite bishops present at the council of Manazgert established communion with the Armenians, who equally rejected Chalcedon; they were sent by the patriarch of Antioch, and among them were the metropolitan of Urha (Edessa) and the bishops of Qarhan, Gardman, Nferkert and Amasia. How long this union lasted is not known. In 1842, when the Rev. G. P. Badger visited the chief Jacobite centres, their numbers in all Turkey had dwindled to about 100,000 souls, owing to vast secessions to Rome. At Aleppo at that date only ten families out of several hundred remained true to their old faith, and something like the same proportion at Damascus and Bagdad. Badger testifies that the Syrian proselytes to Rome were superior to their Jacobite brethren, having established schools, rebuilt their churches, increased their clergy, and, above all, having learned to live with each other on terms of peace and charity. As late as 1850 there were 150 villages of them in the Jebel Toor to the north-east of Mardin, 50 in the district of Urfah and Gawar, and a few in the neighbourhoods of Diarbekr, Mosul and Damascus. From about 1860, the seceders to Rome were able, thanks to French consular protection, to seize the majority of the Jacobite churches in Turkey; and this injustice has contributed much to the present degradation and impoverishment of the Jacobites.

They used leavened bread in the Eucharist mixed with salt and oil, and like other Monophysites add to the *Trisagion* the words "Who wast crucified for our sake." They venerate pictures or images, and make the sign of the cross with one finger to show that Christ had but one nature. Deacons, as in Armenia, marry before taking priests' orders. Their patriarch is styled of Antioch, but seldom comes west of Mardin. His *maphrian* (fertilizer) since 1089 has lived at Mosul and ordains the bishops. Monkery is common among them, but there are no nuns. Next to the Roman Uniats (whom they term *Rassen* or Venal) they most hate the Nestorian Syrians of Persia. In 1882, at the instance of the British government, the Turks began to recognize them as a separate organization.

See M. Klein, *Jacobus Baradaeus* (Leiden, 1882); Assemani, *Bibl. Or.* ii. 62–69, 326 and 331; G. P. Badger, *The Nestorians* (London, 1852); Rubens Duval, *La litérature syriaque* (Paris, 1899); G. Krüger, *Monophysitische Streitigkeiten* (Jena, 1884); Silbernagel, *Verfassung der Kirchen des Orients* (Landshut, 1865); and G. Wright, *History of Syriac Literature* (London, 1894). (F. C. C.)

JACOBITES (from Lat. *Jacobus*, James), the name given after the revolution of 1688 to the adherents, first of the exiled English king James II., then of his descendants, and after the extinction of the latter in 1807, of the descendants of Charles I., *i.e.* of the exiled house of Stuart.

The history of the Jacobites, culminating in the risings of 1715 and 1745, is part of the general history of England (*q.v.*), and especially of Scotland (*q.v.*), in which country they were comparatively more numerous and more active, while there was also a large number of Jacobites in Ireland. They were recruited largely, but not solely, from among the Roman Catholics, and the Protestants among them were often identical with the Non-Jurors. Owing to a variety of causes Jacobitism began to lose ground after the accession of George I. and the suppression of the revolt of 1715; and the total failure of the rising of 1745 may be said to mark its end as a serious political force. In 1765 Horace Walpole said that "Jacobitism, the concealed mother of the latter (*i.e.* Toryism), was extinct," but as a sentiment it remained for some time longer, and may even be said to exist to-day. In 1750, during a strike of coal workers at Elswick, James III. was proclaimed king; in 1780 certain persons walked out of the Roman Catholic Church at Hexham when George III. was prayed for; and as late as 1784 a Jacobite rising was talked about. Northumberland was thus a Jacobite stronghold; and in Manchester, where in 1777 according to an American observer Jacobitism "is openly professed," a Jacobite rendezvous known as "John Shaw's Club" lasted from 1735 to 1892. North Wales was another Jacobite centre. The "Cycle of the White Rose"—the white rose being the badge of the Stuarts—composed of members of the principal Welsh families around Wrexham, including the Williams-Wynns of Wynnstay, lasted from 1710 until some time between 1850 and 1860. Jacobite traditions also lingered among the great families of the Scottish Highlands; the last person to suffer death as a Jacobite was Archibald Cameron, a son of Cameron of Lochiel, who was executed in 1753. Dr Johnson's Jacobite sympathies are well known, and on the death of Victor Emmanuel I., the ex-king of Sardinia, in 1824, Lord Liverpool wrote to Canning saying "there are those who think that the ex-king was the lawful king of Great Britain." Until the accession of King Edward VII. finger-bowls were not placed upon the royal dinner-table, because in former times those who secretly sympathized with the Jacobites were in the habit of drinking to the king *over the water*. The romantic side of Jacobitism was stimulated by Sir Walter Scott's *Waverley*, and many Jacobite poems were written during the 19th century.

The chief collections of Jacobite poems are: Charles Mackay's *Jacobite Songs and Ballads of Scotland, 1688–1746, with Appendix of Modern Jacobite Songs* (1861); G. S. Macquoid's *Jacobite Songs and Ballads* (1888); and *English Jacobite Ballads*, edited by A. B. Grosart from the Towneley manuscripts (1877).

Upon the death of Henry Stuart, Cardinal York, the last of James II.'s descendants, in 1807, the rightful occupant of the British throne according to legitimist principles was to be found among the descendants of Henrietta, daughter of Charles I., who married Philip I., duke of Orleans. Henrietta's daughter, Anne Marie (1669–1728), became the wife of Victor Amadeus II., duke of Savoy, afterwards king of Sardinia; her son was King Charles Emmanuel III., and her grandson Victor Amadeus III. The latter's son, King Victor Emmanuel I., left no sons, and his eldest daughter, Marie Beatrice, married Francis IV., duke of Modena,

whose son Ferdinand (d. 1849) left an only daughter, Marie Thérèse (b. 1849). This lady, the wife of Prince Louis of Bavaria, was in 1910 the senior member of the Stuart family, and according to the legitimists the rightful sovereign of Great Britain and Ireland.

Table showing the succession to the crown of Great Britain and Ireland according to Jacobite principles.

Charles I. (1600–1649)
|
Henrietta (1644–1670) =
Philip I., duke of Orleans (1640–1701)
|
Anne Marie (1669–1728) =
Victor Amadeus II., king of Sardinia (1666–1732)
|
Charles Emmanuel III.
king of Sardinia (1701–1773)
|
Victor Amadeus III.
king of Sardinia (1726–1796)
|
Victor Emmanuel I.
king of Sardinia (1759–1824)
|
Marie Beatrice (*c.* 1780–1840) =
Francis IV., duke of Modena (1779–1846)
|
Ferdinand (1821–1849)
|
Marie Thérèse (b. 1849) =
Louis, prince of Bavaria (b. 1845)

Rupert, prince of Bavaria (b. 1869) — Charles (b. 1874) — Francis (b. 1875)

Luitpold (b. 1901) — Albert (b. 1905) — Rudolph (b. 1909)

Among the modern Jacobite, or legitimist, societies perhaps the most important is the "Order of the White Rose," which has a branch in Canada and the United States. The order holds that sovereign authority is of divine sanction, and that the execution of Charles I. and the revolution of 1688 were national crimes; it exists to study the history of the Stuarts, to oppose all democratic tendencies, and in general to maintain the theory that kingship is independent of all parliamentary authority and popular approval. The order, which was instituted in 1886, was responsible for the Stuart exhibition of 1889, and has a newspaper, the *Royalist*. Among other societies with similar objects in view are the "Thames Valley Legitimist Club" and the "Legitimist Jacobite League of Great Britain and Ireland."

See *Historical Papers relating to the Jacobite Period*, edited by J. Allardyce (Aberdeen, 1895–1896); James Hogg, *The Jacobite Relics of Scotland* (Edinburgh, 1819–1821); and F. W. Head, *The Fallen Stuarts* (Cambridge, 1901). The marquis de Ruvigny has compiled *The Jacobite Peerage* (Edinburgh, 1904), a work which purports to give a list of all the titles and honours conferred by the kings of the exiled House of Stuart. (A. W. H.*)

JACOBS, CHRISTIAN FRIEDRICH WILHELM (1764–1847), German classical scholar, was born at Gotha on the 6th of October 1764. After studying philology and theology at Jena and Göttingen, in 1785 he became teacher in the gymnasium of his native town, and in 1802 was appointed to an office in the public library. In 1807 he became classical tutor in the lyceum of Munich, but, disgusted at the attacks made upon him by the old Bavarian Catholic party, who resented the introduction of "north German" teachers, he returned to Gotha in 1810 to take charge of the library and the numismatic cabinet. He remained in Gotha till his death on the 30th of March 1847. Jacobs was an extremely successful teacher; he took great interest in the affairs of his country, and was a publicist of no mean order. But his great work was an edition of the Greek Anthology, with copious notes, in 13 volumes (1798–1814), supplemented by a revised text from the Codex Palatinus (1814–1817). He published also notes on Horace, Stobaeus, Euripides, Athenaeus and the *Iliaca* of Tzetzes; translations of Aelian (*History of Animals*); many of the Greek romances; Philostratus; poetical versions of much of the Greek Anthology; miscellaneous essays on classical subjects; and some very successful school books. His translation of the political speeches of Demosthenes was undertaken with the express purpose of rousing his country against Napoleon, whom he regarded as a second Philip of Macedon.

See E. F. Wüstemann, *Friderici Jacobsii laudatio* (Gotha, 1848); C. Bursian, *Geschichte der classischen Philologie in Deutschland*; and the appreciative article by C. Regel in *Allgemeine deutsche Biographie*.

JACOBS CAVERN, a cavern in latitude 36° 35′ N., 2 m. E. of Pineville, McDonald county, Missouri, named after its discoverer, E. H. Jacobs, of Bentonville, Arkansas. It was scientifically explored by him, in company with Professors Charles Peabody and Warren K. Moorehead, in 1903. The results were published in that year by Jacobs in the *Benton County Sun*; by C. N. Gould in *Science*, July 31, 1903; by Peabody in the *Am. Anthropologist*, Sept. 1903; and in the *Am. Journ. Archaeology*, 1904; and by Peabody and Moorehead, 1904, as *Bulletin I.* of the Dept. of Archaeology in Phillips Academy, Andover, Mass., in the museum of which are exhibits, maps and photographs.

Jacobs Cavern is one of the smaller caves, hardly more than a rock-shelter, and is entirely in the "St Joe Limestone" of the sub-carboniferous age. Its roof is a single flat stratum of limestone; its walls are well marked by lines of stratification; dripstone also partly covers the walls, fills a deep fissure at the end of the cave, and spreads over the floor, where it mingles with an ancient bed of ashes, forming an ash-breccia (mostly firm and solid) that encloses fragments of sandstone, flint spalls, flint implements, charcoal and bones. Underneath is the true floor of the cave, a mass of homogeneous yellow clay, one metre in thickness. It holds scattered fragments of limestone, and is itself the result of limestone degeneration. The length of the opening is over 21 metres; its depth 14 metres, and the height of roof above the undisturbed ash deposit varied from 1 m. 20 cm. to 2 m. 60 cm. The bone recess at the end was from 50 cm. to 80 cm. in height. The stratum of ashes was from 50 cm. to 1 m. 50 cm. thick.

The ash surface was staked off into square metres, and the substance carefully removed in order. Each stalactite, stalagmite and pilaster was measured, numbered, and removed in sections. Six human skeletons were found buried in the ashes. Seven-tenths of a cubic metre of animal bones were found: deer, bear, wolf, raccoon, opossum, beaver, buffalo, elk, turkey, woodchuck, tortoise and hog; all contemporary with man's occupancy. Three stone metates, one stone axe, one celt and fifteen hammerstones were found. Jacobs Cavern was peculiarly rich in flint knives and projectile points. The sum total amounts to 419 objects, besides hundreds of fragments, cores, spalls and rejects, retained for study and comparison. Considerable numbers of bone or horn awls were found in the ashes, as well as fragments of pottery, but no "ceremonial" objects.

The rude type of the implements, the absence of fine pottery, and the peculiarities of the human remains, indicate a race of occupants more ancient than the "mound-builders." The deepest implement observed was buried 50 cm. under the stalagmitic surface. Dr. Hovey has proved that the rate of stalagmitic growth in Wyandotte Cave, Indiana, is .0254 cm. annually; and if that was the rate in Jacobs Cavern, 1968 years would have been needed for the embedding of that implement. Polished rocks outside the cavern and pictographs in the vicinity indicate the work of a prehistoric race earlier than the Osage Indians, who were the historic owners previous to the advent of the white man. (H. C. H.)

JACOBSEN, JENS PETER (1847–1885), Danish imaginative writer, was born at Thisted in Jutland, on the 7th of April 1847; he was the eldest of the five children of a prosperous merchant. He became a student at the university of Copenhagen in 1868. As a boy he showed a remarkable turn for science, particularly for botany. In 1870, although he was secretly writing verses already, Jacobsen definitely adopted botany as a profession. He was sent by a scientific body in Copenhagen to report on the flora of the islands of Anholt and Læsö. About this time the discoveries of Darwin began to exercise a fascination over him, and finding them little understood in Denmark, he translated into Danish *The Origin of Species* and *The Descent of Man*. In

the autumn of 1872, while collecting plants in a morass near Ordrup, he contracted pulmonary disease. His illness, which cut him off from scientific investigation, drove him to literature. He met the famous critic, Dr Georg Brandes, who was struck by his powers of expression, and under his influence, in the spring of 1873, Jacobsen began his great historical romance of *Marie Grubbe*. His method of composition was painful and elaborate, and his work was not ready for publication until the close of 1876. In 1879 he was too ill to write at all; but in 1880 an improvement came, and he finished his second novel, *Niels Lyhne*. In 1882 he published a volume of six short stories, most of them written a few years earlier, called, from the first of them, *Mogens*. After this he wrote no more, but lingered on in his mother's house at Thisted until the 30th of April 1885. In 1886 his posthumous fragments were collected. It was early recognized that Jacobsen was the greatest artist in prose that Denmark has produced. He has been compared with Flaubert, with De Quincey, with Pater; but these parallelisms merely express a sense of the intense individuality of his style, and of his untiring pursuit of beauty in colour, form and melody. Although he wrote so little, and crossed the living stage so hurriedly, his influence in the North has been far-reaching. It may be said that no one in Denmark or Norway has tried to write prose carefully since 1880 whose efforts have not been in some degree modified by the example of Jacobsen's laborious art.

His *Samlede Skrifter* appeared in two volumes in 1888; in 1899 his letters (*Breve*) were edited by Edvard Brandes. In 1896 an English translation of part of the former was published under the title of *Siren Voices: Niels Lyhne*, by Miss E. F. L. Robertson.

(E. G.)

JACOB'S WELL, the scene of the conversation between Jesus and the "woman of Samaria" narrated in the Fourth Gospel, is described as being in the neighbourhood of an otherwise unmentioned "city called Sychar." From the time of Eusebius this city has been identified with Sychem or Shechem (modern Nablus), and the well is still in existence 1½ m. E. of the town, at the foot of Mt Gerizim. It is beneath one of the ruined arches of a church mentioned by Jerome, and is reached by a few rough steps. When Robinson visited it in 1838 it was 105 ft. deep, but it is now much shallower and often dry.

For a discussion of Sychar as distinct from Shechem see T. K. Cheyne, art. "Sychar," in *Ency. Bibl.*, col. 4830. It is possible that Sychar should be placed at Tulūl Balātā, a mound about ½ m. W. of the well (*Palestine Exploration Fund Statement*, 1907, p. 92 seq.); when that village fell into ruin the name may have migrated to 'Askar, a village on the lower slopes of Mt Ebal about 1¾ m. E.N.E. from Nablus and ½ m. N. from Jacob's Well. It may be noted that the difficulty is not with the location of the well, but with the identification of Sychar.

JACOBUS DE VORAGINE (*c.* 1230–*c.* 1298), Italian chronicler, archbishop of Genoa, was born at the little village of Varazze, near Genoa, about the year 1230. He entered the order of the friars preachers of St Dominic in 1244, and besides preaching with success in many parts of Italy, taught in the schools of his own fraternity. He was provincial of Lombardy from 1267 till 1286, when he was removed at the meeting of the order in Paris. He also represented his own province at the councils of Lucca (1288) and Ferrara (1290). On the last occasion he was one of the four delegates charged with signifying Nicholas IV.'s desire for the deposition of Munio de Zamora, who had been master of the order from 1285, and was deprived of his office by a papal bull dated the 12th of April 1291. In 1288 Nicholas empowered him to absolve the people of Genoa for their offence in aiding the Sicilians against Charles II. Early in 1292 the same pope, himself a Franciscan, summoned Jacobus to Rome, intending to consecrate him archbishop of Genoa with his own hands. He reached Rome on Palm Sunday (March 30), only to find his patron ill of a deadly sickness, from which he died on Good Friday (April 4). The cardinals, however, "propter honorem Communis Januae," determined to carry out this consecration on the Sunday after Easter. He was a good bishop, and especially distinguished himself by his efforts to appease the civil discords of Genoa. He died in 1298 or 1299, and was buried in the Dominican church at Genoa. A story, mentioned by the chronicler Echard as unworthy of credit, makes Boniface VIII., on the first day of Lent, cast the ashes in the archbishop's eyes instead of on his head, with the words, "Remember that thou art a Ghibelline, and with thy fellow Ghibellines wilt return to naught."

Jacobus de Voragine left a list of his own works. Speaking of himself in his *Chronicon januense*, he says, "While he was in his order, and after he had been made archbishop, he wrote many works. For he compiled the legends of the saints (*Legendae sanctorum*) in one volume, adding many things from the *Historia tripartita et scholastica*, and from the chronicles of many writers." The other writings he claims are two anonymous volumes of "Sermons concerning all the Saints" whose yearly feasts the church celebrates. Of these volumes, he adds, one is very diffuse, but the other short and concise. Then follow *Sermones de omnibus evangeliis dominicalibus* for every Sunday in the year; *Sermones de omnibus evangeliis, i.e.* a book of discourses on all the Gospels, from Ash Wednesday to the Tuesday after Easter; and a treatise called "*Marialis*, qui totus est de B. Maria compositus," consisting of about 160 discourses on the attributes, titles, &c., of the Virgin Mary. In the same work the archbishop claims to have written his *Chronicon januense* in the second year of his pontificate (1293), but it extends to 1296 or 1297. To this list Echard adds several other works, such as a defence of the Dominicans, printed at Venice in 1504, and a *Summa virtutum et vitiarum Guillelmi Peraldi*, a Dominican who died about 1250. Jacobus is also said by Sixtus of Siena (*Biblioth. Sacra*, lib. ix.) to have translated the Old and New Testaments into his own tongue. "But," adds Echard, "if he did so, the version lies so closely hid that there is no recollection of it," and it may be added that it is highly improbable that the man who compiled the Golden Legend ever conceived the necessity of having the Scriptures in the vernacular.

His two chief works are the *Chronicon januense* and the *Golden Legend* or *Lombardica hystoria*. The former is partly printed in Muratori (*Scriptores Rer. Ital.* ix. 6). It is divided into twelve parts. The first four deal with the mythical history of Genoa from the time of its founder, Janus, the first king of Italy, and its enlarger, a second Janus "citizen of Troy", till its conversion to Christianity "about twenty-five years after the passion of Christ." Part v. professes to treat of the beginning, the growth and the perfection of the city; but of the first period the writer candidly confesses he knows nothing except by hearsay. The second period includes the Genoese crusading exploits in the East, and extends to their victory over the Pisans (*c.* 1130), while the third reaches down to the days of the author's archbishopric. The sixth part deals with the constitution of the city, the seventh and eighth with the duties of rulers and citizens, the ninth with those of domestic life. The tenth gives the ecclesiastical history of Genoa from the time of its first known bishop, St Valentine, "whom we believe to have lived about 530 A.D.," till 1133, when the city was raised to archiepiscopal rank. The eleventh contains the lives of all the bishops in order, and includes the chief events during their pontificates; the twelfth deals in the same way with the archbishops, not forgetting the writer himself.

The *Golden Legend*, one of the most popular religious works of the middle ages, is a collection of the legendary lives of the greater saints of the medieval church. The preface divides the ecclesiastical year into four periods corresponding to the various epochs of the world's history, a time of deviation, of renovation, of reconciliation and of pilgrimage. The book itself, however, falls into five sections:—(*a*) from Advent to Christmas (*cc.* 1–5); (*b*) from Christmas to Septuagesima (6–30); (*c*) from Septuagesima to Easter (31–53); (*d*) from Easter Day to the octave of Pentecost (54–76); (*e*) from the octave of Pentecost to Advent (77–180). The saints' lives are full of puerile legend, and in not a few cases contain accounts of 13th-century miracles wrought at special places, particularly with reference to the Dominicans. The last chapter but one (181), "De Sancto Pelagio Papa," contains a kind of history of the world from the middle of the 6th century; while the last (182) is a somewhat allegorical disquisition, "De Dedicatione Ecclesiae."

The *Golden Legend* was translated into French by Jean Belet de Vigny in the 14th century. It was also one of the earliest books to issue from the press. A Latin edition is assigned to about 1469; and a dated one was published at Lyons in 1473. Many other Latin editions were printed before the end of the century. A French translation by Master John Bataillier is dated 1476; Jean de Vigny's appeared at Paris, 1488; an Italian one by Nic. Manerbi (? Venice, 1475); a Bohemian one at Pilsen, 1475–1479, and at Prague, 1495; Caxton's English versions, 1483, 1487 and 1493; and a German one in 1489. Several 15th-century editions of the *Sermons* are also known, and the *Mariale* was printed at Venice in 1497 and at Paris in 1503.

For bibliography see Potthast, *Bibliotheca hist. med. aev.* (Berlin, 1896), p. 634; U. Chevalier, *Répertoire des sources hist. Bio.-bibl.* (Paris, 1905), *s.v.* "Jacques de Voragine."

JACOTOT, JOSEPH (1770–1840), French educationist, author of the method of "emancipation intellectuelle," was born

at Dijon on the 4th of March 1770. He was educated at the university of Dijon, where in his nineteenth year he was chosen professor of Latin, after which he studied law, became advocate, and at the same time devoted a large amount of his attention to mathematics. In 1788 he organized a federation of the youth of Dijon for the defence of the principles of the Revolution; and in 1792, with the rank of captain, he set out to take part in the campaign of Belgium, where he conducted himself with bravery and distinction. After for some time filling the office of secretary of the "commission d'organisation du mouvement des armées," he in 1794 became deputy of the director of the Polytechnic school, and on the institution of the central schools at Dijon he was appointed to the chair of the "method of sciences," where he made his first experiments in that mode of tuition which he afterwards developed more fully. On the central schools being replaced by other educational institutions, Jacotot occupied successively the chairs of mathematics and of Roman law until the overthrow of the empire. In 1815 he was elected a representative to the chamber of deputies; but after the second restoration he found it necessary to quit his native land, and, having taken up his residence at Brussels, he was in 1818 nominated by the Government teacher of the French language at the university of Louvain, where he perfected into a system the educational principles which he had already practised with success in France. His method was not only adopted in several institutions in Belgium, but also met with some approval in France, England, Germany and Russia. It was based on three principles: (1) all men have equal intelligence; (2) every man has received from God the faculty of being able to instruct himself; (3) everything is in everything. As regards (1) he maintained that it is only in the will to use their intelligence that men differ; and his own process, depending on (3), was to give any one learning a language for the first time a short passage of a few lines, and to encourage the pupil to study, first the words, then the letters, then the grammar, then the meaning, until a single paragraph became the occasion for learning an entire literature. After the revolution of 1830 Jacotot returned to France, and he died at Paris on the 30th of July 1840.

His system was described by him in *Enseignement universel, langue maternelle*, Louvain and Dijon, 1823—which passed through several editions—and in various other works; and he also advocated his views in the *Journal de l'émancipation intellectuelle*. For a complete list of his works and fuller details regarding his career, see *Biographie de J. Jacotot*, by Achille Guillard (Paris, 1860).

JACQUARD, JOSEPH MARIE (1752–1834), French inventor, was born at Lyons on the 7th of July 1752. On the death of his father, who was a working weaver, he inherited two looms, with which he started business on his own account. He did not, however, prosper, and was at last forced to become a lime-burner at Bresse, while his wife supported herself at Lyons by plaiting straw. In 1793 he took part in the unsuccessful defence of Lyons against the troops of the Convention; but afterwards served in their ranks on the Rhône and Loire. After seeing some active service, in which his young son was shot down at his side, he again returned to Lyons. There he obtained a situation in a factory, and employed his spare time in constructing his improved loom, of which he had conceived the idea several years previously. In 1801 he exhibited his invention at the industrial exhibition at Paris; and in 1803 he was summoned to Paris and attached to the Conservatoire des Arts et Métiers. A loom by Jacques de Vaucanson (1709–1782), deposited there, suggested various improvements in his own, which he gradually perfected to its final state. Although his invention was fiercely opposed by the silk-weavers, who feared that its introduction, owing to the saving of labour, would deprive them of their livelihood, its advantages secured its general adoption, and by 1812 there were 11,000 Jacquard looms in use in France. The loom was declared public property in 1806, and Jacquard was rewarded with a pension and a royalty on each machine. He died at Oullins (Rhône) on the 7th of August 1834, and six years later a statue was erected to him at Lyons (see WEAVING).

JACQUERIE, THE, an insurrection of the French peasantry which broke out in the Île de France and about Beauvais at the end of May 1358. The hardships endured by the peasants in the Hundred Years' War and their hatred for the nobles who oppressed them were the principal causes which led to the rising, though the immediate occasion was an affray which took place on the 28th of May at the village of Saint-Leu between "brigands" (militia infantry armoured in brigandines) and countryfolk. The latter having got the upper hand united with the inhabitants of the neighbouring villages and placed Guillaume Karle at their head. They destroyed numerous châteaux in the valleys of the Oise, the Brèche and the Thérain, where they subjected the whole countryside to fire and sword, committing the most terrible atrocities. Charles the Bad, king of Navarre, crushed the rebellion at the battle of Mello on the 10th of June, and the nobles then took violent reprisals upon the peasants, massacring them in great numbers.

See Simeon Luce, *Histoire de la Jacquerie* (Paris, 1859 and 1895).
(J. V.*)

JACTITATION (from Lat. *jactitare*, to throw out publicly), in English law, the maliciously boasting or giving out by one party that he or she is married to the other. In such a case, in order to prevent the common reputation of their marriage that might ensue, the procedure is by suit of jactitation of marriage, in which the petitioner alleges that the respondent boasts that he or she is married to the petitioner, and prays a declaration of nullity and a decree putting the respondent to perpetual silence thereafter. Previously to 1857 such a proceeding took place only in the ecclesiastical courts, but by express terms of the Matrimonial Causes Act of that year it can now be brought in the probate, divorce and admiralty division of the High Court. To the suit there are three defences: (1) denial of the boasting; (2) the truth of the representations; (3) allegation (by way of estoppel) that the petitioner acquiesced in the boasting of the respondent. In *Thompson* v. *Rourke*, 1893, Prob. 70, the court of appeal laid down that the court will not make a decree in a jactitation suit in favour of a petitioner who has at any time acquiesced in the assertion of the respondent that they were actually married. Jactitation of marriage is a suit that is very rare.

JADE, or JAHDE, a deep bay and estuary of the North Sea, belonging to the grand-duchy of Oldenburg, Germany. The bay, which was for the most part made by storm-floods in the 13th and 16th centuries, measures 70 sq. m., and has communication with the open sea by a fairway, a mile and a half wide, which never freezes, and with the tide gives access to the largest vessels. On the west side of the entrance to the bay is the Prussian naval port of Wilhelmshaven. A tiny stream, about 14 m. long, also known as the Jade, enters the head of the bay.

JADE, a name commonly applied to certain ornamental stones, mostly of a green colour, belonging to at least two distinct species, one termed nephrite and the other jadeite. Whilst the term jade is popularly used in this sense, it is now usually restricted by mineralogists to nephrite. The word jade[1] is derived (through Fr. *le jade* for *l'ejade*) from Span. *ijada* (Lat. *ilia*), the loins, this mineral having been known to the Spanish conquerors of Mexico and Peru under the name of *piedra de ijada* or *yjada* (colic stone). The reputed value of the stone in renal diseases is also suggested by the term nephrite (so named by A. G. Werner from Gr. *νεφρός*, kidney), and by its old name *lapis nephriticus*.

Jade, in its wide and popular sense, has always been highly prized by the Chinese, who not only believe in its medicinal value but regard it as the symbol of virtue. It is known, with other ornamental stones, under the name of *yu* or *yu-chi* (yu-stone). According to Professor H. A. Giles, it occupies in China the highest place as a jewel, and is revered as "the quintessence of heaven and earth." Notwithstanding its toughness or tenacity, due to a dense fibrous structure, it is wrought into complicated

[1] The English use of the word for a worthless, ill-tempered horse, a "screw," also applied as a term of reproach to a woman, has been referred doubtfully to the same Spanish source as the O. Sp. *ijadear*, meaning to pant, of a broken-winded horse.

forms and elaborately carved. On many prehistoric sites in Europe, as in the Swiss lake-dwellings, celts and other carved objects both in nephrite and in jadeite have not infrequently been found; and as no kind of jade had until recent years been discovered *in situ* in any European locality it was held, especially by Professor L. H. Fischer, of Freiburg im Breisgau, Baden, that either the raw material or the worked objects must have been brought by some of the early inhabitants from a jade locality probably in the East, or were obtained by barter, thus suggesting a very early trade-route to the Orient. Exceptional interest, therefore, attached to the discovery of jade in Europe, nephrite having been found in Silesia, and jadeite or a similar rock in the Alps, whilst pebbles of jade have been obtained from many localities in Austria and north Germany, in the latter case probably derived from Sweden. It is, therefore, no longer necessary to assign the old jade implements to an exotic origin. Dr A. B. Meyer, of Dresden, always maintained that the European jade objects were indigenous, and his views have become generally accepted. Now that the mineral characters of jade are better understood, and its identification less uncertain, it may possibly be found with altered peridotites, or with amphibolites, among the old crystalline schists of many localities.

Nephrite, or true jade, may be regarded as a finely fibrous or compact variety of amphibole, referred either to actinolite or to tremolite, according as its colour inclines to green or white. Chemically it is a calcium-magnesium silicate, $CaMg_3(SiO_3)_4$. The fibres are either more or less parallel or irregularly felted together, rendering the stone excessively tough; yet its hardness is not great, being only about 6 or 6·5. The mineral sometimes tends to become schistose, breaking with a splintery fracture, or its structure may be horny. The specific gravity varies from 2·9 to 3·18, and is of determinative value, since jadeite is much denser. The colour of jade presents various shades of green, yellow and grey, and the mineral when polished has a rather greasy lustre. Professor F. W. Clarke found the colours due to compounds of iron, manganese and chromium. One of the most famous localities for nephrite is on the west side of the South Island of New Zealand, where it occurs as nodules and veins in serpentine and talcose rocks, but is generally found as boulders. It was known to the Maoris as *pounamu*, or "green stone," and was highly prized, being worked with great labour into various objects, especially the club-like implement known as the *mere*, or *patloo-patloo*, and the breast ornament called *hei-tiki*. The New Zealand jade, called by old writers "green talc of the Maoris," is now worked in Europe as an ornamental stone. The green jade-like stone known in New Zealand as *tangiwai* is bowenite, a translucent serpentine with enclosures of magnesite. The mode of occurrence of the nephrite and bowenite of New Zealand has been described by A. M. Finlayson (*Quart. Jour. Geol. Soc.*, 1909, p. 351). It appears that the Maoris distinguished six varieties of jade. Difference of colour seems due to variations in the proportion of ferrous silicate in the mineral. According to Finlayson, the New Zealand nephrite results from the chemical alteration of serpentine, olivine or pyroxene, whereby a fibrous amphibole is formed, which becomes converted by intense pressure and movement into the dense nephrite.

Nephrite occurs also in New Caledonia, and perhaps in some of the other Pacific islands, but many of the New Caledonian implements reputed to be of jade are really made of serpentine. From its use as a material for axe-heads, jade is often known in Germany as *Beilstein* ("axe-stone"). A fibrous variety, of specific gravity 3·18, found in New Caledonia, and perhaps in the Marquesas, was distinguished by A. Damour under the name of "oceanic jade."

Much of the nephrite used by the Chinese has been obtained from quarries in the Kuen-lun mountains, on the sides of the Kara-kash valley, in Turkestan. The mineral, generally of pale colour, occurs in nests and veins running through hornblende-schists and gneissose rocks, and it is notable that when first quarried it is comparatively soft. It appears to have a wide distribution in the mountains, and has been worked from very ancient times in Khotan. Nephrite is said to occur also in the Pamir region, and pebbles are found in the beds of many streams. In Turkestan, jade is known as *yashm* or *yeshm*, a word which appears in Arabic as *yeshb*, perhaps cognate with ἴασπις or jasper. The "jasper" of the ancients may have included jade. Nephrite is said to have been discovered in 1891 in the Nan-shan mountains in the Chinese province of Kan-suh, where it is worked. The great centre of Chinese jade-working is at Peking, and formerly the industry was active at Su-chow Fu. Siberia has yielded very fine specimens of dark green nephrite, notably from the neighbourhood of the Alibert graphite mine, near Batugol, Lake Baikal. The jade seems to occur as a rock in part of the Sajan mountain system. New deposits in Siberia were opened up to supply material for the tomb of the tsar Alexander III. A gigantic monolith exists at the tomb of Tamerlane at Samarkand. The occurrence of the Siberian jade has been described by Professor L. von Jaczewski.

Jade implements are widely distributed in Alaska and British Columbia, being found in Indian graves, in old shell-heaps and on the sites of deserted villages. Dr G. M. Dawson, arguing from the discovery of some boulders of jade in the Fraser river valley, held that they were not obtained by barter from Siberia, but were of native origin; and the locality was afterwards discovered by Lieut. G. M. Stoney. It is known as the Jade Mountains, and is situated north of Kowak river, about 150 miles from its mouth. The study of a large collection of jade implements by Professor F. W. Clarke and Dr G. P. Merrill proved that the Alaskan jade is true nephrite, not to be distinguished from that of New Zealand.

Jadeite is a mineral species established by A. Damour in 1863, differing markedly from nephrite in that its relation lies with the pyroxenes rather than with the amphiboles. It is an aluminium sodium silicate, $NaAl(SiO_3)_2$, related to spodumene. S. L. Penfield showed, by measurement, that jadeite is monoclinic. Its colour is commonly very pale, and white jadeite, which is the purest variety, is known as "camphor jade." In many cases the mineral shows bright patches of apple-green or emerald-green, due to the presence of chromium. Jadeite is much more fusible than nephrite, and is rather harder (6·5 to 7), but its most readily determined character is found in its higher specific gravity, which ranges from 3·20 to 3·41. Some jadeite seems to be a metamorphosed igneous rock.

The Burmese jade, discovered by a Yunnan trader in the 13th century, is mostly jadeite. The quarries, described by Dr F. Noetling, are situated on the Uru river, about 120 m. from Mogaung, where the jadeite occurs in serpentine, and is partly extracted by fire-setting. It is also found as boulders in alluvium, and when these occur in a bed of laterite they acquire a red colour, which imparts to them peculiar value. According to Dr W. G. Bleeck, who visited the jade country of Upper Burma after Noetling, jadeite occurs at three localities in the Kachin Hills—Tawmaw, Hweka and Mamon. The jadeite is known as *chauk-sen*, and is sent either to China or to Mandalay, by way of Bhamo, whence Bhamo has come erroneously to be regarded as a locality for jade. Jadeite occurs in association with the nephrite of Turkestan, and possibly in some other Asiatic localities. In certain cases nephrite is formed by the alteration of jadeite, as shown by Professor J. P. Iddings. The Chinese *feits'ui*, sometimes called "imperial jade," is a beautiful green stone, which seems generally to be jadeite, but it is said that in some cases it may be chrysoprase. It is named from its resemblance in colour to the plumage of the kingfisher. The resonant character of jade has led to its occasional use as a musical stone.

In Mexico, in Central America and in the northern part of South America, objects of jadeite are common. The Kunz votive adze from Oaxaca, in Mexico, is now in the American Museum of Natural History, New York. At the time of the Spanish conquest of Mexico amulets of green stone were highly venerated, and it is believed that jadeite was one of the stones prized under the name of *chalchihuitl*. Probably turquoise was another stone included under this name, and indeed any green stone capable of being polished, such as the Amazon stone, now recognized as a green feldspar, may have been numbered among the Aztec amulets. Dr Kunz suggests that the chalchihuitl was jadeite in southern Mexico and Central America, and turquoise in northern Mexico and New Mexico. He thinks that Mexican jadeite may yet be discovered in places (*Gems and Precious Stones of Mexico*, by G. F. Kunz: Mexico, 1907).

Chloromelanite is Damour's name for a dense, dark mineral which has been regarded as a kind of jade, and was used for the manufacture of celts found in the dolmens of France and in certain Swiss lake-dwellings. It is a mineral of spinach-green or dark-green colour, having a specific gravity of 3·4, or even as high as 3·65, and may be regarded as a variety of jadeite rich in iron. Chloromelanite occurs in the Cyclops Mountains in New Guinea, and is used for hatchets or agricultural implements, whilst the sago-clubs of the island are usually of serpentine. Sillimanite, or fibrolite, is a mineral which, like chloromelanite, was used by the Neolithic occupants of western Europe, and is sometimes mistaken for a pale kind of jade. It is an aluminium silicate, of specific gravity about 3·2, distinguished by its infusibility. The *jade tenace* of J. R. Haüy, discovered by H. B. de Saussure in the Swiss Alps, is now known as saussurite. Among other substances sometimes taken for jade may be mentioned prehnite, a hydrous calcium-aluminium silicate, which when polished much resembles certain kinds of jade. Pectolite has been used, like jade, in Alaska. A variety of vesuvianite (idocrase) from California, described by Dr. G. F. Kunz as californite, was at first mistaken for jade. The name jadeolite has been given by Kunz to a green chromiferous syenite from the jadeite mines of Burma. The mineral called bowenite, at one time supposed to be jade, is a hard and tough variety of serpentine. Some of the common Chinese ornaments imitating jade are carved in steatite or serpentine, while others are merely glass. The *pâte de riz* is a fine white glass. The so-called "pink jade" is mostly quartz, artificially coloured, and "black jade," though sometimes mentioned, has no existence.

An exhaustive description of jade will be found in a sumptuous work, entitled *Investigations and Studies in Jade* (New York, 1906). This work, edited by Dr G. F. Kunz, was prepared in illustration of the famous jade collection made by Heber Reginald Bishop, and

presented by him to the Metropolitan Museum of Art, New York. The work, which is in two folio volumes, superbly illustrated, was printed privately, and after 100 copies had been struck off on American hand-made paper, the type was distributed and the material used for the illustrations was destroyed. The second volume is a catalogue of the collection, which comprises 900 specimens arranged in three classes: mineralogical, archaeological and artistic. The important section on Chinese jade was contributed by Dr S. W. Bushell, who also translated for the work a discourse on jade—*Yü-shuo* by T'ang Jung-tso, of Peking. Reference should also be made to Heinrich Fischer's *Nephrit und Jadeit* (2nd ed., Stuttgart, 1880), a work which at the date of its publication was almost exhaustive. (F. W. R.*)

JAEN, an inland province of southern Spain, formed in 1833 of districts belonging to Andalusia; bounded on the N. by Ciudad Real and Albacete, E. by Albacete and Granada, S. by Granada, and W. by Cordova. Pop. (1900), 474,490; area, 5848 sq. m. Jaen comprises the upper basin of the river Guadalquivir, which traverses the central districts from east to west, and is enclosed on the north, south and east by mountain ranges, while on the west it is entered by the great Andalusian plain. The Sierra Morena, which divides Andalusia from New Castile, extends along the northern half of the province, its most prominent ridges being the Loma de Chiclana and the Loma de Ubeda; the Sierras de Segura, in the east, derive their name from the river Segura, which rises just within the border; and between the last-named watershed, its continuation the Sierra del Pozo, and the parallel Sierra de Cazorla, is the source of the Guadalquivir. The loftiest summits in the province are those of the Sierra Magina (7103 ft.) farther west and south. Apart from the Guadalquivir the only large rivers are its right-hand tributaries the Jándula and Guadalimar, its left-hand tributary the Guadiana Menor, and the Segura, which flows east and south to the Mediterranean.

In a region which varies so markedly in the altitude of its surface, the climate is naturally unequal; and, while the bleak, wind-swept highlands are only available as sheep-walks, the well-watered and fertile valleys favour the cultivation of the vine, the olive and all kinds of cereals. The mineral wealth of Jaen has been known since Roman times, and mining is an important industry, with its centre at Linares. Over 400 lead mines were worked in 1903; small quantities of iron, copper and salt are also obtained. There is some trade in sawn timber and cloth; esparto fabrics, alcohol and oil are manufactured. The roads, partly owing to the development of mining, are more numerous and better kept than in most Spanish provinces. Railway communication is also very complete in the western districts, as the main line Madrid-Cordova-Seville passes through them and is joined south of Linares by two important railways—from Algeciras and Malaga on the south-west, and from Almeria on the south-east. The eastern half of Jaen is inaccessible by rail. In the western half are Jaen, the capital (pop. (1900), 26,434), with Andujar (16,302), Baeza (14,379), Bailen (7420), Linares (38,245), Martos (17,078) and Ubeda (19,913). Other towns of more than 7000 inhabitants are Alcalá la Real, Alcaudete, Arjona, La Carolina and Porcuna, in the west; and Cazorla, Quesada, Torredonjimeno, Villacarillo and Villanueva del Arzobispo, in the east.

JAEN, the capital of the Spanish province of Jaen, on the Linares-Puente Genil railway, 1500 ft. above the sea. Pop. (1900), 26,434. Jaen is finely situated on the well-wooded northern slopes of the Jabalcuz Mountains, overlooking the picturesque valleys of the Jaen and Guadalbullon rivers, which flow north into the Guadalquivir. The hillside upon which the narrow and irregular city streets rise in terraces is fortified with Moorish walls and a Moorish citadel. Jaen is an episcopal see. Its cathedral was founded in 1532; and, although it remained unfinished until late in the 18th century, its main characteristics are those of the Renaissance period. The city contains many churches and convents, a library, art galleries, theatres, barracks and hospitals. Its manufactures include leather, soap, alcohol and linen; and it was formerly celebrated for its silk. There are hot mineral springs in the mountains, 2 m. south.

The identification of Jaen with the Roman Aurinx, which has sometimes been suggested, is extremely questionable. After the Moorish conquest Jaen was an important commercial centre, under the name of Jayyan; and ultimately became capital of a petty kingdom, which was brought to an end only in 1246 by Ferdinand III. of Castille, who transferred hither the bishopric of Baeza in 1248. Ferdinand IV. died at Jaen in 1312. In 1712 the city suffered severely from an earthquake.

JAFARABAD, a state of India, in the Kathiawar agency of Bombay, forming part of the territory of the nawab of Janjira; area, 42 sq. m.; pop. (1901), 12,097; estimated revenue, £4000. The town of Jafarabad (pop. 6038), situated on the estuary of a river, carries on a large coasting trade.

JAFFNA, a town of Ceylon, at the northern extremity of the island. The fort was described by Sir J. Emerson Tennent as "the most perfect little military work in Ceylon—a pentagon built of blocks of white coral." The European part of the town bears the Dutch stamp more distinctly than any other town in the island; and there still exists a Dutch Presbyterian church. Several of the church buildings date from the time of the Portuguese. In 1901 Jaffna had a population of 33,879, while in the district or peninsula of the same name there were 300,851 persons, nearly all Tamils, the only Europeans being the civil servants and a few planters. Coco-nut planting has not been successful of recent years. The natives grow palmyras freely, and have a trade in the fibre of this palm. They also grow and export tobacco, but not enough rice for their own requirements. A steamer calls weekly, and there is considerable trade. The railway extension from Kurunegala due north to Jaffna and the coast was commenced in 1900. Jaffna is the seat of a government agent and district judge, and criminal sessions of the supreme court are regularly held. Jaffna, or, as the natives call it, Yalpannan, was occupied by the Tamils about 204 B.C., and there continued to be Tamil rajahs of Jaffna till 1617, when the Portuguese took possession of the place. As early as 1544 the missionaries under Francis Xavier had made converts in this part of Ceylon, and after the conquest the Portuguese maintained their proselytizing zeal. They had a Jesuit college, a Franciscan and a Dominican monastery. The Dutch drove out the Portuguese in 1658. The Church of England Missionary Society began its work in Jaffna in 1818, and the American Missionary Society in 1822.

JÄGER, GUSTAV (1832–), German naturalist and hygienist, was born at Bürg in Württemberg on the 23rd of June 1832. After studying medicine at Tübingen he became a teacher of zoology at Vienna. In 1868 he was appointed professor of zoology at the academy of Hohenheim, and subsequently he became teacher of zoology and anthropology at Stuttgart polytechnic and professor of physiology at the veterinary school. In 1884 he abandoned teaching and started practice as a physician in Stuttgart. He wrote various works on biological subjects, including *Die Darwinsche Theorie und ihre Stellung zu Moral und Religion* (1869), *Lehrbuch der allgemeinen Zoologie* (1871–1878), and *Die Entdeckung der Seele* (1878). In 1876 he suggested an hypothesis in explanation of heredity, resembling the germplasm theory subsequently elaborated by August Weismann, to the effect that the germinal protoplasm retains its specific properties from generation to generation, dividing in each reproduction into an ontogenetic portion, out of which the individual is built up, and a phylogenetic portion, which is reserved to form the reproductive material of the mature offspring. In *Die Normalkleidung als Gesundheitsschutz* (1880) he advocated the system of clothing associated with his name, objecting especially to the use of any kind of vegetable fibre for clothes.

JÄGERNDORF (Czech, *Krnov*), a town of Austria, in Silesia, 18 m. N.W. of Troppau by rail. Pop. (1900), 14,675, mostly German. It is situated on the Oppa and possesses a château belonging to Prince Liechtenstein, who holds extensive estates in the district. Jägerndorf has large manufactories of cloth, woollens, linen and machines, and carries on an active trade. On the neighbouring hill of Burgberg (1420 ft.) are a church, much visited as a place of pilgrimage, and the ruins of the seat of the former princes of Jägerndorf. The claim of Prussia to the principality of Jägerndorf was the occasion of the first Silesian war (1740–1742), but in the partition, which followed, Austria retained the larger portion of it. Jägerndorf suffered severely during the Thirty Years' War, and was the scene of engagements between the Prussians and Austrians in May 1745 and in January 1779.

JAGERSFONTEIN, a town in the Orange Free State, 50 m. N.W. by rail of Springfontein on the trunk line from Cape Town to Pretoria. Pop. (1904), 5657—1293 whites and 4364 coloured persons. Jagersfontein, which occupies a pleasant situation on the open veld about 4500 ft. above the sea, owes its existence to the valuable diamond mine discovered here in 1870. The first diamond, a stone of 50 carats, was found in August of that year, and digging immediately began. The discovery a few weeks later of the much richer mines at Bultfontein and Du Toits Pan, followed by the great finds at De Beers and Colesberg Kop (Kimberley) caused Jagersfontein to be neglected for several years. Up to 1887 the claims in the mine were held by a large number of individuals, but coincident with the efforts to amalgamate the interest in the Kimberley mines a similar movement took place at Jagersfontein, and by 1893 all the claims became the property of one company, which has a working arrangement with the De Beers corporation. The mine, which is worked on the open system and has a depth of 450 ft., yields stones of very fine quality, but the annual output does not exceed in value £500,000. In 1909 a shaft 950 ft. deep was sunk with a view to working the mine on the underground system. Among the famous stones found in the mine are the "Excelsior" (weighing 971 carats, and larger than any previously discovered) and the "Jubilee" (see DIAMOND). The town was created a municipality in 1904.

Fourteen miles east of Jagersfontein is Boomplaats, the site of the battle fought in 1848 between the Boers under A. W. Pretorius and the British under Sir Harry Smith (see ORANGE FREE STATE: *History*).

JAGO, RICHARD (1715–1781), English poet, third son of Richard Jago, rector of Beaudesert, Warwickshire, was born in 1715. He went up to University College, Oxford, in 1732, and took his degree in 1736. He was ordained to the curacy of Snitterfield, Warwickshire, in 1737, and became rector in 1754; and, although he subsequently received other preferments, Snitterfield remained his favourite residence. He died there on the 8th of May 1781. He was twice married. Jago's best-known poem, *The Blackbirds*, was first printed in Hawkesworth's *Adventurer* (No. 37, March 13, 1753), and was generally attributed to Gilbert West, but Jago published it in his own name, with other poems, in R. Dodsley's *Collection of Poems* (vol. iv., 1755). In 1767 appeared a topographical poem, *Edge Hill, or the Rural Prospect delineated and moralized*; two separate sermons were published in 1755; and in 1768 *Labour and Genius, a Fable.* Shortly before his death Jago revised his poems, and they were published in 1784 by his friend, John Scott Hylton, as *Poems Moral and Descriptive.*

See a notice prefixed to the edition of 1784; A. Chalmers, *English Poets* (vol. xvii., 1810); F. L. Colvile, *Warwickshire Worthies* (1870); some biographical notes are to be found in the letters of Shenstone to Jago printed in vol. iii. of Shenstone's *Works* (1769).

JAGUAR (*Felis onca*), the largest species of the *Felidae* found on the American continent, where it ranges from Texas through Central and South America to Patagonia. In the countries which bound its northern limit it is not frequently met with, but in South America it is quite common, and Don Felix de Azara states that when the Spaniards first settled in the district between Montevideo and Santa Fé, as many as two thousand were killed yearly. The jaguar is usually found singly (sometimes in pairs), and preys upon such quadrupeds as the horse, tapir, capybara, dogs or cattle. It often feeds on fresh-water turtles; sometimes following the reptiles into the water to effect a capture, it inserts a paw between the shells and drags out the body of the turtle by means of its sharp claws. Occasionally after having tasted human flesh, the jaguar becomes a confirmed man-eater. The cry of this great cat, which is heard at night, and most frequently during the pairing season, is deep and hoarse in tone, and consists of the sound *pu, pu*, often repeated. The female brings forth from two to four cubs towards the close of the year, which are able to follow their mother in about fifteen days after birth. The ground colour of the jaguar varies greatly, ranging from white to black, the rosette markings in the extremes being but faintly visible. The general or typical coloration is, however, a rich tan upon the head, neck, body, outside of legs, and tail near the root. The upper part of the head and sides of the face are thickly marked with small black spots, and the rest of body is covered with rosettes, formed of rings of black spots, with a black spot in the centre, and ranged lengthwise along the body in five to seven rows on each side. These black rings are heaviest along the back. The lips, throat, breast and belly, the inside of the legs and the lower sides of tail are pure white, marked with irregular spots of black, those on the breast being long bars and on the belly and inside of legs large blotches. The tail has large black spots near the root, some with light centres, and from about midway of its length to the tip it is ringed with black. The ears are black

The Jaguar (*Felis onca*).

behind, with a large buff spot near the tip. The nose and upper lip are light rufous brown. The size varies, the total length of a very large specimen measuring 6 ft. 9 in.; the average length, however, is about 4 ft. from the nose to root of tail. In form the jaguar is thick-set; it does not stand high upon its legs; and in comparison with the leopard is heavily built; but its movements are very rapid, and it is fully as agile as its more graceful relative. The skull resembles that of the lion and tiger, but is much broader in proportion to its length, and may be identified by the presence of a tubercle on the inner edge of the orbit. The species has been divided into a number of local forms, regarded by some American naturalists as distinct species, but preferably ranked as sub-species or races.

JAGUARONDI, or YAGUARONDI (*Felis jaguarondi*), a South American wild cat, found in Brazil, Paraguay and Guiana, ranging to north-eastern Mexico. This relatively small cat, uniformly coloured, is generally of some shade of brownish-grey, but in some individuals the fur has a rufous coat, while in others grey predominates. These cats are said by Don Felix de Azara to keep to cover, without venturing into open places. They attack tame poultry and also young fawns. The names jaguarondi and eyra are applied indifferently to this species and *Felis eyra.*

JAHANABAD, a town of British India in Gaya district, Bengal, situated on a branch of the East Indian railway. Pop. (1901), 7018. It was once a flourishing trading town, and in 1760 it formed one of the eight branches of the East India Company's central factory at Patna. Since the introduction of Manchester goods, the trade of the town in cotton cloth has almost entirely ceased; but large numbers of the Jolaha or Mahommedan weaver caste live in the neighbourhood.

JAHANGIR, or JEHANGIR (1569–1627), Mogul emperor of Delhi, succeeded his father Akbar the Great in 1605. His name was Salim, but he assumed the title of Jahangir, "Conqueror of the World," on his accession. It was in his reign that Sir Thomas Roe came as ambassador of James I., on behalf of the

English company. He was a dissolute ruler, much addicted to drunkenness, and his reign is chiefly notable for the influence enjoyed by his wife Nur Jahan, "the Light of the World.". At first she influenced Jahangir for good, but surrounding herself with her relatives she aroused the jealousy of the imperial princes; and Jahangir died in 1627 in the midst of a rebellion headed by his son, Khurram or Shah Jahan, and his greatest general, Mahabat Khan. The tomb of Jahangir is situated in the gardens of Shahdera on the outskirts of Lahore.

JĀḤIẒ (ABŪ 'UTHMĀN 'AMR IBN BAHR UL-JĀḤIẒ; *i.e.* "the man the pupils of whose eyes are prominent") (d. 869), Arabian writer. He spent his life and devoted himself in Basra chiefly to the study of polite literature. A Mu'tazilite in his religious beliefs, he developed a system of his own and founded a sect named after him. He was favoured by Ibn uz-Zaiyāt, the vizier of the caliph Wāthiq.

His work, the *Kitāb ul-Bayān wat-Tabyīn*, a discursive treatise on rhetoric, has been published in two volumes at Cairo (1895). The *Kitāb ul-Maḥāsin wal-Addād* was edited by G. van Vloten as *Le Livre des beautés et des antithèses* (Leiden, 1898); the *Kitāb ul-Bu-halā. Le Livre des avares*, ed. by the same (Leiden, 1900); two other smaller works, the *Excellences of the Turks* and the *Superiority in Glory of the Blacks over the Whites*, also prepared by the same. The *Kitāb ul-Ḥayawān*, or "Book of Animals," a philological and literary, not a scientific, work, was published at Cairo (1906).

(G. W. T.)

JAHN, FRIEDRICH LUDWIG (1778–1852), German pedagogue and patriot, commonly called *Turnvater* ("Father of Gymnastics"), was born in Lanz on the 11th of August 1778. He studied theology and philology from 1796 to 1802 at Halle, Göttingen and Greifswald. After Jena he joined the Prussian army. In 1809 he went to Berlin, where he became a teacher at the Gymnasium zum Grauen as well as at the Plamann School. Brooding upon the humiliation of his native land by Napoleon, he conceived the idea of restoring the spirits of his countrymen by the development of their physical and moral powers through the practice of gymnastics. The first *Turnplatz*, or open-air gymnasium, was opened by him at Berlin in 1811, and the movement spread rapidly, the young gymnasts being taught to regard themselves as members of a kind of gild for the emancipation of their fatherland. This patriotic spirit was nourished in no small degree by the writings of Jahn. Early in 1813 he took an active part at Breslau in the formation of the famous corps of Lützow, a battalion of which he commanded, though during the same period he was often employed in secret service. After the war he returned to Berlin, where he was appointed state teacher of gymnastics. As such he was a leader in the formation of the student *Burschenschaften* (patriotic fraternities) in Jena.

A man of democratic nature, rugged, honest, eccentric and outspoken, Jahn often came into collision with the reactionary spirit of the time, and this conflict resulted in 1819 in the closing of the *Turnplatz* and the arrest of Jahn himself. Kept in semi-confinement at the fortress of Kolberg until 1824, he was then sentenced to imprisonment for two years; but this sentence was reversed in 1825, though he was forbidden to live within ten miles of Berlin. He therefore took up his residence at Freyburg on the Unstrut, where he remained until his death, with the exception of a short period in 1828, when he was exiled to Cölleda on a charge of sedition. In 1840 he was decorated by the Prussian government with the Iron Cross for bravery in the wars against Napoleon. In the spring of 1848 he was elected by the district of Naumburg to the German National Parliament. Jahn died on the 15th of October 1852 in Freyburg, where a monument was erected in his honour in 1859.

Among his works are the following: *Bereicherung des hochdeutschen Sprachschatzes* (Leipzig, 1806), *Deutsches Volksthum* (Lübeck, 1810), *Runenblätter* (Frankfort, 1814), *Neue Runenblätter* (Naumburg, 1828), *Merke zum deutschen Volksthum* (Hildburghausen, 1833), and *Selbstvertheidigung* (Vindication) (Leipzig, 1863). A complete edition of his works appeared at Hof in 1884–1887. See the biography by Schultheiss (Berlin, 1894), and *Jahn als Erzieher*, by Friedrich (Munich, 1895).

JAHN, JOHANN (1750–1816), German Orientalist, was born at Tasswitz, Moravia, on the 18th of June 1750. He studied philosophy at Olmütz, and in 1772 began his theological studies at the Premonstratensian convent of Bruck, near Znaim. Having been ordained in 1775, he for a short time held a cure at Mislitz, but was soon recalled to Bruck as professor of Oriental languages and Biblical hermeneutics. On the suppression of the convent by Joseph II. in 1784, Jahn took up similar work at Olmütz, and in 1789 he was transferred to Vienna as professor of Oriental languages, biblical archaeology and dogmatics. In 1792 he published his *Einleitung ins Alte Testament* (2 vols.), which soon brought him into trouble; the cardinal-archbishop of Vienna laid a complaint against him for having departed from the traditional teaching of the Church, *e.g.* by asserting Job, Jonah, Tobit and Judith to be didactic poems, and the cases of demoniacal possession in the New Testament to be cases of dangerous disease. An ecclesiastical commission reported that the views themselves were not necessarily heretical, but that Jahn had erred in showing too little consideration for the views of German Catholic theologians in coming into conflict with his bishop, and in raising difficult problems by which the unlearned might be led astray. He was accordingly advised to modify his expressions in future. Although he appears honestly to have accepted this judgment, the hostility of his opponents did not cease until at last (1806) he was compelled to accept a canonry at St Stephen's, Vienna, which involved the resignation of his chair. This step had been preceded by the condemnation of his *Introductio in libros sacros veteris foederis in compendium redacta*, published in 1804, and also of his *Archaeologia biblica in compendium redacta* (1805). The only work of importance, outside the region of mere philology, afterwards published by him, was the *Enchiridion Hermeneuticae* (1812). He died on the 16th of August 1816.

Besides the works already mentioned, he published *Hebräische Sprachlehre für Anfänger* (1792); *Aramäische od. Chaldäische u. Syrische Sprachlehre für Anfänger* (1793); *Arabische Sprachlehre* (1796); *Elementarbuch der hebr. Sprache* (1799); *Chaldäische Chrestomathie* (1800); *Arabische Chrestomathie* (1802); *Lexicon arabico-latinum chrestomathiae accommodatum* (1802); an edition of the Hebrew Bible (1806); *Grammatica linguae hebraicae* (1809); a critical commentary on the Messianic passages of the Old Testament (*Vaticinia prophetarum de Jesu Messia*, 1815). In 1821 a collection of *Nachträge* appeared, containing six dissertations on Biblical subjects. The English translation of the *Archaeologia* by T. C. Upham (1840) has passed through several editions.

JAHN, OTTO (1813–1869), German archaeologist, philologist, and writer on art and music, was born at Kiel on the 16th of June 1813. After the completion of his university studies at Kiel, Leipzig and Berlin, he travelled for three years in France and Italy; in 1839 he became privatdocent at Kiel, and in 1842 professor-extraordinary of archaeology and philology at Greifswald (ordinary professor 1845). In 1847 he accepted the chair of archaeology at Leipzig, of which he was deprived in 1851 for having taken part in the political movements of 1848–1849. In 1855 he was appointed professor of the science of antiquity, and director of the academical art museum at Bonn, and in 1867 he was called to succeed E. Gerhard at Berlin. He died at Göttingen, on the 9th of September 1869.

The following are the most important of his works: 1. Archaeological: *Palamedes* (1836); *Telephos u. Troilos* (1841); *Die Gemälde des Polygnot* (1841); *Pentheus u. die Mänaden* (1841); *Paris u. Oinone* (1844); *Die hellenische Kunst* (1846); *Peitho, die Göttin der Überredung* (1847); *Über einige Darstellungen des Paris-Urteils* (1849); *Die Ficoronische Cista* (1852); *Pausaniae descriptio arcis Athenarum* (3rd ed., 1901); *Darstellungen griechischer Dichter auf Vasenbildern* (1861). 2. Philological: Critical editions of Juvenal, Persius and Sulpicia (3rd ed. by F. Bücheler, 1893); Censorinus (1845); Florus (1852); Cicero's *Brutus* (4th ed., 1877); and *Orator* (3rd ed., 1869); the *Periochae* of Livy (1853); the *Psyche et Cupido* of Apuleius (3rd ed., 1884; 5th ed., 1905); Longinus (1867; 3rd ed. by J. Vahlen, 1905). 3. Biographical and aesthetic: *Ueber Mendelssohn's Paulus* (1842); *Biographie Mozarts*, a work of extraordinary labour, and of great importance for the history of music (3rd ed. by H. Disters, 1889–1891; Eng. trans. by P. D. Townsend, 1891); *Ludwig Uhland* (1863); *Gesammelte Aufsätze über Musik* (1866); *Biographische Aufsätze* (1866). His *Griechische Bilderchroniken* was published after his death, by his nephew A. Michaelis, who has written an

exhaustive biography in *Allgemeine Deutsche Biographie*, xiii.; see also J. Vahlen, *Otto Jahn* (1870); C. Bursian, *Geschichte der classischen Philologie in Deutschland*.

JAHRUM, a town and district of Persia in the province of Fars, S.E. of Shiraz and S.W. of Darab. The district has thirty-three villages and is famous for its celebrated *shâhân* dates, which are exported in great quantities; it also produces much tobacco and fruit. The water supply is scanty, and most of the irrigation is by water drawn from wells. The town of Jahrum, situated about 90 m. S.E. of Shiraz, is surrounded by a mud-wall 3 m. in circuit which was constructed in 1834. It has a population of about 15,000, one half living inside and the other half outside the walls. It is the market for the produce of the surrounding districts, has six caravanserais and a post office.

JAINS, the most numerous and influential sect of heretics, or nonconformists to the Brahmanical system of Hinduism, in India. They are found in every province of upper Hindustan, in the cities along the Ganges and in Calcutta. But they are more numerous to the west—in Mewar, Gujarat, and in the upper part of the Malabar coast—and are also scattered throughout the whole of the southern peninsula. They are mostly traders, and live in the towns; and the wealth of many of their community gives them a social importance greater than would result from their mere numbers. In the Indian census of 1901 they are returned as being 1,334,140 in number. Their magnificent series of temples and shrines on Mount Abu, one of the seven wonders of India, is perhaps the most striking outward sign of their wealth and importance.

The Jains are the last direct representatives on the continent of India of those schools of thought which grew out of the active philosophical speculation and earnest spirit of religious inquiry that prevailed in the valley of the Ganges during the 5th and 6th centuries before the Christian era. For many centuries Jainism was so overshadowed by that stupendous movement, born at the same time and in the same place, which we call Buddhism, that it remained almost unnoticed by the side of its powerful rival. But when Buddhism, whose widely open doors had absorbed the mass of the community, became thereby corrupted from its pristine purity and gradually died away, the smaller school of the Jains, less diametrically opposed to the victorious orthodox creed of the Brahmans, survived, and in some degree took its place.

Jainism purports to be the system of belief promulgated by Vaddhamāna, better known by his epithet of Mahā-vīra (the great hero), who was a contemporary of Gotama, the Buddha. But the Jains, like the Buddhists, believe that the same system had previously been proclaimed through countless ages by each one of a succession of earlier teachers. The Jains count twenty-four such prophets, whom they call Jinas, or Tīrthankaras, that is, conquerors or leaders of schools of thought. It is from this word Jina that the modern name Jainas, meaning followers of the Jina, or of the Jinas, is derived. This legend of the twenty-four Jinas contains a germ of truth. Mahā-vīra was not an originator; he merely carried on, with but slight changes, a system which existed before his time, and which probably owes its most distinguishing features to a teacher named Pārṣwa, who ranks in the succession of Jinas as the predecessor of Mahā-vīra. Pārṣwa is said, in the Jain chronology, to have been born two hundred years before Mahā-vīra (that is, about 760 B.C.); but the only conclusion that it is safe to draw from this statement is that Pārṣwa was considerably earlier in point of time than Mahā-vīra. Very little reliance can be placed upon the details reported in the Jain books concerning the previous Jinas in the list of the twenty-four Tīrthankaras. The curious will find in them many reminiscences of Hindu and Buddhist legend; and the antiquary must notice the distinctive symbols assigned to each, in order to recognize the statues of the different Jinas, otherwise identical, in the different Jain temples.

The Jains are divided into two great parties—the *Digambaras*, or Sky-clad Ones, and the *Svetāmbaras*, or the White-robed Ones. The latter have only as yet been traced, and that doubtfully, as far back as the 5th century after Christ; the former are almost certainly the same as the Niganṭhas, who are referred to in numerous passages of the Buddhist Pāli Piṭakas, and must therefore be at least as old as the 6th century B.C. In many of these passages the Niganṭhas are mentioned as contemporaneous with the Buddha; and details enough are given concerning their leader Niganṭha Nāta-putta (that is, the Niganṭha of the Jñātṛika clan) to enable us to identify him, without any doubt, as the same person as the Vaddhamāna Mahā-vīra of the Jain books. This remarkable confirmation, from the scriptures of a rival religion, of the Jain tradition is conclusive as to the date of Mahā-vīra. The Niganṭhas are referred to in one of Asoka's edicts (*Corpus Inscriptionum*, Plate xx.). Unfortunately the account of the teachings of Niganṭha Nāta-putta given in the Buddhist scriptures are, like those of the Buddha's teachings given in the Brahmanical literature, very meagre.

Jain Literature.—The Jain scriptures themselves, though based on earlier traditions, are not older in their present form than the 5th century of our era. The most distinctively sacred books are called the forty-five Āgamas, consisting of eleven Angas, twelve Upangas, ten Pakiṇṇakas, six Chedas, four Mūla-sūtras and two other books. Devaddhi Gaṇin, who occupies among the Jains a position very similar to that occupied among the Buddhists by Buddhaghosa, collected the then existing traditions and teachings of the sect into these forty-five Āgamas. Like the Buddhist scriptures, the earlier Jain books are written in a dialect of their own, the so-called Jaina Prākrit; and it was not till between A.D. 1000 and 1100 that the Jains adopted Sanskrit as their literary language. Considerable progress has been made in the publication and elucidation of these original authorities. But a great deal remains yet to be done. The oldest books now in the possession of the modern Jains purport to go back, not to the foundation of the existing order in the 6th century B.C., but only to the time of Bhadrabahu, three centuries later. The whole of the still older literature, on which the revision then made was based, the so-called *Pūrvas*, have been lost. And the existing canonical books, while preserving a great deal that was probably derived from them, contain much later material. The problem remains to sort out the older from the later, to distinguish between the earlier form of the faith and its subsequent developments, and to collect the numerous data for the general, social, industrial, religious and political history of India. Professor Weber gave a fairly full and carefully-drawn-up analysis of the whole of the more ancient books in the second part of the second volume of his *Catalogue of the Sanskrit MSS. at Berlin*, published in 1888, and in vols. xvi. and xvii. of his *Indische Studien*. An English translation of these last was published first in the *Indian Antiquary*, and then separately at Bombay, 1893. Professor Bhandarkar gave an account of the contents of many later works in his *Report on the Search for Sanskrit MSS.*, Bombay, 1883. Only a small beginning has been made in editing and translating these works. The best *précis* of a long book can necessarily only deal with the more important features in it. And in the choice of what should be included the *précis*-writer will often omit the points some subsequent investigator may most especially want. All the older works ought therefore to be edited and translated in full and properly indexed. The Jains themselves have now printed in Bombay a complete edition of their sacred books. But the critical value of this edition, and of other editions of separate texts printed elsewhere in India, leaves much to be desired. Professor Jacobi has edited and translated the *Kalpa Sūtra*, containing a life of the founder of the Jain order; but this can scarcely be older than the 5th century of our era. He has also edited and translated the *Āyāranya Sutta* of the Svetambara Jains. The text, published by the Pali Text Society, is of 140 pages octavo. The first part of it, about 50 pages, is a very old document on the Jain views as to conduct, and the remainder consists of appendices, added at different times, on the same subject. The older part may go back as early as the 3rd century B.C., and it sets out more especially the Jain doctrine of *tapas* or self-mortification, in contradistinction to the Buddhist view, which condemned asceticism. The rules of conduct in this book are for members of the order. Dr Rudolf Hoernle edited and translated an ancient work on the rules of conduct for laymen, the *Uvāsaga Dasāo*.[1] Professor Leumann edited another of the older works, the *Aupapātika Sūtra*, and a fourth, entitled the *Dasa-vaikālika Sātra*, both of them published by the German Oriental Society. Professor Jacobi translated two more, the *Uttarādhyāyana* and the *Sūtra Kritānga*.[2] Finally Dr Barnett has translated two others in vol. xvii. of the *Oriental Translation Fund* (new series, London, 1907). Thus about one-fiftieth part of these interesting and valuable old records is now accessible to the European scholar. The sect of the Svetambaras has preserved the oldest literatures. Dr Hoernle has treated of the early history of

[1] Published in the *Bibliotheca Indica*, Calcutta, 1888.

[2] These two, and the other two mentioned above, form vols. i. and ii. of his *Jaina Sutras*, published in the *Sacred Books of the East* (1884, 1895).

the sect in the *Proceedings of the Asiatic Society of Bengal* for 1898. Several scholars—notably Bhagvanlāl Indrajī, Mr Lewis Rice and Hofrath Bühler [1]—have treated of the remarkable archaeological discoveries lately made. These confirm the older records in many details, and show that the Jains, in the centuries before the Christian era, were a wealthy and important body in widely separated parts of India.

Jainism.—The most distinguishing outward peculiarity of Mahā-vīra and of his earliest followers was their practice of going quite naked, whence the term *Digambara*. Against this custom, Gotama, the Buddha, especially warned his followers; and it is referred to in the well-known Greek phrase, *Gymnosophist*, used already by Megasthenes, which applies very aptly to the Niganṭhas. Even the earliest name Niganṭha, which means "free from bonds," may not be without allusions to this curious belief in the sanctity of nakedness, though it also alluded to freedom from the bonds of sin and of transmigration. The statues of the Jinas in the Jain temples, some of which are of enormous size, are still always quite naked; but the Jains themselves have abandoned the practice, the Digambaras being sky-clad at meal-time only, and the Svetāmbaras being always completely clothed. And even among the Digambaras it is only the recluses or *Yatis*, men devoted to a religious life, who carry out this practice. The Jain laity—the *Srāvakas*, or disciples—do not adopt it.

The Jain views of life were, in the most important and essential respects, the exact reverse of the Buddhist views. The two orders, Buddhist and Jain, were not only, and from the first, independent, but directly opposed the one to the other. In philosophy the Jains are the most thorough-going supporters of the old animistic position. Nearly everything, according to them, has a soul within its outward visible shape—not only men and animals, but also all plants, and even particles of earth, and of water (when it is cold), and fire and wind. The Buddhist theory, as is well known, is put together without the hypothesis of "soul" at all. The word the Jains use for soul is *jīva*, which means life; and there is much analogy between many of the expressions they use and the view that the ultimate cells and atoms are all, in a more or less modified sense, alive. They regard good and evil and space as ultimate substances which come into direct contact with the minute souls in everything. And their best-known position in regard to the points most discussed in philosophy is *Syād-vāda*, the doctrine that you may say "Yes" and at the same time "No" to everything. You can affirm the eternity of the world, for instance, from one point of view, and at the same time deny it from another; or, at different times and in different connexions, you may one day affirm it and another day deny it. This position both leads to vagueness of thought and explains why Jainism has had so little influence over other schools of philosophy in India. On the other hand, the Jains are as determined in their views of asceticism (*tapas*) as they were compromising in their views of philosophy. Any injury done to the "souls" being one of the worst of iniquities, the good monk should not wash his clothes (indeed, the most austere will reject clothes altogether), nor even wash his teeth, for fear of injuring living things. "Subdue the body, chastise thyself, weaken thyself, just as fire consumes dry wood." It was by suppressing, through such self-torture, the influence on his soul of all sensations that the Jain could obtain salvation. It is related of the founder himself, the Mahā-vīra, that after twelve years' penance he thus obtained Nirvāna (Jacobi, *Jaina Sūtras*, i. 201) before he entered upon his career as a teacher. And through the rest of his life, till he died at Pāvā, shortly before the Buddha, he followed the same habit of continual self-mortification. The Buddha, on the other hand, obtained Nirvāna in his 35th year, under the Bo tree, after he had abandoned penance; and through the rest of his life he spoke of penance as quite useless from his point of view.

There is no manual of Jainism as yet published, but there is a great deal of information on various points in the introductions to the works referred to above. Professor Jacobi, who is the best authority on the history of this sect, thus sums up the distinction between the Mahā-vīra and the Buddha: "Mahā-vīra was rather of the ordinary class of religious men in India. He may be allowed a talent for religious matters, but he possessed not the genius which Buddha undoubtedly had. . . . The Buddha's philosophy forms a system based on a few fundamental ideas, whilst that of Mahā-vīra scarcely forms a system, but is merely a sum of opinions (*pannattis*) on various subjects, no fundamental ideas being there to uphold the mass of metaphysical matter. Besides this. . .it is the ethical element that gives to the Buddhist writings their superiority over those of the Jains. Mahā-vīra treated ethics as corollary and subordinate to his metaphysics, with which he was chiefly concerned."

Additional Authorities.—Bhadrabāhu's *Kalpa Sūtra*, the recognized and popular manual of the Svetāmbara Jains, edited with English introduction by Professor Jacobi (Leipzig, 1879); Hemacandra's "Yoga S'āstram," edited by Windisch, in the *Zeitschrift der deutschen morg. Ges.* for 1874; "Zwei Jaina Stotra," edited in the *Indische Studien*, vol. xv.; *Ein Fragment der Bhagavatī*, by Professor Weber; *Mémoires de l'Académie de Berlin* (1866); *Nirayāvaliya Sutta*, edited by Dr Warren, with Dutch introduction (Amsterdam, 1879); *Over de godsdienstige en wijsgeerige Begrippen der Jainas*, by Dr Warren (his doctor-dissertation, Zwolle, 1875); *Beiträge zur Grammatik des Jaina-prākrit*, by Dr Edward Müller (Berlin, 1876); Colebrooke's *Essays*, vol. ii. Mr J. Burgess has an exhaustive account of the Jain Cave Temples (none older than the 7th century) in Fergusson and Burgess's *Cave Temples in India* (London, 1880).

See also Hopkins' *Religions of India* (London, 1896), pp. 280–96, and J. G. Bühler *On the Indian Sect of the Jainas*, edited by J. Burgess (London, 1904). (T. W. R. D.)

JAIPUR, or Jeypore, a city and native state of India in the Rajputana agency. The city is a prosperous place of comparatively recent date. It derives its name from the famous Maharaja Jai Singh II., who founded it in 1728. It is built of pink stucco in imitation of sandstone, and is remarkable for the width and regularity of its streets. It is the only city in India that is laid out in rectangular blocks, and it is divided by cross streets into six equal portions. The main streets are 111 ft. wide and are paved, while the city is lighted by gas. The regularity of plan, and the straight streets with the houses all built after the same pattern, deprive Jaipur of the charm of the East, while the painted mud walls of the houses give it the meretricious air of stage scenery. The huge palace of the maharaja stands in the centre of the city. Another noteworthy building is Jai Singh's observatory. The chief industries are in metals and marble, which are fostered by a school of art, founded in 1868. There is also a wealthy and enterprising community of native bankers. The city has three colleges and several hospitals. Pop. (1901), 160,167. The ancient capital of Jaipur was Amber.

The State of Jaipur, which takes its name from the city, has a total area of 15,579 sq. m. Pop. (1901), 2,658,666, showing a decrease of 6 % in the decade. The estimated revenue is £430,000, and the tribute £27,000. The centre of the state is a sandy and barren plain 1,600 ft. above sea-level, bounded on the E. by ranges of hills running north and south. On the N. and W. it is bounded by a broken chain of hills, an offshoot of the Aravalli mountains, beyond which lies the sandy desert of Rajputana. The soil is generally sandy. The hills are more or less covered with jungle trees, of no value except for fuel. Towards the S. and E. the soil becomes more fertile. Salt is largely manufactured and exported from the Sambhar lake, which is worked by the government of India under an arrangement with the states of Jaipur and Jodhpur. It yields salt of a very high quality. The state is traversed by the Rajputana railway, with branches to Agra and Delhi.

The maharaja of Jaipur belongs to the Kachwaha clan of Rajputs, claiming descent from Rama, king of Ajodhya. The state is said to have been founded about 1128 by Dhula Rai, from Gwalior, who with his Kachwahas is said to have absorbed or driven out the petty chiefs. The Jaipur house furnished to the Moguls some of their most distinguished generals. Among them were Man Singh, who fought in Orissa and Assam; Jai

[1] The *Hatthi Gumphā* and three other inscriptions at Cuttack (Leyden, 1885); *Sravana Belgola* inscriptions (Bangalore, 1889); *Vienna Oriental Journal*, vols. ii.–v.; *Epigraphia Indica*, vols. i–vii.

Singh, commonly known by his imperial title of Mirza Raja, whose name appears in all the wars of Aurangzeb in the Deccan; and Jai Singh II., or Sawai Jai Singh, the famous mathematician and astronomer, and the founder of Jaipur city. Towards the end of the 18th century the Jats of Bharatpur and the chief of Alwar each annexed a portion of the territory of Jaipur. By the end of the century the state was in great confusion, distracted by internal broils and impoverished by the exactions of the Mahrattas. The disputes between the chiefs of Jaipur and Jodhpur had brought both states to the verge of ruin, and Amir Khan with the Pindaris was exhausting the country. By a treaty in 1818 the protection of the British was extended to Jaipur and an annual tribute fixed. In 1835 there was a serious disturbance in the city, after which the British government took measures to insist upon order and to reform the administration as well as to support its effective action; and the state has gradually become well-governed and prosperous. During the Mutiny of 1857 the maharaja assisted the British in every way that lay in his power. Maharaja Madho Singh, G.C.S.I., G.C.V.O., was born in 1861, and succeeded in 1882. He is distinguished for his enlightened administration and his patronage of art. He was one of the princes who visited England at the time of King Edward's coronation in 1902. It was he who started and endowed with a donation of 15 lakhs, afterwards increased to 20 lakhs, of rupees (£133,000) the "Indian People's Famine Fund." The Jaipur imperial service transport corps saw service in the Chitral and Tirah campaigns.

JAISALMER, or JEYSULMERE, a town and native state of India in the Rajputana agency. The town stands on a ridge of yellowish sandstone, crowned by a fort, which contains the palace and several ornate Jain temples. Many of the houses and temples are finely sculptured. Pop. (1901), 7137. The area of the state is 16,062 sq. m. In 1901 the population was 73,370, showing a decrease of 37% in ten years, as a consequence of famine. The estimated revenue is about £6000; there is no tribute. Jaisalmer is almost entirely a sandy waste, forming a part of the great Indian desert. The general aspect of the country is that of an interminable sea of sandhills, of all shapes and sizes, some rising to a height of 150 ft. Those in the west are covered with *phog* bushes, those in the east with tufts of long grass. Water is scarce, and generally brackish; the average depth of the wells is said to be about 250 ft. There are no perennial streams, and only one small river, the Kakni, which, after flowing a distance of 28 m., spreads over a large surface of flat ground, and forms a lake or *jhil* called the Bhuj-Jhil. The climate is dry and healthy. Throughout Jaisalmer only rain-crops, such as *bajra*, *joar*, *moth*, *til*, &c., are grown; spring crops of wheat, barley, &c., are very rare. Owing to the scant rainfall, irrigation is almost unknown.

The main part of the population lead a wandering life, grazing their flocks and herds. Large herds of camels, horned cattle, sheep and goats are kept. The principal trade is in wool, *ghi*, camels, cattle and sheep. The chief imports are grain, sugar, foreign cloth, piece-goods, &c. Education is at a low ebb. Jain priests are the chief schoolmasters, and their teaching is elementary. The ruler of Jaisalmer is styled *maharawal*. The state suffered from famine in 1897, 1900 and other years, to such an extent that it has had to incur a heavy debt for extraordinary expenditure. There are no railways.

The majority of the inhabitants are Bhatti Rajputs, who take their name from an ancestor named Bhatti, renowned as a warrior when the tribe were located in the Punjab. Shortly after this the clan was driven southwards, and found a refuge in the Indian desert, which was thenceforth its home. Deorāj, a famous prince of the Bhatti family, is esteemed the real founder of the present Jaisalmer dynasty, and with him the title of *rāwal* commenced. In 1156 Jāisal, the sixth in succession from Deorāj, founded the fort and city of Jaisalmer, and made it his capital. In 1294 the Bhattis so enraged the emperor Alā-ud-dín that his army captured and sacked the fort and city of Jaisalmer, so that for some time it was quite deserted. After this there is nothing to record till the time of Rāwal Sabal Singh, whose reign marks an epoch in Bhatti history in that he acknowledged the supremacy of the Mogul emperor Shāh Jahān. The Jaisalmer princes had now arrived at the height of their power, but from this time till the accession of Rāwal Mulrāj in 1762 the fortunes of the state rapidly declined, and most of its outlying provinces were lost. In 1818 Mulrāj entered into political relations with the British. Maharawal Salivahan, born in 1887, succeeded to the chiefship in 1891.

JAJCE (pronounced *Yaïse*), a town of Bosnia, situated on the Pliva and Vrhas rivers, and at the terminus of a branch railway from Serajevo, 62 m. S.E. Pop. (1895), about 4000. Jajce occupies a conical hill, overlooking one of the finest waterfalls in Europe, where the Pliva rushes down into the Vrbas, 100 ft. below. The 14th century citadel which crowns this hill is said to have been built for Hrvoje, duke of Spalato, on the model of the Castel del' Uovo at Naples; but the resemblance is very slight, and although both *jajce* and *uovo* signify "an egg," the town probably derives its name from the shape of the hill. The ruined church of St Luke, said by legend to be the Evangelist's burial place, has a fine Italian belfry, and dates from the 15th century. Jezero, 5 m. W. of Jajce, contains the Turkish fort of Djöl-Hissar, or "the Lake-Fort." In this neighbourhood a line of waterfalls and meres, formed by the Pliva, stretches for several miles, enclosed by steep rocks and forest-clad mountains. The power supplied by the main fall, at Jajce, is used for industrial purposes, but the beauty of the town remains unimpaired.

From 1463 to 1528 Jajce was the principal outwork of eastern Christendom against the Turks. Venice contributed money for its defence, and Hungary provided armies; while the pope entreated all Christian monarchs to avert its fall. In 1463 Mahomet II. had seized more than 75 Bosnian fortresses, including Jajce itself; and the last independent king of Bosnia, Stephen Tomaševič, had been beheaded, or, according to one tradition, flayed alive, before the walls of Jajce, on a spot still called *Kraljeva Polje*, the "King's Field." His coffin and skeleton are still displayed in St Luke's Church. The Hungarians, under King Matthias I., came to the rescue, and reconquered the greater part of Bosnia during the same year; and, although Mahomet returned in 1464, he was again defeated at Jajce, and compelled to flee before another Hungarian advance. In 1467 Hungarian *bans*, or military governors, were appointed to rule in north-west Bosnia, and in 1472 Matthias appointed Nicolaus Ujlaki king of the country, with Jajce for his capital. This kingdom lasted, in fact, for 59 years; but, after the death of Ujlaki, in 1492, its rulers only bore the title of *ban*, and of *vojvod*. In 1500 the Turks, under Bajazet II., were crushed at Jajce by the Hungarians under John Corvinus; and several other attacks were repelled between 1520 and 1526. But in 1526 the Hungarian power was destroyed at Mohács; and in 1528 Jajce was forced to surrender.

See Bräss, "Jajce, die alte Königstadt Bosniens," in *Deutsche geog. Blätter*, pp. 71–85 (Bremen, 1899).

JĀJPUR, or JAJPORE, a town of British India, in Cuttack district, Bengal, situated on the right bank of the Baitarani river. Pop. (1901), 12,111. It was the capital of Orissa under the Kesari dynasty until the 11th century, when it was superseded by Cuttack. In Jājpur are numerous ruins of temples, sculptures, &c., and a large and beautiful sun pillar.

JAKOB, LUDWIG HEINRICH VON (1759–1827), German economist, was born at Wettin on the 26th of February 1759. In 1777 he entered the university of Halle. In 1780 he was appointed teacher at the gymnasium, and in 1791 professor of philosophy at the university. The suppression of the university of Halle having been decreed by Napoleon, Jakob betook himself to Russia, where in 1807 he was appointed professor of political economy at Kharkoff, and in 1809 a member of the government commission to inquire into the finances of the empire. In the following year he became president of the commission for the revision of criminal law, and he at the same time obtained an important office in the finance department, with the rank of counsellor of state; but in 1816 he returned to Halle to occupy the chair of political economy. He died at Lauchstädt on the 22nd of July 1827.

Shortly after his first appointment to a professorship in Halle Jakob had begun to turn his attention rather to the practical than the speculative side of philosophy, and in 1805 he published at Halle *Lehrbuch der Nationalökonomie*, in which he was the first to

advocate in Germany the necessity of a distinct science dealing specially with the subject of national wealth. His principal other works are *Grundriss der allgemeinen Logik* (Halle, 1788); *Grundsätze der Polizeigesetzgebung und Polizeianstalten* (Leipzig, 1809); *Einleitung in das Studium der Staatswissenschaften* (Halle, 1819); *Entwurf eines Criminalgesetzbuchs für das russische Reich* (Halle, 1818) and *Staatsfinanzwissenschaft* (2 vols., Halle, 1821).

JAKOVA (also written DIAKOVA, GYAKOVO and GJAKOVICA), a town of Albania, European Turkey, in the vilayet of Kossovo; on the river Erenik, a right-hand tributary of the White Drin. Pop. (1905) about 12,000. Jakova is the chief town of the Alpine region which extends from the Montenegrin frontier to the Drin and White Drin. This region has never been thoroughly explored, or brought under effective Turkish rule, on account of the inaccessible character of its mountains and forests, and the lawlessness of its inhabitants—a group of two Roman Catholic and three Moslem tribes, known collectively as the Malsia Jakovs, whose official representative resides in Jakova.

JAKUNS, an aboriginal race of the Malay Peninsula. They have become much mixed with other tribes, and are found throughout the south of the peninsula and along the coasts. The purest types are straight-haired, exhibit marked Mongolian characteristics and are closely related to the Malays. They are probably a branch of the Pre-Malays, the "savage Malays" of A. R. Wallace. They are divided into two groups: (1) Jakuns of the jungle, (2) Jakuns of the sea or Orang Laut. The latter set of tribes now comprise the remnants of the pirates or "sea-gipsies" of the Malaccan straits. The Jakuns, who must be studied in conjunction with the other aboriginal peoples of the Malay Peninsula, the Semangs and the Sakais, are not so dwarfish as those. The head is round; the skin varies from olive-brown to dark copper; the face is flat and the lower jaw square. The nose is thick and short, with wide, open nostrils. The cheek-bones are high and well marked. The hair has a blue-black tint, eyes are black and the beard is scanty. The Jakuns live a wild forest life, and in general habits much resemble the Sakai, being but little in advance of the latter in social conditions except where they come into close contact with the Malay peoples.

JALALABAD, or JELLALABAD, a town and province of Afghanistan. The town lies at a height of 1950 ft. in a plain on the south side of the Kabul river, 96 m. from Kabul and 76 from Peshawar. Estimated pop., 4000. Between it and Peshawar intervenes the Khyber Pass, and between it and Kabul the passes of Jagdalak, Khurd Kabul, &c. The site was chosen by the emperor Baber, and he laid out some gardens here; but the town itself was built by his grandson Akbar in A.D. 1560. It resembles the city of Kabul on a smaller scale, and has one central bazaar, the streets generally being very narrow. The most notable episode in the history of the place is the famous defence by Sir Robert Sale during the first Afghan war, when he held the town from November 1841 to April 1842. On its evacuation in 1842 General Pollock destroyed the defences, but they were rebuilt in 1878. The town is now fortified, surrounded by a high wall with bastions and loopholes. The province of Jalalabad is about 80 m. in length by 35 in width, and includes the large district of Laghman north of the Kabul river, as well as that on the south called Ningrahar. The climate of Jalalabad is similar to that of Peshawar. As a strategical centre Jalalabad is one of the most important positions in Afghanistan, for it dominates the entrances to the Laghman and the Kunar valleys; commanding routes to Chitral or India north of the Khyber, as well as the Kabul-Peshawar road.

JALAP, a cathartic drug consisting of the tuberous roots of *Ipomaea Purga*, a convolvulaceous plant growing on the eastern declivities of the Mexican Andes at an elevation of 5000 to 8000 ft. above the level of the sea, more especially about the neighbourhood of Chiconquiaco, and near San Salvador on the eastern slope of the Cofre de Perote. Jalap has been known in Europe since the beginning of the 17th century, and derives its name from the city of Jalapa in Mexico, near which it grows, but its botanical source was not accurately determined until 1829, when Dr. J. R. Coxe of Philadelphia published a description and coloured figure taken from living plants sent him two years previously from Mexico. The jalap plant has slender herbaceous twining stems, with alternately placed heart-shaped pointed leaves and salver-shaped deep purplish-pink flowers. The underground stems are slender and creeping; their vertical roots enlarge and form turnip-shaped tubers. The roots are dug up in Mexico throughout the year, and are suspended to dry in a net over the hearth of the Indians' huts, and hence acquire a smoky odour. The large tubers are often gashed to cause them to dry more quickly. In their form they vary from spindle-shaped to ovoid or globular, and in size from a pigeon's egg to a man's fist. Externally they are brown and marked with small transverse paler scars, and internally they present a dirty white

Jalap (*Ipomaea Purga*); about half natural size.

resinous or starchy fracture. The ordinary drug is distinguished in commerce as Vera Cruz jalap, from the name of the port whence it is shipped.

Jalap has been cultivated for many years in India, chiefly at Ootacamund, and grows there as easily as a yam, often producing clusters of tubers weighing over 9 lb; but these, as they differ in appearance from the commercial article, have not as yet obtained a place in the English market. They are found, however, to be rich in resin, containing 18%. In Jamaica also the plant has been grown, at first amongst the cinchona trees, but more recently in new ground, as it was found to exhaust the soil.

Besides Mexican or Vera Cruz jalap, a drug called Tampico jalap has been imported for some years in considerable quantity. It has a much more shrivelled appearance and paler colour than ordinary jalap, and lacks the small transverse scars present in the true drug. This kind of jalap, the Purga de Sierra Gorda of the Mexicans, was traced by Hanbury to *Ipomaea simulans*.

It grows in Mexico along the mountain range of the Sierra Gorda in the neighbourhood of San Luis de la Paz, from which district it is carried down to Tampico, whence it is exported. A third variety of jalap known as woody jalap, male jalap, or Orizaba root, or by the Mexicans as Purgo macho, is derived from *Ipomaea orizabensis*, a plant of Orizaba. The root occurs in fibrous pieces, which are usually rectangular blocks of irregular shape, 2 in. or more in diameter, and are evidently portions of a large root. It is only occasionally met with in commerce.

The dose of jalap is from five to twenty grains, the British Pharmacopeia directing that it must contain from 9 to 11 % of the resin, which is given in doses of two to five grains. One preparation of this drug is in common use, the *Pulvis Jalapae Compositus*, which consists of 5 parts of jalap, 9 of cream of tartar, and 1 of ginger. The dose is from 20 grains to a drachm. It is best given in the maximum dose which causes the minimum of irritation.

The chief constituents of jalap resin are two glucosides—*convolvulin* and *jalapin*—sugar, starch and gum. Convolvulin constitutes nearly 20 % of the resin. It is insoluble in ether, and is more active than jalapin. It is not used separately in medicine. Jalapin is present in about the same proportions. It dissolves readily in ether, and has a soft resinous consistence. It may be given in half-grain doses. It is the active principle of the allied drug *scammony*. According to Mayer, the formula of convolvulin is $C_{34}H_{56}O_{16}$, and that of jalapin $C_{31}H_{50}O_{16}$.

Jalap is a typical hydragogue purgative, causing the excretion of more fluid than scammony, but producing less stimulation of the muscular wall of the bowel. For both reasons it is preferable to scammony. It was shown by Professor Rutherford at Edinburgh to be a powerful secretory cholagogue, an action possessed by few hydragogue purgatives. The stimulation of the liver is said to depend upon the solution of the resin by the intestinal secretion. The drug is largely employed in cases of Bright's disease and dropsy from any cause, being especially useful when the liver shares in the general venous congestion. It is not much used in ordinary constipation.

JALAPA, Xalapa, or Halapa, a city of the state of Vera Cruz, Mexico, 70 m. by rail N.W. of the port of Vera Cruz. Pop. (1900), 20,388. It is picturesquely situated on the slopes of the sierra which separates the central plateau from the *tierra caliente* of the Gulf Coast, at an elevation of 4300 ft., and with the Cofre de Perote behind it rising to a height of 13,419 ft. Its climate is cool and healthy and the town is frequented in the hot season by the wealthier residents of Vera Cruz. The city is well built, in the old Spanish style. Among its public buildings are a fine old church, a Franciscan convent founded by Cortez in 1556, and three hospitals, one of which, that of San Juan de Dios, dates from colonial times. The neighbouring valleys and slopes are fertile, and in the forests of this region is found the plant (jalap), which takes its name from the place. Jalapa was for a time the capital of the state, but its political and commercial importance has declined since the opening of the railway between Vera Cruz and the city of Mexico. It manufactures pottery and leather.

JALAUN, a town and district of British India, in the Allahabad division of the United Provinces. Pop. of town (1901), 8573. Formerly it was the residence of a Mahratta governor, but never the headquarters of the district, which are at Orai.

The District of Jalaun has an area of 1477 sq. m. It lies entirely within the level plain of Bundelkhand, north of the hill country, and is almost surrounded by the Jumna and its tributaries the Betwa and Pahuj. The central region thus enclosed is a dead level of cultivated land, a'most destitute of trees, and sparsely dotted with villages. The southern portion presents almost one unbroken sheet of cultivation. The boundary rivers form the only interesting feature in Jalaun. The river Non flows through the centre of the district, which it drains by innumerable small ravines instead of watering. Jalaun has suffered much from the noxious *kans* grass, owing to the spread of which many villages have been abandoned and their lands thrown out of cultivation. Pop. (1901), 399,726, showing an increase of 1%. The two largest towns are Kunch (15,888), and Kalpi (10,139). The district is traversed by the line of the Indian Midland railway from Jhansi to Cawnpore. A small part of it is watered by the Betwa canal. Grain, oil-seeds, cotton and *ghi* are exported.

In early times Jalaun seems to have been the home of two Rajput clans, the Chandels in the east and the Kachwahas in the west. The town of Kalpi on the Jumna was conquered for the princes of Ghor as early as 1196. Early in the 14th century the Bundelas occupied the greater part of Jalaun, and even succeeded in holding the fortified post of Kalpi. That important possession was soon recovered by the Mussulmans, and passed under the sway of the Mogul emperors. Akbar's governors at Kalpi maintained a nominal authority over the surrounding district; and the Bundela chiefs were in a state of chronic revolt, which culminated in the war of independence under Chhatar Sal. On the outbreak of his rebellion in 1671 he occupied a large province to the south of the Jumna. Setting out from this basis, and assisted by the Mahrattas, he reduced the whole of Bundelkhand. On his death he bequeathed one-third of his dominions to his Mahratta allies, who before long succeeded in annexing the whole of Bundelkhand. Under Mahratta rule the country was a prey to constant anarchy and intestine strife. To this period must be traced the origin of the poverty and desolation which are still conspicuous throughout the district. In 1806 Kalpi was made over to the British, and in 1840, on the death of Nana Gohind Ras, his possessions lapsed to them also. Various interchanges of territory took place, and in 1856 the present boundaries were substantially settled. Jalaun had a bad reputation during the Mutiny. When the news of the rising at Cawnpore reached Kalpi, the men of the 53rd native infantry deserted their officers, and in June the Jhansi mutineers reached the district, and began their murder of Europeans. The inhabitants everywhere revelled in the licence of plunder and murder which the Mutiny had spread through all Bundelkhand, and it was not till September 1858 that the rebels were finally defeated.

JALISCO, Xalisco, or Guadalajara, a Pacific coast state of Mexico, of very irregular shape, bounded, beginning on the N., by the territory of Tepic and the states of Durango, Zacatecas, Aguas Calientes, Guanajuato, Michoacán, and Colima. Pop. (1900), 1,153,891. Area, 31,846 sq. m. Jalisco is traversed from N.N.W. to S.S.E. by the Sierra Madre, locally known as the Sierra de Nayarit and Sierra de Jalisco, which divides the state into a low heavily forested coastal plain and a high plateau region, part of the great Anáhuac table-land, with an average elevation of about 5000 ft., broken by spurs and flanking ranges of moderate height. The sierra region is largely volcanic and earthquakes are frequent; in the S. are the active volcanoes of Colima (12,750 ft.) and the Nevado de Colima (14,363) ft.). The *tierra caliente* zone of the coast is tropical, humid, and unfavourable to Europeans, while the inland plateaus vary from subtropical to temperate and are generally drier and healthful. The greater part of the state is drained by the Rio Grande de Lerma (called the Santiago on its lower course) and its tributaries, chief of which is the Rio Verde. Lakes are numerous; the largest are the Chapala, about 80 m. long by 10 to 35 m. wide, which is considered one of the most beautiful inland sheets of water in Mexico, the Sayula and the Magdalena, noted for their abundance of fish. The agricultural products of Jalisco include Indian corn, wheat and beans on the uplands, and sugar-cane, cotton, rice, indigo and tobacco in the warmer districts. Rubber and palm oil are natural forest products of the coastal zone. Stock-raising is an important occupation in some of the more elevated districts. The mineral resources include silver, gold, cinnabar, copper, bismuth, and various precious stones. There are reduction works of the old-fashioned type and some manufactures, including cotton and woollen goods, pottery, refined sugar and leather. The commercial activities of the state contribute much to its prosperity. There is a large percentage of Indians and mestizos in the population. The capital is Guadalajara, and other important towns with their populations in 1900 (unless otherwise stated) are: Zapotlanejo (20,275), 21 m. E. by N. of Guadalajara; Ciudad Guzmán (17,374 in 1895), 60 m. N.E. of Colima; Lagos (14,716 in 1895), a mining town 100 m. E.N.E. of Guadalajara on the Mexican Central railway; Tamazula (8783 in 1895); Sayula (7883); Autlán (7715); Teocaltiche (8881); Ameca (7212 in 1895), in a fertile agricultural

region on the western slopes of the sierras; Cocula (7090 in 1895); and Zacoalco (6516). Jalisco was first invaded by the Spaniards about 1526 and was soon afterwards conquered by Nuño de Guzman. It once formed part of the *reyno* of Nueva Galicia, which also included Aguas Calientes and Zacatecas. In 1889 its area was much reduced by a subdivision of its coastal zone, which was set apart as the territory of Tepic.

JALNA, or JAULNA, a town in Hyderabad state, India, on the Godavari branch of the Nizam's railway, and 210 m. N.E. of Bombay. Pop. (1901), 20,270. Until 1903 it was a cantonment of the Hyderabad contingent, originally established in 1827. Its gardens produce fruit, which is largely exported. On the opposite bank of the river Kundlika is the trading town of Kadirabad; pop. (1901), 11,159.

JALPAIGURI, or JULPIGOREE, a town and district of British India, in the Rajshahi division of Eastern Bengal and Assam. The town is on the right bank of the river Tista, with a station on the Eastern Bengal railway about 300 m. due N. of Calcutta. Pop. (1901), 9708. It is the headquarters of the commissioner of the division.

The DISTRICT OF JALPAIGURI (organized in 1869) occupies an irregularly shaped tract south of Darjeeling and Bhutan and north of the state of Kuch Behar. It includes the Western Dwars, annexed from Bhutan after the war of 1864–1865. Area, 2,962 sq. m. Pop. (1901), 787,380, an increase of 16% in the decade. The district is divided into a "regulation" tract, lying towards the south-west, and a strip of country, about 22 m. in width, running along the foot of the Himalayas, and known as the Western Dwars. The former is a continuous expanse of level paddy fields, only broken by groves of bamboos, palms, and fruit-trees. The frontier towards Bhutan is formed by the Sinchula mountain range, some peaks of which attain an elevation of 6000 ft. It is thickly wooded from base to summit. The principal rivers, proceeding from west to east, are the Mahananda, Karatoya, Tista, Jaldhaka, Duduya, Mujnai, Tursa, Kaljani, Raidak, and Sankos. The most important is the Tista, which forms a valuable means of water communication. Lime is quarried in the lower Bhutan hills. The Western Dwars are the principal centre of tea cultivation in Eastern Bengal. The other portion of the district produces jute. Jalpaiguri is traversed by the main line of the Eastern Bengal railway to Darjeeling. It is also served by the Bengal Dwars railway.

JAMAICA, the largest island in the British West Indies. It lies about 80 m. S. of the eastern extremity of Cuba, between 17° 43′ and 18° 32′ N. and 76° 10′ and 78° 20′ W., is 144 m. long, 50 m. in extreme breadth, and has an area of 4207 sq. m. The coast-line has the form of a turtle, the mountain ridges representing the back. A mountainous backbone runs through the island from E. to W., throwing off a number of subsidiary ridges, mostly in a north-westerly or south-easterly direction. In the east this range is more distinctly marked, forming the Blue Mountains, with cloud-capped peaks and numerous bifurcating branches. They trend W. by N., and are crossed by five passes at altitudes varying from 3000 to 4000 ft. They culminate in Blue Mountain Peak (7360 ft.), after which the heights gradually decrease until the range is merged into the hills of the western plateau. Two-thirds of the island are occupied by this limestone plateau, a region of great beauty broken by innumerable hills, valleys and sink-holes, and covered with luxuriant vegetation. The uplands usually terminate in steep slopes or bluffs, separated from the sea, in most cases, by a strip of level land. On the south coast, especially, the plains are often large, the Liguanea plain, on which Kingston stands, having an area of 200 sq. m. Upwards of a hundred rivers and streams find their way to the sea, besides the numerous tributaries which issue from every ravine in the mountains. These streams for the most part are not navigable, and in times of flood they become devastating torrents. In the parish of Portland, the Rio Grande receives all the smaller tributaries from the west. In St Thomas in the east the main range is drained by the Plantain Garden river, the tributaries of which form deep ravines and narrow gorges. The valley of the Plantain Garden expands into a picturesque and fertile plain. The Black river flows through a level country, and is navigable by small craft for about 30 m. The Salt river and the Cabaritta, also in the south, are navigable by barges. Other rivers of the south are the Rio Cobre (on which are irrigation works for the sugar and fruit plantations), the Yallahs and the Rio Minho; in the north are the Martha Brae, the White river, the Great Spanish river, and the Rio Grande. Vestiges of intermittent volcanic action occur, and there are several medicinal springs. Jamaica has 16 harbours, the chief of which are Port Morant, Kingston, Old Harbour, Montego Bay, Falmouth, St Ann's Bay, Port Maria and Port Antonio.

Geology.—The greater part of Jamaica is covered by Tertiary deposits, but in the Blue Mountain and some of the other ranges the older rocks rise to the surface. The foundation of the island is formed by a series of stratified shales and conglomerates, with tuffs and other volcanic rocks and occasional bands of marine limestone. The limestones contain Upper Cretaceous fossils, and the whole series has been strongly folded. Upon this foundation rests unconformably a series of marls and limestones of Eocene and early Oligocene age. Some of the limestones are made of Foraminifera, together with Radiolaria, and indicate a subsidence to abyssal depths. Nevertheless, the higher peaks of the island still remained above the sea. Towards the middle of the Oligocene period, mountain folding took place on an extensive scale, and the island was raised far above its present level and was probably connected with the rest of the Greater Antilles and perhaps with the mainland also. At the same time plutonic rocks of various kinds were intruded into the deposits already formed, and in some cases produced considerable metamorphism. During the Miocene and Pliocene periods the island again sank, but never to the depths which it reached in the Eocene period. The deposits formed were shallow-water conglomerates, marls and limestones, with mollusca, brachiopoda, corals, &c. Finally, a series of successive elevations of small amount, less than 500 ft. in the aggregate, raised the island to its present level. The terraces which mark the successive stages in this elevation are well shown in Montego Bay and elsewhere. The remarkable depressions of the Cockpit country and the closed basin of the Hector river are similar in origin to swallow-holes, and were formed by the solution of a limestone layer resting upon insoluble rocks. The island produces a great variety of marbles, porphyrites, granite and ochres. Traces of gold have been found associated with some of the oxidized copper ores (blue and green carbonates) in the Clarendon mines. Copper ores are widely diffused but are very expensive to work; as are the lead and cobalt which are also found. Manganese iron ores and a form of arsenic occur.

Climate.—The climate is one of the island's chief attractions. Near the coast it is warm and humid, but that of the uplands is delightfully mild and equable. At Kingston the temperature ranges from 70·7° to 87·8° F., and this is generally the average of all the low-lying coast land. At Cinchona, 4907 ft. above the sea, it varies from 57·5° to 68·5°. The vapours from the rivers and the ocean produce in the upper regions clouds saturated with moisture which induce vegetation belonging to a colder climate. During the rainy seasons there is such an accumulation of these vapours as to cause a general coolness and occasion sudden heavy showers, and sometimes destructive floods. The rainy seasons, in May and October, last for about three weeks, although, as a rule no month is quite without rain. The fall varies greatly; while the annual average for the island is 66·3 in., at Kingston it is 32·6 in., at Cinchona 105·5 in., and at some places in the north-east it exceeds 200 in. The climate of the Santa Cruz Mountains is extremely favourable to sufferers from tubercular and rheumatic diseases. Excepting near morasses and lagoons, the island is very healthy, and yellow fever, once prevalent, now rarely occurs. In the early part of the 19th century, hurricanes often devastated Jamaica, but now, though they pass to the N.E. and S.W. with comparative frequency, they rarely strike the island itself.

Flora.—The flora is remarkable, showing types from North, Central, and South America, with a few European forms, besides the common plants found everywhere in the tropics. Of flowering plants there are 2180 distinct species, and of ferns 450 species, several of both being indigenous. The largeness of these numbers may be to some extent accounted for by differences of altitude, temperature and humidity. There are many beautiful flowers, such as the aloe, the yucca, the datura the mountain pride and the *Victoria regia*; and the cactus tribe is well represented. The Sensitive Plant grows in pastures, and orchids in the woods. There are forest

trees fit for every purpose; including the ballata, rosewood, satin-wood, mahogany, lignum vitae, lancewood and ebony. The logwood and fustic are exported for dyeing. There are also the Jamaica cedar, and the silk cotton tree (*Ceiba Bombax*). Pimento (peculiar to Jamaica) is indigenous, and furnishes the allspice. The bamboo, coffee and cocoa are well known. Several species of palm abound, —the macaw, the fan palm, screw palm, and palmetto royal. There are plantations of coco-nut palm. The other noticeable trees and plants are the mango, the breadfruit tree, the papaw, the lacebark tree, and the guava. The *Palma Christi*, from which castor oil is made, is a very abundant annual. English vegetables grow in the hills, and the plains produce plantains, cocoa, yams, cassava, ochra, beans, pease, ginger and arrowroot. Maize and guinea-corn are cultivated, and the guinea-grass, accidentally introduced in 1750, is very valuable for horses and cattle,—so much so that pen-keeping or cattle farming is a highly profitable occupation. Among the principal fruits are the orange, shaddock, lime, grape or cluster fruit, pine-apple, mango, banana, grapes, melons, avocado pear, breadfruit, and tamarind.

Fauna.—There are fourteen sorts of *lampyridae* or fireflies, besides the *elateridae* or lantern beetles. There are no venomous serpents, but numerous harmless snakes and lizards exist. The land-crab is considered a table delicacy, and the land-turtle also is eaten. The scorpion and centipede, though poisonous, are not very danger-ous. Ants, sandflies and mosquitoes swarm in the lowlands. There are twenty different song-birds, and forty-three varieties of birds are presumed to be peculiar to the island. The sea and the rivers swarm with fish. Turtles abound, and the seal, the manatee and the crocodile are sometimes found. The coral reefs, with their varied polyps and anemones, the numerous alcyonarians and diverse coral-dwelling animals are readily accessible to the student, and the island is also celebrated for the number of species of its land-shells.

People.—The population of the island was estimated in 1905 at 806,690. Jamaica is rich in traces of its former Arawâk inhabitants. Aboriginal petaloid celts and other implements, flattened skulls and vessels are common, and images are some-times found in the large limestone caverns of the island. The present inhabitants, of whom only 2% are white, include Maroons, the descendants of the slaves of the Spaniards who fled into the interior when the island was captured by the British; descendants of imported African slaves; mixed race of British and African blood; coolies from India; a few Chinese, and the British officials and white settlers. The Maroons live by them-selves and are few in number, while the half-castes enter into trade and sometimes into the professions. The number of white inhabitants other than British is very small. A negro peasant population is encouraged, with a view to its being a support to the industries of the island; but, in many cases a field negro will not work for his employer more than four days a week. He may till his own plot of ground on one of the other days or not, as the spirit moves him, but four days' work a week will keep him easily. He has little or no care for the future. He has probably squatted on someone's land, and has no rent to pay. Clothes he need hardly buy, fuel he needs only for cooking, and food is ready to his hand for the picking. Unfortunately a widespread indulgence in predial larceny is a great hindrance to agriculture as well as to moral progress. But that habits of thrift are being inculcated is shown by the steady increase in the accounts in the government savings banks. That gross superstition is still prevalent is shown by the cases of *obeah* or witchcraft that come before the courts from time to time. Another indication of the status of the negro may be found in the fact that more than 60% of the births are illegitimate, a percentage that shows an unfortunate tendency to increase rather than diminish.

The capital, Kingston, stands on the south-east coast, and near it is the town of Port Royal. Spanish Town (pop. 5019), the former capital, is in the parish of St Catherine, Middlesex, 11¾ m. by rail west of Kingston. Since the removal of the seat of government to Kingston, the town has gradually sunk in importance. In the cathedral many of the governors of the island are buried. A marble statue of Rodney commemorates his victory over the count de Grasse off Dominica in 1782. Montego Bay (pop. 4803), on the north-west coast, is the second town on the island, and is also a favourite bathing resort. Port Antonio (1784) lies between two secure harbours on the north-east, and owes its prosperity mainly to the development of the trade in fruit, for which it is the chief place of shipment.

Industries.—Agricultural enterprise falls into two classes—plant-ing and pen-keeping, *i.e.* the breeding of horses, mules, cattle and sheep. The chief products are bananas, oranges, coffee, sugar, rum, logwood, cocoa, pimento, ginger, coco-nuts, limes, nutmegs, pineapples, tobacco, grape-fruit and mangoes. There is a board of agriculture, with an experimental station at Hope; there is also an agricultural society with 26 branches throughout the colony. Bee-keeping is a growing industry, especially among the peasants. The land as a rule is divided into small holdings, the vast majority consisting of five acres and less. The manufactures are few. In addition to the sugar and coffee estates and cigar factories, there are tanneries, distilleries, breweries, electric light and gas works, ironfoundries, potteries and factories for the production of coco-nut oil, essential oils, ice, matches and mineral waters. There is an important establishment at Spanish Town for the production of logwood extract. The exports, more than half of which go to the United States, mostly comprise fruit, sugar and rum. The United States also contributes the majority of the imports. More than half the revenue of the colony is derived from import duties, the remainder is furnished by excise, stamps and licences. With the exception of that of the parish boards, there is no direct taxation.

Communications.—In 1900 an Imperial Direct West India Line of steamers was started by Elder, Dempster & Co., to encourage the fruit trade with England; it had a subsidy of £40,000, contri-buted jointly by the Imperial and Jamaican governments. Two steamers go round the island once a week, calling at the principal ports, the circuit occupying about 120 hours. A number of sailing "droghers" also ply from port to port. Jamaica has a number of good roads and bridle paths; the main roads, controlled by the public works department, encircle the island, with several branches from north to south. The parochial roads are maintained by the parish boards. A railway traverses the island from Kingston in the south-east to Montego Bay in the north-west, and also branches to

Port Antonio and to Ewarton. Jamaica is included in the Postal Union and in the Imperial penny post, and there is a weekly mail service to and from England by the Royal Mail Line, but mails are also carried by other companies. The island is connected by cable with the United States via Cuba, and with Halifax, Nova Scotia via Bermuda.

There is a government savings bank at Kingston with branches throughout the island, and there are also branches of the Colonial Bank of London and the Bank of Nova Scotia. The coins in circulation are British gold and silver, but not bronze, instead of which local nickel is used. United States gold passes as currency. English weights and measures are used.

Administration, &c.—The island is divided into three counties, Surrey in the east, Middlesex in the centre, and Cornwall in the west, and each of these is subdivided into five parishes. The parish is the unit of local government, and has jurisdiction over roads, markets, sanitation, poor relief and water-works. The management is vested in a parish board, the members of which are elected. The chairman or custos is appointed by the governor. The island is administered by a governor, who bears the old Spanish title of captain-general, assisted by a legislative council of five *ex officio* members, not more than ten nominated members, and fourteen members elected on a limited suffrage. There is also a privy council of three *ex officio* and not more than eight nominated members. There is an Imperial garrison of about 2000 officers and men, with headquarters at Newcastle, consisting of Royal Engineers, Royal Artillery, infantry and four companies of the West India Regiment. There is a naval station at Port Royal, and the entrance to its harbour is strongly fortified. In addition there is a militia of infantry and artillery, about 800 strong.

Previous to 1870 the Church of England was established in Jamaica, but in that year a disestablishment act was passed which provided for gradual disendowment. It is still the most numerous body, and is presided over by the bishop of Jamaica, who is also archbishop of the West Indies. The Baptists,

Wesleyans, Presbyterians, Moravians and Roman Catholics are all represented; there is a Jewish synagogue at Kingston, and the Salvation Army has a branch on the island. The Church of England maintains many schools, a theological college, a deaconesses' home and an orphanage. The Baptists have a theological college; and the Roman Catholics support a training college for teachers, two industrial schools and two orphanages. Elementary education is in private hands, but fostered, since 1867, by government grants; it is free but not compulsory, although the governor has the right to compel the attendance of all children from 6 to 14 years of age in such towns and districts as he may designate. The teachers in these schools are for the most part trained in the government-aided training colleges of the various denominations. For higher education there are the University College and high school at Hope near Kingston, Potsdam School in St Elizabeth, the Mico School and Wolmer's Free School in Kingston, founded (for boys and girls) in 1729, the Montego Bay secondary school, and numerous other endowed and self-supporting establishments. The Cambridge Local Examinations have been held regularly since 1882.

History.—Jamaica was discovered by Columbus on the 3rd of May 1494. Though he called it Santiago, it has always been known by its Indian name Jaymaca, "the island of springs," modernized in form and pronunciation into Jamaica. Excepting that in 1505 Columbus once put in for shelter, the island remained unvisited until 1509, when Diego, the discoverer's son, sent Don Juan d'Esquivel to take possession, and thenceforward it passed under Spanish rule. Sant' Iago de la Vega, or Spanish Town, which remained the capital of the island until 1872, was founded in 1523. Sir Anthony Shirley, a British admiral, attacked the island in 1596, and plundered and burned the capital, but did not follow up his victory. Upon his retirement the Spaniards restored their capital and were unmolested until 1635, when the island was again raided by the British under Colonel Jackson. The period of the Spanish occupation is mainly memorable for the annihilation of the gentle and peaceful Arawâk Indian inhabitants; Don Pedro d'Esquivel was one of their cruellest oppressors. The whole island was divided among eight noble Spanish families, who discouraged immigration to such an extent that when Jamaica was taken by the British the white and slave population together did not exceed 3000. Under the vigorous foreign policy of Cromwell an attempt was made to crush the Spanish power in the West Indies, and an expedition under Admirals Penn and Venables succeeded in capturing and holding Jamaica in 1655. The Spanish were entirely expelled in 1658. Their slaves then took to the mountains, and down to the end of the 18th century the disaffection of these Maroons, as they were called, caused constant trouble. Jamaica continued to be governed by military authority until 1661, when Colonel D'Oyley was appointed captain-general and governor-in-chief with an executive council, and a constitution was introduced resembling that of England. He was succeeded in the next year by Lord Windsor, under whom a legislative council was established. Jamaica soon became the chief resort of the buccaneers, who not infrequently united the characters of merchant or planter with that of pirate or privateer. By the Treaty of Madrid, 1670, the British title to the island was recognized, and the buccaneers were suppressed. The Royal African Company was formed in 1672 with a monopoly of the slave trade, and from this time Jamaica was one of the greatest slave marts in the world. The sugar-industry was introduced about this period, the first pot of sugar being sent to London in 1673. An attempt was made in 1678 to saddle the island with a yearly tribute to the Crown and to restrict the free legislature. The privileges of the legislative assembly, however, were restored in 1682; but not till 46 years later was the question of revenue settled by a compromise by which Jamaica undertook to settle £8000 (an amount afterwards commuted to £6000) per annum on the Crown, provided that English statute laws were made binding in Jamaica.

During these years of political struggle the colony was thrice afflicted by nature. A great earthquake occurred in 1692, when the chief part of the town of Port Royal, built on a shelving bank of sand, slipped into the sea. Two dreadful hurricanes devastated the island in 1712 and 1722, the second of which did so much damage that the seat of commerce had to be transferred from Port Royal to Kingston.

The only prominent event in the history of the island during the later years of the 18th century, was the threatened invasion by the French and Spanish in 1782, but Jamaica was saved by the victory of Rodney and Hood off Dominica. The last attempt at invasion was made in 1806, when the French were defeated by Admiral Duckworth. When the slave trade was abolished the island was at the zenith of its prosperity; sugar, coffee, cocoa, pimento, ginger and indigo were being produced in large quantities, and it was the dépôt of a very lucrative trade with the Spanish main. The anti-slavery agitation in Great Britain found its echo in the island, and in 1832 the negroes revolted, believing that emancipation had been granted. They killed a number of whites and destroyed a large amount of valuable property. Two years later the Emancipation Act was passed, and, subject to a short term of apprenticeship, the slaves were free. Emancipation left the planters in a pitiable condition financially. The British government awarded them conpensation at the rate of £19 per slave, the market value of slaves at the time being £35, but most of this compensation went into the hands of the planters' creditors. They were left with overworked estates, a poor market and a scarcity of labour. Nor was this the end of their misfortunes. During the slavery times the British government had protected the planter by imposing a heavy differential duty on foreign sugar; but on the introduction of free trade the price of sugar fell by one-half and reduced the profits of the already impoverished planter. Many estates, already heavily mortgaged, were abandoned, and the trade of the island was at a standstill. Differences between the executive, the legislature, and the home government, as to the means of retrenching the public expenditure, created much bitterness. Although some slight improvement marked the administration of Sir Charles Metcalfe and the earl of Elgin, when coolie immigration was introduced to supply the scarcity and irregularity of labour and the railway was opened, the improvement was not permanent. In 1865 Edward John Eyre became governor. Financial affairs were at their lowest ebb and the colonial treasury showed a deficit of £80,000. To meet this difficulty new taxes were imposed and discontent was rife among the negroes. Dr Underhill, the secretary of a Baptist organization known as the British Union, wrote to the colonial secretary in London, pointing out the state of affairs. This letter became public in Jamaica, and in the opinion of the governor added in no small measure to the popular excitement. On the 11th of October 1865 the negroes rose at Morant Bay and murdered the custos and most of the white inhabitants. The slight encounter which followed filled the island with terror, and there is no doubt that many excesses were committed on both sides. The assembly passed an act by which martial law was proclaimed, and the legislature passed an act abrogating the constitution.

The action of Governor Eyre, though generally approved throughout the West Indies, caused much controversy in England, and he was recalled. A prosecution was instituted against him, resulting in an elaborate exposition of martial law by Chief Justice Cockburn, but the jury threw out the bill and Eyre was discharged. He was succeeded in the government of Jamaica by Sir Henry Storks, and under the crown colony system of government the state of the island made slow but steady progress. In 1868 the first fruit shipment took place from Port Antonio, the immigration of coolies was revived, and cinchona planting was introduced. The method of government was changed in 1884, when a new constitution, slightly modified in 1895, was granted to the island.

In the afternoon of the 14th of January 1907 a terrible earthquake visited Kingston. Almost every building in the capital and in Port Royal, and many in St Andrews, were destroyed or seriously injured. The loss of life was variously estimated, but probably exceeded one thousand. Among those killed was

Sir James Fergusson, 6th baronet (b. 1832). The principal shock was followed by many more of slighter intensity during the ensuing fortnight and later. On the 17th of January assistance was brought by three American war-ships under Rear-Admiral Davis, who however withdrew them on the 19th, owing to a misunderstanding with the governor of the island, Sir Alexander Swettenham, on the subject of the landing of marines from the vessels with a view to preserving order. The incident caused considerable sensation, and led to Sir A. Swettenham's resignation in the following March, Sir Sydney Olivier, K.C.M.G., being appointed governor. Order was speedily restored; but the destructive effect of the earthquake was a severe check to the prosperity of the island.

See Bryan Edwards, *History of the West Indies* (London, 1809, and appendix, 1819); P. H. Gosse, *Journal of a Naturalist in Jamaica* (London, 1851) and *Birds of Jamaica* (1847); *Jamaica Handbook* (London, annual); Bacon and Aaron, *New Jamaica* (1890); W. P. Livingstone, *Black Jamaica* (London, 1900), F. Cundall, *Bibliotheca Jamaicensis* (Kingston, 1895), and *Studies in Jamaica History* (1900); W. J. Gardner, *History of Jamaica* (New York, 1909). For geology, see R. T. Hill, "The Geology and Physical Geography of Jamaica," *Bull. Mus. Com. Zool. Harvard*, xxxiv. (1899).

JAMAICA, formerly a village of Queens county, Long Island, New York, U.S.A., but after the 1st of January 1898 a part of the borough of Queens, New York City. Pop. (1890) 5361. It is served by the Long Island railroad, the lines of which from Brooklyn and Manhattan meet here and then separate to serve the different regions of the island.[1] King's Park (about 10 acres) comprises the estate of John Alsop King (1788–1867), governor of New York in 1857–1859, from whose heirs in 1897 the land was purchased by the village trustees. In South Jamaica there is a race track, at which meetings are held in the spring and autumn. The headquarters of the Queens Borough Department of Public Works and Police are in the Jamaica town-hall, and Jamaica is the seat of a city training school for teachers (until 1905 one of the New York State normal schools). For two guns, a coat, and a quantity of powder and lead, several New Englanders obtained from the Indians a deed for a tract of land here in September 1655. In March 1657 they received permission from Governor Stuyvesant to found a town, which was chartered in 1660 and was named Rustdorp by Stuyvesant, but the English called it Jamaica; it was rechartered in 1666, 1686 and 1788. The village was incorporated in 1814 and reincorporated in 1855. In 1665 it was made the seat of justice of the north riding; in 1683–1788 it was the shire town of Queens county. With Hempstead, Gravesend, Newtown and Flushing, also towns of New England origin and type, Jamaica was early disaffected towards the provincial government of New York. In 1669 these towns complained that they had no representation in a popular assembly, and in 1670 they protested against taxation without representation. The founders of Jamaica were mostly Presbyterians, and they organized one of the first Presbyterian churches in America. At the beginning of the War of Independence Jamaica was under the control of Loyalists; after the defeat of the Americans in the battle of Long Island (27th August 1776) it was occupied by the British; and until the end of the war it was the headquarters of General Oliver Delancey, who had command of all Long Island.

JAMB (from Fr. *jambe*, leg), in architecture, the side-post or lining of a doorway or other aperture. The jambs of a window outside the frame are called "reveals." Small shafts to doors and windows with caps and bases are known as "jamb-shafts"; when in the inside arris of the jamb of a window they are sometimes called "scoinsons."

JAMES (a variant of the name Jacob, Heb. יַעֲקֹב, one who holds by the heel, outwitter, through O. Fr. *James*, another form of *Jacques*, *Jaques*, from Low Lat. *Jacobus*; cf. Ital. *Jacopo* [Jacob], *Giacomo* [James], Prov. *Jacme*, Cat. *Jaume*, Cast. *Jaime*), a masculine proper name popular in Christian countries as having been that of two of Christ's apostles. It has been borne by many sovereigns and other princes, the most important of whom are noticed below, after the heading devoted to the characters in the New Testament, in the following order: (1) kings of England and Scotland, (2) other kings in the alphabetical order of their countries, (3) the "Old Pretender." The article on the Epistle of James in the New Testament follows after the remaining biographical articles in which James is a surname.

JAMES (Gr. Ἰάκωβος, the Heb. *Ya'akob* or Jacob), the name of several persons mentioned in the New Testament.

1. JAMES, the son of Zebedee. He was among the first who were called to be Christ's immediate followers (Mark i. 19 seq.; Matt. iv. 21 seq., and perhaps Luke v. 10), and afterwards obtained an honoured place in the apostolic band, his name twice occupying the second place after Peter's in the lists (Mark iii. 17; Acts i. 13), while on at least three notable occasions he was, along with Peter and his brother John, specially chosen by Jesus to be with him (Mark v. 37; Matt. xvii. 1, xxvi. 37). This same prominence may have contributed partly to the title "Boanerges" or "sons of thunder" which, according to Mark iii. 17, Jesus himself gave to the two brothers. But its most natural interpretation is to be found in the impetuous disposition which would have called down fire from heaven on the offending Samaritan villagers (Luke ix. 54), and afterwards found expression, though in a different way, in the ambitious request to occupy the places of honour in Christ's kingdom (Mark x. 35 seq.). James is included among those who after the ascension waited at Jerusalem (Acts i. 13) for the descent of the Holy Ghost on the day of Pentecost. And though on this occasion only his name is mentioned, he must have been a zealous and prominent member of the Christian community, to judge from the fact that when a victim had to be chosen from among the apostles, who should be sacrificed to the animosity of the Jews, it was on James that the blow fell first. The brief notice is given in Acts xii. 1, 2. Eusebius (*Hist. Eccl.* ii. 9) has preserved for us from Clement of Alexandria the additional information that the accuser of the apostle "beholding his confession and moved thereby, confessed that he too was a Christian. So they were both led away to execution together; and on the road the accuser asked James for forgiveness. Gazing on him for a little while, he said, 'Peace be with thee,' and kissed him. And then both were beheaded together."

The later, and wholly untrustworthy, legends which tell of the apostle's preaching in Spain, and of the translation of his body to Santiago de Compostela, are to be found in the *Acta Sanctorum* (July 25), vi. 1–124; see also Mrs Jameson's *Sacred and Legendary Art*, i. 230–241.

2. JAMES, the son of Alphaeus. He also was one of the apostles, and is mentioned in all the four lists (Matt. x. 3; Mark iii. 18; Luke vi. 15; Acts i. 13) by this name. We know nothing further regarding him, unless we believe him to be the same as James "the little."

3. JAMES, the little. He is described as the son of a Mary (Matt. xxvii. 56; Mark xv. 40), who was in all probability the wife of Clopas (John xix. 25). And on the ground that Clopas is another form of the name Alphaeus, this James has been thought by some to be the same as 2. But the evidence of the Syriac versions, which render Alphaeus by *Chalphai*, while Clopas is simply transliterated *Kleopha*, makes it extremely improbable that the two names are to be identified. And as we have no better ground for finding in Clopas the Cleopas of Luke xxiv. 18, we must be content to admit that James the little is again an almost wholly unknown personality, and has no connexion with any of the other Jameses mentioned in the New Testament.

4. JAMES, the father of Judas. There can be no doubt that in the mention of "Judas of James" in Luke vi. 16 the ellipsis should be supplied by "the son" and not as in the A.V. by "the brother" (cf. Luke iii. 1, vi. 14; Acts xii. 2, where the word

[1] In June 1908 the subway lines of the interborough system of New York City were extended to the Flatbush (Brooklyn) station of the Long Island railroad, thus bringing Jamaica into direct connexion with Manhattan borough by way of the East river tunnel, completed in the same year.

ἀδελφός is inserted). This Judas, known as Thaddaeus by Matthew and Mark, afterwards became one of the apostles, and is expressly distinguished by St John from the traitor as "not Iscariot" (John xiv. 22).

5. JAMES, the Lord's brother. In Matt. xiii. 55 and Mark vi. 3 we read of a certain James as, along with Joses and Judas and Simon, a "brother" of the Lord. The exact nature of the relationship there implied has been the subject of much discussion. Jerome's view (*de vir. ill.* 2), that the "brothers" were in reality cousins, "sons of Mary the sister of the Lord's mother," rests on too many unproved assumptions to be entitled to much weight, and may be said to have been finally disposed of by Bishop Lightfoot in his essay on "The Brothers of the Lord" (*Galatians*, pp. 252 sqq., *Dissertations on the Apostolic Age*, pp. 1 sqq.). Even however if we understand the word "brethren" in its natural sense, it may be applied either to the sons of Joseph by a former wife, in which case they would be the step-brothers of Jesus, or to sons born to Joseph and Mary after the birth of Jesus. The former of these views, generally known as the *Epiphanian* view from its most zealous advocate in the 4th century, can claim for its support the preponderating voice of tradition (see the catena of references given by Lightfoot, *loc. cit.*, who himself inclines to this view). On the other hand the *Helvidian* theory as propounded by Helvidius, and apparently accepted by Tertullian (cf. *adv. Marc.* iv. 29), which makes James a brother of the Lord, as truly as Mary was his mother, undoubtedly seems more in keeping with the direct statements of the Gospels, and also with the after history of the brothers in the Church (see W. Patrick, *James the Brother of the Lord*, 1906, p. 5). In any case, whatever the exact nature of James's antecedents, there can be no question as to the important place which he occupied in the early Church. Converted to a full belief in the living Lord, perhaps through the special revelation that was granted to him (1 Cor. xv. 7), he became the recognized head of the Church at Jerusalem (Acts xii. 17, xv. 13, xxi. 18), and is called by St Paul (Gal. ii. 9), along with Peter and John, a "pillar" of the Christian community. He was traditionally the author of the epistle in the New Testament which bears his name (see JAMES, EPISTLE OF). From the New Testament we learn no more of the history of James the Lord's brother, but Eusebius (*Hist. Eccl.* ii. 23) has preserved for us from Hegesippus the earliest ecclesiastical traditions concerning him. By that authority he is described as having been a Nazarite, and on account of his eminent righteousness called "Just" and "Oblias." So great was his influence with the people that he was appealed to by the scribes and Pharisees for a true and (as they hoped) unfavourable judgment about the Messiahship of Christ. Placed, to give the greater publicity to his words, on a pinnacle of the temple, he, when solemnly appealed to, made confession of his faith, and was at once thrown down and murdered. This happened immediately before the siege. Josephus (*Antiq.* xx. 9, 1) tells that it was by order of Ananus the high priest, in the interval between the death of Festus and the arrival of his successor Albinus, that James was put to death; and his narrative gives the idea of some sort of judicial examination, for he says that along with some others James was brought before an assembly of judges, by whom they were condemned and delivered to be stoned. Josephus is also cited by Eusebius (*Hist. Eccl.* ii. 23) to the effect that the miseries of the siege were due to divine vengeance for the murder of James. Later writers describe James as an ἐπίσκοπος (Clem. Al. *apud* Eus. *Hist. Ecc.* ii. 1) and even as an ἐπίσκοπος ἐπισκόπων (Clem. *Hom., ad init.*). According to Eusebius (*Hist. Eccl.* vii. 19) his episcopal chair was still shown at Jerusalem at the time when Eusebius wrote.

BIBLIOGRAPHY.—In addition to the relevant literature cited above, see the articles under the heading "James" in Hastings's *Dictionary of the Bible* (Mayor) and *Dictionary of Christ and the Gospels* (Fulford), and in the *Encycl. Biblica* (O. Cone); also the introductions to the Commentaries on the Epistle of James by Mayor and Knowling. Zahn has an elaborate essay on *Brüder und Vettern Jesu* ("The Brothers and Cousins of Jesus") in the *Forschungen zur Geschichte des neutestamentlichen Kanons*, vi. 2 (Leipzig, 1900).

(G. MI.)

JAMES I. (1566–1625), king of Great Britain and Ireland, formerly king of Scotland as James VI., was the only child of Mary Queen of Scots, and her second husband, Henry Stewart Lord Darnley. He was born in the castle of Edinburgh on the 19th of June 1566, and was proclaimed king of Scotland on the 24th of July 1567, upon the forced abdication of his mother. Until 1578 he was treated as being incapable of taking any real part in public affairs, and was kept in the castle of Stirling for safety's sake amid the confused fighting of the early years of his minority.

The young king was a very weakly boy. It is said that he could not stand without support until he was seven, and although he lived until he was nearly sixty, he was never a strong man. In after life he was a constant and even a reckless rider, but the weakness in his legs was never quite cured. During a great part of his life he found it necessary to be tied to the saddle. When on one occasion in 1621 his horse threw him into the New River near his palace of Theobalds in the neighbourhood of London, he had a very narrow escape of being drowned; yet he continued to ride as before. At all times he preferred to lean on the shoulder of an attendant when walking. This feebleness of body, which had no doubt a large share in causing certain corresponding deficiencies of character, was attributed to the agitations and the violent efforts forced on his mother by the murder of her secretary Rizzio when she was in the sixth month of her pregnancy. The fact that James was a bold rider, in spite of this serious disqualification for athletic exercise, should be borne in mind when he is accused of having been a coward.

The circumstances surrounding him in boyhood were not favourable to the development of his character. His immediate guardian or foster-father, the earl of Mar, was indeed an honourable man, and the countess, who had charge of the nursing of the king, discharged her duty so as to win his lasting confidence. James afterwards entrusted her with the care of his eldest son, Henry. When the earl died in 1572 his place was well filled by his brother, Sir Alexander Erskine. The king's education was placed under the care of George Buchanan, assisted by Peter Young, and two other tutors. Buchanan, who did not spare the rod, and the other teachers, who had more reverence for the royal person, gave the boy a sound training in languages. The English envoy, Sir Henry Killigrew, who saw him in 1574, testified to his proficiency in translating from and into Latin and French. As it was very desirable that he should be trained a Protestant king, he was well instructed in theology. The exceptionally scholastic quality of his education helped to give him a taste for learning, but also tended to make him a pedant.

James was only twelve when the earl of Morton was driven from the regency, and for some time after he can have been no more than a puppet in the hands of intriguers and party leaders. When, for instance, in 1582 he was seized by the faction of nobles who carried out the so-called raid of Ruthven, which was in fact a kidnapping enterprise carried out in the interest of the Protestant party, he cried like a child. One of the conspirators, the master of Glamis, Sir Thomas Lyon, told him that it was better "bairns should greet [children should cry] than bearded men." It was not indeed till 1583, when he broke away from his captors, that James began to govern in reality.

For the history of his reign reference may be made to the articles on the histories of England and Scotland. James's work as a ruler can be divided, without violating any sound rule of criticism, into black and white—into the part which was a failure and a preparation for future disaster, and the part which was solid achievement, honourable to himself and profitable to his people. His native kingdom of Scotland had the benefit of the second. Between 1583 and 1603 he reduced the anarchical baronage of Scotland to obedience, and replaced the subdivision of sovereignty and consequent confusion, which had been the very essence of feudalism, by a strong centralized royal authority. In fact he did in Scotland the work which had been done by the Tudors in England, by Louis XI. in France, and by Ferdinand and Isabella in Spain. It was the work of all the strong rulers of the Renaissance. But James not only

brought his disobedient and intriguing barons to order—that was a comparatively easy achievement and might well have been performed by more than one of his predecessors, had their lives been prolonged—he also quelled the attempts of the Protestants to found what Hallam has well defined as a "Presbyterian Hildebrandism." He enforced the superiority of the state over the church. Both before his accession to the throne of England (1603) and afterwards he took an intelligent interest in the prosperity of his Scottish kingdom, and did much for the pacification of the Hebrides, for the enforcement of order on the Borders, and for the development of industry. That he did so much although the crown was poor (largely it must be confessed because he made profuse gifts of the secularized church lands), and although the armed force at his disposal was so small that to the very end he was exposed to the attacks of would-be kidnappers (as in the case of the Gowrie conspiracy of 1600), is proof positive that he was neither the mere poltroon nor the mere learned fool he has often been called.

James's methods of achieving ends in themselves honourable and profitable were indeed of a kind which has made posterity unjust to his real merits. The circumstances in which he passed his youth developed in him a natural tendency to craft. He boasted indeed of his "king-craft" and probably believed that he owed it to his studies. But it was in reality the resource of the weak, the art of playing off one possible enemy against another by trickery, and so deceiving all. The marquis de Fontenay, the French ambassador, who saw him in the early part of his reign, speaks of him as cowed by the violence about him. It is certain that James was most unscrupulous in making promises which he never meant to keep, and the terror in which he passed his youth sufficiently explains his preference for guile. He would make promises to everybody, as when he wrote to the pope in 1584 more than hinting that he would be a good Roman Catholic if helped in his need. His very natural desire to escape from the poverty and insecurity of Scotland to the opulent English throne not only kept him busy in intrigues to placate the Roman Catholics or anybody else who could help or hinder him, but led him to behave basely in regard to the execution of his mother in 1587. He blustered to give himself an air of courage, but took good care to do nothing to offend Elizabeth. When the time came for fulfilling his promises and half-promises, he was not able, even if he had been willing, to keep his word to everybody. The methods which had helped him to success in Scotland did him harm in England, where his reign prepared the way for the great civil war. In his southern kingdom his failure was in fact complete. Although England accepted him as the alternative to civil war, and although he was received and surrounded with fulsome flattery, he did not win the respect of his English subjects. His undignified personal appearance was against him, and so were his garrulity, his Scottish accent, his slovenliness and his toleration of disorders in his court, but, above all, his favour for handsome male favourites, whom he loaded with gifts and caressed with demonstrations of affection which laid him open to vile suspicions. In ecclesiastical matters he offended many, who contrasted his severity and rudeness to the Puritan divines at the Hampton Court conference (1604) with his politeness to the Roman Catholics, whom he, however, worried by fits and starts. In a country where the authority of the state had been firmly established and the problem was how to keep it from degenerating into the mere instrument of a king's passions, his insistence on the doctrine of divine right aroused distrust and hostility. In itself, and in its origin, the doctrine was nothing more than a necessary assertion of the independence of the state in face of the "Hildebrandism" of Rome and Geneva alike. But when Englishmen were told that the king alone had indefeasible rights, and that all the privileges of subjects were revocable gifts, they were roused to hostility. His weaknesses cast suspicion on his best-meant schemes. His favour for his countrymen helped to defeat his wise wish to bring about a full union between England and Scotland. His profusion, which had been bad in the poverty of Scotland and was boundless amid the wealth of England, kept him necessitous, and drove him to shifts. Posterity can give him credit for his desire to forward religious peace in Europe, but his Protestant subjects were simply frightened when he sought a matrimonial alliance with Spain. Sagacious men among his contemporaries could not see the consistency of a king who married his daughter Elizabeth to the elector palatine, a leader of the German Protestants, and also sought to marry his son to an infanta of Spain. The king's subservience to Spain was indeed almost besotted. He could not see her real weakness, and he allowed himself to be befooled by the ministers of Philip III. and Philip IV. The end of his scheming was that he was dragged into a needless war with Spain by his son Charles and his favourite George Villiers, duke of Buckingham, just before his death on the 5th of March 1625 at his favourite residence, Theobalds.

James married in 1589 Anne, second daughter of Frederick II., king of Denmark. His voyage to meet his bride, whose ship had been driven into a Norwegian port by bad weather, is the only episode of a romantic character in the life of this very prosaic member of a poetic family. By this wife James had three children who survived infancy: Henry Frederick, prince of Wales, who died in 1612; Charles, the future king; and Elizabeth, wife of the elector palatine, Frederick V.

Not the least of James's many ambitions was the desire to excel as an author. He left a body of writings which, though of mediocre quality as literature, entitle him to a unique place among English kings since Alfred for width of intellectual interest and literary faculty. His efforts were inspired by his preceptor George Buchanan, whose memory he cherished in later years. His first work was in verse, *Essayes of a Prentise in the Divine Art of Poesie* (Edin. Vautrollier, 1584), containing fifteen sonnets, "Ane Metaphoricall invention of a tragedie called Phoenix," a short poem "Of Time," translations from Du Bartas, Lucan and the Book of Psalms ("out of Tremellius"), and a prose tract entitled "Ane short treatise, containing some Reulis and Cautelis to be observit and eschewit in Scottis Poesie." The volume is introduced by commendatory sonnets, including one by Alexander Montgomerie. The chief interest of the book lies in the "Treatise" and the prefatory sonnets "To the Reader" and "Sonnet decifring the perfyte poete." There is little originality in this youthful production. It has been surmised that it was compiled from the exercises written when the author was Buchanan's pupil at Stirling, and that it was directly suggested by his preceptor's *De Prosodia* and his annotations on Vives. On the other hand, it shows intimate acquaintance with the critical reflections of Ronsard and Du Bellay, and of Gascoigne in his *Notes of Instruction* (1575). In 1591 James published *Poeticall Exercises at Vacant Houres*, including a translation of the *Furies* of Du Bartas, his own *Lepanto*, and Du Bartas's version of it, *La Lepanthe*. His *Daemonologie*, a prose treatise denouncing witchcraft and exhorting the civil power to the strongest measures of suppression, appeared in 1599. In the same year he printed the first edition (seven copies) of his *Basilikon Doron*, strongly Protestant in tone. A French edition, specially translated for presentation to the pope, has a disingenuous preface explaining that certain phrases (*e.g.* "papistical doctrine") are omitted, because of the difficulty of rendering them in a foreign tongue. The original edition was, however, translated by order of the suspicious pope, and was immediately placed on the Index. Shortly after going to England James produced his famous *Counterblaste to Tobacco* (London, 1604), in which he forsakes his Scots tongue for Southern English. The volume was published anonymously. James's prose works (including his speeches) were collected and edited (folio, 1616) by James Montagu, bishop of Winchester, and were translated into Latin by the same hand in a companion folio, in 1619 (also Frankfort, 1689). A tract, entitled "The True Law of Free Monarchies," appeared in 1603; "An Apology for the Oath of Allegiance" in 1607; and a "*Déclaration du Roy Jacques I. . . . pour le droit des Rois*" in 1615. In 1588 and 1589 James issued two small volumes of *Meditations* on some verses of (*a*) Revelations and (*b*) 1 Chronicles. Other two "meditations" were printed posthumously.

See T. F. Henderson, *James I. and VI.* (London, 1904); P. Hume Brown, *History of Scotland*, vol. ii. (Edinburgh and Cambridge, 1902); and Andrew Lang, *History of Scotland*, vol. ii. (Edinburgh, 1902) and *James VI. and the Gowrie Mystery* (London, 1902); *The Register of the Privy Council of Scotland* (Edinburgh, 1877, &c.), vols. ii. to xiii.; S. R. Gardiner, *History of England 1603–1642* (London, 1883–1884). A comprehensive bibliography will be found in the *Cambridge Modern Hist.* iii. 847 (Cambridge, 1904).

For James's literary work, see Edward Arber's reprint of the *Essayes* and *Counterblaste* ("English Reprints," 1869, &c.); R. S. Rait's *Lusus Regius* (1900); G. Gregory Smith's *Elizabethan Critical Essays* (1904), vol. i., where the *Treatise* is edited for the first time; A. O. Meyer's "Clemens VIII. und Jacob I. von England" in *Quellen und Forschungen* (Preuss. Hist. Inst.), VII. ii., for an account of the issues of the *Basilikon Doron*; P. Hume Brown's *George Buchanan* (1890), pp. 250–261, for a sketch of James's association with Buchanan.

JAMES II. (1633–1701), king of Great Britain and Ireland, second surviving son of Charles I. and Henrietta Maria, was born at St James's on the 15th of October 1633, and created duke of York in January 1643. During the Civil War James was taken prisoner by Fairfax (1646), but contrived to escape to Holland in 1648. Subsequently he served in the French army under Turenne, and in the Spanish under Condé, and was applauded by both commanders for his brilliant personal courage. Returning to England with Charles II. in 1660 he was appointed lord high admiral and warden of the Cinque Ports. Pepys, who was secretary to the navy, has recorded the patient industry and unflinching probity of his naval administration. His victory over the Dutch in 1665, and his drawn battle with De Ruyter in 1672, show that he was a good naval commander as well as an excellent administrator. These achievements won him a reputation for high courage, which, until the close of 1688, was amply deserved. His private record was not as good as his public. In December 1660 he admitted to having contracted, under discreditable circumstances, a secret marriage with Anne Hyde (1637–1671), daughter of Lord Clarendon, in the previous September. Both before and after the marriage he seems to have been a libertine as unblushing though not so fastidious as Charles himself. In 1672 he made a public avowal of his conversion to Roman Catholicism. Charles II. had opposed this project, but in 1673 allowed him to marry the Catholic Mary of Modena as his second wife. Both houses of parliament, who viewed this union with abhorrence, now passed the Test Act, forbidding Catholics to hold office. In consequence of this James was forced to resign his posts. It was in vain that he married his daughter Mary to the Protestant prince of Orange in 1677. Anti-Catholic feeling ran so high that, after the discovery of the Popish Plot, he found it wiser to retire to Brussels (1679), while Shaftesbury and the Whigs planned to exclude him from the succession. He was lord high commissioner of Scotland (1680–1682), where he occupied himself in a severe persecution of the Covenanters. In 1684 Charles, having triumphed over the Exclusionists, restored James to the office of high admiral by use of his dispensing power.

James ascended the throne on the 16th of February 1685. The nation showed its loyalty by its firm adherence to him during the rebellions of Argyll in Scotland and Monmouth in England (1685). The savage reprisals on their suppression, in especial the "Bloody Assizes" of Jeffreys, produced a revulsion of public feeling. James had promised to defend the existing Church and government, but the people now became suspicious. James was not a mere tyrant and bigot, as the popular imagination speedily assumed him to be. He was rather a mediocre but not altogether obtuse man, who mistook tributary streams for the main currents of national thought. Thus he greatly underrated the strength of the Establishment, and preposterously exaggerated that of Dissent and Catholicism. He perceived that opinion was seriously divided in the Established Church, and thought that a vigorous policy would soon prove effective. Hence he publicly celebrated Mass, prohibited preaching against Catholicism, and showed exceptional favour to renegades from the Establishment. By undue pressure he secured a decision of the judges, in the test case of *Godden* v. *Hale* (1687), by which he was allowed to dispense Catholics from the Test Act. Catholics were now admitted to the chief offices in the army, and to some important posts in the state, in virtue of the dispensing power of James. The judges had been intimidated or corrupted, and the royal promise to protect the Establishment violated. The army had been increased to 20,000 men and encamped at Hounslow Heath to overawe the capital. Public alarm was speedily manifested and suspicion to a high degree awakened. In 1687 James made a bid for the support of the Dissenters by advocating a system of joint toleration for Catholics and Dissenters. In April 1687 he published a Declaration of Indulgence—exempting Catholics and Dissenters from penal statutes. He followed up this measure by dissolving parliament and attacking the universities. By an unscrupulous use of the dispensing power he introduced Dissenters and Catholics into all departments of state and into the municipal corporations, which were remodelled in their interests. Then in April 1688 he took the suicidal step of issuing a proclamation to force the clergy and bishops to read the Declaration in their pulpits, and thus personally advocate a measure they detested. Seven bishops refused, were indicted by James for libel, but acquitted amid the indescribable enthusiasm of the populace. Protestant nobles of England, enraged at the tolerant policy of James, had been in negotiation with William of Orange since 1687. The trial of the seven bishops, and the birth of a son to James, now induced them to send William a definite invitation (June 30, 1688). James remained in a fool's paradise till the last, and only awakened to his danger when William landed at Torbay (November 5, 1688) and swept all before him. James pretended to treat, and in the midst of the negotiations fled to France. He was intercepted at Faversham and brought back, but the politic prince of Orange allowed him to escape a second time (December 23, 1688).

At the end of 1688 James seemed to have lost his old courage. After his defeat at the Boyne (July 1, 1690) he speedily departed from Ireland, where he had so conducted himself that his English followers had been ashamed of his incapacity, while French officers had derided him. His proclamations and policy towards England during these years show unmistakable traces of the same incompetence. On the 17th of May 1692 he saw the French fleet destroyed before his very eyes off Cape La Hogue. He was aware of, though not an open advocate of the "Assassination Plot," which was directed against William. By its revelation and failure (February 10, 1696) the third and last serious attempt of James for his restoration failed. He refused in the same year to accept the French influence in favour of his candidature to the Polish throne, on the ground that it would exclude him from the English. Henceforward he neglected politics, and Louis of France ceased to consider him as a political factor. A mysterious conversion had been effected in him by an austere Cistercian abbot. The world saw with astonishment this vicious, rough, coarse-fibred man of the world transformed into an austere penitent, who worked miracles of healing. Surrounded by this odour of sanctity, which greatly edified the faithful, James lived at St Germain until his death on the 17th of September 1701.

The political ineptitude of James is clear; he often showed firmness when conciliation was needful, and weakness when resolution alone could have saved the day. Moreover, though he mismanaged almost every political problem with which he personally dealt, he was singularly tactless and impatient of advice. But in general political morality he was not below his age, and in his advocacy of toleration decidedly above it. He was more honest and sincere than Charles II., more genuinely patriotic in his foreign policy, and more consistent in his religious attitude. That his brother retained the throne while James lost it is an ironical demonstration that a more pitiless fate awaits the ruler whose faults are of the intellect, than one whose faults are of the heart.

By Anne Hyde James had eight children, of whom two only, Mary and Anne, both queens of England, survived their father. By Mary of Modena he had seven children, among them being James Francis Edward (the Old Pretender) and Louisa Maria Theresa, who died at St Germain in 1712. By one mistress, Arabella Churchill (1648–1730), he had two sons, James, duke of Berwick, and Henry (1673–1702), titular duke of Albemarle and

grand prior of France, and a daughter, Henrietta (1667–1730), who married Sir Henry Waldegrave, afterwards Baron Waldegrave; and by another, Catherine Sedley, countess of Dorchester (1657–1717), a daughter, Catherine (d. 1743), who married James Annesley, 5th earl of Anglesey, and afterwards John Sheffield, duke of Buckingham and Normanby.

BIBLIOGRAPHY.—*Original Authorities:* J. S. Clarke, *James II. Life* (London, 1816); James Macpherson, *Original Papers* (2 vols., London, 1775); Gilbert Burnet, *Supplement to History*, ed. H. C. Foxcroft (Oxford, 1902); Earl of Clarendon and Earl of Rochester, *Correspondence*, vol. ii. (London, 1828); John Evelyn, *Diary and Correspondence and Life*, edited by Bray and Wheatley (London, 1906); Sir John Reresby, *Memoirs*, ed. A. Ivatt (1904); *Somers Tracts*, vols. ix.–xi. (London, 1823). *Modern Works:* Lord Acton, *Lectures on Modern History*, pp. 195–276 (London, 1906); Moritz Brosch, *Geschichte von England*, Bd. viii. (Gotha, 1903); Onno Klopp, *Der Fall des Hauses Stuart*, Bde. i.–ix. (Vienna, 1875–1878); L. von Ranke, *History of England*, vols. iv.–vi. (Oxford, 1875); and Allan Fea, *James II. and his Wives* (1908).

JAMES I. (1394–1437), king of Scotland and poet, the son of King Robert III., was born at Dunfermline in July 1394. After the death of his mother, Annabella Drummond of Stobhall, in 1402, he was placed under the care of Henry Wardlaw (d. 1440), who became bishop of St Andrews in 1403, but soon his father resolved to send him to France. Robert doubtless decided upon this course owing to the fact that in 1402 his elder son, David, duke of Rothesay, had met his death in a mysterious fashion, being probably murdered by his uncle, Robert, duke of Albany, who, as the king was an invalid, was virtually the ruler of Scotland. On the way to France, however, James fell into the hands of some English sailors and was sent to Henry IV., who refused to admit him to ransom. The chronicler Thomas Walsingham, says that James's imprisonment began in 1406, while the future king himself places it in 1404; February 1406 is probably the correct date. On the death of Robert III. in April 1406 James became nominally king of Scotland, but he remained a captive in England, the government being conducted by his uncle, Robert of Albany, who showed no anxiety to procure his nephew's release. Dying in 1420, Albany was succeeded as regent by his son, Murdoch. At first James was confined in the Tower of London, but in June 1407 he was removed to the castle at Nottingham, whence about a month later he was taken to Evesham. His education was continued by capable tutors, and he not only attained excellence in all manly sports, but became perhaps more cultured than any other prince of his age. In person he was short and stout, but well-proportioned and very strong. His agility was not less remarkable than his strength; he excelled in all athletic feats which demanded suppleness of limb and quickness of eye. As regards his intellectual attainments he is reported to have been acquainted with philosophy, and it is evident from his subsequent career that he had studied jurisprudence; moreover, besides being proficient in vocal and instrumental music, he cultivated the art of poetry with much success. When Henry V. became king in March 1413, James was again imprisoned in the Tower of London, but soon afterwards he was taken to Windsor and was treated with great consideration by the English king. In 1420, with the intention of detaching the Scottish auxiliaries from the French standard, he was sent to take part in Henry's campaign in France; this move failed in its immediate object and he returned to England after Henry's death in 1422. About this time negotiations for the release of James were begun in earnest, and in September 1423 a treaty was signed at York, the Scottish nation undertaking to pay a ransom of 60,000 marks "for his maintenance in England." By the terms of the treaty James was to wed a noble English lady, and on the 12th of February 1424 he was married at Southwark to Jane, daughter of John Beaufort, earl of Somerset, a lady to whom he was faithful through life. Ten thousand marks of his ransom were remitted as Jane's dowry, and in April 1424 James and his bride entered Scotland.

With the reign of James I., whose coronation took place at Scone on the 21st of May 1424, constitutional sovereignty may be said to begin in Scotland. By the introduction of a system of statute law, modelled to some extent on that of England, and by the additional importance assigned to parliament, the leaven was prepared which was to work towards the destruction of the indefinite authority of the king and of the unbridled licence of the nobles. During the parliament held at Perth in March 1425 James arrested Murdoch, duke of Albany, and his son, Alexander; together with Albany's eldest son, Walter, and Duncan, earl of Lennox, who had been seized previously; they were sentenced to death, and the four were executed at Stirling. In a parliament held at Inverness in 1427 the king arrested many turbulent northern chiefs, and his whole policy was directed towards crushing the power of the nobles. In this he was very successful. Expeditions reduced the Highlands to order; earldom after earldom was forfeited; but this vigour aroused the desire for revenge, and at length cost James his life. Having been warned that he would never again cross the Forth, the king went to reside in Perth just before Christmas 1436. Among those whom he had angered was Sir Robert Graham (d. 1437), who had been banished by his orders. Instigated by the king's uncle, Walter Stewart, earl of Atholl (d. 1437), and aided by the royal chamberlain, Sir Robert Stewart, and by a band of Highlanders, Graham burst into the presence of James on the night of the 20th of February 1437 and stabbed the king to death. Graham and Atholl were afterwards tortured and executed. James had two sons: Alexander, who died young, and James II., who succeeded to the throne; and six daughters, among them being Margaret, the queen of Louis XI. of France. His widow, Jane, married Sir James Stewart, the "black knight of Lorne," and died on the 15th of July 1445.

During the latter part of James's reign difficulties arose between Scotland and England and also between Scotland and the papacy. Part of the king's ransom was still owing to England; other causes of discord between the two nations existed, and in 1436 these culminated in a short war. In ecclesiastical matters James showed himself merciless towards heretics, but his desire to reform the Scottish Church and to make it less dependent on Rome brought him into collision with Popes Martin V. and Eugenius IV.

James was the author of two poems, the *Kingis Quair* and *Good Counsel* (a short piece of three stanzas). The *Song of Absence*, *Peblis to the Play* and *Christis Kirk on the Greene* have been ascribed to him without evidence. *The Kingis Quair* (preserved in the Selden MS. B. 24 in the Bodleian) is an allegorical poem of the *cours d'amour* type, written in seven-lined Chaucerian stanzas and extending to 1379 lines. It was composed during James's captivity in England and celebrates his courtship of Lady Jane Beaufort. Though in many respects a Chaucerian *pastiche*, it not rarely equals its model in verbal and metrical felicity. Its language is an artificial blend of northern and southern (Chaucerian) forms, of the type shown in *Lancelot of the Laik* and the *Quair of Jelusy*.

BIBLIOGRAPHY.—The contemporary authorities for the reign of James I. are Andrew of Wyntoun, *The Orygynale Cronykil of Scotland*, edited by D. Laing (Edinburgh, 1872–1879); and Walter Bower's continuation of John of Fordun's *Scotichronicon*, edited by T. Hearne (Oxford, 1722). See also J. Pinkerton, *History of Scotland* (1797); A. Lang, *History of Scotland*, vol. i. (1900); and G. Burnett, *Introduction* to the *Exchequer Rolls of Scotland* (Edinburgh, 1878–1901). *The Kingis Quair* was first printed in the *Poetical Remains of James the First*, edited by William Tytler (1783). Later editions are Morison's reprint (Perth, 1786); J. Sibbald's, in his *Chronicle of Scottish Poetry* (1802, vol. i.); Thomson's in 1815 and 1824; G. Chalmers's, in his *Poetic Remains of some of the Scottish Kings* (1824); Rogers's *Poetical Remains of King James the First* (1873); Skeat's edition published by the Scottish Text Society (1884). An attempt has been made to dispute James's authorship of the poem, but the arguments elaborated by J. T. T. Brown (*The Authorship of the Kingis Quair*, Glasgow, 1896) have been convincingly answered by Jusserand in his *Jacques Ier d'Écosse fut-il poète ? Étude sur l'authenticité du cahier du roi* (Paris, 1897, reprinted from the *Revue historique*, vol. lxiv.). See also the full correspondence in the *Athenaeum* (July-Aug. 1896 and Dec. 1899); W. A. Neilson, *Origins and Sources of the Court of Love* (Boston, 1899) pp. 152 &c., 235 &c.; and Gregory Smith, *Transition Period* (1900), pp. 40, 41.

JAMES II. (1430–1460), king of Scotland, the only surviving son of James I. and his wife, Jane, daughter of John Beaufort, earl of Somerset, was born on the 16th of October 1430. Crowned

king at Holyrood in March 1437, shortly after the murder of his father, he was at first under the guardianship of his mother, while Archibald, 5th earl of Douglas, was regent of the kingdom, and considerable power was possessed by Sir Alexander Livingstone and Sir William Crichton (d. 1454). When about 1439 Queen Jane was married to Sir James Stewart, the knight of Lorne, Livingstone obtained the custody of the young king, whose minority was marked by fierce hostility between the Douglases and the Crichtons, with Livingstone first on one side and then on the other. About 1443 the royal cause was espoused by William, 8th earl of Douglas, who attacked Crichton in the king's name, and civil war lasted until about 1446. In July 1449 James was married to Mary (d. 1463), daughter of Arnold, duke of Gelderland, and undertook the government himself; and almost immediately Livingstone was arrested, but Douglas retained the royal favour for a few months more. In 1452, however, this powerful earl was invited to Stirling by the king, and, charged with treachery, was stabbed by James and then killed by the attendants. Civil war broke out at once between James and the Douglases, whose lands were ravaged; but after the Scots parliament had exonerated the king, James, the new earl of Douglas, made his submission. Early in 1455 this struggle was renewed. Marching against the rebels James gained several victories, after which Douglas was attainted and his lands forfeited. Fortified by this success and assured of the support of the parliament and of the great nobles, James, acting as an absolute king, could view without alarm the war which had broken out with England. After two expeditions across the borders, a truce was made in July 1457, and the king employed the period of peace in strengthening his authority in the Highlands. During the Wars of the Roses he showed his sympathy with the Lancastrian party after the defeat of Henry VI. at Northampton by attacking the English possessions to the south of Scotland. It was while conducting the siege of Roxburgh Castle that James was killed, through the bursting of a cannon, on the 3rd of August 1460. He left three sons, his successor, James III., Alexander Stewart, duke of Albany, and John Stewart, earl of Mar (d. 1479); and two daughters. James, who is sometimes called "Fiery Face," was a vigorous and popular prince, and, although not a scholar like his father, showed interest in education. His reign is a period of some importance in the legislative history of Scotland, as measures were passed with regard to the tenure of land, the reformation of the coinage, and the protection of the poor, while the organization for the administration of justice was greatly improved.

JAMES III. (1451–1488), king of Scotland, eldest son of James II., was born on the 10th of July 1451. Becoming king in 1460 he was crowned at Kelso. After the death of his mother in 1463, and of her principal supporter, James Kennedy, bishop of St Andrews, two years later, the person of the young king, and with it the chief authority in the kingdom, were seized by Sir Alexander Boyd and his brother Lord Boyd, while the latter's son, Thomas, was created earl of Arran and married to the king's sister, Mary. In July 1469 James himself was married to Margaret (d. 1486), daughter of Christian I., king of Denmark and Norway, but before the wedding the Boyds had lost their power. Having undertaken the government in person, the king received the submission of the powerful earl of Ross, and strengthened his authority in other ways. But his preference for a sedentary and not for an active life and his increasing attachment to favourites of humble birth diminished his popularity, and he had some differences with his parliament. About 1479, probably with reason both suspicious and jealous, James arrested his brothers, Alexander, duke of Albany, and John, earl of Mar; Mar met his death in a mysterious fashion at Craigmillar, but Albany escaped to France and then visited England, where in 1482 Edward IV. recognized him as king of Scotland by the gift of the king of England. War broke out with England, but James, made a prisoner by his nobles, was unable to prevent Albany and his ally, Richard, duke of Gloucester (afterwards Richard III.), from taking Berwick and marching to Edinburgh. Peace with Albany followed, but soon afterwards the duke was again in communication with Edward, and was condemned by the parliament after the death of the English king in April 1483. Albany's death in France in 1485 did not end the king's troubles. His policy of living at peace with England and of arranging marriages between the members of the royal families of the two countries did not commend itself to the turbulent section of his nobles; his artistic tastes and lavish expenditure added to the discontent, and a rebellion broke out. Fleeing into the north of his kingdom James collected an army and came to terms with his foes; but the rebels, having seized the person of the king's eldest son, afterwards James IV., renewed the struggle. The rival armies met at the Sauchieburn near Bannockburn, and James soon fled. Reaching Beaton's Mill he revealed his identity, and, according to the popular story, was killed on the 11th of June 1488 by a soldier in the guise of a priest who had been called in to shrive him. He left three sons—his successor, James IV.; James Stewart, duke of Ross, afterwards archbishop of St Andrews; and John Stewart, earl of Mar. James was a cultured prince with a taste for music and architecture, but was a weak and incapable king. His character is thus described by a chronicler: "He was ane man that loved solitude, and desired nevir to hear of warre, bot delighted more in musick and policie and building nor he did in the government of the realme."

JAMES IV. (1473–1513), king of Scotland, eldest son of James III., was born on the 17th of March 1473. He was nominally the leader of the rebels who defeated the troops of James III. at the Sauchieburn in June 1488, and became king when his father was killed. As he adopted an entirely different policy with the nobles from that of his father, and, moreover, showed great affability towards the lower class of his subjects, among whom he delighted to wander incognito, few if any of the kings of Scotland have won such general popularity, or passed a reign so untroubled by intestine strife. Crowned at Scone a few days after his accession, James began at once to take an active part in the business of government. A slight insurrection was easily suppressed, and a plot formed by some nobles to hand him over to the English king, Henry VII., came to nothing. In spite of this proceeding Henry wished to live at peace with his northern neighbour, and soon contemplated marrying his daughter to James, but the Scottish king was not equally pacific. When, in 1495, Perkin Warbeck, pretending to be the duke of York, Edward IV.'s younger son, came to Scotland, James bestowed upon him both an income and a bride, and prepared to invade England in his interests. For various reasons the war was confined to a few border forays. After Warbeck left Scotland in 1497, the Spanish ambassador negotiated a peace, and in 1502 a marriage was definitely arranged between James and Henry's daughter Margaret (1489–1541). The wedding took place at Holyrood in August 1503, and it was this union which led to the accession of the Stewart dynasty to the English throne.

About the same time James crushed a rebellion in the western isles, into which he had previously led expeditions, and parliament took measures to strengthen the royal authority therein. At this date too, or a little earlier, the king of Scotland began to treat as an equal with the powerful princes of Europe, Maximilian I., Louis XII. and others; sending assistance to his uncle Hans, king of Denmark, and receiving special marks of favour from Pope Julius II., anxious to obtain his support. But his position was weakened when Henry VIII. followed Henry VII. on the English throne in 1509. Causes of quarrel already existed, and other causes, both public and private, soon arose between the two kings; sea-fights took place between their ships, while war was brought nearer by the treaty of alliance which James concluded with Louis XII. in 1512. Henry made a vain effort to prevent, or to postpone, the outbreak of hostilities; but urged on by his French ally and his queen, James declared for war, in spite of the counsels of some of his advisers, and (it is said) of the warning of an apparition. Gathering a large and well-armed force, he took Norham and other castles in August 1513, spending some time at Ford Castle, where, according to report, he was engaged in an amorous intrigue with the wife of its owner. Then

he moved out to fight the advancing English army under Thomas Howard, earl of Surrey. The battle, which took place at Flodden, or more correctly, at the foot of Brankston Hill, on Friday the 9th of September 1513, is among the most famous and disastrous, if not among the most momentous, in the history of Scotland. Having led his troops from their position of vantage, the king himself was killed while fighting on foot, together with nearly all his nobles; there was no foundation for the rumour that he had escaped from the carnage. He left one legitimate child, his successor James V., but as his gallantries were numerous he had many illegitimate children, among them (by Marion Boyd) Alexander Stewart, archbishop of St Andrews and chancellor of Scotland, who was killed at Flodden, and (by Janet Kennedy) James Stewart, earl of Moray (d. 1544). One of his other mistresses was Margaret Drummond (d. 1501).

James appears to have been a brave and generous man, and a wise and energetic king. According to one account, he was possessed of considerable learning; during his reign the Scottish court attained some degree of refinement, and Scotland counted in European politics as she had never done before. Literature flourished under the royal patronage, education was encouraged, and the material condition of the country improved enormously. Prominent both as an administrator and as a lawgiver, the king by his vigorous rule did much to destroy the tendencies to independence which existed in the Highlands and Islands; but, on the other hand, his rash conduct at Flodden brought much misery upon his kingdom. He was specially interested in his navy. The tournaments which took place under his auspices were worthy of the best days of chivalry in France and England. James shared to the full in the superstitions of the age which was quickly passing away. He is said to have worn an iron belt as penance for his share in his father's death; and by his frequent visits to shrines, and his benefactions to religious foundations, he won a reputation for piety.

JAMES V. (1512–1542), king of Scotland, son of James IV., was born at Linlithgow on the 10th of April 1512, and became king when his father was killed at Flodden in 1513. The regency was at first vested in his mother, but after Queen Margaret's second marriage, with Archibald Douglas, 6th earl of Angus, in August 1514, it was transferred by the estates to John Stewart, duke of Albany. Henceforward the minority of James was disturbed by constant quarrels between a faction, generally favourable to England, under Angus, and the partisans of France under Albany; while the queen-mother and the nobles struggled to gain and to regain possession of the king's person. The English had not followed up their victory at Flodden, although there were as usual forays on the borders, but Henry VIII. was watching affairs in Scotland with an observant eye, and other European sovereigns were not indifferent to the possibility of a Scotch alliance. In 1524, when Albany had retired to France, the parliament declared that James was fit to govern, but that he must be advised by his mother and a council. This "erection" of James as king was mainly due to the efforts of Henry VIII. In 1526 Angus obtained control of the king, and kept him in close confinement until 1528, when James, escaping from Edinburgh to Stirling, put vigorous measures in execution against the earl, and compelled him to flee to England. In 1529 and 1530 the king made a strong effort to suppress his turbulent vassals in the south of Scotland; and after several raids and counter-raids negotiations for peace with England were begun, and in May 1534 a treaty was signed. At this time, as on previous occasions, Henry VIII. wished James to marry his daughter Mary, while other ladies had been suggested by the emperor Charles V.; but the Scottish king, preferring a French bride, visited France, and in January 1537 was married at Paris to Madeleine, daughter of King Francis I. Madeleine died soon after her arrival in Scotland, and in 1538 James made a much more important marriage, being united to Mary (1515–1560), daughter of Claude, duke of Guise, and widow of Louis of Orleans, duke of Longueville. It was this connexion, probably, which finally induced James to forsake his vacillating foreign policy, and to range himself definitely among the enemies of England. In 1536 he had refused to meet Henry VIII. at York, and in the following year had received the gift of a cap and sword from Pope Paul III., thus renouncing the friendship of his uncle. Two plots to murder the king were now discovered, and James also foiled the attempts of Henry VIII. to kidnap him. Although in 1540 the English king made another attempt to win the support, or at least the neutrality, of James for his religious policy, the relations between the two countries became very unfriendly, and in 1542 Henry sent an army to invade Scotland. James was not slow to make reprisals, but his nobles were angry or indifferent, and on the 25th of November 1542 his forces were easily scattered at the rout of Solway Moss. This blow preyed upon the king's mind, and on the 14th of December he died at Falkland, having just heard of the birth of his daughter. His two sons had died in infancy, and his successor was his only legitimate child, Mary. He left several bastards, among them James Stewart, earl of Murray (the regent Murray), Lord John Stewart (1531–1563) prior of Coldingham, and Lord Robert Stewart, earl of Orkney (d. 1592).

Although possessing a weak constitution, which was further impaired by his irregular manner of life, James showed great vigour and independence as a sovereign, both in withstanding the machinations of his uncle, Henry VIII., and in opposing the influence of the nobles. The persecutions to which heretics were exposed during this reign were due mainly to the excessive influence exercised by the ecclesiastics, especially by David Beaton, archbishop of St Andrews. The king's habit of mingling with the peasantry secured for him a large amount of popularity, and probably led many to ascribe to him the authorship of poems describing scenes in peasant life, *Christis Kirk on the Grene*, *The Gaberlunzie Man* and *The Jolly Beggar*. There is no proof that he was the author of any of these poems, but from expressions in the poems of Sir David Lindsay, who was on terms of intimacy with him, it appears that occasionally he wrote verses.

JAMES I., the Conqueror (1208–1276), king of Aragon, son of Peter II., king of Aragon, and of Mary of Montpellier, whose mother was Eudoxia Comnena, daughter of the emperor Manuel, was born at Montpellier on the 2nd of February 1208. His father, a man of immoral life, was with difficulty persuaded to cohabit with his wife. He endeavoured to repudiate her, and she fled to Rome, where she died in April 1213. Peter, whose possessions in Provence entangled him in the wars between the Albigenses and Simon of Montfort, endeavoured to placate the northern crusaders by arranging a marriage between his son James and Simon's daughter. In 1211 the boy was entrusted to Montfort's care to be educated, but the aggressions of the crusaders on the princes of the south forced Peter to take up arms against them, and he was slain at Muret on the 12th of September 1213. Montfort would willingly have used James as a means of extending his own power. The Aragonese and Catalans, however, appealed to the pope, who forced Montfort to surrender him in May or June 1214. James was now entrusted to the care of Guillen de Monredon, the head of the Templars in Spain and Provence. The kingdom was given over to confusion till in 1216 the Templars and some of the more loyal nobles brought the young king to Saragossa. At the age of thirteen he was married to Leonora, daughter of Alphonso VIII. of Castile, whom he divorced later on the ground of consanguinity. A son born of the marriage, Alphonso, was recognized as legitimate, but died before his father, childless. It was only by slow steps that the royal authority was asserted, but the young king, who was of gigantic stature and immense strength, was also astute and patient. By 1228 he had so far brought his vassals to obedience, that he was able to undertake the conquest of the Balearic Islands, which he achieved within four years. At the same time he endeavoured to bring about a union of Aragon with Navarre, by a contract of mutual adoption between himself and the Navarrese king, Sancho, who was old enough to be his grandfather. The scheme broke down, and James abstained from a policy of conquest. He wisely turned to the more feasible course of extending his dominions at the expense of the decadent

Mahommedan princes of Valencia. On the 28th of September 1238 the town of Valencia surrendered, and the whole territory was conquered in the ensuing years. Like all the princes of his house, James took part in the politics of southern France. He endeavoured to form a southern state on both sides of the Pyrenees, which should counterbalance the power of France north of the Loire. Here also his policy failed against physical, social and political obstacles. As in the case of Navarre, he was too wise to launch into perilous adventures. By the Treaty of Corbeil, with Louis IX., signed the 11th of May 1258, he frankly withdrew from conflict with the French king, and contented himself with the recognition of his position, and the surrender of antiquated French claims to the overlordship of Catalonia. During the remaining twenty years of his life, James was much concerned in warring with the Moors in Murcia, not on his own account, but on behalf of his son-in-law Alphonso the Wise of Castile. As a legislator and organizer he occupies a high place among the Spanish kings. He would probably have been more successful but for the confusion caused by the disputes in his own household. James, though orthodox and pious, had an ample share of moral laxity. After repudiating Leonora of Castile he married Yolande (in Spanish Violante) daughter of Andrew II. of Hungary, who had a considerable influence over him. But she could not prevent him from continuing a long series of intrigues. The favour he showed his bastards led to protest from the nobles, and to conflicts between his sons legitimate and illegitimate. When one of the latter, Fernan Sanchez, who had behaved with gross ingratitude and treason to his father, was slain by the legitimate son Pedro, the old king recorded his grim satisfaction. At the close of his life King James divided his states between his sons by Yolande of Hungary, Pedro and James, leaving the Spanish possessions on the mainland to the first, the Balearic Islands and the lordship of Montpellier to the second—a division which inevitably produced fratricidal conflicts. The king fell very ill at Alcira, and resigned his crown, intending to retire to the monastery of Poblet, but died at Valencia on the 27th of July 1276.

King James was the author of a chronicle of his own life, written or dictated apparently at different times, which is a very fine example of autobiographical literature. A translation into English by J. Forster, with notes by Don Pascual de Gayangos, was published in London in 1883. See also *James I. of Aragon*, by F. Darwin Swift (Clarendon Press, 1894), in which are many references to authorities.

JAMES II. (*c.* 1260–1327), king of Aragon, grandson of James I., and son of Peter III. by his marriage with Constance, daughter of Manfred of Beneventum, was left in 1285 as king of Sicily by his father. In 1291, on the death of his elder brother, Alphonso, to whom Aragon had fallen, he resigned Sicily and endeavoured to arrange the quarrel between his own family and the Angevine House, by marriage with Blanca, daughter of Charles of Anjou, king of Naples.

JAMES II. (1243–1311), king of Majorca, inherited the Balearic Islands from his father James I. of Aragon. He was engaged in constant conflict with his brother Pedro III. of Aragon, and in alliance with the French king against his own kin.

JAMES III. (1315–1349), king of Majorca, grandson of James II., was driven out of his little state and finally murdered by his cousin Pedro IV. of Aragon, who definitely reannexed the Balearic Islands to the crown.

JAMES (JAMES FRANCIS EDWARD STUART) (1688–1766), prince of Wales, known to the Jacobites as James III. and to the Hanoverian party as the Old Pretender, the son and heir of James II. of England, was born in St James's Palace, London, on the 10th of June 1688. The scandalous story that he was a supposititious child, started and spread abroad by interested politicians at the time of his birth, has been completely disproved, and most contemporary writers allude to his striking family likeness to the Royal Stuarts. Shortly before the flight of the king to Sheerness, the infant prince together with his mother was sent to France, and afterwards he continued to reside with his father at the court of St Germain. On the death of his father, on the 16th of September 1701, he was immediately proclaimed king by Louis XIV. of France, but a fantastic attempt to perform a similar ceremony in London so roused the anger of the populace that the mock pursuivants barely escaped with their lives. A bill of attainder against him received the royal assent a few days before the death of William III. in 1702, and the Princess Anne, half-sister of the Pretender, succeeded William on the throne. An influential party still, however, continued to adhere to the Jacobite cause; but an expedition from Dunkirk planned in favour of James in the spring of 1708 failed of success, although the French ships under the comte de Fourbin, with James himself on board, reached the Firth of Forth in safety. At the Peace of Utrecht James withdrew from French territory to Bar-le-Duc in Lorraine. A rebellion in the Highlands of Scotland was inaugurated in September 1715 by the raising of the standard on the braes of Mar, and by the solemn proclamation of James Stuart, "the chevalier of St George," in the midst of the assembled clans, but its progress was arrested in November by the indecisive battle of Sheriffmuir and by the surrender at Preston. Unaware of the gloomy nature of his prospects, the chevalier landed in December 1715 at Peterhead, and advanced as far south as Scone, accompanied by a small force under the earl of Mar; but on learning of the approach of the duke of Argyll, he retreated to Montrose, where the Highlanders dispersed to the mountains, and he embarked again for France. A Spanish expedition sent out in his behalf in 1719, under the direction of Alberoni, was scattered by a tempest, only two frigates reaching the appointed rendezvous in the island of Lewis.

In 1718 James had become affianced to the young princess Maria Clementina Sobieski, grand-daughter of the warrior king of Poland, John Sobieski. The intended marriage was forbidden by the emperor, who in consequence kept the princess and her mother in honourable confinement at Innsbruck in Tirol. An attempt to abduct the princess by means of a ruse contrived by a zealous Jacobite gentleman, Charles Wogan, proved successful; Clementina reached Italy in safety, and she and James were ultimately married at Montefiascone on the 1st of September 1719. James and Clementina were now invited to reside in Rome at the special request of Pope Clement XI., who openly acknowledged their titles of British King and Queen, gave them a papal guard of troops, presented them with a villa at Albano and a palace (the Palazzo Muti in the Piazza dei Santi Apostoli) in the city, and also made them an annual allowance of 12,000 crowns out of the papal treasury. At the Palazzo Muti, which remained the chief centre of Jacobite intriguing, were born James's two sons, Charles Edward (the Young Pretender) and Henry Benedict Stuart. James's married life proved turbulent and unhappy, a circumstance that was principally due to the hot temper and jealous nature of Clementina, who soon after Henry's birth in 1725 left her husband and spent over two years in a Roman convent. At length a reconciliation was effected, which Clementina did not long survive, for she died at the early age of 32 in February 1735. Full regal honours were paid to the Stuart queen at her funeral, and the splendid but tasteless monument by Pietro Bracchi (1700–1773) in St Peter's was erected to her memory by order of Pope Benedict XIV.

His wife's death seems to have affected James's health and spirits greatly, and he now began to grow feeble and indifferent, so that the political adherents of the Stuarts were gradually led to fix their hopes upon the two young princes rather than upon their father. Travellers to Rome at this period note that James appeared seldom in public, and that much of his time was given up to religious exercises; he was *dévot à l'excès*, so Charles de Brosses, an unprejudiced Frenchman, informs us. It was with great reluctance that James allowed his elder son to leave Italy for France in 1744; nevertheless in the following year, he permitted Henry to follow his brother's example, but with the news of Culloden he evidently came to regard his cause as definitely lost. The estrangement from his elder and favourite son, which arose over Henry's adoption of an ecclesiastical career, so embittered his last years that he sank into a moping invalid and rarely left his chamber. With the crushing failure of the

"Forty-five" and his quarrel with his heir, the once-dreaded James soon became a mere cipher in British politics, and his death at Rome on the 2nd of January 1766 passed almost unnoticed in London. He was buried with regal pomp in St Peter's, where Canova's famous monument, erected by Pius VII. in 1819, commemorates him and his two sons. As to James's personal character, there is abundant evidence to show that he was grave, high-principled, industrious, abstemious and dignified, and that the unflattering portrait drawn of him by Thackeray in *Esmond* is utterly at variance with historical facts. Although a fervent Roman Catholic, he was far more reasonable and liberal in his religious views than his father, as many extant letters testify.

See Earl Stanhope, *History of England and Decline of the Last Stuarts* (1853); *Calendar of the Stuart Papers at Windsor Castle*; J. H. Jesse, *Memories of the Pretenders and their Adherents* (1845); Dr John Doran, "*Mann*" *and Manners at the Court of Florence* (1876); *Relazione della morte di Giacomo III., Rè d'Inghilterra*; and Charles de Brosses, *Lettres sur l'Italie* (1885). (H. M. V.)

JAMES, DAVID (1839–1893), English actor, was born in London, his real name being Belasco. He began his stage career at an early age, and after 1863 gradually made his way in humorous parts. His creation, in 1875, of the part of Perkyn Middlewick in *Our Boys* made him famous as a comedian, the performance obtaining for the piece a then unprecedented run from the 16th of January 1875 till the 18th of April 1879. In 1885 he had another notable success as Blueskin in *Little Jack Sheppard* at the Gaiety Theatre, his principal associates being Fred Leslie and Nellie Farren. His song in this burlesque, "Botany Bay," became widely popular. In the part of John Dory in *Wild Oats* he again made a great hit at the Criterion Theatre in 1886; and among his other most successful impersonations were Simon Ingot in *David Garrick*, Tweedie in *Tweedie's Rights*, Macclesfield in *The Guv'nor*, and Eccles in *Caste*. His unctuous humour and unfailing spirits made him a great favourite with the public. He died on the 2nd of October 1893.

JAMES, GEORGE PAYNE RAINSFORD (1799–1860), English novelist, son of Pinkstan James, physician, was born in George Street, Hanover Square, London, on the 9th of August 1799. He was educated at a private school at Putney, and afterwards in France. He began to write early, and had, according to his own account, composed the stories afterwards published as *A String of Pearls* before he was seventeen. As a contributor to newspapers and magazines, he came under the notice of Washington Irving, who encouraged him to produce his *Life of Edward the Black Prince* (1822). *Richelieu* was finished in 1825, and was well thought of by Sir Walter Scott (who apparently saw it in manuscript), but was not brought out till 1829. Perhaps Irving and Scott, from their natural amiability, were rather dangerous advisers for a writer so inclined by nature to abundant production as James. But he took up historical romance writing at a lucky moment. Scott had firmly established the popularity of the style, and James in England, like Dumas in France, reaped the reward of their master's labours as well as of their own. For thirty years the author of *Richelieu* continued to pour out novels of the same kind though of varying merit. His works in prose fiction, verse narrative, and history of an easy kind are said to number over a hundred, most of them being three-volume novels of the usual length. Sixty-seven are catalogued in the British Museum. The best examples of his style are perhaps *Richelieu* (1829); *Philip Augustus* (1831); *Henry Masterton*, probably the best of all (1832); *Mary of Burgundy* (1833); *Darnley* (1839); *Corse de Léon* (1841); *The Smuggler* (1845). His poetry does not require special mention, nor does his history, though for a short time during the reign of William IV. he held the office of historiographer royal. After writing copiously for about twenty years, James in 1850 went to America as British Consul for Massachusetts. He was consul at Richmond, Virginia, from 1852 to 1856, when he was appointed to a similar post at Venice, where he died on the 9th of June 1860.

James has been compared to Dumas, and the comparison holds good in respect of kind, though by no means in respect of merit. Both had a certain gift of separating from the picturesque parts of history what could without much difficulty be worked up into picturesque fiction, and both were possessed of a ready pen. Here, however, the likeness ends. Of purely literary talent James had little. His plots are poor, his descriptions weak, his dialogue often below even a fair average, and he was deplorably prone to repeat himself. The "two cavaliers" who in one form or another open most of his books have passed into a proverb, and Thackeray's good-natured but fatal parody of *Barbazure* is likely to outlast *Richelieu* and *Darnley* by many a year. Nevertheless, though James cannot be allowed any very high rank among novelists, he had a genuine narrative gift, and, though his very best books fall far below *Les trois mousquetaires* and *La reine Margot*, there is a certain even level of interest to be found in all of them. James never resorted to illegitimate methods to attract readers, and deserves such credit as may be due to a purveyor of amusement who never caters for the less creditable tastes of his guests.

His best novels were published in a revised form in 21 volumes (1844–1849).

JAMES, HENRY (1843–), American author, was born in New York on the 15th of April 1843. His father was Henry James (1811–1882), a theological writer of great originality, from whom both he and his brother Professor William James derived their psychological subtlety and their idiomatic, picturesque English. Most of Henry's boyhood was spent in Europe, where he studied under tutors in England, France and Switzerland. In 1860 he returned to America, and began reading law at Harvard, only to find speedily that literature, not law, was what he most cared for. His earliest short tale, "The Story of a Year," appeared in 1865, in the *Atlantic Monthly*, and frequent stories and sketches followed. In 1869 he again went to Europe, where he subsequently made his home, for the most part living in London, or at Rye in Sussex. Among his specially noteworthy works are the following: *Watch and Ward* (1871); *Roderick Hudson* (1875); *The American* (1877); *Daisy Miller* (1878); *French Poets and Novelists* (1878); *A Life of Hawthorne* (1879); *The Portrait of a Lady* (1881); *Portraits of Places* (1884); *The Bostonians* (1886); *Partial Portraits* (1888); *The Tragic Muse* (1890); *Essays in London* (1893); *The Two Magics* (1898); *The Awkward Age* (1898); *The Wings of the Dove* (1902); *The Ambassadors* (1903); *The Golden Bowl* (1904); *English Hours* (1905); *The American Scene* (1907); *The High Bid* (1909); *Italian Hours* (1909).

As a novelist, Henry James is a modern of the moderns both in subject matter and in method. He is entirely loyal to contemporary life and reverentially exact in his transcription of the phase. His characters are for the most part people of the world who conceive of life as a fine art and have the leisure to carry out their theories. Rarely are they at close quarters with any ugly practical task. They are subtle and complex with the subtlety and the complexity that come from conscious preoccupation with themselves. They are specialists in conduct and past masters in casuistry, and are full of variations and shadows of turning. Moreover, they are finely expressive of *milieu*; each belongs unmistakably to his class and his race; each is true to inherited moral traditions and delicately illustrative of some social code. To reveal the power and the tragedy of life through so many minutely limiting and apparently artificial conditions, and by means of characters who are somewhat self-conscious and are apt to make of life only a pleasant pastime, might well seem an impossible task. Yet it is precisely in this that Henry James is pre-eminently successful. The essentially human is what he really cares for, however much he may at times seem preoccupied with the *technique* of his art or with the mask of conventions through which he makes the essentially human reveal itself. Nor has "the vista of the spiritual been denied him." No more poignant spiritual tragedy has been recounted in recent fiction than the story of Isabel Archer in *The Portrait of a Lady*. His method, too, is as modern as his subject matter. He early

fell in love with the "point of view," and the good and the bad qualities of his work all follow from this literary passion. He is a very sensitive impressionist, with a technique that can fix the most elusive phase of character and render the most baffling surface. The skill is unending with which he places his characters in such relations and under such lights that they flash out in due succession their continuously varying facets. At times he may seem to forget that a character is something incalculably more than the sum of all its phases; and then his characters tend to have their existence, as Positivists expect to have their immortality, simply and solely in the minds of other people. But when his method is at its best, the delicate phases of character that he transcribes coalesce perfectly into clearly defined and suggestive images of living, acting men and women. Doubtless, there is a certain initiation necessary for the enjoyment of Mr James. He presupposes a cosmopolitan outlook, a certain interest in art and in social artifice, and no little abstract curiosity about the workings of the human mechanism. But for speculative readers, for readers who care for art in life as well as for life in art, and for readers above all who want to encounter and comprehend a great variety of very modern and finely modulated characters, Mr James holds a place of his own, unrivalled as an interpreter of the world of to-day.

For a list of the short stories of Mr Henry James, collections of them in volume form, and other works, see bibliographies by F. A. King, in *The Novels of Henry James*, by Elisabeth L. Cary (New York and London, 1905), and by Le Roy Phillips, *A Bibliography of the Writings of Henry James* (Boston, Mass., 1906). In 1909 an *édition de luxe* of Henry James's novels was published in 24 volumes.

JAMES, JOHN ANGELL (1785–1859), English Nonconformist divine, was born at Blandford, Dorsetshire, on the 6th of June 1785. At the close of his seven years' apprenticeship to a linen-draper at Poole he decided to become a preacher, and in 1802 he went to David Bogue's training institution at Gosport. A year and a half later, on a visit to Birmingham, his preaching was so highly esteemed by the congregation of Carr's Lane Independent chapel that they invited him to exercise his ministry amongst them; he settled there in 1805, and was ordained in May 1806. For several years his success as a preacher was comparatively small; but he jumped into popularity about 1814, and began to attract large crowds wherever he officiated. At the same time his religious writings, the best known of which are *The Anxious Inquirer* and *An Earnest Ministry*, acquired a wide circulation. James was a typical Congregational preacher of the early 19th century, massive and elaborate rather than original. His preaching displayed little or nothing of Calvinism, the earlier severity of which had been modified in Birmingham by Edward Williams, one of his predecessors. He was one of the founders of the Evangelical Alliance and of the Congregational Union of England and Wales. Municipal interests appealed strongly to him, and he was also for many years chairman of Spring Hill (afterwards Mansfield) College. He died at Birmingham on the 1st of October 1859.

A collected edition of James's works appeared in 1860–1864. See *A Review of the Life and Character of J. Angell James* (1860), by J. Campbell, and *Life and Letters of J. A. James* (1861), edited by his successor, R. W. Dale, who also contributed a sketch of his predecessor to *Pulpit Memorials* (1878).

JAMES, THOMAS (*c.* 1573–1629), English librarian, was born at Newport, Isle of Wight. He was educated at Winchester and New College, Oxford, and became a fellow of New College in 1593. His wide knowledge of books, together with his skill in deciphering manuscripts and detecting literary forgeries, secured him in 1602 the post of librarian to the library founded in that year by Sir Thomas Bodley at Oxford. At the same time he was made rector of St Aldate's, Oxford. In 1605 he compiled a classified catalogue of the books in the Bodleian Library, but in 1620 substituted for it an alphabetical catalogue. The arrangement in 1610, whereby the Stationers' Company undertook to supply the Bodleian Library with every book published, was James's suggestion. Ill health compelled him to resign his post in 1620, and he died at Oxford in August 1629.

JAMES, WILLIAM (d. 1827), English naval historian, author of the *Naval History of Great Britain from the Declaration of War by France in 1793 to the Accession of George IV.*, practised as a proctor in the admiralty court of Jamaica between 1801 and 1813. He was in the United States when the war of 1812 broke out, and was detained as a prisoner, but escaped to Halifax. His literary career began by letters to the *Naval Chronicle* over the signature of "Boxer." In 1816 he published *An Inquiry into the Merits of the Principal Naval Actions between Great Britain and the United States*. In this pamphlet, which James reprinted in 1817, enlarged and with a new title, his object was to prove that the American frigates were stronger than their British opponents nominally of the same class. In 1819 he began his *Naval History*, which appeared in five volumes (1822–1824), and was reprinted in six volumes (1826). It is a monument of painstaking accuracy in all such matters as dates, names, tonnage, armament and movements of ships, though no attempt is ever made to show the connexion between the various movements. James died on the 28th of May 1827 in London, leaving a widow who received a civil list pension of £100.

An edition of the *Naval History* in six volumes, with additions and notes by Capt. F. Chamier, was published in 1837, and a further one in 1886. An edition epitomized by R. O'Byrne appeared in 1888, and an *Index* by C. G. Toogood was issued by the Navy Records Society in 1895.

JAMES, WILLIAM (1842–1910), American philosopher, son of the Swedenborgian theologian Henry James, and brother of the novelist Henry James, was born on the 11th of January 1842 at New York City. He graduated M.D. at Harvard in 1870. Two years after he was appointed a lecturer at Harvard in anatomy and physiology, and later in psychology and philosophy. Subsequently he became assistant professor of philosophy (1880–1885), professor (1885–1889), professor of psychology (1889–1897) and professor of philosophy (1897–1907). In 1899–1901 he delivered the Gifford lectures on natural religion at the university of Edinburgh, and in 1908 the Hibbert lectures at Manchester College, Oxford. With the appearance of his *Principles of Psychology* (2 vols., 1890), James at once stepped into the front rank of psychologists as a leader of the physical school, a position which he maintained not only by the brilliance of his analogies but also by the freshness and unconventionality of his style. In metaphysics he upheld the idealist position from the empirical standpoint. Beside the *Principles of Psychology*, which appeared in a shorter form in 1892 (*Psychology*), his chief works are: *The Will to Believe* (1897); *Human Immortality* (Boston, 1898); *Talks to Teachers* (1899); *The Varieties of Religious Experience* (New York, 1902); *Pragmatism—a New Name for some Old Ways of Thinking* (1907); *A Pluralistic Universe* (1909; Hibbert lectures), in which, though he still attacked the hypothesis of absolutism, he admitted it as a legitimate alternative. He received honorary degrees from Padua (1893), Princeton (1896), Edinburgh (1902), Harvard (1905). He died on the 27th of August 1910.

JAMES OF HEREFORD, HENRY JAMES, 1ST BARON (1828–), English lawyer and statesman, son of P. T. James, surgeon, was born at Hereford on the 30th of October 1828, and educated at Cheltenham College. A prizeman of the Inner Temple, he was called to the bar in 1852 and joined the Oxford circuit, where he soon came into prominence. In 1867 he was made "postman" of the court of exchequer, and in 1869 became a Q.C. At the general election of 1868 he obtained a seat in parliament for Taunton as a Liberal, by the unseating of Mr Serjeant Cox on a scrutiny in March 1869, and he kept the seat till 1885, when he was returned for Bury. He attracted attention in parliament by his speeches in 1872 in the debates on the Judicature Act. In 1873 (September) he was made solicitor-general, and in November attorney-general, and knighted; and when Gladstone returned to power in 1880 he resumed his office. He was responsible for carrying the Corrupt Practices Act of 1883. On Gladstone's conversion to Home Rule, Sir Henry James parted from him and became one of the most influential of the Liberal Unionists: Gladstone had offered him the lord chancellorship in 1886, but he declined it; and the knowledge

of the sacrifice he had made in refusing to follow his old chief in his new departure lent great weight to his advocacy of the Unionist cause in the country. He was one of the leading counsel for *The Times* before the Parnell Commission, and from 1892 to 1895 was attorney-general to the prince of Wales. From 1895 to 1902 he was a member of the Unionist ministry as chancellor for the duchy of Lancaster, and in 1895 he was made a peer as Baron James of Hereford. In later years he was a prominent opponent of the Tariff Reform movement, adhering to the section of Free Trade Unionists.

JAMES, EPISTLE OF, a book of the New Testament. The superscription (Jas. i. 1) ascribes it to that pre-eminent "pillar" (Gal. ii. 9) of the original mother church who later came to be regarded in certain quarters as the "bishop of bishops" (Epist. of James to Clement, *ap. Clem. Hom.* Superscription). As such he appears in a position to address an encyclical to "the twelve tribes of the dispersion"; for the context (i. 18, v. 7 seq.) and literary relation (cf. 1 Pet. i. 1, 3, 23–25) prove this to be a figure for the entire new people of God, without the distinction of carnal birth, as Paul had described "the Israel of God" (Gal. vi. 16), spiritually begotten, like Isaac, by the word received in faith (Gal. iii. 28 seq., iv. 28; Rom. ix. 6–9, iv. 16–18). This idea of the spiritually begotten Israel becomes current after 1 Pet., as appears in John i. 11–13, iii. 3–8; Barn. iv. 6, xiii. 13; 2 Clem. ii. 2, &c.

The interpretation which takes the expression "the twelve tribes" literally, and conceives the brother of the Lord as sending an epistle written in the Greek language throughout the Christian world, but as addressing Jewish Christians only (so *e.g.* Sieffert, *s.v.* "Jacobus im N.T." in Hauck, *Realencykl.* ed. 1900, vol. viii.), assumes not only such divisive interference as Paul might justly resent (cf. Gal. ii. 1–10), but involves a strange idea of conditions. Were worldliness, tongue religion, moral indifference, the distinctive marks of the Jewish element? Surely the rebukes of James apply to conditions of the whole Church and not sporadic Jewish-Christian conventicles in the Greek-speaking world, if any such existed.

It is at least an open question whether the superscription (connected with that of Jude) be not a later conjecture prefixed by some compiler of the catholic epistles, but of the late date implied in our interpretation of ver. 1 there should be small dispute. Whatever the currency in classical circles of the epistle as a literary form, it is irrational to put first in the development of Christian literature a general epistle, couched in fluent, even rhetorical, Greek, and afterwards the Pauline letters, which both as to origin and subsequent circulation were a product of urgent conditions. The order consonant with history is (1) Paul's "letters" to "the churches of" a province (Gal. i. 2; 2 Cor. i. 1); (2) the address to "the elect of the dispersion" in a group of the Pauline provinces (1 Pet. i. 1); (3) the address to "the twelve tribes of the dispersion" everywhere (Jas. i. 1; cf. Rev. vii. 2–4). James, like 1 John, is a homily, even more lacking than 1 John in every epistolary feature, not even supplied with the customary epistolary farewell. The superscription, if original, compels us to treat the whole writing as not only late but pseudonymous. If prefixed by conjecture, to secure recognition and authority for the book, even this was at first a failure. The earliest trace of any recognition of it is in Origen (A.D. 230) who refers to it as "said to be from James" (*φερομένη ἡ Ἰακώβου Ἐπιστολή*), seeming thus to regard ver. 1 as superscription rather than part of the text. Eusebius (A.D. 325) classifies it among the disputed books, declaring that it is regarded as spurious, and that not many of the ancients have mentioned it. Even Jerome (A.D. 390), though personally he accepted it, admits that it was "said to have been published by another in the name of James." The Syrian canon of the Peshitta was the first to admit it.

Modern criticism naturally made the superscription its starting-point, endeavouring first to explain the contents of the writing on this theory of authorship, but generally reaching the conclusion that the two do not agree. Conservatives as a rule avoid the implication of a direct polemic against Paul in ii. 14–26, which would lay open the author to the bitter accusations launched against the interlopers of 2 Cor. x.–xiii., by dating before the Judaistic controversy. Other critics regard the very language alone as fatal to such a theory of date, authorship and circle addressed. The contents, ignoring the conflict of Jew and Gentile, complaining of worldliness and tongue-religion (cf. 1 John iii. 17 seq. with James ii. 14–16) suggest a much later date than the death of James (A.D. 62–66). They also require a different character in the author, if not also a different circle of readers from those addressed in i. 1.

The prevalent conditions seem to be those of the Greek church of the post-apostolic period, characterized by worldliness of life, profession without practice, and a contentious garrulity of teaching (1 John iii. 3–10, 18; 1 Tim. i. 6 seq., vi. 3–10; 2 Tim. iii. 1–5, iv. 3 seq.). The author meets these with the weapons commanded for the purpose in 1 Tim. vi. 3, but quite in the spirit of one of the "wise men" of the Hebrew wisdom literature. His gospel is completely denationalized, humanitarian; but, while equally universalistic, is quite unsympathetic towards the doctrine and the mysticism of Paul. He has nothing whatever to say of the incarnation, life, example, suffering or resurrection of Jesus, and does not interest himself in the doctrines of Christ's person, which were hotly debated up to this time. The absence of all mention of Christ (with the single exception of ii. 1, where there is reason to think the words *ἡμῶν Ἰησοῦ Χριστοῦ* interpolated) has even led to the theory, ably but unconvincingly maintained by Spitta, that the writing is a mere recast of a Jewish moralistic writing like the *Two Ways*. The thoughts are loosely strung together: yet the following seems to be the general framework on which the New Testament preacher has collected his material.

1. The problem of evil (i. 1–19a). Outward trials are for our development through aid of divinely given "wisdom" (2–11). Inward (moral) trials are not to be imputed to God, the author of all good, whose purpose is the moral good of his creation (12–19a; cf. 1 John i. 5).

2. The righteousness God intends is defined in the eternal moral law. It is a product of deeds, not words (i. 19b–27).

3. The "royal law" of love is violated by discrimination against the poor (ii. 1–13); and by professions of faith barren of good works (14–26).

4. The true spirit of wisdom appears not in aspiring to teach, but in goodness and meekness of life (ch. iii.). Strife and self-exaltation are fruits of a different spirit, to be resisted and overcome by humble prayer for more grace (iv. 1–10).

5. God's judgment is at hand. The thought condemns censoriousness (iv. 11 et seq.), presumptuous treatment of life (13–17), and the tyranny of the rich (v. 1–6). It encourages the believer to patient endurance to the end without murmuring or imprecations (7–12). It impels the church to diligence in its work of worship, care and prayer (13–18), and in the reclamation of the erring (19–20).

The use made by James of earlier material is as important for determining the *terminus a quo* of its own date as the use of it by later writers for the *terminus ad quem*. Acquaintance with the evangelic tradition is apparent. It is conceived, however, more in the Matthaean sense of "commandments to be observed" (Matt. xxviii. 20) than the Pauline, Markan and Johannine of the drama of the incarnation and redemption. There is no traceable literary contact with the synoptic gospels. Acquaintance, however, with some of the Pauline epistles "must be regarded as incontestably established" (O. Cone, *Ency. Bibl.* ii. 2323). Besides scattered reminiscences of Romans, 1 Corinthians and Galatians, enumerated in the article referred to, the section devoted to a refutation of the doctrine of "justification by faith apart from works" undeniably presupposes the Pauline terminology. Had the author been consciously opposing the great apostle to the Gentiles he would probably have treated the subject less superficially. What he really opposes is the same ultra-Pauline moral laxity which Paul himself had found occasion to rebuke among would-be adherents in Corinth (1 Cor. vi. 12; viii. 1–3, 11, 12; x. 23 seq., 32 seq.) and which appears still more marked in the pastoral epistles and 1 John. In rebuking it James unconsciously retracts the misapplied Pauline principle itself. To suppose that the technical terminology of Paul, including even his classic example of the faith of Abraham, could be employed here independently of Rom. ii. 21–23, iii. 28, iv. 1; Gal. ii. 16, iii. 6, is to pass a judgment which in every other field of literary criticism would be at once repudiated. To imagine it current in pre-Pauline Judaism is to misconceive the spirit of the synagogue.[1] To make James the coiner and Paul the borrower not only throws back James to a date incompatible with the other phenomena, but implies a literary polemic tactlessly waged by Paul against the head of the Jerusalem church. Acquaintance with Hebrews is only slightly less probable, for James ii. 25 adds an explication of the case of Rahab also, cited in Heb. xi. 31 along with Abraham as an example of justification by faith only, to his correction of the Pauline scriptural argument. The question whether James is dependent on 1 Peter or conversely is still actively disputed. As regards the superscription

[1] Nothing adduced by Lightfoot (*Comm. on Gal.* Exc. "The faith of Abraham") justifies the unsupported and improbable assertion that the quotation James ii. 21 seq. "was probably in common use among the Jews to prove that orthodoxy of doctrine sufficed for salvation" (Mayor, *s.v.* "James, Epistle of" in Hasting's *Dict. Bible*, p. 546).

the relation has been defined above. Dependence on Revelation (A.D. 95) is probable (cf. i. 12 and ii. 5 with Rev. ii. 9, 10 and v. 9 with Rev. iii. 20), but the contacts with Clement of Rome (A.D. 95–120) indicate the reverse relation. James iv. 6 and v. 20 = 1 Clem. xlix. 5 and xxx. 2; but as both passages are also found in 1 Peter (iv. 8, v. 5), the latter may be the common source. Clement's further development of the cases of Abraham and Rahab, however, adding as it does to the demonstration of James from Scripture of their justification "by works and not by faith only," that the particular good work which "wrought with the faith" of Abraham and Rahab to their justification was "hospitality" (1 Clem. x.–xii.) seems plainly to presuppose James. Priority is more difficult to establish in the case of Hermas (A.D. 120–140), where the contacts are undisputed (cf. James iv. 7, 12 with Mand. xii. 5, 6; Sim. ix. 23).[1]

The date (A.D. 95–120) implied by the literary contacts of James of course precludes authorship by the Lord's brother, though this does not necessarily prove the superscription later still. The question whether the writing as a whole is pseudonymous, or only the superscription a mistaken conjecture by the scribe of Jude 1 is of secondary importance. A date about 100–120 for the substance of the writing is accepted by the majority of modern scholars and throws real light upon the author's endeavour. Pfleiderer in pointing out the similarities of James and the *Shepherd* of Hermas declares it to be "certain that both writings presuppose like historical circumstances, and, from a similar point of view, direct their admonitions to their contemporaries, among whom a lax worldly-mindedness and unfruitful theological wrangling threatened to destroy the religious life."[2] Holtzmann has characterized this as "the right visual angle" for the judgment of the book. Questions as to the obligation of Mosaism and the relations of Jew and Gentile have utterly disappeared below the horizon. Neither the attachment to the religious forms of Judaism, which we are informed was characteristic of James, nor that personal relation to the Lord which gave him his supreme distinction are indicated by so much as a single word. Instead of being written in Aramaic, as it would almost necessarily be if antecedent to the Pauline epistles, or even in the Semitic style characteristic of the older and more Palestinian elements of the New Testament we have a Greek even more fluent than Paul's and metaphors and allusions (i. 17, iii. 1–12) of a type more like Greek rhetoric than anything else in the New Testament. Were we to judge by the contacts with Hebrews, Clement of Rome and Hermas and the similarity of situation evidenced in the last-named, Rome would seem the most natural place of origin. The history of the epistle's reception into the canon is not opposed to this; for, once it was attributed to James, Syria would be more likely to take it up, while the West, more sceptical, if not better informed as to its origin, held back; just as happened in the case of Hebrews.

It is the author's conception of the nature of the gospel which mainly gives us pause in following this pretty general disposition of modern scholarship. With all the phenomena of vocabulary and style which seem to justify such conceptions as von Soden's that c. iii. and iv. 11–v. 6 represent excerpts respectively from the essay of an Alexandrian scribe, and a triple fragment of Jewish apocalypse, the analysis above given will be found the exponent of a real logical sequence. We might almost admit a resemblance in form to the general literary type which Spitta adduces. The term "wisdom" in particular is used in the special and technical sense of the "wise men" of Hebrew literature (Matt. xxiii. 34), the sense of "the wisdom of the just" of Luke i. 17. True, the mystical sense given to the term in one of the sources of Luke, by Paul and some of the Church fathers, is not present. While the gospel is pre-eminently the divine gift of "wisdom," "wisdom" is not personified, but conceived primarily as a system of humanitarian ethics, i. 21–25, and only secondarily as a spiritual effluence, imparting the regenerate disposition, the "mind that was in Christ Jesus," iii. 13–18. And yet for James as well as for Paul Christ is "the wisdom of God." The difference in conception of the term is similar to that between Ecclesiasticus and the Wisdom of Solomon. Our author, like Paul, expects the hearers of the word to be "a kind of first-fruits to God of his creation." (i. 18 cf. 1 Pet. i. 23), and bids them depend upon the gift of grace (i. 5, iv. 5 seq.), but for the evils of the world he has no remedy but the patient endurance of the Christian philosopher (i. 2–18). For the faithlessness (διψυχία i. 6–8; cf. *Didache* and Hermas), worldliness (ii. 1–13) and hollow profession (ii. 14–26) of the church life of his time, with its "theological wrangling" (iii. 1–12), his remedy is again the God-given, peaceable spirit of the Christian philosopher (iii. 13–18), which is the antithesis of the spirit of self-seeking and censoriousness (iv. 1–12), and which appreciates the pettiness of earthly life with its sordid gains and its unjust distribution of wealth (iv. 13–v. 6). This attitude of the Christian stoic will maintain the individual in his patient waiting for the expected "coming of the Lord" (v. 7–11); while the church sustains its official functions of healing and prayer, and reclamation of the erring (v. 13–20).[3] For this conception of the gospel and of the officially organized church, our nearest analogy is in Matthew, or rather in the blocks of precepts of the Lord which after subtraction of the Markan narrative framework are found to underlie our first gospel. It may be mere coincidence that the material in Matthew as well as in the *Didache* seems to be arranged in five divisions, beginning with a commendation of the right way, and ending with warnings of the judgment, while the logical analysis of James yields something similar; but of the affinity of spirit there can be no doubt.

The type of ethical thought exemplified in James has been called Ebionite (Hilgenfeld). It is clearly manifest in the humanitarianism of Luke also. But with the possible exception of the prohibition of oaths there is nothing which ought to suggest the epithet. The strong sense of social wrongs, the impatience with tongue-religion, the utter ignoring of ceremonialism, the reflection on the value and significance of "life," are distinctive simply of the "wisdom" writers. Like these our author holds himself so far aloof from current debate of ceremonial or doctrine as to escape our principal standards of measurement regarding place and time. Certain general considerations, however, are fairly decisive. The prolonged effort, mainly of English scholarship, to vindicate the superscription, even on the condition of assuming priority to the Pauline epistles, grows only increasingly hopeless with increasing knowledge of conditions, linguistic and other, in that early period. The moralistic conception of the gospel as a "law of liberty," the very phrase recalling the expression of Barn. ii., "the new law of Christ, which is without the yoke of constraint," the conception of the church as primarily an ethical society, its functions already officially distributed, suggest the period of the *Didache*, Barnabas and Clement of Rome. Independently of the literary contacts we should judge the period to be about A.D. 100–120. The connexions with the Pauline epistles are conclusive for a date later than the death of James; those with Clement and Hermas are perhaps sufficient to date it as prior to the former, and suggest Rome as the place of origin. The connexions with wisdom-literature favour somewhat the Hellenistic culture of Syria, as represented for example at Antioch.

The most important commentaries on the epistle are those of Matt. Schneckenburger (1832), K. G. W. Theile (1833), J. Kern (1838), G. H. Ewald (1870), C. F. D. Erdmann (1881), H. v. Soden (1898), J. B. Mayor (1892) and W. Patrick (1906). The pre-Pauline date is championed by B. Weiss (*Introd.*), W. Beyschlag (Meyer's *Commentary*), Th. Zahn (*Introd.*), J. B. Mayor and W. Patrick. J. V. Bartlet (*Ap. Age*, pp. 217–250) pleads for it, and the view is still common among English interpreters. F. K. Zimmer (*Z. w. Th.*, 1893) showed the priority of Paul, with many others. A. Hilgenfeld (*Einl.*)

[1] On the contacts in general see Moffat, *Hist. N.T.*[2] p. 578, on relation to Clem. R. see Bacon, "Doctrine of Faith in Hebrews, James and Clement of Rome," in *Jour. of Bib. Lit.*, 1900, pp. 12–21.

[2] *Das Urchristenthum*, 868, quoted by Cone, *loc. cit.*

[3] The logical relation of v. 12 to the context is problematical. Perhaps it may be accounted for by the order of the compend of Christian ethics the writer was following. Cf. Matt. v. 34–37 in relation to Matt. v. 12 (cf. ver. 10) and vi. 19 sqq. (cf. ver. 2, and iv. 13 seq.). The non-charismatic conception of healing, no longer the "gift" of some layman in the community (1 Cor. xii. 9 seq.) but a function of "the elders" (1 Tim. iv. 14), is another indication of comparatively late date.

and A. C. McGiffert (*Ap. Age*) place it in the period of Domitian; Baur (*Ch. History*), Schwegler (*Nachap. Zeitalt.*), Zeller, Volkmar (*Z. w. Th.*), Hausrath (*Ap. Age*), H. J. Holtzmann (*Einl.*), Jülicher (*Einl.*), Usteri (*St. u. Kr.*, 1889), W. Brückner (*Chron.*), H. v. Soden (*Hand-comm.*) and A. Harnack (*Chron.*) under Hadrian. A convenient synopsis of results will be found in J. Moffat, *Historical New Test.*[2] (pp. 576–581), and in the articles *s.v.* " James " in *Encycl. Bibl.* and the Bible Dictionaries. (B. W. B.)

JAMESON, ANNA BROWNELL (1794–1860), British writer, was born in Dublin on the 17th of May 1794. Her father, Denis Brownell Murphy (d. 1842), a miniature and enamel painter, removed to England in 1798 with his family, and eventually settled at Hanwell, near London. At sixteen years of age Anna became governess in the family of the marquis of Winchester. In 1821 she was engaged to Robert Jameson. The engagement was broken off, and Anna Murphy accompanied a young pupil to Italy, writing in a fictitious character a narrative of what she saw and did. This diary she gave to a bookseller on condition of receiving a guitar if he secured any profits. Colburn ultimately published it as *The Diary of an Ennuyée* (1826), which attracted much attention. The author was governess to the children of Mr Littleton, afterwards Lord Hatherton, from 1821 to 1825, when she married Robert Jameson. The marriage proved unhappy; when, in 1829, Jameson was appointed puisne judge in the island of Dominica the couple separated without regret, and Mrs Jameson visited the Continent again with her father.

The first work which displayed her powers of original thought was her *Characteristics of Women* (1832). These analyses of Shakespeare's heroines are remarkable for delicacy of critical insight and fineness of literary touch. They are the result of a penetrating but essentially feminine mind, applied to the study of individuals of its own sex, detecting characteristics and defining differences not perceived by the ordinary critic and entirely overlooked by the general reader. German literature and art had aroused much interest in England, and Mrs Jameson paid her first visit to Germany in 1833. The conglomerations of hard lines, cold colours and pedantic subjects which decorated Munich under the patronage of King Louis of Bavaria, were new to the world, and Mrs Jameson's enthusiasm first gave them an English reputation.

In 1836 Mrs Jameson was summoned to Canada by her husband, who had been appointed chancellor of the province of Toronto. He failed to meet her at New York, and she was left to make her way alone at the worst season of the year to Toronto. After six months' experiment she felt it useless to prolong a life far from all ties of family happiness and opportunities of usefulness. Before leaving, she undertook a journey to the depths of the Indian settlements in Canada; she explored Lake Huron, and saw much of emigrant and Indian life unknown to travellers, which she afterwards embodied in her *Winter Studies and Summer Rambles*. She returned to England in 1838. At this period Mrs Jameson began making careful notes of the chief private art collections in and near London. The result appeared in her *Companion to the Private Galleries* (1842), followed in the same year by the *Handbook to the Public Galleries*. She edited the *Memoirs of the Early Italian Painters* in 1845. In the same year she visited her friend Ottilie von Goethe. Her friendship with Lady Byron dates from about this time and lasted for some seven years; it was brought to an end apparently through Lady Byron's unreasonable temper. A volume of essays published in 1846 contains one of Mrs Jameson's best pieces of work, *The House of Titian*. In 1847 she went to Italy with her niece and subsequent biographer (*Memoirs*, 1878), Geraldine Bate (Mrs Macpherson), to collect materials for the work on which her reputation rests—her series of *Sacred and Legendary Art*. The time was ripe for such contributions to the traveller's library. The *Acta Sanctorum* and the *Book of the Golden Legend* had had their readers, but no one had ever pointed out the connexion between these tales and the works of Christian art. The way to these studies had been pointed out in the preface to Kugler's *Handbook of Italian Painting* by Sir Charles Eastlake, who had intended pursuing the subject himself. Eventually he made over to Mrs Jameson the materials and references he had collected. She recognized the extent of the ground before her as a mingled sphere of poetry, history, devotion and art. She infected her readers with her own enthusiastic admiration; and, in spite of her slight technical and historical equipment, Mrs. Jameson produced a book which thoroughly deserved its great success.

She also took a keen interest in questions affecting the education, occupations and maintenance of her own sex. Her early essay on *The Relative Social Position of Mothers and Governesses* was the work of one who knew both sides; and in no respect does she more clearly prove the falseness of the position she describes than in the certainty with which she predicts its eventual reform. To her we owe the first popular enunciation of the principle of male and female co-operation in works of mercy and education. In her later years she took up a succession of subjects all bearing on the same principles of active benevolence and the best ways of carrying them into practice. Sisters of charity, hospitals, penitentiaries, prisons and workhouses all claimed her interest —all more or less included under those definitions of " the communion of love and communion of labour " which are inseparably connected with her memory. To the clear and temperate forms in which she brought the results of her convictions before her friends in the shape of private lectures—published as *Sisters of Charity* (1855) and *The Communion of Labour* (1856)—may be traced the source whence later reformers and philanthropists took counsel and courage.

Mrs Jameson died on the 17th of March 1860. She left the last of her *Sacred and Legendary Art* series in preparation. It was completed, under the title of *The History of Our Lord in Art*, by Lady Eastlake.

JAMESON (or JAMESONE), **GEORGE** (*c.* 1587–1644), Scottish portrait-painter, was born at Aberdeen, where his father was architect and a member of the guild. After studying painting under Rubens at Antwerp, with Vandyck as a fellow pupil, he returned in 1620 to Aberdeen, where he was married in 1624 and remained at least until 1630, after which he took up his residence in Edinburgh. He was employed by the magistrates of Edinburgh to copy several portraits of the Scottish kings for presentation to Charles I. on his first visit to Scotland in 1633, and the king rewarded him with a diamond ring from his own finger. This circumstance at once established Jameson's fame, and he soon found constant employment in painting the portraits of the Scottish nobility and gentry. He also painted a portrait of Charles, which he declined to sell to the magistrates of Aberdeen for the price they offered. He died at Edinburgh in 1644.

JAMESON, LEANDER STARR (1853–), British colonial statesman, son of R. W. Jameson, a writer to the signet in Edinburgh, was born at Edinburgh in 1853, and was educated for the medical profession at University College Hospital, London (M.R.C.S. 1875; M.D. 1877). After acting as house physician, house surgeon and demonstrator of anatomy, and showing promise of a successful professional career in London, his health broke down from overwork in 1878, and he went out to South Africa and settled down in practice at Kimberley. There he rapidly acquired a great reputation as a medical man, and, besides numbering President Kruger and the Matabele chief Lobengula among his patients, came much into contact with Cecil Rhodes. In 1888 his influence with Lobengula was successfully exerted to induce that chieftain to grant the concessions to the agents of Rhodes which led to the formation of the British South Africa Company; and when the company proceeded to open up Mashonaland, Jameson abandoned his medical practice and joined the pioneer expedition of 1890. From this time his fortunes were bound up with Rhodes's schemes in the north. Immediately after the pioneer column had occupied Mashonaland, Jameson, with F. C. Selous and A. R. Colquhoun, went east to Manicaland and was instrumental in securing the greater part of that country, to which Portugal was laying claim, for the Chartered Company. In 1891 Jameson succeeded Colquhoun as administrator of Rhodesia. The events connected with his

vigorous administration and the wars with the Matabele are narrated under RHODESIA. At the end of 1894 "Dr Jim" (as he was familiarly called) came to England and was fêted on all sides; he was made a C.B., and returned to Africa in the spring of 1895 with enhanced prestige. On the last day of that year the world was startled to learn that Jameson, with a force of 600 men, had made a raid into the Transvaal from Mafeking in support of a projected rising in Johannesburg, which had been connived at by Rhodes at the Cape (see RHODES and TRANSVAAL). Jameson's force was compelled to surrender at Doornkop, receiving a guarantee that the lives of all would be spared; he and his officers were sent to Pretoria, and, after a short delay, during which time sections of the Boer populace clamoured for the execution of Jameson, President Kruger on the surrender of Johannesburg (January 7) handed them over to the British government for punishment. They were tried in London under the Foreign Enlistment Act in May 1896, and Dr Jameson was sentenced to fifteen months' inprisonment at Holloway. He served a year in prison, and was then released on account of ill health. He still retained the affections of the white population of Rhodesia, and subsequently returned there in an unofficial capacity. He was the constant companion of Rhodes on his journeys up to the end of his life, and when Rhodes died in May 1902 Jameson was left one of the executors of his will. In 1903 Jameson came forward as the leader of the Progressive (British) party in Cape Colony; and that party being victorious at the general election in January-February 1904, Jameson formed an administration in which he took the post of prime minister. He had to face a serious economic crisis and strenuously promoted the development of the agricultural and pastoral resources of the colony. He also passed a much needed Redistribution Act, and in the session of 1906 passed an Amnesty Act restoring the rebel voters to the franchise. Jameson, as prime minister of Cape Colony, attended the Colonial conference held in London in 1907. In September of that year the Cape parliament was dissolved, and as the elections for the legislative council went in favour of the Bond, Jameson resigned office, 31st of January 1908 (see CAPE COLONY: *History*). In 1908 he was chosen one of the delegates from Cape Colony to the intercolonial convention for the closer union of the South African states, and he took a prominent part in settling the terms on which union was effected in 1909. It was at Jameson's suggestion that the Orange River Colony was renamed Orange Free State Province.

JAMESON, ROBERT (1774–1854), Scottish naturalist and mineralogist, was born at Leith on the 11th of July 1774. He became assistant to a surgeon in his native town; but, having studied natural history under Dr John Walker in 1792 and 1793, he felt that his true province lay in that science. He went in 1800 to Freiberg to study for nearly two years under Werner, and spent two more in continental travel. In 1804 he succeeded Dr Walker as regius professor of natural history in Edinburgh university, and became perhaps the first eminent exponent in Great Britain of the Wernerian geological system; but when he found that theory untenable, he frankly announced his conversion to the views of Hutton. As a teacher, Jameson was remarkable for his power of imparting enthusiasm to his students, and from his class-room there radiated an influence which gave a marked impetus to the study of geology in Britain. His energy also, by means of government aid, private donation and personal outlay, amassed a great part of the splendid collection which now occupies the natural history department of the Royal Scottish Museum in Edinburgh. In 1819 Jameson, with Sir David Brewster, started the *Edinburgh Philosophical Journal*, which after the tenth volume remained under his sole conduct till his death, which took place in Edinburgh on the 19th of April 1854. His bust now stands in the hall of the Edinburgh University library.

Jameson was the author of *Outline of the Mineralogy of the Shetland Islands and of the Island of Arran* (1798), incorporated with *Mineralogy of the Scottish Isles* (1800); *Mineralogical Description of Scotland*, vol. i. pt. 1. (Dumfries, 1805); this was to have been the first of a series embracing all Scotland; *System of Mineralogy* (3 vols., 1804–1808; 3rd ed., 1820); *Elements of Geognosy* (1809); *Mineralogical Travels through the Hebrides, Orkney and Shetland Islands* (2 vols., 1813); and *Manual of Mineralogy* (1821); besides a number of occasional papers, of which a list will be found in the *Edinburgh New Philosophical Journal* for July 1854, along with a portrait and biographical sketch of the author.

JAMESTOWN, a city and the county-seat of Stutsman county, North Dakota, U.S.A., on the James River, about 93 m. W. of Fargo. Pop. (1900), 2853, of whom 587 were foreign-born; (1905) 5093; (1910) 4358. Jamestown is served by the Northern Pacific railway, of which it is a division headquarters. At Jamestown is St John's Academy, a school for girls, conducted by the Sisters of St Joseph. The state hospital for the insane is just beyond the city limits. The city is the commercial centre of a prosperous farming and stock-raising region in the James River valley, and has grain-elevators and flour-mills. Jamestown was first settled in 1873, near Fort Seward, a U.S. military post established in 1872 and abandoned in 1877, and was chartered as a city in 1883.

JAMESTOWN, a city of Chautauqua county, New York, U.S.A., at the S. outlet of Chautauqua Lake, 68 m. S. by W. of Buffalo. Pop. (1900), 22,892, of whom 7270 were foreign-born, mostly Swedish; (1910 census) 31,297. It is served by the Erie and the Jamestown, Chautauqua & Lake Erie railways, by electric lines extending along Lake Chautauqua to Lake Erie on the N. and to Warren, Pennsylvania, on the S., and by summer steamboat lines on Lake Chautauqua. Jamestown is situated among the hills of Chautauqua county, and is a popular summer resort. There is a free public library. A supply of natural gas (from Pennsylvania) and a fine water-power combine to render Jamestown a manufacturing centre of considerable importance. In 1905 the value of its factory products was $10,349,752, an increase of 33·9% since 1900. The city owns and operates its electric-lighting plant and its water-supply system, the water, of exceptional purity, being obtained from artesian wells 4 m. distant. Jamestown was settled in 1810, was incorporated in 1827, and was chartered as a city in 1886. The city was named in honour of James Prendergast, an early settler.

JAMESTOWN, a former village in what is now James City county, Virginia, U.S.A., on Jamestown Island, in the James River, about 40 m. above Norfolk. It was here that the first permanent English settlement in America was founded on the 13th of May 1607, that representative government was inaugurated on the American Continent in 1619, and that negro servitude was introduced into the original thirteen colonies, also in 1619. In Jamestown was the first Anglican church built in America. The settlement was in a low marshy district which proved to be unhealthy; it was accidentally burned in January 1608, was almost completely destroyed by Nathaniel Bacon in September 1676, the state house and other buildings were again burned in 1698, and after the removal of the seat of government of Virginia from Jamestown to the Middle Plantations (now Williamsburg) in 1699 the village fell rapidly into decay. Its population had never been large: it was about 490 in 1609, and 183 in 1623; the mortality was always very heavy. By the middle of the 19th century the peninsula on which Jamestown had been situated had become an island, and by 1900 the James River had worn away the shore but had hardly touched the territory of the "New Towne" (1619), immediately E. of the first settlement; almost the only visible remains, however, were the tower of the brick church and a few gravestones. In 1900 the association for the preservation of Virginia antiquities, to which the site was deeded in 1893, induced the United States government to build a wall to prevent the further encroachment of the river; the foundations of several of the old buildings have since been uncovered, many interesting relics have been found, and in 1907 there were erected a brick church (which is as far as possible a reproduction of the fourth one built in 1639–1647), a marble shaft marking the site of the first settlement, another shaft commemorating the first house of burgesses, a bronze monument to the memory of Captain John Smith, and another monument to the memory of Pocahontas. At the head of

Jamestown peninsula Cornwallis, in July 1781, attempted to trick the Americans under Lafayette and General Anthony Wayne by displaying a few men on the peninsula and concealing the principal part of his army on the mainland; but when Wayne discovered the trap he made first a vigorous charge, and then a retreat to Lafayette's line. Early in the Civil War the Confederates regarded the site (then an island) as of such strategic importance that (near the brick church tower and probably near the site of the first fortifications by the original settlers) they erected heavy earthworks upon it for defence. (For additional details concerning the early history of Jamestown, see VIRGINIA: *History*.)

The founding at Jamestown of the first permanent English-speaking settlement in America was celebrated in 1907 by the Jamestown tercentennial exposition, held on grounds at Sewell's Point on the shore of Hampton Roads. About twenty foreign nations, the federal government, and most of the states of the union took part in the exposition.

See L. G. Tyler, *The Cradle of the Republic: Jamestown and James River* (Richmond, 2nd ed., 1906); Mrs R. A. Pryor, *The Birth of the Nation: Jamestown, 1607* (New York, 1907); and particularly S. H. Yonge, *The Site of Old "James Towne," 1607–1698* (Richmond, 1904), embodying the results of the topographical investigations of the engineer in charge of the river-wall built in 1900–1901.

JĀMĪ (NŪR-ED-DIN 'ABD-UR-RAḤMAN IBN AḤMAD) (1414–1492), Persian poet and mystic, was born at Jām in Khorasan, whence the name by which he is usually known. In his poems he mystically utilizes the connexion of the name with the same word meaning "wine-cup." He was the last great classic poet of Persia, and a pronounced mystic of the Sūfic philosophy. His three *diwans* (1479–1491) contain his lyrical poems and odes; among his prose writings the chief is his *Bahāristān* ("Spring-garden") (1487); and his collection of romantic poems, *Haft Aurang* ("Seven Thrones"), contains the *Salāmān wa Absāl* and his *Yūsuf wa Zalīkha* (Joseph and Potiphar's wife).

On Jāmī's life and works see V. von Rosenzweig, *Biographische Notizen über Mewlana Abdurrahman Dschami* (Vienna, 1840); Gore Ouseley, *Biographical Notices of Persian Poets* (1846); W. N. Lees, *A Biographical Sketch of the Mystic Philosopher and Poet Jami* (Calcutta, 1859); E. Beauvois *s.v.* Djami in *Nouvelle Biographie générale*; and H. Ethé in Geiger and Kuhn's *Grundriss der iranischen Philologie*, ii. There are English translations of the *Bahāristān* by E. Rehatsek (Benares, 1887) and Sorabji Fardunji (Bombay, 1899); of *Salāmān wa Absāl* by Edward FitzGerald (1856, with a notice of Jāmī's life); of *Yūsuf wa Zalīkha* by R. T. H. Griffith (1882) and A. Rogers (1892); also selections in English by F. Hadland Davis, *The Persian Mystics: Jāmī* (1908). (See also PERSIA: *Literature*.)

JAMIESON, JOHN (1759–1838), Scottish lexicographer, son of a minister, was born in Glasgow, on the 3rd of March 1759. He was educated at Glasgow University, and subsequently attended classes in Edinburgh. After six years' theological study, Jamieson was licensed to preach in 1789 and became pastor of an Anti-burgher congregation in Forfar; and in 1797 he was called to the Anti-burgher church in Nicolson Street, Edinburgh. The union of the Burgher and Anti-burgher sections of the Secession Church in 1820 was largely due to his exertions. He retired from the ministry in 1830 and died in Edinburgh on the 12th of July 1838.

Jamieson's name stands at the head of a tolerably long list of works in the *Bibliotheca britannica*; but by far his most important book is the laborious and erudite compilation, best described by its own title-page: *An Etymological Dictionary of the Scottish Language; illustrating the words in their different significations by examples from Ancient and Modern Writers; shewing their Affinity to those of other Languages, and especially the Northern; explaining many terms which though now obsolete in England were formerly common to both countries; and elucidating National Rites, Customs and Institutions in their Analogy to those of other nations; to which is prefixed a Dissertation on the Origin of the Scottish Language.* This appeared in 2 vols., 4to, at Edinburgh in 1808, followed in 1825 by a *Supplement*, in 2 vols., 4to, in which he was assisted by scholars in all parts of the country. A revised edition by Longmuir and Donaldson was issued in 1879–1887.

JAMIESON, ROBERT (*c.* 1780-1844), Scottish antiquary, was born in Morayshire. In 1806 he published a collection of *Popular Ballads and Songs from Tradition, Manuscript and Scarce Editions*. Two pleasing lyrics of his own were included. Scott, through whose assistance he received a government post at Edinburgh, held Jamieson in high esteem and pointed out his skill in discovering the connexion between Scandinavian and Scottish legends. Jamieson's work preserved much oral tradition which might otherwise have been lost. He was associated with Henry Weber and Scott in *Illustrations of Northern Antiquities* (1814). He died on the 24th of September 1844.

JAMKHANDI, a native state of India, in the Deccan division of Bombay, ranking as one of the southern Mahratta Jagirs. Area, 524 sq. m. Pop. (1901), 105,357; estimated revenue, £37,000; tribute, £1300. The chief is a Brahman of the Patwardhan family. Cotton, wheat and millet are produced, and cotton and silk cloth are manufactured, though not exported. The town of JAMKHANDI, the capital, is situated 68 m. E. of Kolhapur. Pop. (1901), 13,029.

JAMMU, or JUMMOO, the capital of the state of Jammu and Kashmir in Northern India, on the river Tavi (Ta-wi), a tributary of the Chenab. Pop. (1901), 36,130. The town and palace stand upon the right bank of the river; the fort overhangs the left bank at an elevation of 150 ft. above the stream. The lofty whitened walls of the palace and citadel present a striking appearance from the surrounding country. Extensive pleasure grounds and ruins of great size attest the former prosperity of the city when it was the seat of a Rajput dynasty whose dominions extended into the plains and included the modern district of Sialkot. It was afterwards conquered by the Sikhs, and formed part of Ranjit Singh's dominions. After his death it was acquired by Gulab Singh as the nucleus of his dominions, to which the British added Kashmir in 1846. It is connected with Sialkot in the Punjab by a railway 16 m. long. In 1898 the town was devastated by a fire, which destroyed most of the public offices.

The state of Jammu proper, as opposed to Kashmir, consists of a submontane tract, forming the upper basin of the Chenab. Pop. (1901), 1,521,307, showing an increase of 5% in the decade. A land settlement has recently been introduced under British supervision.

JAMNIA ('Ιαμνία or 'Ιαμνεία), the Greek form of the Hebrew name Jabneel—*i.e.* "God causeth to build" (Josh. xv. 11)—or Jabneh (2 Chron. xxvi. 6), the modern Arabic YEBNA, a town of Palestine, on the border between Dan and Judah, situated 13 m. S. of Jaffa, and 4 m. E. of the seashore. The modern village stands on an isolated sandy hillock, surrounded by gardens with olives to the north and sand-dunes to the west. It contains a small crusaders' church, now a mosque. Jamnia belonged to the Philistines, and Uzziah of Judah is said to have taken it (2 Chron. xxvi. 6). In Maccabean times Joseph and Azarias attacked it unsuccessfully (1 Macc. v. 55–62; 2 Macc. xii. 8 seq. is untrustworthy). Alexander Jannaeus subdued it, and under Pompey it became Roman. It changed hands several times, is mentioned by Strabo (xvi. 2) as being once very populous, and in the Jewish war was taken by Vespasian. The population was mainly Jewish (Philo, *Leg. ad Gaium*, § 30), and the town is principally famous as having been the seat of the Sanhedrin and the religious centre of Judaism from A.D. 70 to 135. It sent a bishop to Nicaea in 325. In 1144 a crusaders' fortress was built on the hill, which is often mentioned under the name Ibelin. There was also a Jabneel in Lower Galilee (Josh. xix. 33), called later Caphar Yama, the present village Yemma, 8 m. S. of Tiberias; and another fortress in Upper Galilee was named Jamnia (Josephus, *Vita*, 37). Attempts have been made to unify these two Galilean sites, but without success.

JAMRUD, a fort and cantonment in India, just beyond the border of Peshawar district, North-West Frontier Province, situated at the mouth of the Khyber Pass, 10½ m. W. of Peshawar city, with which it is connected by a branch railway. It was occupied by Hari Singh, Ranjit Singh's commander in 1836; but in April 1837 Dost Mahommed sent a body of Afghans to attack it. The Sikhs gained a doubtful victory, with the loss of

their general. During the military operations of 1878–79 Jamrud became a place of considerable importance as the frontier outpost on British territory towards Afghanistan, and it was also the base of operations for a portion of the Tirah campaign in 1897–1898. It is the headquarters of the Khyber Rifles, and the collecting station for the Khyber tolls. Pop. (1901), 1848.

JAMS AND JELLIES. In the article FOOD PRESERVATION it is pointed out that concentrated sugar solution inhibits the growth of organisms and has, therefore, a preservative action. The preparation of jams and jellies is based upon that fact. All fresh and succulent fruit contains a large percentage of water, amounting to at least four-fifths of the whole, and a comparatively small proportion of sugar, not exceeding as a rule from 10 to 15%. Such fruit is naturally liable to decomposition unless the greater proportion of the water is removed or the percentage of sugar is greatly increased. The jams and jellies of commerce are fruit preserves containing so much added sugar that the total amount of sugar forms about two-thirds of the weight of the articles. All ordinary edible fruit can be and is made into jam. The fruit is sometimes pulped and stoned, sometimes used whole and unbroken; oranges are sliced or shredded. For the preparation of jellies only certain fruit is suitable, namely such as contains a peculiar material which on boiling becomes dissolved and on cooling solidifies with the formation of a gelatinous mass. This material, often called *pectin*, occurs mainly in comparatively acid fruit, like gooseberries, currants and apples, and is almost absent from strawberries and raspberries. It is chemically a member of the group of carbohydrates, is closely allied with vegetable gums abundantly formed by certain sea-weeds and mosses (agar-agar and Iceland moss), and is probably a mixture of various pentoses. Pentoses are devoid of food-value, but, like animal gelatine, with which they are in no way related, can form vehicles for food material. Some degree of gelatinization is aimed at also in jams; hence to such fruits as have no gelatinizing power an addition of apple or gooseberry juice, or even of Iceland moss or agar-agar, is made. Animal gelatin is very rarely used.

The art of jam and jelly making was formerly domestic, but has become a very large branch of manufacture. For the production of a thoroughly satisfactory conserve the boiling-down must be carried out very rapidly, so that the natural colour of the fruit shall be little affected. Considerable experience is required to stop at the right point; too short boiling leaves an excess of water, leading to fermentation, while over-concentration promotes crystallization of the sugar. The manufactured product is on that account, as a rule, more uniform and bright than the domestic article. The finish of the boiling is mostly judged by rule of thumb, but in some scientifically conducted factories careful thermometric observation is employed. Formerly jams and jellies consisted of nothing but fruit and sugar; now starch-glucose is frequently used by manufacturers as an ingredient. This permits of the production of a slightly more aqueous and gelatinous product, alleged also to be devoid of crystallizing power, as compared with the home-made article. The addition of starch-glucose is not held to be an adulteration. Aniline colours are very frequently used by manufacturers to enhance the colour, and the effect of an excess of water is sought to be counteracted by the addition of some salicylic acid or other preservative. There has long been, and still exists to some extent, a popular prejudice in favour of sugar obtained from the sugar-cane as compared with that of the sugar-beet. This prejudice is absolutely baseless, and enormous quantities of beet-sugar are used in the boiling of jam. Adulteration in the gross sense, such as a substantial addition of coarse pulp, like that of turnips or mangolds, very rarely occurs; but the pulp of apple and other cheap fruit is often admixed without notice to the purchaser. The use of colouring matters and preservatives is discussed at length in the article ADULTERATION. (O. H.*)

JANESVILLE, a city and the county-seat of Rock County, Wisconsin, U.S.A., situated on both sides of the Rock river, 70 m. S.W. of Milwaukee and 90 m. N.W. of Chicago. Pop. (1900), 13,185, of whom 2409 were foreign-born; (1910 census), 13,894. It is served by the Chicago & North-Western and the Chicago, Milwaukee & St Paul railways, and by electric lines connecting with Madison and Beloit, Wis., and Rockford, Illinois. The Rock river is not commercially navigable at this point, but furnishes valuable water-power for manufacturing purposes. The city is picturesquely situated on bluffs above the river. Janesville is the centre of the tobacco trade of the state, and has various manufactures. The total value of the city's factory product in 1905 was $3,846,038, an increase of 20·8 % since 1900. Its public buildings include a city hall, court house, post office, city hospital and a public library. It is the seat of a school for the blind, opened as a private institution in 1849 and taken over by the state in 1850, the first charitable institution controlled by the state, ranking as one of the most successful of its kind in the United States. The first settlement was made here about 1834. Janesville was named in honour of Henry F. Janes, an early settler, and was chartered as a city in 1853.

JANET, PAUL (1823–1899), French philosophical writer, was born in Paris on the 30th of April 1823. He was professor of moral philosophy at Bourges (1845–1848) and Strassburg (1848–1857), and of logic at the lycée Louis-le-Grand, Paris (1857–1864). In 1864 he was appointed to the chair of philosophy at the Sorbonne, and elected a member of the academy of the moral and political sciences. He wrote a large number of books and articles upon philosophy, politics and ethics, on idealistic lines : *La Famille, Histoire de la philosophie dans l'antiquité et dans le temps moderne, Histoire de la science politique, Philosophie de la Révolution Française*, &c. They are not characterized by much originality of thought. In philosophy he was a follower of Victor Cousin, and through him of Hegel. His principal work in this line, *Théorie de la morale*, is little more than a somewhat patronizing reproduction of Kant. He died in October 1899.

JANGIPUR, or JAHANGIRPUR, a town of British India, in Murshidabad district, Bengal, situated on the Bhagirathi. Pop. (1901), 10,921. The town is said to have been founded by the Mogul emperor Jahangir. During the early years of British rule it was an important centre of the silk trade, and the site of one of the East India Company's commercial residencies. Jangipur is now best known as the toll station for registering all the traffic on the Bhagirathi. The number of boats registered annually is about 10,000.

JANIN, JULES GABRIEL (1804–1874), French critic, was born at St Étienne (Loire) on the 16th of February 1804, and died near Paris on the 19th of June 1874. His father was a lawyer, and he was well educated, first at St Étienne, and then at the lycée Louis-le-Grand in Paris. He betook himself to journalism very early, and worked on the *Figaro*, the *Quotidienne*, &c., until in 1830 he became dramatic critic of the *Journal des Débats*. Long before this, however, he had made a considerable literary reputation, for which indeed his strange novel *L'Âne mort et la femme guillotinée* (1829) would have sufficed. *La Confession* (1830), which followed, was less remarkable in substance but even more so in style; and in *Barnave* (1831) he attacked the Orleans family. From the day, however, when Janin became the theatrical critic of the *Débats*, though he continued to write books indefatigably, he was to most Frenchmen a dramatic critic and nothing more. He was outrageously inconsistent, and judged things from no general point of view whatsoever, though his judgment was usually good-natured. Few journalists have ever been masters of a more attractive fashion of saying the first thing that came into their heads. After many years of *feuilleton* writing he collected some of his articles in the work called *Histoire de la littérature dramatique en France* (1853–1858), which by no means deserves its title. In 1865 he made his first attempt upon the Academy, but was not successful till five years later. Meanwhile he had not been content with his *feuilletons*, written persistently about all manner of things. No one was more in request with the Paris publishers for prefaces, letterpress to illustrated books and such trifles. He travelled (picking up in

one of his journeys a curious windfall, a country house at Lucca, in a lottery), and wrote accounts of his travels; he wrote numerous tales and novels, and composed many other works, of which by far the best is the *Fin d'un monde et du neveu de Rameau* (1861), in which, under the guise of a sequel to Diderot's masterpiece, he showed his great familiarity with the late 18th century. He married in 1841; his wife had money, and he was always in easy circumstances. In the early part of his career he had many quarrels, notably one with Félix Pyat (1810–1889), whom he prosecuted successfully for defamation of character. For the most part his work is mere improvisation, and has few elements of vitality except a light and vivid style. His *Œuvres choisies* (12 vols., 1875–1878)were edited by A. de la Fitzelière.

A study on Janin with a bibliography was published by A. Piédagnel in 1874. See also Sainte-Beuve, *Causeries du lundi*, ii. and v., and Gustave Planche, *Portraits littéraires*.

JANISSARIES (corrupted from Turkish *yeni chêri*, new troops), an organized military force constituting until 1826 the standing army of the Ottoman empire. At the outset of her history Turkey possessed no standing army. All Moslems capable of bearing arms served as a kind of volunteer yeomanry known as *akinjis*; they were summoned by public criers, or, if the occasion required it, by secret messengers. It was under Orkhan that a regular paid army was first organized: the soldiers were known as *yaya* or *piyadé*. The result was unsatisfactory, as the Turcomans, from whom these troops were recruited, were unaccustomed to fight on foot or to submit to military discipline. Accordingly in 1330, on the advice of Chendéréli Kara Khalil, the system known as *devshurmé* or forced levy, was adopted, whereby a certain number of Christian youths (at first 1000) were every year taken from their parents and, after undergoing a period of apprenticeship, were enrolled as *yeni chêri* or new troops. The venerable saint Haji Bektash, founder of the Bektashi dervishes, blessed the corps and promised them victory; he remained ever after the patron saint of the janissaries.

At first the corps was exclusively recruited by the forced levy of Christian children, for which purpose the officer known as *lournaji-bashi*, or head-keeper of the cranes, made periodical tours in the provinces. The fixed organization of the corps dates only from Mahommed II., and its regulations were subsequently modified by Suleiman I. In early days all Christians were enrolled indiscriminately; later those from Albania, Bosnia and Bulgaria were preferred. The recruits while serving their apprenticeship were instructed in the principles of the faith by *khojas*, but according to D'Ohsson (vii. 327) they were not obliged to become Moslems.

The entire corps, commanded by the aga of the janissaries, was known as the *ojak* (hearth); it was divided into *ortas* or units of varying numbers; the *oda* (room) was the name given to the barracks in which the janissaries were lodged. There were, after the reorganization of Suleiman I., 196 ortas of three classes, viz. the *jemaat*, comprising 101 ortas, the *beuluk*, 61 ortas, and the *sekban*, or *seimen*, 34 ortas; to these must be added 34 ortas of *ajami* or apprentices. The strength of the orta varied greatly, sometimes being as low as 100, sometimes rising considerably beyond its nominal war strength of 500. The distinction between the different classes seems to have been principally in name; in theory the jemaat, or *yaya beiler*, were specially charged with the duty of frontier-guards; the *beuluks* had the privilege of serving as the sultan's guards and of keeping the sacred banner in their custody.

Until the accession of Murad III. (1574) the total effective of the janissaries, including the ajami or apprentices, did not exceed 20,000. In 1582 irregularities in the mode of admission to the ranks began. Soon parents themselves begged to have their children enrolled, so great were the privileges attaching to the corps; later the privilege of enlistment was restricted to the children or relatives of former janissaries; eventually the regulations were much relaxed, and any person was admitted, only negroes being excluded. In 1591 the ojak numbered 48,688 men. Under Ibrahim (1640–1648) it was reduced by Kara Mustafa to 17,000; but it soon rose again, and at the accession of Mahommed IV. (1648), the accession-bakshish was distributed to 50,000 janissaries. During the war of 1683–1698 the rules for admission were suspended, 30,000 recruits being received at one time, and the effective of the corps rising to 70,000; about 1805 it numbered more than 112,000; it went on increasing until the destruction of the janissaries, when it reached 135,000. It would perhaps be more correct to say that these are the numbers figuring on the pay-sheets, and that they doubtless largely exceed the total of the men actually serving in the ranks.

Promotion to the rank of warrant officer was obtained by long or distinguished service; it was by seniority up to the rank of *odabashi*, but odabashis were promoted to the rank of *chorbaji* (commander of an orta) solely by selection. Janissaries advanced in their own orta, which they left only to assume the command of another. Ortas remained permanently stationed in the fortress towns in which they were in garrison, being displaced in time of peace only when some violent animosity broke out between two companies. There were usually 12 in garrison at Belgrade, 14 at Khotin, 16 at Widdin, 20 at Bagdad, &c. The commander was frequently changed. A new chorbaji was usually appointed to the command of an orta stationed at a frontier post; he was then transferred elsewhere, so that in course of time he passed through different provinces.

In time of peace the janissary received no pay. At first his war pay was limited to one aspre per diem, but it was eventually raised to a minimum of three aspres, while veterans received as much as 29 aspres, and retired officers from 30 to 120. The aga received 24,000 piastres per annum; the ordinary pay of a commander was 120 aspres per diem. The aga and several of his subordinates received a percentage of the pay and allowance of the troops; they also inherited the property of deceased janissaries. Moreover, the officers profited largely by retaining the names of dead or fictitious janissaries on the pay-rolls. Rations of mutton, bread and candles were furnished by the government, the supply of rice, butter and vegetables being at the charge of the commandant. The rations would have been entirely inadequate if the janissaries had not been allowed, contrary to the regulations, to pursue different callings, such as those of baker, butcher, glazier, boatman, &c. At first the janissaries bore no other distinctive mark save the white felt cap. Soon the red cap with gold embroidery was substituted. Later a uniform was introduced, of which the distinctive mark was less the colour than the cut of the coat and the shape of the head-dress and turban. The only distinction in the costume of commanding officers was in the colour of their boots, those of the beuluks being red while the others were yellow; subordinate officers wore black boots.

The fundamental laws of the janissaries, which were very early infringed, were as follows: implicit obedience to their officers; perfect accord and union among themselves; abstinence from luxury, extravagance and practices unseemly for a soldier and a brave man; observance of the rules of Haji Bektash and of the religious law; exclusion from the ranks of all save those properly levied; special rules for the infliction of the death-penalty; promotion to be by seniority; janissaries to be admonished or punished by their own officers only; the infirm and unfit to be pensioned; janissaries were not to let their beards grow, not to marry, nor to leave their barracks, nor to engage in trade; but were to spend their time in drill and in practising the arts of war.

In time of peace the state supplied no arms, and the janissaries on service in the capital were armed only with clubs; they were forbidden to carry any arm save a cutlass, the only exception being at the frontier-posts. In time of war the janissaries provided their own arms, and these might be any which took their fancy. However, they were induced by rivalry to procure the best obtainable and to keep them in perfect order. The banner of the janissaries was of white silk on which verses from the Koran were embroidered in gold. This banner was planted beside the aga's tent in camp, with four other flags in red cases, and his three horse-tails. Each orta had its flag, half-red and

half-yellow, placed before the tent of its commander. Each orta had two or three great caldrons used for boiling the soup and pilaw; these were under the guard of subordinate officers. A particular superstition attached to them: if they were lost in battle all the officers were disgraced, and the orta was no longer allowed to parade with its caldrons in public ceremonies. The janissaries were stationed in most of the guard-houses of Constantinople and other large towns. No sentries were on duty, but rounds were sent out two or three times a day. It was customary for the sultan or the grand vizier to bestow largess on an orta which they might visit.

The janissaries conducted themselves with extreme violence and brutality towards civilians. They extorted money from them on every possible pretext: thus, it was their duty to sweep the streets in the immediate vicinity of their barracks, but they forced the civilians, especially if rayas, to perform this task or to pay a bribe. They were themselves subject to severe corporal punishments; if these were to take place publicly the ojak was first asked for its consent.

At first a source of strength to Turkey as being the only well-organized and disciplined force in the country, the janissaries soon became its bane, thanks to their lawlessness and exactions. One frequent means of exhibiting their discontent was to set fire to Constantinople; 140 such fires are said to have been caused during the 28 years of Ahmed III.'s reign. The janissaries were at all times distinguished for their want of respect towards the sultans; their outbreaks were never due to a real desire for reforms of abuses or of misgovernment, but were solely caused to obtain the downfall of some obnoxious minister.

The first recorded revolt of the janissaries is in 1443, on the occasion of the second accession of Mahommed II., when they broke into rebellion at Adrianople. A similar revolt happened at his death, when Bayazid II. was forced to yield to their demands and thus the custom of the accession-bakshish was established; at the end of his reign it was the janissaries who forced Bayazid to summon Prince Selim and to hand over the reins of power to him. During the Persian campaign of Selim I. they mutinied more than once. Under Osman II. their disorders reached their greatest height and led to the dethronement and murder of the sultan. It would be tedious to recall all their acts of insubordination. Throughout Turkish history they were made use of as instruments by unscrupulous and ambitious statesmen, and in the 17th century they had become a praetorian guard in the worst sense of the word. Sultan Selim III. in despair endeavoured to organize a properly drilled and disciplined force, under the name of *nizam-i-jedid*, to take their place; for some time the janissaries regarded this attempt in sullen silence; a curious detail is that Napoleon's ambassador Sebastiani strongly dissuaded the sultan from taking this step. Again serving as tools, the janissaries dethroned Selim III. and obtained the abolition of the nizam-i-jedid. But after the successful revolution of Bairakdar Pasha of Widdin the new troops were re-established and drilled: the resentment of the janissaries rose to such a height that they attacked the grand vizier's house, and after destroying it marched against the sultan's palace. They were repulsed by cannon, losing 600 men in the affair (1806). But such was the excitement and alarm caused at Constantinople that the nizam-i-jedid, or *sekbans* as they were now called, had to be suppressed. During the next 20 years the misdeeds and turbulence of the janissaries knew no bounds. Sultan Mahmud II., powerfully impressed by their violence and lawlessness at his accession, and with the example of Mehemet Ali's method of suppressing the Mamlukes before his eyes, determined to rid the state of this scourge; long biding his time, in 1825 he decided to form a corps of regular drilled troops known as *eshkenjis*. A *fetva* was obtained from the Sheikh-ul-Islam to the effect that it was the duty of Moslems to acquire military science. The imperial decree announcing the formation of the new troops was promulgated at a grand council, and the high dignitaries present (including certain of the principal officers of the janissaries who concurred) undertook to comply with its provisions. But the janissaries rose in revolt, and on the 10th of June 1826, began to collect on the Et Meidan square at Constantinople; at midnight they attacked the house of the aga of janissaries, and, finding he had made good his escape, proceeded to overturn the caldrons of as many ortas as they could find, thus forcing the troops of those ortas to join the insurrection. Then they pillaged and robbed throughout the town. Meanwhile the government was collecting its forces; the ulema, consulted by the sultan, gave the following fetva: "If unjust and violent men attack their brethren, fight against the aggressors and send them before their natural judge!" On this the sacred standard of the prophet was unfurled, and war was formally declared against these disturbers of order. Cannon were brought against the Et Meidan, which was surrounded by troops. Ibrahim Aga, known as Kara Jehennum, the commander of the artillery, made a last appeal to the janissaries to surrender; they refused, and fire was opened upon them. Such as escaped were shot down as they fled; the barracks where many found refuge were burnt; those who were taken prisoner were brought before the grand vizier and hanged. Before many days were over the corps had ceased to exist, and the janissaries, the glory of Turkey's early days and the scourge of the country for the last two centuries, had passed for ever from the page of her history.

See M. d'Ohsson, *Tableaux de l'empire ottoman* (Paris, 1787–1820); Ahmed Vefyk, *Lehjé-i-osmanié* (Constantinople, 1290–1874); A. Djévad Bey, *État militaire ottoman* (Constantinople, 1885).

JANIUAY, a town of the province of Iloilo, Panay, Philippine Islands, on the Suague river, about 20 m. W.N.W. of Iloilo, the capital. Pop. (1903), 27,399, including Lambúnao (6661) annexed to Janiuay in 1903. The town commands delightful views of mountain and valley scenery. An excellent road connects it with Pototan, about 10 m. E. The surrounding country is hilly but fertile and well cultivated, producing rice, sugar, tobacco, vegetables (for the Iloilo market), hemp and Indian corn. The women weave and sell beautiful fabrics of pina, silk, cotton and abaca. The language is Panay-Visayan. Janiuay was founded in 1578; it was first established in the mountains and was subsequently removed to its present site.

JANJIRA, a native state of India, in the Konkan division of Bombay, situated along the coast among the spurs of the Western Ghats, 40 m. S. of Bombay city. Area, 324 sq. m. Pop. (1901), 85,414, showing an increase of 4% in the decade. The estimated revenue is about £37,000; there is no tribute. The chief, whose title is Nawab Sahib, is by descent a Sidi or Abyssinian Mahommedan; and his ancestors were for many generations admirals of the Mahommedan rulers of the Deccan. The state, popularly known as Habsan (=Abyssinian), did not come under direct subordination to the British until 1870. It supplies sailors and fishermen, and also firewood, to Bombay, with which it is in regular communication by steamer.

The Nawab of Janjira is also chief of the state of JAFARABAD (*q.v.*).

JAN MAYEN, an arctic island between Greenland and the north of Norway, about 71° N. 8° W. It is 34 m. long and 9 in greatest breadth, and is divided into two parts by a narrow isthmus. The island is of volcanic formation and mountainous, the highest summit being Beerenberg in the north (8350 ft.). Volcanic eruptions have been observed. Glaciers are fully developed. Henry Hudson discovered the island in 1607 and called it Hudson's Tutches or Touches. Thereafter it was several times observed by navigators who successively claimed its discovery and renamed it. Thus, in 1611 or the following year whalers from Hull named it Trinity Island; in 1612 Jean Vrolicq, a French whaler, called it Île de Richelieu; and in 1614 Joris Carolus named one of its promontories Jan Meys Hoek after the captain of one of his ships. The present name of the island is derived from this, the claim of its discovery by a Dutch navigator, Jan Mayen, in 1611, being unsupportable. The island is not permanently inhabited, but has been frequently visited by explorers, sealers and whalers; and an Austrian station for scientific observations was maintained here for a year in 1882–1883. During this period a mean temperature of 27·8° F. was recorded.

JANSEN, CORNELIUS (1585–1638), bishop of Ypres, and father of the religious revival known as Jansenism, was born of humble Catholic parentage at Accoy in the province of Utrecht on the 28th of October 1585. In 1602 he entered the university of Louvain, then in the throes of a violent conflict between the Jesuit, or scholastic, party and the followers of Michael Baius, who swore by St Augustine. Jansen ended by attaching himself strongly to the latter party, and presently made a momentous friendship with a like-minded fellow-student, Du Vergier de Hauranne, afterwards abbot of Saint Cyran. After taking his degree he went to Paris, partly to recruit his health by a change of scene, partly to study Greek. Eventually he joined Du Vergier at his country home near Bayonne, and spent some years teaching at the bishop's college. All his spare time was spent in studying the early Fathers with Du Vergier, and laying plans for a reformation of the Church. In 1616 he returned to Louvain, to take charge of the college of St Pulcheria, a hostel for Dutch students of theology. Pupils found him a somewhat choleric and exacting master and academic society a great recluse. However, he took an active part in the university's resistance to the Jesuits; for these had established a theological school of their own in Louvain, which was proving a formidable rival to the official faculty of divinity. In the hope of repressing their encroachments, Jansen was sent twice to Madrid, in 1624 and 1626; the second time he narrowly escaped the Inquisition. He warmly supported the Catholic missionary bishop of Holland, Rovenius, in his contests with the Jesuits, who were trying to evangelize that country without regard to the bishop's wishes. He also crossed swords more than once with the Dutch Presbyterian champion, Voetius, still remembered for his attacks on Descartes. Antipathy to the Jesuits brought Jansen no nearer Protestantism; on the contrary, he yearned to beat these by their own weapons, chiefly by showing them that Catholics could interpret the Bible in a manner quite as mystical and pietistic as theirs. This became the great object of his lectures, when he was appointed regius professor of scriptural interpretation at Louvain in 1630. Still more was it the object of his *Augustinus*, a bulky treatise on the theology of St Augustine, barely finished at the time of his death. Preparing it had been his chief occupation ever since he went back to Louvain. But Jansen, as he said, did not mean to be a school-pedant all his life; and there were moments when he dreamed political dreams. He looked forward to a time when Belgium should throw off the Spanish yoke and become an independent Catholic republic on the model of Protestant Holland. These ideas became known to his Spanish rulers, and to assuage them he wrote a philippic called the *Mars gallicus* (1635), a violent attack on French ambitions generally, and on Richelieu's indifference to international Catholic interests in particular. The *Mars gallicus* did not do much to help Jansen's friends in France, but it more than appeased the wrath of Madrid with Jansen himself; in 1636 he was appointed bishop of Ypres. Within two years he was cut off by a sudden illness on the 6th of May 1638; the *Augustinus*, the book of his life, was published posthumously in 1640.

Full details as to Jansen's career will be found in Reuchlin's *Geschichte von Port Royal* (Hamburg, 1839), vol. i. See also *Jansénius* by the Abbés Callawaert and Nols (Louvain, 1893). (ST C.)

JANSENISM, the religious principles laid down by Cornelius Jansen in his *Augustinus*. This was simply a digest of the teaching of St Augustine, drawn up with a special eye to the needs of the 17th century. In Jansen's opinion the church was suffering from three evils. The official scholastic theology was anything but evangelical. Having set out to embody the mysteries of faith in human language, it had fallen a victim to the excellence of its own methods; language proved too strong for mystery. Theology sank into a branch of dialectic; whatever would not fit in with a logical formula was cast aside as useless. But average human nature does not take kindly to a syllogism, and theology had ceased to have any appreciable influence on popular religion. Simple souls found their spiritual pasture in little mincing "devotions"; while robuster minds built up for themselves a natural moralistic religion, quite as close to Epictetus as to Christianity. All these three evils were attacked by Jansen. As against the theologians, he urged that in a spiritual religion experience, not reason, must be our guide. As against the stoical self-sufficiency of the moralists, he dwelt on the helplessness of man and his dependence on his maker. As against the ceremonialists, he maintained that no amount of church-going will save a man, unless the love of God is in him. But this capacity for love no one can give himself. If he is born without the religious instinct, he can only receive it by going through a process of "conversion." And whether God converts this man or that depends on his good pleasure. Thus Jansen's theories of conversion melt into predestination; although, in doing so, they somewhat modify its grimness. Even for the worst miscreant there is hope—for who can say but that God may yet think fit to convert him? Jansen's thoughts went back every moment to his two spiritual heroes, St Augustine and St Paul, each of whom had been "the chief of sinners."

Such doctrines have a marked analogy to those of Calvin; but in many ways Jansen differed widely from the Protestants. He vehemently rejected their doctrine of justification by faith; conversion might be instantaneous, but it was only the beginning of a long and gradual process of justification. Secondly, although the one thing necessary in religion was a personal relation of the human soul to its maker, Jansen held that that relation was only possible in and through the Roman Church. Herein he was following Augustine, who had managed to couple together a high theory of church authority and sacramental grace with a strongly personal religion. But the circumstances of the 17th century were not those of the 5th; and Jansen landed his followers in an inextricable confusion. What were they to do, when the outward church said one thing, and the inward voice said another? Some time went by, however, before the two authorities came into open conflict. Jansen's ideas were popularized in France by his friend Du Vergier, abbot of St Cyran; and he dwelt mainly on the practical side of the matter—on the necessity of conversion and love of God, as the basis of the religious life. This brought him into conflict with the Jesuits, whom he accused of giving absolution much too easily, without any serious inquiry into the dispositions of their penitent. His views are expounded at length by his disciple, Antoine Arnauld, in a book on *Frequent Communion* (1643). This book was the first manifestation of Jansenism to the general public in France, and raised a violent storm. But many divines supported Arnauld; and no official action was taken against his party till 1649. In that year the Paris University condemned five propositions from Jansen's *Augustinus*, all relative to predestination. This censure, backed by the signatures of eighty-five bishops, was sent up to Rome for endorsement; and in 1653 Pope Innocent X. declared all five propositions heretical.

This decree placed the Jansenists between two fires; for although the five propositions only represented one side of Jansen's teaching, it was recognized by both parties that the whole question was to be fought out on this issue. Under the leadership of Arnauld, who came of a great family of lawyers, the Jansenists accordingly took refuge in a series of legal tactics. Firstly, they denied that Jansen had meant the propositions in the sense condemned. Alexander VII. replied (1656) that his predecessor had condemned them in the sense intended by their author. Arnauld retorted that the church might be infallible in abstract questions of theology; but as to what was passing through an author's mind it knew no more than any one else. However, the French government supported the pope. In 1656 Arnauld was deprived of his degree, in spite of Pascal's *Provincial Letters* (1656–1657), begun in an attempt to save him (see PASCAL; CASUISTRY). In 1661 a formulary, or solemn renunciation of Jansen, was imposed on all his suspected followers; those who would not sign it went into hiding, or to the Bastille. Peace was only restored under Clement IX. in 1669.

This peace was treated by Jansenist writers as a triumph; really it was the beginning of their downfall. They had set out

to reform the Church of Rome; they ended by having to fight hard for a doubtful foothold within it. Even that foothold soon gave way. Louis XIV. was a fanatic for uniformity, civil and religious; the last thing he was likely to tolerate was a handful of eccentric recluses, who believed themselves to be in special touch with Heaven, and therefore might at any moment set their conscience up against the law. During the lifetime of his cousin, Madame de Longueville, the great protectress of the Jansenists, Louis stayed his hand; on her death (1679) the reign of severity began. That summer Arnauld, who had spent the greater part of his life in hiding, was forced to leave France for good.

Six years later he was joined in exile by Pasquier Quesnel who succeeded him as leader of the party. Long before his flight from France Quesnel had published a devotional commentary—*Réflexions morales sur le Nouveau Testament*—which had gone through many editions without exciting official suspicion. But in 1695 Louis Antoine de Noailles, bishop of Châlons, was made archbishop of Paris. He was known to be very hostile to the Jesuits, and at Châlons had more than once expressed official approval of Quesnel's *Réflexions*. So the Jesuit party determined to wreck archbishop and book at the same time. The Jansenists played into their hands by suddenly raising (1701) in the Paris divinity school the question whether it was necessary to accept the condemnation of Jansen with interior assent, or whether a "respectful silence" was enough. Very soon ecclesiastical France was in a blaze. In 1703 Louis XIV. wrote to Pope Clement XI., proposing that they should take joint action to make an end of Jansenism for ever. Clement replied in 1705 with a bull condemning respectful silence. This measure only whetted Louis's appetite. He was growing old and increasingly superstitious; the affairs of his realm were going from bad to worse; he became frenziedly anxious to propitiate the wrath of his maker by making war on the enemies of the Church. In 1711 he asked the pope for a second, and still stronger bull, that would tear up Jansenism by the roots. The pope's choice of a book to condemn fell on Quesnel's *Réflexions*; in 1713 appeared the bull *Unigenitus*, anathematizing no less than one-hundred-and-one of its propositions. Indeed, in his zeal against the Jansenists the pope condemned various practices in no way peculiar to their party; thus, for instance, many orthodox Catholics were exasperated at the heavy blow he dealt at popular Bible reading. Hence the bull met with much opposition from Archbishop de Noailles and others who did not call themselves Jansenists. In the midst of the conflict Louis XIV. died (September 1715); but the freethinking duke of Orleans, who succeeded him as regent, continued after some wavering to support the bull. Thereupon four bishops appealed against it to a general council; and the country became divided into "appellants" and "acceptants" (1717). The regent's disreputable minister, Cardinal Dubois, patched up an abortive truce in 1720, but the appellants promptly "re-appealed" against it. During the next ten years, however, they were slowly crushed, and in 1730 the *Unigenitus* was proclaimed part and parcel of the law of France. This led to a great quarrel with the judges, who were intensely Gallican in spirit (see GALLICANISM), and had always regarded the *Unigenitus* as a triumph of ultramontanism. The quarrel dragged indefinitely on through the 18th century, though the questions at issue were really constitutional and political rather than religious.

Meanwhile the most ardent Jansenists had followed Quesnel to Holland. Here they met with a warm welcome from the Dutch Catholic body, which had always been in close sympathy with Jansenism, although without regarding itself as formally pledged to the *Augustinus*. But it had broken loose from Rome in 1702, and was now organizing itself into an independent church (see UTRECHT). The Jansenists who remained in France had meanwhile fallen on evil days. Persecution usually begets hysteria in its victims; and the more extravagant members of the party were far advanced on the road which leads to apocalyptic prophecy and "speaking with tongues." About 1728 the "miracles of St Médard" became the talk of Paris. This was the cemetery where was buried François de Pâris, a young Jansenist deacon of singularly holy life, and a perfervid opponent of the *Unigenitus*. All sorts of miraculous cures were believed to have been worked at his tomb, until the government closed the cemetery in 1732. This gave rise to the famous epigram:

De par le roi, défense à Dieu
De faire miracle en ce lieu.

On the miracles soon followed the rise of the so-called Convulsionaries. These worked themselves up, mainly by the use of frightful self-tortures, into a state of frenzy, in which they prophesied and cured diseases. They were eventually disowned by the more reputable Jansenists, and were severely repressed by the police. But in 1772 they were still important enough for Diderot to enter the field against them. Meanwhile genuine Jansenism survived in many country parsonages and convents, and led to frequent quarrels with the authorities. Only one of its latter-day disciples, however, rose to real eminence; this was the Abbé Henri Grégoire, who played a considerable part in the French Revolution. A few small Jansenist congregations still survive in France; and others have been started in connexion with the Old Catholic Church in Holland.

LITERATURE.—For the 17th century see the *Port Royal* of Sainte-Beuve (5th ed., Paris, 1888) in six volumes. See also H. Reuchlin, *Geschichte von Port Royal* (2 vols., Hamburg, 1839–1844), and C. Beard, *Port Royal* (2 vols., London, 1861). No satisfactory Roman Catholic history of the subject exists, though reference may be made to Count Joseph de Maistre's *De l'église gallicane* (last ed., Lyons, 1881). On the Jansenism of the 18th century no single work exists, though much information will be found in the *Gallican Church* of Canon Jervis (2 vols., London, 1872). For a series of excellent sketches see also Seche, *Les Derniers Jansénistes* (3 vols., Paris, 1891). A more detailed list of books bearing on the subject will be found in the 5th volume of the *Cambridge Modern History*; and J. Paquier's *Le Jansénisme* (Paris, 1909) may also be consulted.

(ST C.)

JANSSEN, or JANSEN (sometimes JOHNSON), **CORNELIUS** (1593–1664), Flemish painter, was apparently born in London, and baptized on the 14th of October 1593. There seems no reason to suppose, as was formerly stated, that he was born at Amsterdam. He worked in England from 1618 to 1643, and afterwards retired to Holland, working at Middelburg, Amsterdam, The Hague and Utrecht, and dying at one of the last two places about 1664. In England he was patronized by James I. and the court, and under Charles I. he continued to paint the numerous portraits which adorn many English mansions and collections. Janssen's pictures, chiefly portraits, are distinguished by clear colouring, delicate touch, good taste and careful finish. He generally painted upon panel, and often worked on a small scale, sometimes producing replicas of his larger works. A characteristic of his style is the very dark background, which throws the carnations of his portraits into rounded relief. In all probability his earliest portrait (1618) was that of John Milton as a boy of ten.

JANSSEN, JOHANNES (1829–1891), German historian, was born at Xanten on the 10th of April 1829, and was educated as a Roman Catholic at Münster, Louvain, Bonn and Berlin, afterwards becoming a teacher of history at Frankfort-on-the-Main. He was ordained priest in 1860; became a member of the Prussian Chamber of Deputies in 1875; and in 1880 was made domestic prelate to the pope and apostolic pronotary. He died at Frankfort on the 24th of December 1891. Janssen was a stout champion of the Ultramontane party in the Roman Catholic Church. His great work is his *Geschichte des deutschen Volkes seit dem Ausgang des Mittelalters* (8 vols., Freiburg, 1878–1894). In this book he shows himself very hostile to the Reformation, and attempts to prove that the Protestants were responsible for the general unrest in Germany during the 16th and 17th centuries. The author's partisanship led to some controversy, and Janssen wrote *An meine Kritiker* (Freiburg, 1882) and *Ein zweites Wort an meine Kritiker* (Freiburg, 1883) in reply to the *Janssens Geschichte des deutschen Volkes* (Munich, 1883) of M. Lenz, and other criticisms.

The *Geschichte*, which has passed through numerous editions, has been continued and improved by Ludwig Pastor, and the greater part of it has been translated into English by M. A. Mitchell and A. M.

Christie (London, 1896, fol.). Of his other works perhaps the most important are: the editing of *Frankfurts Reichskorrespondenz, 1376–1519* (Freiburg, 1863–1872); and of the *Leben, Briefe und kleinere Schriften* of his friend J. F. Böhmer (Leipzig, 1868); a monograph, *Schiller als Historiker* (Freiburg, 1863); and *Zeit- und Lebensbilder* (Freiburg, 1875).

See L. Pastor, *Johannes Janssen* (Freiburg, 1893); F. Meister, *Erinnerung an Johannes Janssen* (Frankfort, 1896); Schwann, *Johannes Janssen und die Geschichte der deutschen Reformation* (Munich, 1892).

JANSSEN, PIERRE JULES CÉSAR (1824–1907), French astronomer, was born in Paris on the 22nd of February 1824, and studied mathematics and physics at the faculty of sciences. He taught at the lycée Charlemagne in 1853, and in the school of architecture 1865–1871, but his energies were mainly devoted to various scientific missions entrusted to him. Thus in 1857 he went to Peru in order to determine the magnetic equator; in 1861–1862 and 1864, he studied telluric absorption in the solar spectrum in Italy and Switzerland; in 1867 he carried out optical and magnetic experiments at the Azores; he successfully observed both transits of Venus, that of 1874 in Japan, that of 1882 at Oran in Algeria; and he took part in a long series of solar eclipse-expeditions, *e.g.* to Trani (1867), Guntoor (1868), Algiers (1870), Siam (1875), the Caroline Islands (1883), and to Alcosebre in Spain (1905). To see the eclipse of 1870 he escaped from besieged Paris in a balloon. At the great Indian eclipse of 1868 he demonstrated the gaseous nature of the red prominences, and devised a method of observing them under ordinary daylight conditions. One main purpose of his spectroscopic inquiries was to answer the question whether the sun contains oxygen or not. An indispensable preliminary was the virtual elimination of oxygen-absorption in the earth's atmosphere, and his bold project of establishing an observatory on the top of Mont Blanc was prompted by a perception of the advantages to be gained by reducing the thickness of air through which observations have to be made. This observatory, the foundations of which were fixed in the snow that appears to cover the summit to a depth of ten metres, was built in September 1893, and Janssen, in spite of his sixty-nine years, made the ascent and spent four days taking observations. In 1875 he was appointed director of the new astrophysical observatory established by the French government at Meudon, and set on foot there in 1876 the remarkable series of solar photographs collected in his great *Atlas de photographies solaires* (1904). The first volume of the *Annales de l'observatoire de Meudon* was published by him in 1896. He died at Paris on the 23rd of December 1907.

See A. M. Clerke, *Hist. of Astr. during the 19th Century* (1903); H. Macpherson, *Astronomers of To-Day* (1905).

JANSSENS (or JANSENS), **VICTOR HONORIUS** (1664–1739), Flemish painter, was born at Brussels. After seven years in the studio of an obscure painter named Volders, he spent four years in the household of the duke of Holstein. The next eleven years Janssens passed in Rome, where he took eager advantage of all the aids to artistic study, and formed an intimacy with Tempesta, in whose landscapes he frequently inserted figures. Rising into popularity, he painted a large number of cabinet historical scenes; but, on his return to Brussels, the claims of his increasing family restricted him almost entirely to the larger and more lucrative size of picture, of which very many of the churches and palaces of the Netherlands contain examples. In 1718 Janssens was invited to Vienna, where he stayed three years, and was made painter to the emperor. The statement that he visited England is based only upon the fact that certain fashionable interiors of the time in that country have been attributed to him. Janssen's colouring was good, his touch delicate and his taste refined.

JANSSENS (or JANSENS) **VAN NUYSSEN, ABRAHAM** (1567–1632), Flemish painter, was born at Antwerp in 1567. He studied under Jan Snellinck, was a "master" in 1602, and in 1607 was dean of the master-painters. Till the appearance of Rubens he was considered perhaps the best historical painter of his time. The styles of the two artists are not unlike. In correctness of drawing Janssens excelled his great contemporary; in bold composition and in treatment of the nude he equalled him; but in faculty of colour and in general freedom of disposition and touch he fell far short. A master of chiaroscuro, he gratified his taste for strong contrasts of light and shade in his torchlights and similar effects. Good examples of this master are to be seen in the Antwerp museum and the Vienna gallery. The stories of his jealousy of Rubens and of his dissolute life are quite unfounded. He died at Antwerp in 1632.

JANUARIUS, ST, or SAN GENNARO, the patron saint of Naples. According to the legend, he was bishop of Benevento, and flourished towards the close of the 3rd century. On the outbreak of the persecution by Diocletian and Maximian, he was taken to Nola and brought before Timotheus, governor of Campania, on account of his profession of the Christian religion. After various assaults upon his constancy, he was sentenced to be cast into the fiery furnace, through which he passed wholly unharmed. On the following day, along with a number of fellow martyrs, he was exposed to the fury of wild beasts, which, however, laid themselves down in tame submission at his feet. Timotheus, again pronouncing sentence of death, was struck with blindness, but immediately healed by the powerful intercession of the saint, a miracle which converted nearly five thousand men on the spot. The ungrateful judge, only roused to further fury by these occurrences, caused the execution of Januarius by the sword to be forthwith carried out. The body was ultimately removed by the inhabitants of Naples to that city, where the relic became very famous for its miracles, especially in counteracting the more dangerous eruptions of Vesuvius. Whatever the difficulties raised by his *Acta*, the cult of St Januarius, bishop and martyr, is attested historically at Naples as early as the 5th century (*Biblioth. hagiog. latina*, No. 6558). Two phials preserved in the cathedral are believed to contain the blood of the martyr. The relic is shown twice a year—in May and September. On these occasions the substance contained in the phial liquefies, and the Neapolitans see in this phenomenon a supernatural manifestation. The "miracle of St Januarius" did not occur before the middle of the 15th century.

A great number of saints of the name of Januarius are mentioned in the martyrologies. The best-known are the Roman martyr (festival, the 10th of July), whose epitaph was written by Pope Damasus (De Rossi, *Bullettino*, p. 17, 1863), and the martyr of Cordova, who forms along with Faustus and Martialis the group designated by Prudentius (*Peristephanon*, iv. 20) by the name of *tres coronae*. The festival of these martyrs is celebrated on the 13th of October.

See *Acta sanctorum*, September, vi. 761–891; G. Scherillo, *Esame di un codice greco pubblicato nel tomo secondo della bibliotheca casinensis* (Naples, 1876); G. Taglialatela, *Memorie storico-critiche del culto del sangue di S. Gennaro* (Naples, 1893), which contains many facts, but little criticism; G. Albini, *Sulla mobilità dei liquidi viscosi non omogenei* (*Società reale di Napoli, Rendiconti*, 2nd series, vol. iv., 1890); *Acta sanctorum*, October, vi. 187–193. (H. DE.)

JANUARY, the first month in the modern calendar, consisting of thirty-one days. The name (Lat. *Januarius*) is derived from the two-faced Roman god Janus, to whom the month was dedicated. As doorkeeper of heaven, as looking both into the past and the future, and as being essentially the deity who busied himself with the beginnings of all enterprises, he was appropriately made guardian of the fortunes of the new year. The consecration of the month took place by an offering of meal, salt, frankincense and wine, each of which was new. The Anglo-Saxons called January *Wulfmonath*, in allusion to the fact that hunger then made the wolves bold enough to come into the villages. The principal festivals of the month are: New Year's Day; Feast of the Circumcision; Epiphany; Twelfth-Day; and Conversion of St Paul (see CALENDAR).

JANUS, in Roman mythology one of the principal Italian deities. The name is generally explained as the masculine form of Diana (Jana), and Janus as originally a god of light and day, who gradually became the god of the beginning and origin of all things. According to some, however, he is simply the god

of doorways (*januae*) and in this connexion is the patron of all entrances and beginnings. According to Mommsen, he was "the spirit of opening," and the double-head was connected with the gate that opened both ways. Others, attributing to him an Etruscan origin, regard him as the god of the vault of heaven, which the Etruscan arch is supposed to resemble. The rationalists explained him as an old king of Latium, who built a citadel for himself on the Janiculum. It was believed that his worship, which was said to have existed as a local cult before the foundation of Rome, was introduced there by Romulus, and that a temple was dedicated to him by Numa. This temple, in reality only an arch or gateway (*Janus geminus*) facing east and west, stood at the north-east end of the forum. It was open during war and closed during peace (Livy i. 19); it was shut only four times before the Christian era. A possible explanation is, that it was considered a bad omen to shut the city gates while the citizens were outside fighting for the state; it was necessary that they should have free access to the city, whether they returned victorious or defeated. Similarly, the door of a private house was kept open while the members of the family were away, but when all were at home it was closed to keep out intruders. There was also a temple of Janus near the theatre of Marcellus, in the forum olitorium, erected by Gaius Duilius (Tacitus, *Ann.* ii. 49), if not earlier.

The beginning of the day (hence his epithet Matutinus), of the month, and of the year (January) was sacred to Janus; on the 9th of January the festival called Agonia was celebrated in his honour. He was invoked before any other god at the beginning of any important undertaking; his priest was the Rex Sacrorum, the representative of the ancient king in his capacity as religious head of the state. All gateways, housedoors and entrances generally, were under his protection; he was the inventor of agriculture (hence Consivius, "he who sows or plants"), of civil laws, of the coining of money and of religious worship. He was worshipped on the Janiculum as the protector of trade and shipping; his head is found on the *as*, together with the prow of a ship. He is usually represented on the earliest coins with two bearded faces, looking in opposite directions; in the time of Hadrian the number of faces is increased to four. In his capacity as porter or doorkeeper he holds a staff in his right hand, and a key (or keys) in his left; as such he is called Patulcius (opener) and Clusius (closer). His titles Curiatius, Patricius, Quirinus originate in his worship in the gentes, the curiae and the state, and have no reference to any special functions or characteristics. In late times, he is both bearded and unbearded; in place of the staff and keys, the fingers of his right hand show the number 300 (CCC.), those of his left the number of the remaining days of the year (LXV.). According to A. B. Cook (*Classical Review*, xviii. 367), Janus is only another form of Jupiter, the name under which he was worshipped by the pre-Latin (aboriginal) inhabitants of Rome; after their conquest by the Italians, Janus and Jana took their place as independent divinities by the side of the Italian Jupiter and Juno. He considers it probable that the three-headed Janus was a triple oak-god worshipped in the form of two vertical beams and a cross-bar (such as the *tigillum sororium*, for which see Horatii); hence also the door, consisting of two lintels and side-posts, was sacred to Janus. The three-headed type may have been the original, from which the two-headed and four-headed types were developed. J. G. Frazer (*The Early History of the Kingship*, pp. 214, 285), who also identifies Janus with Jupiter, is of opinion that Janus was not originally a doorkeeper, but that the door was called after him, not vice versa. *Janua* may be an adjective, *janua foris* meaning a door with a symbol of Janus close by the chief entrance, to serve as a protection for the house; then *janua* alone came to mean a door generally, with or without the symbol of Janus. The double head may have been due to the desire to make the god look both ways for greater protection. By J. Rhys (*Hibbert Lectures*, 1886, pp. 82, 94) Janus is identified with the three-faced (sometimes three-headed) Celtic god Cernunnus, a chthonian divinity, compared by Rhys with the Teutonic Heimdal, the warder of the gods of the under-world; like Janus, Cernunnus and Heimdal were considered to be the *fons et origo* of all things.

See S. Linde, *De Jano summo romanorum deo* (Lund, 1891); J. S. Speyer, "Le Dieu romain Janus," in *Revue de l'histoire des religions* (xxvi., 1892); G. Wissowa, *Religion und Kultus der Römer* (1902); W. Deecke, *Etruskische Forschungen*, vol. ii.; W. Warde Fowler, *The Roman Festivals of the Period of the Republic* (1899), pp. 282–290; articles in W. H. Roscher's *Lexikon der Mythologie* and Daremberg and Saglio's *Dictionnaire des Antiquités*; J. Toutain, *Études de Mythologie* (1909). On other *jani* (arched passages) in Rome, frequented by business men and money changers, see O. Richter, *Topographie der Stadt Rom* (1901). (J. H. F.)

JAORA, a native state of Central India, in the Malwa agency. It consists of two isolated tracts, between Ratlam and Neemuch. Area, with the dependencies of Piplauda and Pant Piplauda, 568 sq. m. Pop. (1901), 84,202. The estimated revenue is £57,000; tribute, £9000. The chief, whose title is nawab, is a Mahommedan of Afghan descent. The state was confirmed by the British government in 1818 by the Treaty of Mandsaur. Nawab Mahommed Ismail, who died in 1895, was an honorary major in the British army. His son, Iftikhar Ali Khan, a minor at his accession, was educated in the Daly College at Indore, with a British officer for his tutor, and received powers of administration in 1906. The chief crops are millets, cotton, maize and poppy. The last supplies a large part of the Malwa opium of commerce. The town of Jaora is on the Rajputana-Malwa railway, 20 m. N. of Ratlam. Pop. (1901), 23,854. It is well laid out, with many good modern buildings, and has a high school and dispensary. To celebrate Queen Victoria's Diamond Jubilee, the Victoria Institute and a zenana dispensary were opened in 1898.

JAPAN, an empire of eastern Asia, and one of the great powers of the world. The following article is divided for convenience into ten sections:—I. Geography; II. The People; III. Language and Literature; IV. Art; V. Economic Conditions; VI. Government and Administration; VII. Religion; VIII. Foreign Intercourse; IX. Domestic History; X. The Claim of Japan.

I.—Geography

Position and Extent.

The continent of Asia stretches two arms into the Pacific Ocean, Kamchatka in the north and Malacca in the south, between which lies a long cluster of islands constituting the Japanese empire, which covers 37° 14′ of longitude and 29° 11′ of latitude. On the extreme north are the Kuriles (called by the Japanese *Chishima*, or the "myriad isles"), which extend to 156° 32′ E. and to 50° 56′ N.; on the extreme south is Formosa (called by the Japanese *Taiwan*), which extends to 122° 6′ E., and to 21° 45′ N. There are six large islands, namely Sakhalin (called by the Japanese *Karafuto*); Yezo or Ezo (which with the Kuriles is designated *Hokkaidō*, or the north-sea district); Nippon (the "origin of the sun"), which is the main island; Shikoku (the "four provinces"), which lies on the east of Nippon; Kiūshiū or Kyushu (the "nine provinces"), which lies on the south of Nippon, and Formosa, which forms the most southerly link of the chain. Formosa and the Pescadores were ceded to Japan by China after the war of 1894–1895, and the southern half of Sakhalin—the part south of 50° N.—was added to Japan by cession from Russia in 1905. Korea, annexed in August 1910, is separately noticed.

Coast-line.—The following table shows the numbers, the lengths of coast-line, and the areas of the various groups of islands, only those being indicated that have a coast-line of at least 1 *ri* (2½ m.), or that, though smaller, are inhabited; except in the case of Formosa and the Pescadores, where the whole numbers are given:—

	Number.	Length of coast in miles.	Area in square miles.
Nippon	1	4,765·03	99,373·57
Isles adjacent to Nippon	167	1,275·09	470·30
Shikoku	1	1,100·85	6,461·39
Isles adjacent to Shikoku	75	548·12	175·40
Kiūshiū	1	2,101·28	13,778·68
Isles adjacent to Kiūshiū	150	2,405·06	1,821·85

JAPAN
AND KOREA.
Scale 1 : 7,500,000
English Statute Miles
Kilometres
Political Colouring :
Japanese
Russian
Korea
British
Chinese
Key to the Provinces of Korea : 1. Northern Ham-gyöng, 2. Southern Ham-gyöng, 3. Northern Phyöng-an, 4. Southern Phyöng-an, 5. Hwang-hai, 6. Kang-wön, 7. Kyöng-kwi, 8. Western Chung-chöng, 9. Eastern Chung-chöng, 10. Northern Kyöng-sang, 11. Southern Kyöng-sang, 12. Northern Chöl-la, 13. Southern Chöl-la.
COAST PROV.
SHENG-KING
Gulf of Liao-tung
Korea Bay
Broughton B. or Gulf of Korea
KOREA
SEA OF JAPAN
YELLOW SEA
(HWANG-HAI)
EAST CHINA SEA
(TUNG HAI)
Quelpart I.
Gotoshima
Nagasaki
KIUSHIU
SHIKOKU
Bungo-nada
Okishima
Linschoten Str. (Kii Chan.)
Van Diemen Str. (Osumi-Kaikyo)
Colnett Str. (Tokara Kaikyo)
Kawabe-Shichito
Linschoten (Pinnacle, Cecilia) Is.
Continuation South, see Inset.
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	Number.	Length of coast in miles.	Area in square miles.
Yezo	1	1,423·32	30,148·41
Isles adjacent to Yezo	13	110·24	30·51
Sakhalin (Karafuto)	1	Unsurveyed	12,487·64
Sado	1	130·05	335·92
Okishima	1	182·27	130·40
Isles adjacent to Okishima	1	3·09	0·06
Awaji	1	94·43	217·83
Isles adjacent to Awaji	1	5·32	0·83
Iki	1	86·47	50·96
Isles adjacent to Iki	1	4·41	0·47
Tsushima	1	409·23	261·72
Isles adjacent to Tsushima	5	118·80	4·58
Riūkiū (or Luchu) Islands	55	768·74	935·18
Kuriles (Chishima)	31	1,496·23	6,159·42
Bonin (Ogasawara Islands)	20	174·65	26·82
Taiwan (Formosa)	1	731·31	13,429·31
Isles adjacent to Formosa	7	128·32	Not surveyed
Pescadores (Hoko-tō)	12	98·67	85·50
Totals	549	18,160·98	173,786·75

If the various smaller islands be included, a total of over 3000 is reached, but there has not been any absolutely accurate enumeration.

It will be observed that the coast-line is very long in proportion to the area, the ratio being 1 m. of coast to every 9·5 m. of area. The Pacific Ocean, which washes the eastern shores, moulds their outline into much greater diversity than does the Sea of Japan which washes the western shores. Thus the Pacific sea-board measures 10,562 m. against 2887 m. for that of the Japan Sea. In depth of water, too, the advantage is on the Pacific side. There the bottom slopes very abruptly, descending precipitously at a point not far from the north-east coast of the main island, where soundings have shown 4655 fathoms. This, the deepest sea-bed in the world, is called the Tuscarora Deep, after the name of the United States' man-of-war which made the survey. The configuration seems to point to a colossal crater under the ocean, and many of the earthquakes which visit Japan appear to have their origin in this submarine region. On the other hand, the average depth of the Japan Sea is only 1200 fathoms, and its maximum depth is 3200. The east coast, from Cape Shiriya (Shiriyazaki) in the north to Cape Inuboye (Inuboesaki) near Tōkyō Bay, though abounding in small indentations, has only two large bays, those of Sendai and Matsushima; but southward from Tōkyō Bay to Cape Satta (Satanomisaki) in Kiūshiū there are many capacious inlets which offer excellent anchorage, as the Gulf of Sagami (Sagaminada), the Bays of Suruga (Surugawan), Ise (Isenumi) and Osaka, the Kii Channel, the Gulf of Tosa (Tosonada), &c. Opening into both the Pacific and the Sea of Japan and separating Shikoku and Kiūshiū from the main island as well as from each other, is the celebrated Inland Sea, one of the most picturesque sheets of water in the world. Its surface measures 1325 sq. m.; it has a length of 255 m. and a maximum width of 56 m.; its coast-lines aggregate 700 m.; its depth is nowhere more than 65 fathoms, and it is studded with islands which present scenery of the most diverse and beautiful character. There are four narrow avenues connecting this remarkable body of water with the Pacific and the Japan Sea; that on the west, called Shimonoseki Strait, has a width of 3000 yds., that on the south, known as Hayamoto Strait, is 8 m. across; and the two on the north, Yura and Naruto Straits, measure 3000 and 1500 yds. respectively. It need scarcely be said that these restricted approaches give little access to the storms which disturb the seas outside. More broken into bays and inlets than any other part of the coast is the western shore of Kiūshiū. Here three promontories—Nomo, Shimabara and Kizaki—enclose a large bay having on its shores Nagasaki, the great naval port of Sasebo, and other anchorages. On the south of Kiūshiū the Bay of Kagoshima has historical interest, and on the west are the bays of Ariakeno-ura and Yatsushiro. To the north of Nagasaki are the bays of Hakata, Karatsu and Imari. Between this coast and the southern extremity of the Korean peninsula are situated the islands of Iki and Tsushima, the latter being only 30 m. distant from the peninsula. Passing farther north, the shoreline of the main island along the Japan Sea is found to be comparatively straight and monotonous, there being only one noteworthy indentation, that of Wakasa-wan, where are situated the naval port of Maizuru and the harbour of Tsuruga, the Japanese point of communication with the Vladivostok terminus of the Trans-Asian railway. From this harbour to Osaka Japan's waist measures only 77 m., and as the great lake of Biwa and some minor sheets of water break the interval, a canal may be dug to join the Pacific and the Sea of Japan. Yezo is not rich in anchorages. Uchiura (Volcano Bay), Nemuro (Walfisch) Bay and Ishikari Bay are the only remarkable inlets. As for Formosa, the peculiarity of its outline is that the eastern coast falls precipitously into deep water, while the western slopes slowly to shelving bottoms and shoals. The Pescadores Islands afford the best anchorage in this part of Japan.

Mountains.—The Japanese islands are traversed from north to south by a range of mountains which sends out various lateral branches. Lofty summits are separated by comparatively low passes, which lie at the level of crystalline rocks and schists constituting the original uplands upon which the summits have been piled by volcanic action. The scenery among the mountains is generally soft. Climatic agencies have smoothed and modified everything rugged or abrupt, until an impression of gentle undulation rather than of grandeur is suggested. Nowhere is the region of eternal snow reached, and masses of foliage enhance the gentle aspect of the scenery and glorify it in autumn with tints of striking brilliancy. Mountain alternates with valley, so that not more than one-eighth of the country's entire area is cultivable.

Fuji.

The king of Japanese mountains is Fuji-yama or Fuji-san (peerless mount), of which the highest point (Ken-ga-mine) is 12,395 ft. above sea-level. The remarkable grace of this mountain's curve—an inverted catenary—makes it one of the most beautiful in the world, and has obtained for it a prominent place in Japanese decorative art. Great streams of lava flowed from the crater in ancient times. The course of one is still visible to a distance of 15 m. from the summit, but the rest are covered, for the most part, with deep deposits of ashes and scoriae. On the south Fuji slopes unbroken to the sea, but on the other three sides the plain from which it rises is surrounded by mountains, among which, on the north and west, a series of most picturesque lakes has been formed in consequence of the rivers having been dammed by ashes ejected from Fuji's crater. To a height of some 1500 ft. the slopes of the mountain are cultivated; a grassy moorland stretches up the next 2500 ft.; then follows a forest, the upper edge of which climbs to an altitude of nearly 8000 ft., and finally there is a wide area of ashes and scoriae. There is entire absence of the Alpine plants found abundantly on the summits of other high mountains in Japan, a fact due, doubtless, to the comparatively recent activity of the volcano. The ascent of Fuji presents no difficulties. A traveller can reach the usual point of departure, Gotemba, by rail from Yokohama, and thence the ascent and descent may be made in one day by a pedestrian.

The Japanese Alps.

The provinces of Hida and Etchiu are bounded on the east by a chain of mountains including, or having in their immediate vicinity, the highest peaks in Japan after Fuji. Six of these summits rise to a height of 9000 ft. or upwards, and constitute the most imposing assemblage of mountains in the country. The ridge runs due north and south through 60 to 70 m., and has a width of 5 to 10 m. It is mostly of granite, only two of the mountains—Norikura and Tateyama—showing clear traces of volcanic origin. Its lower flanks are clothed with forests of beech, conifers and oak. Farther south, in the same range, stands Ontake (10,450 ft.), the second highest mountain in Japan proper (as distinguished from Formosa); and other remarkable though not so lofty peaks mark the same regions. This grand group of mountains has been well called the "Alps of Japan," and a good account of them may be found in *The Japanese Alps* (1896) by the Rev. W. Weston. On the summit of Ontake are eight large and several small craters, and there also may be seen displays of trance and "divine possession," such as are described by Mr Percival Lowell in *Occult Japan* (1895).

The Nikko Mountains.

Even more picturesque, though less lofty, than the Alps of Japan, are the Nikko mountains, enclosing the mausolea of the two greatest of the Tokugawa *shōguns*. The highest of these are Shirane-san (7422 ft.), Nantai-san (8169 ft.), Nyohô-zan (8100 ft.), and Omanago (7546 ft.). They are clothed with magnificent vegetation, and everywhere they echo the voices of waterfalls and rivulets.

Mountains of the North.

In the north of the main island there are no peaks of remarkable height. The best known are Chiokai-zan, called "Akita-Fuji" (the Fuji of the Akita province), a volcano 7077 ft. high, which was active as late as 1861; Ganju-san (6791 ft.), called also "Nambu-Fuji" or Iwate-zan, remarkable for the beauty of its logarithmic curves; Iwaki-san (5230 ft.), known as Tsugaru-Fuji, and said by some to be even more imposing than Fuji itself; and the twin mountains Gassan (6447 ft.) and Haguro-san (5600 ft.). A little farther south, enclosing the fertile plain of Aizu (Aizu-taira, as it is called) several important peaks are found, among them being Iide-san (6332 ft.); Azuma-yama (7733 ft.), which, after a long interval of quiescence, has given many evidences of volcanic activity during recent years; Nasu-dake (6296 ft.), an active volcano; and Bandai-san (6037 ft.). A terrible interest attaches to the last-named mountain, for, after having remained quiet so long as to lull the inhabitants of the neighbouring district into complete security, it suddenly burst into fierce activity on the 15th of July 1888, discharging a vast avalanche of earth and rock, which dashed down its slopes like an inundation, burying four hamlets, partially destroying seven villages, killing 461 people and devastating an area of 27 sq. m.

Mountains of Kōzuke, Kai and Shinano.

In the province of Kōzuke, which belongs to the central part of the main island, the noteworthy mountains are Asama-yama (8136 ft.), one of the best known and most violently active volcanoes of Japan; Akagi-san, a circular range of peaks surrounding the basin of an old crater and rising to a height of 6210 ft.; the Haruna group, celebrated for scenic beauties, and Myogi-san, a cluster of pinnacles which, though not rising higher than 3880 ft., offer scenery which dispels

the delusion that nature as represented in the classical pictures (*bunjingwa*) of China and Japan exists only in the artist's imagination. Farther south, in the province of Kai (Kōshiu), and separating two great rivers, the Fuji-kawa and the Tenriu-gawa, there lies a range of hills with peaks second only to those of the Japanese Alps spoken of above. The principal elevations in this range are Shirane-san—with three summits, Nōdori (9970 ft.), Ai-no-take (10,200 ft.) and Kaigane (10,330 ft.)—and Hōōzan (9550 ft.). It will be observed that all the highest mountains of Japan form a species of belt across the widest part of the main island, beginning on the west with the Alps of Etchiu, Hida and Shinano, and ending on the east with Fuji-yama. In all the regions of the main island southward of this belt the only mountains of conspicuous altitude are Omine (6169 ft.) and Odai-gaharazan (5540 ft.) in Yamato and Daisen or Oyama (5951 ft.) in Hōki.

Mountains of Shikoku. The island of Shikoku has no mountains of notable magnitude. The highest is Ishizuchi-zan (7727 ft.), but there are several peaks varying from 3000 to 6000 ft.

Mountains of Kiūshiū. Kiūshiū, though abounding in mountain chains, independent or connected, is not remarkable for lofty peaks. In the neighbourhood of Nagasaki, over the celebrated solfataras of Unzen-take (called also Onsen) stands an extinct volcano, whose summit, Fugen-dake, is 4865 ft. high. More notable is Aso-take, some 20 m. from Kumamoto; for, though the highest of its five peaks has an altitude of only 5545 ft., it boasts the largest crater in the world, with walls nearly 2000 ft. high and a basin from 10 to 14 m. in diameter. Aso-take is still an active volcano, but its eruptions during recent years have been confined to ashes and dust. Only two other mountains in Kiūshiū need be mentioned—a volcano (3743 ft.) on the island Sakura-jima, in the extreme south; and Kirishima-yama (5538 ft.), on the boundary of Hiūga, a mountain specially sacred in Japanese eyes, because on its eastern peak (Takachiho-dake) the god Ninigi descended as the forerunner of the first Japanese sovereign, Jimmu.

Volcanoes. Among the mountains of Japan there are three volcanic ranges, namely, that of the Kuriles, that of Fuji, and that of Kirishima. Fuji is the most remarkable volcanic peak. The Japanese regard it as a sacred mountain, and numbers of pilgrims make the ascent in midsummer. From 500 to 600 ft. is supposed to be the depth of the crater. There are neither sulphuric exhalations nor escapes of steam at present, and it would seem that this great volcano is permanently extinct. But experience in other parts of Japan shows that a long quiescent crater may at any moment burst into disastrous activity. Within the period of Japan's written history several eruptions are recorded the last having been in 1707, when the whole summit burst into flame, rocks were shattered, ashes fell to a depth of several inches even in Yedo (Tōkyō), 60 m. distant, and the crater poured forth streams of lava. Among still active volcanoes the following are the best known:—

Name of Volcano. Height in feet.	Remarks.
Tarumai (Yezo) 2969.	Forms southern wall of a large ancient crater now occupied by a lake (Shikotsu). A little steam still issues from several smaller cones on the summit of the ridge, as well as from one, called Eniwa, on the northern side.
Noboribetsu (Yezo) 1148.	In a state of continuous activity, with frequent detonations and rumblings. The crater is divided by a wooded rock-wall. The northern part is occupied by a steaming lake, while the southern part contains numerous solfataras and boiling springs.
Komagatake (Yezo) 3822.	The ancient crater-wall, with a lofty pinnacle on the western side, contains a low new cone with numerous steaming rifts and vents. In a serious eruption in 1856 the S.E. flank of the mountain and the country side in that direction were denuded of trees.
Esan 2067.	A volcano-promontory at the Pacific end of the Tsugaru Strait: a finely formed cone surrounded on three sides by the sea, the crater breached on the land side. The central vent displays considerable activity, while the rocky walls are stained with red, yellow and white deposits from numerous minor vents.
Agatsuma (Iwaki) 5230.	Erupted in 1903 and killed two geologists.
Bandai-san (Iwashiro) 6037.	Erupted in 1888 after a long period of quiescence. The outbreak was preceded by an earthquake of some severity, after which about 20 explosions took place. A huge avalanche of earth and rocks buried the Nagase Valley with its villages and inhabitants, and devastated an area of over 27 sq. m. The number of lives lost was 461; four hamlets were completely entombed with their inhabitants and cattle; seven villages were partially wrecked; forests were levelled or the trees entirely denuded of bark; rivers were blocked up, and lakes were formed. The lip of the fracture is now marked by a line of steaming vents.
Azuma-yama (Fukushima) 7733.	Long considered extinct, but has erupted several times since 1893, the last explosion having been in 1900, when 82 sulphur-diggers were killed or injured; ashes were thrown to a distance of 5 m., accumulating in places to a depth of 5 ft.; and a crater 300 ft. in diameter, and as many in depth, was formed on the E. side of the mountain. This crater is still active. The summit-crater is occupied by a beautiful lake. On the Fukushima (E.) side of the volcano rises a large parasitic cone, extinct.
Nasu (Tochigi) 6296.	Has both a summit and a lateral crater, which are apparently connected and perpetually emitting steam. At or about the main vents are numerous solfataras. The whole of the upper part of the cone consists of grey highly acidic lava. At the base is a thermal spring, where baths have existed since the 7th century.
Shirane (Nikko) 7422.	The only remaining active vent of the once highly volcanic Nikko district. Eruption in 1889.
Shirane (Kai) 10,330.	Eruption in 1905, when the main crater was enlarged to a length of 3000 ft. It is divided into three parts, separated by walls, and each containing a lake, of which the middle one emits steam and the two others are cold. The central lake, during the periods of eruption (which are frequent), displays a geyser-like activity. These lakes contain free sulphuric acid, mixed with iron and alum.
Unzen (Hizen) 4865.	A triple-peaked volcano in the solfatara stage, extinct at the summit, but displaying considerable activity at its base in the form of numerous fumaroles and boiling sulphur springs.
Aso-take (Higo) 5545.	Remarkable for the largest crater in the world. It measures 10 m. by 15, and rises almost symmetrically to a height of about 2000 ft., with only one break through which the river Shira flows. The centre is occupied by a mass of peaks, on the W. flank of which lies the modern active crater. Two of the five compartments into which it is divided by walls of deeply striated volcanic ash are constantly emitting steam, while a new vent displaying great activity has been opened at the base of the cone on the south side. Eruptions have been recorded since the earliest days of Japanese history. In 1884 the ejected dust and ashes devastated farmlands through large areas. An outbreak in 1894 produced numerous rifts in the inner walls from which steam and smoke have issued ever since.
Kaimon (Kagoshima Bay) 3041.	One of the most beautiful volcanoes of Japan, known as the Satsuma-Fuji. The symmetry of the cone is marred by a convexity on the seaward (S.) side. This volcano is all but extinct.
Sakura-jima (Kagoshima Bay) 3743.	An island-volcano, with several parasitic cones (extinct), on the N. and E. sides. At the summit are two deep craters, the southern of which emits steam. Grass grows, however, to the very edges of the crater. The island is celebrated for thermal springs, oranges and *daikon* (radishes), which sometimes grow to a weight of 70 lb.
Kiri-shima (Kagoshima Bay) 5538.	A volcanic range of which Takachiho, the only active cone, forms the terminal (S.E.) peak. The crater, situated on the S.W. side of the volcano, lies some 500 ft. below the summit-peak. It is of remarkably regular formation, and the floor is pierced by a number of huge fumaroles whence issue immense volumes of steam.
Izuno Oshima (Vries Island) (Izu) 2461.	The volcano on this island is called Mihara. There is a double crater, the outer being almost complete. The diameter of the outer crater, within which rises the modern cone to a height of 500 ft. above

Izuno Oshima (Vries Island) (Izu) 2461—(*cont.*).
Asama (Ise) 8136.

the surrounding floor, is about 2 m.; while the present crater, which displays incessant activity, has itself a diameter of ¼ m.

The largest active volcano in Japan. An eruption in 1783, with a deluge of lava, destroyed an extensive forest and overwhelmed several villages. The present cone is the third, portions of two concentric crater rings remaining. The present crater is remarkable for the absolute perpendicularity of its walls, and has an immense depth—from 600 to 800 ft. It is circular, ¾ m. in circumference, with sides honeycombed and burned to a red hue.

Some of the above information is based upon Mr. C. E. Bruce-Mitford's valuable work (see *Geog. Jour.*, Feb. 1908, &c.).

Earthquakes.—Japan is subject to marked displays of seismic violence. One steadily exercised influence is constantly at work, for the shores bordering the Pacific Ocean are slowly though appreciably rising, while on the side of the Japan Sea a corresponding subsidence is taking place. Japan also experiences a vast number of petty vibrations not perceptible without the aid of delicate instruments. But of earthquakes proper, large or small, she has an exceptional abundance. Thus in the thirteen years ending in 1897—that is to say, the first period when really scientific apparatus for recording purposes was available—she was visited by no fewer than 17,750 shocks, being an average of something over 3½ daily. The frequency of these phenomena is in some degree a source of security, for the minor vibrations are believed to exercise a binding effect by removing weak cleavages. Nevertheless the annals show that during the three centuries before 1897 there were 108 earthquakes sufficiently disastrous to merit historical mention. If the calculation be carried farther back—as has been done by the seismic disaster investigation committee of Japan, a body of scientists constantly engaged in studying these phenomena under government auspices,—it is found that, since the country's history began to be written in the 8th century A.D., there have been 2006 major disturbances; but inasmuch as 1489 of these occurred before the beginning of the Tokugawa administration (early in the 17th century, and therefore in an era when methods of recording were comparatively defective), exact details are naturally lacking. The story, so far as it is known, may be gathered from the following table:—

Date A.D.	Region.	Houses destroyed.	Deaths.
684	Southern part of Tosa	—	—(1)
869	Mutsu	—	—(2)
1361	Kiōto	—	—
1498	Tōkaidō	—	2,000(3)
1569	Bungo	—	700
1596	Kiōto	—	2,000
1605 (31/1)	Pacific Coast	—	5,000
1611 (27/9)	Aizu	—	3,700
1614 (2/12)	Pacific Coast (N.E.)	—	1,700
1662 (16/6)	Kiōto	5,500	500
1666 (2/2)	Echigo	—	1,500
1694 (19/2)	Ugo	2,760	390
1703 (30/12)	Tōkyō	20,162	5,233
1707 (28/10)	Pacific Coast of Kiūshiū and Shikoku	29,000	4,900
1751 (20/5)	Echigo	9,100	1,700
1766 (8/3)	Hirosaki	7,500	1,335
1792 (10/2)	Hizen and Higo	12,000	15,000
1828 (18/2)	Echigo	11,750	1,443
1844 (8/5)	Echigo	34,000	12,000
1854 (6/7)	Yamato, Iga, Ise	5,000	2,400
1854 (23/12)	Tōkaidō (Shikoku)	60,000	3,000
1855 (11/11)	Yedo (Tōkyō)	50,000	6,700
1891 (28/10)	Mino, Owari	222,501	7,273
1894 (22/10)	Shōnai	8,403	726
1896 (15/6)	Sanriku	13,073	27,122
1896 (31/8)	Ugo, Rikuchu	8,996	209
1906 (12/2)	Formosa	5,556	1,228

(1) An area of over 1,200,000 acres swallowed up by the sea.
(2) Tidal wave killed thousands of people.
(3) Hamana lagoon formed.

In the capital (Tōkyō) the average yearly number of shocks throughout the 26 years ending in 1906 was 96, exclusive of minor vibrations, but during the 50 years then ending there were only two severe shocks (1884 and 1894), and they were not directly responsible for any damage to life or limb. The Pacific coast of the Japanese islands is more liable than the western shore to shocks disturbing a wide area. Apparent proof has been obtained that the shocks occurring in the Pacific districts originate at the bottom of the sea—the Tuscarora Deep is supposed to be the centre of seismic activity—and they are accompanied in most cases by tidal waves. It would seem that of late years Tajima, Hida, Kōzuke and some other regions in central Japan have enjoyed the greatest immunity, while Musashi (in which province Tōkyō is situated) and Sagami have been most subject to disturbance.

Plains.—Japan, though very mountainous, has many extensive plains. The northern island—Yezo—contains seven, and there are as many more in the main and southern islands, to say nothing of flat lands of minor dimensions. The principal are given in the following table:—

Name.	Situation.	Area.	Remarks.
Tokachi plain	Yezo.	744,000 acres.	—
Ishikari ,,	do.	480,000 ,,	—
Kushiro ,,	do.	1,229,000 ,,	—
Nemuro ,,	do.	320,000 ,,	—
Kitami ,,	do.	230,000 ,,	—
Hidaka ,,	do.	200,000 ,,	—
Teshio ,,	do.	180,000 ,,	—
Echigo ,,	Main Island.	Unascertained.	—
Sendai ,,	do.	do.	—
Kwanto ,,	do.	do.	In this plain lie the capital, Tōkyō, and the town of Yokohama. It supports about 6 millions of people.
Mino-Owari ,,	do.	do.	Has 1½ million inhabitants.
Kinai ,,	do.	do.	Has the cities of Osaka, Kiōto and Kobe, and 2½ million people.
Tsukushi ,,	Kiūshiū.	do.	The chief coalfield of Japan.

Rivers.—Japan is abundantly watered. Probably no country in the world possesses a closer network of streams, supplemented by canals and lakes. But the quantity of water carried seawards varies within wide limits; for whereas, during the rainy season in summer and while the snows of winter are melting in spring, great volumes of water sweep down from the mountains, these broad rivers dwindle at other times to petty rivulets trickling among a waste of pebbles and boulders. Nor are there any long rivers, and all are so broken by shallows and rapids that navigation is generally impossible except by means of flat-bottomed boats drawing only a few inches. The chief rivers are given in the following table:—

	Length in miles.	Source.	Mouth.
Ishikari-gawa	275	Ishikari-dake	Otaru.
Shinano-gawa	215	Kimpu-san	Niigata.
Teshio-gawa	192	Teshio-take	Sea of Japan.
Tone-gawa	177	Monju-zan, Kōzuke	Choshi (Shimosa).
Mogami-gawa	151	Dainichi-dake (Uzen).	Sakata.
Yoshino-gawa	149	Yahazu-yama (Tosa).	Tokushima (Awa).
Kitakami-gawa	146	Nakayama-dake (Rikuchiu)	Ishinomaki (Rikuzen).
Tenriu-gawa	136	Suwako (Shinano)	Tōtōmi Bay.
Go-gawa or Iwamegawa	122	Maruse-yama (Bingo)	Iwami Bay.
Abukuma-gawa	122	Asahi-take (Iwashiro)	Matsushima Bay.
Tokachi-gawa	120	Tokachi-dake	Tokachi Bay.
Sendai-gawa	112	Kunimi-zan (Hiuga)	Kumizaki (Satsuma).
Oi-gawa	112	Shirane-san (Kai).	Suruga Bay.
Kiso-gawa	112	Kiso-zan (Shinano)	Bay of Isenumi.
Ara-kawa	104	Chichibu-yama	Tōkyō Bay.
Naga-gawa	102	Nasu-yama (Shimotsuke)	Naka-no-minato (Huachi).

Lakes and Waterfalls.—Japan has many lakes, remarkable for the beauty of their scenery rather than for their extent. Some are contained in alluvial depressions in the river valleys; others have been formed by volcanic eruptions, the ejecta damming the rivers until exits were found over cliffs or through gorges. Some of these lakes have become favourite summer resorts for foreigners. To that category belong especially the lakes of Hakone, of Chiuzenji, of Shōji, of Inawashiro, and of Biwa. Among these the highest is Lake Chiuzenji, which is 4375 ft. above sea-level, has a maximum depth of 93 fathoms, and empties itself at one end over a fall (Kegon) 250 ft. high. The Shōji lakes lie at a height of 3160 ft., and their neighbourhood abounds in scenic charms. Lake Hakone is at a height of 2428 ft.; Inawashiro, at a height of 1920 ft. and Biwa at a height of 328 ft. The Japanese associate Lake Biwa (Omi) with eight views of special loveliness (*Omi-no-hakkei*). Lake Suwa, in Shinano, which is emptied by the Tenriu-gawa, has a height of 2624 ft. In the vicinity of many of these mountain lakes thermal springs, with remarkable curative properties, are to be found. (F. By.)

Geology.—It is a popular belief that the islands of Japan consist for the most part of volcanic rocks. But although this conception might reasonably be suggested by the presence of many active and

extinct volcanoes, Professor J. Milne has pointed out that it is literally true of the Kuriles alone, partially true for the northern half of the Main Island and for Kiūshiū, and quite incorrect as applied to the southern half of the Main Island and to Shikoku. This authority sums up the geology of Japan briefly and succinctly as follows (in *Things Japanese*, by Professor Chamberlain): "The backbone of the country consists of primitive gneiss and schists. Amongst the latter, in Shikoku, there is an extremely interesting rock consisting largely of piedmontite. Overlying these amongst the Palaeozoic rocks, we meet in many parts of Japan with slates and other rocks possibly of Cambrian or Silurian age. Trilobites have been discovered in Rikuzen. Carboniferous rocks are represented by mountain masses of *Fusulina* and other limestones. There is also amongst the Palaeozoic group an interesting series of red slates containing Radiolaria. Mesozoic rocks are represented by slates containing *Ammonites* and *Monotis*, evidently of Triassic age, rocks containing *Ammonites Bucklandi* of Liassic age, a series of beds rich in plants of Jurassic age, and beds of Cretaceous age containing *Trigonia* and many other fossils. The Cainozoic or Tertiary system forms a fringe round the coasts of many portions of the empire. It chiefly consists of stratified volcanic tuffs rich in coal, lignite, fossilized plants and an invertebrate fauna. Diatomaceous earth exists at several places in Yezo. In the alluvium which covers all, the remains have been discovered of several species of elephant, which, according to Dr Edmund Naumann, are of Indian origin. The most common eruptive rock is andesite. Such rocks as basalt, diorite and trachyte are comparatively rare. Quartz porphyry, quartzless porphyry, and granite are largely developed." Drs von Richthofen and Rein discuss the subject in greater detail. They have pointed out that in the mountain system of Japan there are three main lines. One runs from S.W. to N.E.; another from S.S.W. to N.N.E., and the third is meridional. These they call respectively the "southern schist range," the "northern schist range," and the "snow range," the last consisting mainly of old crystalline massive rocks. The rocks predominating in Japan fall also into three groups. They are, first, plutonic rocks, especially granite; secondly, volcanic rocks, chiefly trachyte and dolerite; and thirdly, palaeozoic schists. On the other hand, limestone and sandstone, especially of the Mesozoic strata, are strikingly deficient. The strike of the old crystalline rocks follows, in general, the main direction of the islands (S.W. to N.E.). They are often overlain by schists and quartzites, or broken through by volcanic masses. "The basis of the islands consist of granite, syenite, diorite, diabase and related kinds of rock, porphyry appearing comparatively seldom. Now the granite, continuing for long distances, forms the prevailing rock; then, again, it forms the foundation for thick strata of schist and sandstone, itself only appearing in valleys of erosion and river boulders, in rocky projections on the coasts or in the ridges of the mountains. . . . In the composition of many mountains in Hondo (the main island) granite plays a prominent part. . . . It appears to form the central mass which crops up in hundreds of places towards the coast and in the interior. Old schists, free from fossils and rich in quartz, overlie it in parallel chains through the whole length of the peninsula, especially in the central and highest ridges, and bear the ores of Chū-goku (the central provinces), principally copper pyrites and magnetic pyrites. These schist ridges rich in quartz show, to a depth of 20 metres, considerable disintegration. The resulting pebble and quartz-sand is very unproductive, and supports chiefly a poor underwood and crippled pines with widely spreading roots which seek their nourishment afar. In the province of Settsu granite everywhere predominates, which may be observed also in the railway cuttings between Hiōgo and Osaka, as well as in the temples and walls of these towns. The waterfalls near Kobe descend over granite walls and the *mikageishi* (stone of Mikage), famous throughout Japan, is granite from Settsu. . . . In the hill country on the borders of Ise, Owari, Mikawa and Tōtōmi, on the one side, and Omi, Mino and Shinano, on the other, granite frequently forms dark grey and much disintegrated rock-projections above schist and diluvial quartz pebbles. The feldspar of a splendid pegmatite and its products of disintegration on the borders of Owari, Mino and Mikawa form the raw material of the very extensive ceramic industry of this district, with its chief place, Seto. Of granite are chiefly formed the meridional mountains of Shinano. Granite, diorite and other plutonic rocks hem in the winding upper valleys of the Kisogawa, the Saigawa (Shinano river) and many other rivers of this province, their clear water running over granite. Also in the hills bordering on the plain of Kwanto these old crystalline rocks are widely spread. Farther northwards they give way again, as in the south, to schists and eruptive rocks. Yet even here granite may be traced in many places. Of course it is not always a pure granite; even hablit and granite-porphyry are found here and there. Thus, for instance, near Nikkō in the upper valley of the Daiya-gawa, and in several other places in the neighbouring mountains, a granite-porphyry appears with large, pale, flesh-coloured crystals of orthoclase, dull triclinic felspar, quartz and hornblende." "From the mine of Ichinokawa in Shikoku come the wonderful crystals of antimonite, which form such conspicuous objects in the mineralogical cabinets of Europe." (Rein's *Japan* and Milne in *Things Japanese*.) The above conditions suggest the presence of tertiary formations, yet only the younger groups of that formation appear to be developed. Nor is there any sign of moraines, glacier-scorings or other traces of the ice-age.

The oldest beds which have yielded fossils in any abundance belong to the Carboniferous System. The Trias proper is represented by truly marine deposits, while the Rhaetic beds contain plant remains. The Jurassic and Cretaceous beds are also in part marine and in part terrestrial. During the whole of the Mesozoic era Japan appears to have lain on or near the margin of the Asiatic continent, and the marine deposits are confined for the most part to the eastern side of the islands.

The igneous rocks occur at several geological horizons, but the great volcanic eruptions did not begin until the Tertiary period. The existing volcanoes belong to four separate arcs or chains. On the south is the arc of the Luchu islands, which penetrates into Kiū Shiū. In the centre there is the arc of the Izu-no-Shichito islands, which is continued into Hondo along the Fossa Magna. In North Hondo the great Bandai arc forms the axis of the island and stretches into Yezo (Hokkaidō). Finally in the east of Yezo rise the most westerly volcanoes of the Kurile chain. The lavas and ashes ejected by these volcanoes consist of liparite, dacite, andesite and basalt.

Structurally Japan is divided into two regions by a depression (the "Fossa Magna" of Naumann) which stretches across the island of Hondo from Shimoda to Nagano. The depression is marked by a line of volcanoes, including Fuji, and is in part buried beneath the products of their eruptions. It is supposed to be due to a great fault along its western margin. South and west of the Fossa Magna the beds are thrown into folds which run approximately parallel to the general direction of the coast, and two zones may be recognized—an outer, consisting of Palaeozoic and Mesozoic beds, and an inner, consisting of Archaean and Palaeozoic rocks, with granitic intrusions. Nearly along the boundary between the two zones lie the inland seas of south Japan. Towards the Fossa Magna the folds bend northwards.

North and east of the Fossa Magna the structure is concealed, to a very large extent, by the outpourings of the volcanoes which form so marked a feature in the northern part of Hondo. But the foundation on which the volcanoes rest is exposed along the east coast of Hondo (in the Kwanto, Abukuma and Kitakami hills), and also in the island of Yezo. This foundation consists of Archean, Palaeozoic and Mesozoic beds folded together, the direction of the folds being N. by W. to S. by E., that is to say, slightly oblique to the general direction of this part of the island. Towards the Fossa Magna the folds bend sharply round until they are nearly parallel to the Fossa itself. (P. La.)

Secular Movement

It has been abundantly demonstrated by careful observations that the east coasts of Japan are slowly rising. This phenomenon was first noticed in the case of the plain on which stands the capital, Tōkyō. Maps of sufficiently trustworthy accuracy show that in the 11th century Tōkyō Bay penetrated much more deeply in a northern direction than it does now; the point where the city's main river (Sumida or Arakawa) enters the sea was considerably to the north of its present position, and low-lying districts, to-day thickly populated, were under water. Edmund Naumann was the discoverer of these facts, and his attention was first drawn to them by learning that an edible sea-weed, which flourishes only in salt water, is called *Asakusa-nori*, from the place (Asakusa) of its original provenance, which now lies some 3 m. inland. Similar phenomena were found in Sakhalin by Schmidt and on the north-east coast of the main island by Rein, and there can be little doubt that they exist at other places also. Naumann has concluded that "formerly Tōkyō Bay stretched further over the whole level country of Shimosa and Hitachi and northwards as far as the plain of Kwantō extends;" that "the mountain country of Kasusa-Awa emerged from it an island, and that a current ran in a north-westerly direction between this island and the northern mountain margin of the present plain toward the north-east into the open ocean."

Mineral Springs.—The presence of so many active volcanoes is partially compensated by a wealth of mineral springs. Since many of these thermal springs possess great medicinal value, Japan may become one of the world's favourite health-resorts. There are more than a hundred spas, some hot, some cold, which, being easily accessible and highly efficacious, are largely visited by the Japanese. The most noteworthy are as follows:—

Name of Spa.	Prefecture.	Quality.	Temp., F°.
Arima	Hiogo	Salt	100
Asama	Nagano	Pure	111—127
Asamushi	Aomori	Salt	134—168
Atami	Shizuoka	do.	131—226
Beppu	Oita	Carbonic Acid	109—132
Bessho	Nagano	Pure or Sulphurous	108—113
Dogo	Ehime	Pure	70—110
Hakone	Kanagawa	Pure, Salt or Sulphurous	98—168
Higashi-yama	Fukushima	Pure or Salt	117—144
Ikao	Gumma	Salt	111—127
Isobe	do.	do.	Cold
Kusatsu	do.	Sulphurous	127—148

Name of Spa.	Prefecture.	Quality.	Temp., F°.
Nasu	Tochigi	Sulphurous	162—172
Noboribetsu	Ishikari	do.	125
Shibu	Nagano	Salt	98—115
Chiuzenji	Shizuoka	Carbonate of Soda and Sulphur	114—185
Takarazuka	Hiogo	Carbonic Acid	Cold
Ureshino	Saga	do.	230
Unzen	Nagasaki	Sulphurous	158—204
Wagura	Ishikawa	Salt	180
Yamashiro	do.	do.	165
Yunoshima	Hiogo	do.	104—134

Climate.—The large extension of the Japanese islands in a northerly and southerly direction causes great varieties of climate. General characteristics are hot and humid though short summers, and long, cold and clear winters. The equatorial currents produce conditions differing from those existing at corresponding latitudes on the neighbouring continent. In Kiūshiū, Shikoku and the southern half of the main island, the months of July and August alone are marked by oppressive heat at the sea-level, while in elevated districts a cool and even bracing temperature may always be found, though the direct rays of the sun retain distressing power. Winter in these districts does not last more than two months, from the end of December to the beginning of March; for although the latter month is not free from frost and even snow, the balminess of spring makes itself plainly perceptible. In the northern half of the main island, in Yezo and in the Kuriles, the cold is severe during the winter, which lasts for at least four months, and snow falls sometimes to great depths. Whereas in Tōkyō the number of frosty nights during a year does not average much over 60, the corresponding number in Sapporo on the north-west of Yezo is 145. But the variation of the thermometer in winter and summer being considerable—as much as 72° F. in Tōkyō—the climate proves somewhat trying to persons of weak constitution. On the other hand, the mean daily variation is in general less than that in other countries having the same latitude: it is greatest in January, when it reaches 18° F., and least in July, when it barely exceeds 9° F. The monthly variation is very great in March, when it usually reaches 43° F.

Meteorology. During the first 40 years of the *Meiji* era numerous meteorological stations were established. Reports are constantly forwarded by telegraph to the central observatory in Tōkyō, which issues daily statements of the climatic conditions during the previous twenty-four hours, as well as forecasts for the next twenty-four. The whole country is divided into districts for meteorological purposes, and storm-warnings are issued when necessary. At the most important stations observations are taken every hour; at the less important, six observations daily; and at the least important, three observations. From the record of three decades the following yearly averages of temperature are obtained:—

	F°.
Taihoku (in Formosa)	71
Nagasaki (Kiūshiū)	60
Kōbe (Main Island)	59
Osaka (Main Island)	59
Okayama (Main Island)	58
Nagoya (Main Island)	58
Sakai (Main Island)	58
Tōkyō (Capital)	57
Kiōto (Main Island)	57
Niigata (Main Island)	55
Ishinomaki (Main Island)	52
Aomori (Main Island)	50
Sapporo (Yezo)	44

The following table affords data for comparing the climates of Peking, Shanghai, Hakodate, Tōkyō and San Francisco:—

	Longitude.	Latitude.	Mean Temp., F°.
Peking	116° 29′ E.	39° 57′ N.	53
Shanghai	121° 20′ E.	31° 12′ N.	59
Hakodate	140° 45′ E.	41° 46′ N.	47
Tōkyō	138° 47′ E.	35° 41′ N.	57
San Francisco	122° 25′ E.	37° 48′ N.	56

	Hottest Month.	Mean Temp. of Hottest Month.
Peking	July	80
Shanghai	do.	84
Hakodate	August	71
Tōkyō	do.	79
San Francisco	September	63

	Coldest Month.	Mean Temp. of Coldest Month.
Peking.	January	22
Shanghai	do.	26
Hakodate	do.	28
Tōkyō	do.	36
San Francisco	do.	49

There are three wet seasons in Japan: the first, from the middle of April to the beginning of May; the second, from the middle of June to the beginning of July; and the third, from early in September to early in October. The dog days (*doyō*) are from the middle of July till the second half of August. September is the wettest month; January the driest. During the four months from November to February inclusive only about 18% of the whole rain for the year falls. In the district on the east of the main island the snowfall is insignificant, seldom attaining a depth of more than four or five inches and generally melting in a few days, while bright, sunny skies are usual. But in the mountainous provinces of the interior and in those along the western coast, deep snow covers the ground throughout the whole winter, and the sky is usually wrapped in a veil of clouds. These differences are due to the action of the north-westerly wind that blows over Japan from Siberia. The intervening sea being comparatively warm, this wind arrives at Japan having its temperature increased and carrying moisture which it deposits as snow on the western faces of the Japanese mountains. Crossing the mountains and descending their eastern slopes, the wind becomes less saturated and warmer, so that the formation of clouds ceases. Japan is emphatically a wet country so far as quantity of rainfall is concerned, the average for the whole country being 1570 mm. per annum. Still there are about four sunny days for every three on which rain or snow falls, the actual figures being 150 days of snow or rain and 215 days of sunshine. ***Rainfall.***

During the cold season, which begins in October and ends in April, northerly and westerly winds prevail throughout Japan. They come from the adjacent continent of Asia, and they develop considerable strength owing to the fact that there is an average difference of some 22 mm. between the atmospheric pressure (750 mm.) in the Pacific and that (772 mm.) in the Japanese islands. But during the warm season, from May to September, these conditions of atmospheric pressure are reversed, that in the Pacific rising to 767 mm. and that in Japan falling to 750 mm. Hence throughout this season the prevailing winds are light breezes from the west and south. A comparison of the force habitually developed by the wind in various parts of the islands shows that at Suttsu in Yezo the average strength is 9 metres per second, while Izuhara in the island Tsu-shima, Kumamoto in Kiūshiū and Gifu in the east centre of the main island stand at the bottom of the list with an average wind velocity of only 2 metres. A calamitous atmospheric feature is the periodical arrival of storms called "typhoons" (Japanese *tai-fu* or "great wind"). These have their origin, for the most part, in the China Sea, especially in the vicinity of Luzon. Their season is from June to October, but they occur in other months also, and they develop a velocity of 5 to 75 m. an hour. The meteorological record for ten years ended 1905 shows a total of 120 typhoons, being an average of 12 annually. September had 14 of these phenomena, March 11 and April 10, leaving 85 for the remaining 9 months. But only 65 out of the whole number developed disastrous force. It is particularly unfortunate that September should be the season of greatest typhoon frequency, for the earlier varieties of rice flower in that month and a heavy storm does much damage. Thus, in 1902—by no means an abnormal year—statistics show the following disasters owing to typhoons: casualties to human life, 3639; ships and boats lost, 3244; buildings destroyed wholly or partially, 695,062; land inundated, 1,071,575 acres; roads destroyed, 1236 m.; bridges washed away, 13,685; embankments broken, 705 m.; crops damaged, 8,712,655 bushels. The total loss, including cost of repairs, was estimated at nearly 3 millions sterling, which may be regarded as an annual average. ***Wind.***

Flora.—The flora of Japan has been carefully studied by many scientific men from Siebold downwards. Foreigners visiting Japan are immediately struck by the affection of the people for flowers, trees and natural beauties of every kind. In actual wealth of blossom or dimensions of forest trees the Japanese islands cannot claim any special distinction. The spectacles most admired by all classes are the tints of the foliage in autumn and the glory of flowering trees in the spring. In beauty and variety of pattern and colour the autumnal tints are unsurpassed. The colours pass from deep brown through purple to yellow and white, thrown into relief by the dark green of non-deciduous shrubs and trees. Oaks and wild prunus, wild vines and sumachs, various kinds of maple, the *dōdan* (*Enkianthus Japonicus* Hook.)—a wonderful bush which in autumn develops a hue of ruddy red—birches and other trees, all add multitudinous colours to the brilliancy of a spectacle which is further enriched by masses of feathery bamboo. The one defect is lack of green sward. The grass used for Japanese lawns loses its verdure in autumn and remains from November to March a greyish-brown blot upon the scene. Spring is supposed to begin in February when, according to the old calendar, the new year sets in, but the only flowers then in bloom are the *camellia japonica* and some kinds of daphne. The former—called by the Japanese *tsubaki*—may often be seen glowing fiery red amid snow, but the pink (*otome tsubaki*), white (*shiro-tsubaki*) and variegated (*shibori-no-tsubaki*) kinds do not bloom until March or April. Neither the camellia nor the daphne is regarded as a refined flower: their manner of shedding their blossoms is too unsightly. Queen of spring flowers is the plum (*ume*). The tree lends itself with peculiar readiness to the skilful

manipulation of the gardener, and is by him trained into shapes of remarkable grace. Its pure white or rose-red blossoms, heralding the first approach of genial weather, are regarded with special favour and are accounted the symbol of unassuming hardihood. The cherry (*sakura*) is even more esteemed. It will not suffer any training, nor does it, like the plum, improve by pruning, but the sunshine that attends its brief period of bloom in April, the magnificence of its flower-laden boughs and the picturesque flutter of its falling petals, inspired an ancient poet to liken it to the "soul of Yamato" (Japan), and it has ever since been thus regarded. The wild peach (*momo*) blooms at the same time, but attracts little attention. All these trees—the plum, the cherry and the peach—bear no fruit worthy of the name, nor do they excel their Occidental representatives in wealth of blossom, but the admiring affection they inspire in Japan is unique. Scarcely has the cherry season passed when that of the wistaria (*fuji*) comes, followed by the azalea (*tsutsuji*) and the iris (*shōbu*), the last being almost contemporaneous with the peony (*botan*), which is regarded by many Japan se as the king of flowers and is cultivated assiduously. A species of weeping maple (*shidare-momiji*) dresses itself in peachy-red foliage and is trained into many picturesque shapes, though not without detriment to its longevity. Summer sees the lotus (*renge*) convert wide expanses of lake and river into sheets of white and red blossoms; a comparatively flowerless interval ensues until, in October and November, the chrysanthemum arrives to furnish an excuse for fashionable gatherings. With the exception of the dog-days and the dead of winter, there is no season when flowers cease to be an object of attention to the Japanese, nor does any class fail to participate in the sentiment. There is similar enthusiasm in the matter of gardens. From the 10th century onwards the art of landscape gardening steadily grew into a science, with esoteric as well as exoteric aspects, and with a special vocabulary. The underlying principle is to reproduce nature's scenic beauties, all the features being drawn to scale, so that however restricted the space, there shall be no violation of proportion. Thus the artificial lakes and hills, the stones forming rockeries or simulating solitary crags, the trees and even the bushes are all selected or manipulated so as to fall congruously into the general scheme. If, on the one hand, huge stones are transported hundreds of miles from sea-shore or river-bed where, in the lapse of long centuries, waves and cataracts have hammered them into strange shapes, and if the harmonizing of their various colours and the adjustment of their forms to environment are studied with profound subtlety, so the training and tending of the trees and shrubs that keep them company require much taste and much toil. Thus the red pine (*aka-matsu* or *pinus densiflora*), which is the favourite garden tree, has to be subjected twice a year to a process of spray-dressing which involves the careful removal of every weak or aged needle. One tree occupies the whole time of a gardener for about ten days. The details are endless, the results delightful. But it has to be clearly understood that there is here no mention of a flower-garden in the Occidental sense of the term. Flowers are cultivated, but for their own sakes, not as a feature of the landscape garden. If they are present, it is only as an incident. This of course does not apply to shrubs which blossom at their seasons and fall always into the general scheme of the landscape. Forests of cherry-trees, plum-trees, magnolia trees, or *hiyaku-jikkō* (*Lagerstroemia indica*), banks of azalea, clumps of hydrangea, groups of camellia—such have their permanent places and their foliage adds notes of colour when their flowers have fallen. But chrysanthemums, peonies, roses and so forth, are treated as special shows, and are removed or hidden when out of bloom. There is another remarkable feature of the Japanese gardener's art. He dwarfs trees so that they remain measurable only by inches after their age has reached scores, even hundreds, of years, and the proportions of leaf, branch and stem are preserved with fidelity. The pots in which these wonders of patient skill are grown have to be themselves fine specimens of the keramist's craft, and as much as £200 is sometimes paid for a notably well trained tree.

There exists among many foreign observers an impression that Japan is comparatively poor in wild-flowers; an impression probably due to the fact that there are no flowery meadows or lanes. Besides, the flowers are curiously wanting in fragrance. Almost the only notable exceptions are the *mokusei* (*Osmanthus fragrans*), the daphne and the magnolia. Missing the perfume-laden air of the Occident, a visitor is prone to infer paucity of blossoms. But if some familiar European flowers are absent, they are replaced by others strange to Western eyes—a wealth of *lespedeza* and *Indigo-fera*; a vast variety of lilies; graceful grasses like the eulalia and the *ominameshi* (*Patrina scabiosaefolia*); the richly-hued *Pyrus japonica*; azaleas, diervillas and deutzias; the *kikyo* (*Platycodon grandiflorum*), the *gibōshi* (*Funkia ovata*), and many another. The same is true of Japanese forests. It has been well said that "to enumerate the constituents and inhabitants of the Japanese mountain-forests would be to name at least half the entire flora."

According to Franchet and Savatier Japan possesses:—

	Families.	Genera.	Species.
Dicotyledonous plants	121	795	1934
Monocotyledonous plants	28	202	613
Higher Cryptogamous plants	5	38	196
Vascular plants	154	1035	2743

The investigations of Japanese botanists are adding constantly to the above number, and it is not likely that finality will be reached for some time. According to a comparison made by A. Gray with regard to the numbers of genera and species respectively represented in the forest trees of four regions of the northern hemisphere, the following is the case:—

Atlantic Forest-region of N. America	66 genera and 155 species.
Pacific Forest-region of N. America	31 genera and 78 species.
Japan and Manchuria Forest-region	66 genera and 168 species.
Forests of Europe	33 genera and 85 species.

While there can be no doubt that the luxuriance of Japan's flora is due to rich soil, to high temperature and to rainfall not only plentiful but well distributed over the whole year, the wealth and variety of her trees and shrubs must be largely the result of immigration. Japan has four insular chains which link her to the neighbouring continent. On the south, the Riūkiū Islands bring her within reach of Formosa and the Malayan archipelago; on the west, Oki, Iki, and Tsushima bridge the sea between her and Korea; on the north-west Sakhalin connects her with the Amur region; and on the north, the Kuriles form an almost continuous route to Kamchatka. By these paths the germs of Asiatic plants were carried over to join the endemic flora of the country, and all found suitable homes amid greatly varying conditions of climate and physiography.

Fauna.—Japan is an exception to the general rule that continents are richer in fauna than are their neighbouring islands. It has been said with truth that "an industrious collector of beetles, butterflies, neuroptera, &c., finds a greater number of species in a circuit of some miles near Tōkyō than are exhibited by the whole British Isles."

Of mammals 50 species have been identified and catalogued. Neither the lion nor the tiger is found. The true Carnivora are three only, the bear, the dog and the marten. Three species of bears are scientifically recognized, but one of them, the ice-bear (*Ursus maritimus*), is only an accidental visitor, carried down by the Arctic current. In the main island the black bear (*kuma, Ursus japonicus*) alone has its habitation, but the island of Yezo has the great brown bear (called *shi-guma, oki-kuma* or *aka-kuma*), the "grisly" of North America. The bear does not attract much popular interest in Japan. Tradition centres rather upon the fox (*kitsune*) and the badger (*mujina*), which are credited with supernatural powers, the former being worshipped as the messenger of the harvest god, while the latter is regarded as a mischievous rollicker. Next to these comes the monkey (*saru*), which dwells equally among the snows of the north and in the mountainous regions of the south. *Saru* enters into the composition of many place-names, an evidence of the people's familiarity with the animal. There are ten species of bat (*komori*) and seven of insect-eaters, and prominent in this class are the mole (*mugura*) and the hedgehog (*hari-nezumi*). Among the martens there is a weasel (*itachi*), which, though useful as a rat-killer, has the evil repute of being responsible for sudden and mysterious injuries to human beings; there is a river-otter (*kawa-uso*), and there is a sea-otter (*rakko*) which inhabits the northern seas and is highly valued for its beautiful pelt. The rodents are represented by an abundance of rats, with comparatively few mice, and by the ordinary squirrel, to which the people give the name of tree-rat (*ki-nezumi*), as well as the flying squirrel, known as the *momo-dori* (peach-bird) in the north, where it hides from the light in hollow tree-trunks, and in the south as the *ban-tori* (or bird of evening). There are no rabbits, but hares (*usagi*) are to be found in very varying numbers, and those of one species put on a white coat during winter. The wild boar (*shishi* or *ii-no-shishi*) does not differ appreciably from its European congener. Its flesh is much relished, and for some unexplained reason is called by its vendors "mountain-whale" (*yama-kujira*). A very beautiful stag (*shika*), with eight-branched antlers, inhabits the remote woodlands, and there are five species of antelope (*kamo-shika*) which are found in the highest and least accessible parts of the mountains. Domestic animals have for representatives the horse (*uma*), a small beast with little beauty of form though possessing much hardihood and endurance; the ox (*ushi*), mainly a beast of burden or draught; the pig (*buta*), very occasionally; the dog (*inu*), an unsightly and useless brute; the cat (*neko*), with a stump in lieu of a tail; barndoor fowl (*niwa-tori*), ducks (*ahiro*) and pigeons (*hato*). The turkey (*shichi-mencho*) and the goose (*gachō*) have been introduced but are little appreciated as yet.

Although so-called singing birds exist in tolerable numbers, those worthy of the name of songster are few. Eminently first is a species of nightingale (*uguisu*), which, though smaller than its congener of the West, is gifted with exquisitely modulated flute-like notes of considerable range. The *uguisu* is a dainty bird in the matter of temperature. After May it retires from the low-lying regions and gradually ascends to higher altitudes as midsummer approaches. A variety of the cuckoo called *hototogisu* (*Cuculus poliocephalus*) in imitation of the sound of its voice, is heard as an accompaniment of the *uguisu*, and there are also three other species, the *kakkōdori* (*Cuculus canorus*), the *tsutsu-dori* (*C. himalayanus*), and the *masu-hakari*, or *juichi* (*C. hyperythrus*). To these the lark, *hibari* (*Alauda japonica*), joins its voice, and the cooing of the pigeon (*hato*) is supplemented by the twittering of the ubiquitous sparrow (*suzume*),

while over all are heard the raucous caw of the raven (*karasu*) and the harsh scream of the kite (*tombi*), between which and the raven there is perpetual feud. The falcon (*taka*), always an honoured bird in Japan, where from time immemorial hawking has been an aristocratic pastime, is common enough, and so is the sparrow-hawk (*hai-taka*), but the eagle (*washi*) affects solitude. Two English ornithologists, Blakiston and Pryer, are the recognized authorities on the birds of Japan, and in a contribution to the *Transactions of the Asiatic Society of Japan* (vol. x.) they have enumerated 359 species. Starlings (*muku-dori*) are numerous, and so are the wagtail (*sekirei*), the swallow (*tsubame*) the martin (*ten*), the woodchat (*mozu*) and the jay (*kakesu* or *kashi-dori*), but the magpie (*tōgarasu*), though common in China, is rare in Japan. Blackbirds and thrushes are not found, nor any species of parrot, but on the other hand, we have the hoopoe (*yatsugashira*), the red-breast (*komadori*), the blue-bird (*ruri*), the wren (*miso-sazai*), the golden-crested wren (*itadaki*), the golden-eagle (*inu-washi*), the finch (*hiwa*), the longtailed rose-finch (*benimashiko*), the ouzel—brown (*akahara*), dusky (*tsugumi*) and water (*kawa-garasu*)—the kingfisher (*kawasemi*), the crake (*kuina*) and the tomtit (*kara*). Among game-birds there are the quail (*uzura*), the heathcock (*ezo-rachō*), the ptarmigan (*ezo-raichō* or *ezo-yama-dori*), the woodcock (*hodo-shigi*), the snipe (*ta-shigi*)—with two special species, the solitary snipe (*yama-shigi*) and the painted snipe (*tama-shigi*)—and the pheasant (*kiji*). Of the last there are two species, the *kiji* proper, a bird presenting no remarkable features, and the copper pheasant, a magnificent bird with plumage of dazzling beauty. Conspicuous above all others, not only for grace of form but also for the immemorial attention paid to them by Japanese artists, are the crane (*tsuru*) and the heron (*sagi*). Of the crane there are seven species, the stateliest and most beautiful being the *Grus japonensis* (*tanchō* or *tanchō-zuru*), which stands some 5 ft. high and has pure white plumage with a red crown, black tail-feathers and black upper neck. It is a sacred bird, and it shares with the tortoise the honour of being an emblem of longevity. The other species are the demoiselle crane (*anewa-zuru*), the black crane (*kuro-zuru* or *nezumi-zuru*, i.e. *Grus cinerea*), the *Grus leucauchen* (*mana-zuru*), the *Grus monachus* (*nabe-zuru*), and the white crane (*shiro-zuru*). The Japanese include in this category the stork (*kōzuru*), but it may be said to have disappeared from the island. The heron (*sagi*) constitutes a charming feature in a Japanese landscape, especially the silver heron (*shira-sagi*), which displays its brilliant white plumage in the rice-fields from spring to early autumn. The night-heron (*goi-sagi*) is very common. Besides these waders there are plover (*chidori*); golden (*muna-guro* or *ai-guro*); gray (*daizen*); ringed (*shiro-chidori*); spur-winged (*keri*) and Harting's sand-plover (*ikaru-chidori*); sand-pipers—green (*ashiro-shigi*) and spoon-billed (*hera-shigi*)—and water-hens (*ban*). Among swimming birds the most numerous are the gull (*kamome*), of which many varieties are found; the cormorant (*u*)—which is trained by the Japanese for fishing purposes—and multitudinous flocks of wild-geese (*gan*) and wild-ducks (*kamo*), from the beautiful mandarin-duck (*oshi-dori*), emblem of conjugal fidelity, to teal (*kogamo*) and widgeon (*hidori-gamo*) of several species. Great preserves of wild-duck and teal used to be a frequent feature in the parks attached to the feudal castles of old Japan, when a peculiar method of netting the birds or striking them with falcons was a favourite aristocratic pastime. A few of such preserves still exist, and it is noticeable that in the Palace-moats of Tōkyō all kinds of water-birds, attracted by the absolute immunity they enjoy there, assemble in countless numbers at the approach of winter and remain until the following spring, wholly indifferent to the close proximity of the city.

Of reptiles Japan has only 30 species, and among them is included the marine turtle (*umi-game*) which can scarcely be said to frequent her waters, since it is seen only at rare intervals on the southern coast. This is even truer of the larger species (the *shōgakubo*, i.e. *Chelonia cephalo*). Both are highly valued for the sake of the shell, which has always been a favourite material for ladies' combs and hairpins. By carefully selecting certain portions and welding them together in a perfectly flawless mass, a pure amber-coloured object is obtained at heavy cost. Of the fresh-water tortoise there are two kinds, the *suppon* (*Trionyx japonica*) and the *kame-no-ko* (*Emys vulgaris japonica*). The latter is one of the Japanese emblems of longevity. It is often depicted with a flowing tail, which appendix attests close observation of nature; for the *mino-game*, as it is called, represents a tortoise to which, in the course of many scores of years, confervae have attached themselves so as to form an appendage of long green locks as the creature swims about. Sea-snakes occasionally make their way to Japan, being carried thither by the Black Current (Kuro Shiwo) and the monsoon, but they must be regarded as merely fortuitous visitors. There are 10 species of land-snakes (*hebi*), among which one only (the *mamushi*, or *Trigonocephalus Blomhoffi*) is venomous. The others for the most part frequent the rice-fields and live upon frogs. The largest is the *aodaisho* (*Elaphis virgatus*), which sometimes attains a length of 5 ft., but is quite harmless. Lizards (*tokage*), frogs (*kawazu* or *kaeru*), toads (*ebogayeru*) and newts (*imori*) are plentiful, and much curiosity attaches to a giant salamander (*sansho-uwo*, called also *hazekai* and other names according to localities), which reaches to a length of 5 ft., and (according to Rein) is closely related to the *Andrias Scheuchzeri* of the Oeningen strata.

The seas surrounding the Japanese islands may be called a resort of fishes, for, in addition to numerous species which abide there permanently, there are migatory kinds, coming and going with the monsoons and with the great ocean streams that set to and from the shores. In winter, for example, when the northern monsoon begins to blow, numbers of denizens of the Sea of Okhotsk swim southward to the more genial waters of north Japan; and in summer the Indian Ocean and the Malayan archipelago send to her southern coasts a crowd of emigrants which turn homeward again at the approach of winter. It thus falls out that in spite of the enormous quantity of fish consumed as food or used as fertilizers year after year by the Japanese, the seas remain as richly stocked as ever. Nine orders of fishes have been distinguished as the piscifauna of Japanese waters. They may be found carefully catalogued with all their included species in Rein's *Japan*, and highly interesting researches by Japanese physiographists are recorded in the Journal of the College of Science of the Imperial University of Tōkyō. Briefly, the chief fish of Japan are the bream (*tai*), the perch (*suzuki*), the mullet (*bora*), the rock-fish (*hatatate*), the grunter (*oni-o-koze*), the mackerel (*saba*), the sword-fish (*tachi-uwo*), the wrasse (*kusabi*), the haddock (*tara*), the flounder (*karei*), and its congeners the sole (*hirame*) and the turbot (*ishi-garei*), the shad (*namazu*), the salmon (*shake*), the *masu*, the carp (*koi*), the *funa*, the gold fish (*kingyo*), the gold carp (*higoi*), the loach (*dojo*), the herring (*nishin*), the *iwashi* (*Clupea melanosticta*), the eel (*unagi*), the conger eel (*anago*), the coffer-fish (*hako-uwo*), the *fugu* (*Tetrodon*), the *ai* (*Plecoglossus altivelis*), the sayori (*Hemiramphus sayori*), the shark (same), the dogfish (*manuka-zame*), the ray (*e*), the sturgeon (*chō-zame*) and the *maguro* (*Thynnus sibi*).

The insect life of Japan broadly corresponds with that of temperate regions in Europe. But there are also a number of tropical species, notably among butterflies and beetles. The latter—for which the generic term in Japan is *mushi* or *kaichū*—include some beautiful species, from the "jewel beetle" (*tama-mushi*), the "gold beetle" (*kogane-mushi*) and the *Chrysochroa fulgidissima*, which glow and sparkle with the brilliancy of gold and precious stones, to the jet black *Melanauster chinensis*, which seems to have been fashioned out of lacquer spotted with white. There is also a giant nasicornous beetle. Among butterflies (*chōchō*) Rein gives prominence to the broad-winged kind (*Papilio*), which recall tropical brilliancy. One (*Papilio macilentus*) is peculiar to Japan. Many others seem to be practically identical with European species. That is especially true of the moths (*yachō*), 100 species of which have been identified with English types. There are seven large silk-moths, of which two only (*Bombyx mori* and *Antheraea yama-mai*) are employed in producing silk. Fishing lines are manufactured from the cocoons of the *genjiki-mushi* (*Caligula japonica*), which is one of the commonest moths in the islands. Wasps, bees and hornets, generically known as *hachi*, differ little from their European types, except that they are somewhat larger and more sluggish. The gad-fly (*abu*), the house-fly (*hai*), the mosquito (*ka*), the flea (*nomi*) and occasionally the bed-bug (called by the Japanese *kara-mushi* because it is believed to be imported from China), are all fully represented, and the dragon-fly (*tombō*) presents itself in immense numbers at certain seasons. Grasshoppers (*batta*) are abundant, and one kind (*inago*), which frequent the rice-fields when the cereal is ripening, are caught and fried in oil as an article of food. On the moors in late summer the mantis (*kama-kiri-mushi*) is commonly met with, and the cricket (*kūrogi*) and the cockroach abound. Particularly obtrusive is the cicada (*semi*), of which there are many species. Its strident voice is heard most loudly at times of great heat, when the song of the birds is hushed. The dragon-fly and the cicada afford ceaseless entertainment to the Japanese boy. He catches them by means of a rod smeared with bird-lime, and then tying a fine string under their wings, he flies them at its end. Spiders abound, from a giant species to one of the minutest dimensions, and the tree-bug is always ready to make a destructive lodgment in any sickly tree-stem. The scorpion (*sasori*) exists but is not poisonous.

Japanese rivers and lakes are the habitation of several—seven or eight—species of freshwater crab (*kani*), which live in holes on the shore and emerge in the day-time, often moving to considerable distances from their homes. Shrimps (*kawa-ebi*) also are found in the rivers and rice-fields. These shrimps as well as a large species of crab—*mokuzō-gani*—serve the people as an article of food, but the small crabs which live in holes have no recognized *raison d' être*. In Japan, as elsewhere, the principal crustacea are found in the sea. Flocks of *lupa* and other species swim in the wake of the tropical fishes which move towards Japan at certain seasons. Naturally these migratory crabs are not limited to Japanese waters. Milne Edwards has identified ten species which occur in Australian seas also, and Rein mentions, as belonging to the same category, the "helmet-crab" or "horse-shoe crab" (*kabuto-gani*; *Limulus longispina* Hoeven). Very remarkable is the giant *Taka-ashi*—long legs (*Macrocheirus Kaempferi*), which has legs 1½ metres long and is found in the seas of Japan and the Malay archipelago. There is no lobster on the coasts of Japan, but there are various species of cray-fish (*Palinurus* and *Scyllarus*) the principal of which, under the names of *ise-ebi* (*Palinurus japonicus*) and *kuruma-ebi* (*Penaeus canaliculatus*) are greatly prized as an article of diet.

Already in 1882, Dunker in his *Index Molluscorum Maris Japonici* enumerated nearly 1200 species of marine molluscs found in the

Japanese archipelago, and several others have since then been added to the list. As for the land and fresh-water molluscs, some 200 of which are known, they are mainly kindred with those of China and Siberia, tropical and Indian forms being exceptional. There are 57 species of *Helix* (*maimaitsuburi*, *dedemushi*, *katatsumuri* or *kwagyū*) and 25 of *Clausilia* (*kiseru-gai* or pipe-snail), including the two largest snails in Japan, namely the *Cl. Martensi* and the *Cl. Yokohamensis*, which attain to a length of 58 mm. and 44 mm. respectively. The mussel (*i-no-kai*) is well represented by the species *numa-gai* (marsh-mussel), *karasu-gai* (raven-mussel), *kamisori-gai* (razor-mussel), *shijimi-no-kai* (*Corbicula*), of which there are nine species, &c. Unlike the land-molluscs, the great majority of Japanese sea-molluscs are akin to those of the Indian Ocean and the Malay archipelago. Some of them extend westward as far as the Red Sea. The best known and most frequent forms are the *asari* (*Tapes philippinarum*), the *hamaguri* (*Meretrix lusoria*), the *baka* (*Mactra sulcataria*), the *aka-gai* (*Scapharca inflata*), the *kaki* (oyster), the *awabi* (*Haliotis japonica*), the *sazae* (*Turbo cornutus*), the *hora-gai* (*Tritonium tritonius*), &c. Among the cephalopods several are of great value as articles of food, *e.g.* the *surume* (*Onychotheuthis Banksii*), the *tako* (octopus), the *shidako* (Eledone), the *ika* (Sepia) and the *tako-fune* (Argonauta).

Greeff enumerates, as denizens of Japanese seas, 26 kinds of sea-urchins (*gaze* or *uni*) and 12 of starfish (*hitode* or *tako-no-makura*). These, like the mollusca, indicate the influence of the Kuro Shiwo and the south-west monsoon, for they have close affinity with species found in the Indian and Pacific Oceans. For edible purposes the most valuable of the Japanese echinoderms is the sea-slug or *bêche de mer* (*namako*), which is greatly appreciated and forms an important staple of export to China. Rein writes: "Very remarkable in connexion with the starfishes is the occurrence of *Asterias rubens* on the Japanese coast. This creature displays an almost unexampled frequency and extent of distribution in the whole North Sea, in the western parts of the Baltic, near the Faroe Islands, Iceland, Greenland and the English coasts, so that it may be regarded as a characteristic North Sea echinoderm form. Towards the south this starfish disappears, it seems, completely; for it is not yet known with certainty to exist either in the Mediterranean or in the southern parts of the Atlantic Ocean. In others also *Asterias rubens* is not known—and then it suddenly reappears in Japan. *Archaster typicus* has a pretty wide distribution over the Indian Ocean; other *Asteridae* of Japan, on the other hand, appear to be confined to its shores."

Japan is not rich in corals and sponges. Her most interesting contributions are crust-corals (*Gorgonidae*, *Corallium*, *Isis*, &c.), and especially flint-sponges, called by the Japanese *hoshi-gai* and known as "glass-coral" (*Hyalonema sieboldi*). These last have not been found anywhere except at the entrance of the Bay of Tōkyō at a depth of some 200 fathoms.

II.—The People

Population.—The population was as follows on the 31st of December 1907:—

Population.	Males.	Females.	Totals.	Population per sq. m.
Japan proper	24,601,658	24,172,627	48,774,285	330
Formosa (Taiwan)	1,640,778	1,476,137	3,116,915	224
Sakhalin	7,175	3,631	10,806	0·1
Totals	26,249,611	25,652,395	51,902,006	

The following table shows the rate of increase in the four quadrennial periods between 1891 and 1907 in Japan proper:—

Year.	Males.	Females.	Totals.	Average increase per cent.	Population per sq. m.
1891	20,563,416	20,155,261	40,718,677	1·09	272
1895	21,345,750	20,904,870	42,270,620	1·09	286
1899	22,330,112	21,930,540	44,260,652	1·14	299
1903	23,601,640	23,131,236	46,732,876	1.54	316
1907	24,601,658	24,172,627	48,774,285	1·13	330

The population of Formosa (Taiwan) during the ten-year period 1898–1907 grew as follows:—

Year.	Males.	Females.	Totals.	Average increase per cent.	Population per sq. m.
1898	1,307,428	1,157,539	2,464,967	—	182
1902	1,513,280	1,312,067	2,825,347	2·70	209
1907	1,640,778	1,476,137	3,116,915	2·37	224

According to quasi-historical records, the population of the empire in the year A.D. 610 was 4,988,842, and in 736 it had grown to 8,631,770. It is impossible to say how much reliance may be placed on these figures, but from the 18th century, when the name of every subject had to be inscribed on the roll of a temple as a measure against his adoption of Christianity, a tolerably trustworthy census could always be taken. The returns thus obtained show that from the year 1723 until 1846 the population remained almost stationary, the figure in the former year being 26,065,422, and that in the latter year 26,907,625. There had, indeed, been five periods of declining population in that interval of 124 years, namely, the periods 1738–1744, 1759–1762, 1773–1774, 1791–1792, and 1844–1846. But after 1872, when the census showed a total of 33,110,825, the population grew steadily, its increment between 1872 and 1898 inclusive, a period of 27 years, being 10,649,990. Such a rate of increase invests the question of subsistence with great importance. In former times the area of land under cultivation increased in a marked degree. Returns prepared at the beginning of the 10th century showed 2½ million acres under crops, whereas the figure in 1834 was over 8 million acres. But the development of means of subsistence has been outstripped by the growth of population in recent years. Thus, during the period between 1899 and 1907 the population received an increment of 11·6% whereas the food-producing area increased by only 4·4%. This discrepancy caused anxiety at one time, but large fields suitable for colonization have been opened in Sakhalin, Korea, Manchuria and Formosa, so that the problem of subsistence has ceased to be troublesome. The birth-rate, taking the average of the decennial period ended 1907, is 3·05% of the population, and the death-rate is 2·05. Males exceed females in the ratio of 2% approximately. But this rule does not hold after the age of 65, where for every 100 females only 83 males are found. The Japanese are of low stature as compared with the inhabitants of Western Europe: about 16% of the adult males are below 5 ft. But there are evidences of steady improvement in this respect. Thus, during the period of ten years between 1893 and 1902, it was found that the percentage of recruits of 5 ft. 5 in. and upward grew from 10·09 to 12·67, the rate of increase having been remarkably steady; and the percentage of those under 5 ft. declined from 20·21 to 16·20.

Towns.—There are in Japan 23 towns having a population of over 50,000, and there are 76 having a population of over 20,000. The larger towns, their populations and the growth of the latter during the five-year period commencing with 1898 were as follow:—

Urban Populations

	1898.	1903.
Tōkyō	1,440,121	1,795,128
Osaka	821,235	988,200
Kiōto	353,139	379,404
Nagoya	244,145	284,829
Kobe	215,780	283,839
Yokohama	193,762	324,776
Hiroshima	122,306	113,545
Nagasaki	107,422	151,727
Kanazawa	83,595	97,548
Sendai	83,325	93,773
Hakodate	78,040	84,746
Fukuoka	66,190	70,107
Wakayama	63,667	67,908
Tokushima	61,501	62,998
Kumamoto	61,463	55,287
Toyama	59,558	86,276
Okayama	58,025	80,140
Otaru	56,961	79,746
Kagoshima	53,481	58,384
Niigata	53,366	58,821
Sakai	50,203	—
Sapporo	—	55,304
Kure	—	62,825
Sasebo	—	52,607

The growth of Kure and Sasebo is attributable to the fact that they have become the sites of large ship-building yards, the property of the state.

The number of houses in Japan at the end of 1903, when the census was last taken, was 8,725,544, the average number of inmates in each house being thus 5·5.

Physical Characteristics.—The best authorities are agreed that the Japanese people do not differ physically from their Korean and Chinese neighbours as much as the inhabitants of northern Europe differ from those of southern Europe. It is true that the Japanese are shorter in stature than either the Chinese or the Koreans. Thus the average height of the Japanese male is only 5 ft. 3½ in., and that of the female 4 ft. 10½ in., whereas in the case of the Koreans and the northern Chinese the corresponding figures for males are 5 ft. 5¾ in. and 5 ft. 7 in. respectively. Yet in other physical characteristics the Japanese, the Koreans

and the Chinese resemble each other so closely that, under similar conditions as to costume and coiffure, no appreciable difference is apparent. Thus since it has become the fashion for Chinese students to flock to the schools and colleges of Japan, there adopting, as do their Japanese fellow-students, Occidental garments and methods of hairdressing, the distinction of nationality ceases to be perceptible. The most exhaustive anthropological study of the Japanese has been made by Dr E. Baelz (emeritus professor of medicine in the Imperial University of Tōkyō), who enumerates the following sub-divisions of the race inhabiting the Japanese islands. The first and most important is the Manchu-Korean type; that is to say, the type which prevails in north China and in Korea. This is seen specially among the upper classes in Japan. Its characteristics are exceptional tallness combined with slenderness and elegance of figure; a face somewhat long, without any special prominence of the cheek-bones but having more or less oblique eyes; an aquiline nose; a slightly receding chin; largish upper teeth; a long neck; a narrow chest; a long trunk, and delicately shaped, small hands with long, slender fingers. The most plausible hypothesis is that men of this type are descendants of Korean colonists who, in prehistoric times, settled in the province of Izumo, on the west coast of Japan, having made their way thither from the Korean peninsula by the island of Oki, being carried by the cold current which flows along the eastern coast of Korea. The second type is the Mongol. It is not very frequently found in Japan, perhaps because, under favourable social conditions, it tends to pass into the Manchu-Korean type. Its representative has a broad face, with prominent cheek-bones, oblique eyes, a nose more or less flat and a wide mouth. The figure is strongly and squarely built, but this last characteristic can scarcely be called typical. There is no satisfactory theory as to the route by which the Mongols reached Japan, but it is scarcely possible to doubt that they found their way thither at one time. More important than either of these types as an element of the Japanese nation is the Malay. Small in stature, with a well-knit frame, the cheek-bones prominent, the face generally round, the nose and neck short, a marked tendency to prognathism, the chest broad and well developed, the trunk long, the hands small and delicate—this Malay type is found in nearly all the islands along the east coast of the Asiatic continent as well as in southern China and in the extreme south-west of Korean peninsula. Carried northward by the warm current known as the Kuro Shiwo, the Malays seem to have landed in Kiūshiū—the most southerly of the main Japanese islands—whence they ultimately pushed northward and conquered their Manchu-Korean predecessors, the Izumo colonists. None of the above three, however, can be regarded as the earliest settlers in Japan. Before them all was a tribe of immigrants who appear to have crossed from north-eastern Asia at an epoch when the sea had not yet dug broad channels between the continent and the adjacent islands. These people—the Ainu—are usually spoken of as the aborigines of Japan. They once occupied the whole country, but were gradually driven northward by the Manchu-Koreans and the Malays, until only a mere handful of them survived in the northern island of Yezo. Like the Malay and the Mongol types they are short and thickly built, but unlike either they have prominent brows, bushy locks, round deep-set eyes, long divergent lashes, straight noses and much hair on the face and the body. In short, the Ainu suggest much closer affinity with Europeans than does any other of the types that go to make up the population of Japan. It is not to be supposed, however, that these traces of different elements indicate any lack of homogeneity in the Japanese race. Amalgamation has been completely effected in the course of long centuries, and even the Ainu, though the small surviving remnant of them now live apart, have left a trace upon their conquerors.

The typical Japanese of the present day has certain marked physical peculiarities. In the first place, the ratio of the height of his head to the length of his body is greater than it is in Europeans. The Englishman's head is often one-eighth of the length of his body or even less, and in continental Europeans, as a rule, the ratio does not amount to one-seventh; but in the Japanese it exceeds the latter figure. In all nations men of short stature have relatively large heads, but in the case of the Japanese there appears to be some racial reason for the phenomenon. Another striking feature is shortness of legs relatively to length of trunk. In northern Europeans the leg is usually much more than one-half of the body's length, but in Japanese the ratio is one-half or even less; so that whereas the Japanese, when seated, looks almost as tall as a European, there may be a great difference between their statures when both are standing. This special feature has been attributed to the Japanese habit of kneeling instead of sitting, but investigation shows that it is equally marked in the working classes who pass most of their time standing. In Europe the same physical traits—relative length of head and shortness of legs—distinguish the central race (Alpine) from the Teutonic, and seem to indicate an affinity between the former and the Mongols. It is in the face, however, that we find specially distinctive traits, namely, in the eyes, the eye-lashes, the cheekbones and the beard. Not that the eyeball itself differs from that of an Occidental. The difference consists in the fact that " the socket of the eye is comparatively small and shallow, and the osseous ridges at the brows being little marked, the eye is less deeply set than in the European. In fact, seen in profile, forehead and upper lip often form an unbroken line." Then, again, the shape of the eye, as modelled by the lids, shows a striking peculiarity. For whereas the open eye is almost invariably horizontal in the European, it is often oblique in the Japanese on account of the higher level of the upper corner. " But even apart from obliqueness, the shape of the corners is peculiar in the Mongolian eye. The inner corner is partly or entirely covered by a fold of the upper lid continuing more or less into the lower lid. This fold often covers also the whole free rim of the upper lid, so that the insertion of the eye-lashes is hidden " and the opening between the lids is so narrowed as to disappear altogether at the moment of laughter. As for the eye-lashes, not only are they comparatively short and sparse, but also they converge instead of diverging, so that whereas in a European the free ends of the lashes are further distant from each other than their roots, in a Japanese they are nearer together. Prominence of cheekbones is another special feature, but it is much commoner in the lower than in the upper classes, where elongated faces may almost be said to be the rule. Finally, there is marked paucity of hair on the face of the average Japanese—apart from the Ainu—and what hair there is is nearly always straight. It is not to be supposed, however, that because the Japanese is short of stature and often finely moulded, he lacks either strength or endurance. On the contrary, he possesses both in a marked degree, and his deftness of finger is not less remarkable than the suppleness and activity of his body.

Moral Characteristics.—The most prominent trait of Japanese disposition is gaiety of heart. Emphatically of a laughter-loving nature, the Japanese passes through the world with a smile on his lips. The petty ills of life do not disturb his equanimity. He takes them as part of the day's work, and though he sometimes grumbles, rarely, if ever, does he repine. Exceptional to this general rule, however, is a mood of pessimism which sometimes overtakes youths on the threshold of manhood. Finding the problem of life insolvable, they abandon the attempt to solve it and take refuge in the grave. It seems as though there were always a number of young men hovering on the brink of such suicidal despair. An example alone is needed finally to destroy the equilibrium. Some one throws himself over a cataract or leaps into the crater of a volcano, and immediately a score or two follow. Apparently the more picturesquely awful the manner of the demise, the greater its attractive force. The thing is not a product of insanity, as the term is usually interpreted; letters always left behind by the victims prove them to have been in full possession of their reasoning faculties up to the last moment. Some observers lay the blame at the door of Buddhism, a creed which promotes pessimism by begetting the anchorite, the ascetic and the shuddering believer in seven hells. But Buddhism did not formerly produce such

incidents, and, for the rest, the faith of Shaka has little sway over the student mind in Japan. The phenomenon is modern: it is not an outcome of Japanese nature nor yet of Buddhist teaching, but is due to the stress of endeavouring to reach the standards of Western acquirement with grievously inadequate equipment, opportunities and resources. In order to support himself and pay his academic fees many a Japanese has to fall into the ranks of the physical labourer during a part of each day or night. Ill-nourished, over-worked and, it may be, disappointed, he finds the struggle intolerable and so passes out into the darkness. But he is not a normal type. The normal type is light-hearted and buoyant. One naturally expects to find, and one does find, that this moral sunshine is associated with good temper. The Japanese is exceptionally serene. Irascibility is regarded as permissible in sickly children only: grown people are supposed to be superior to displays of impatience. But there is a limit of imperturbability, and when that limit is reached, the subsequent passion is desperately vehement. It has been said that these traits go to make the Japanese soldier what he is. The hardships of a campaign cause him little suffering since he never frets over them, but the hour of combat finds him forgetful of everything save victory. In the case of the military class—and prior to the Restoration of 1867 the term "military class" was synonymous with "educated class"—this spirit of stoicism was built up by precept on a solid basis of heredity. The *samurai* (soldier) learned that his first characteristic must be to suppress all outward displays of emotion. Pain, pleasure, passion and peril must all find him unperturbed. The supreme test, satisfied so frequently as to be commonplace, was a shocking form of suicide performed with a placid mien. This capacity, coupled with readiness to sacrifice life at any moment on the altar of country, fief or honour, made a remarkably heroic character. On the other hand, some observers hold that the education of this stoicism was effected at the cost of the feelings it sought to conceal. In support of that theory it is pointed out that the average Japanese, man or woman, will recount a death or some other calamity in his own family with a perfectly calm, if not a smiling, face. Probably there is a measure of truth in the criticism. Feelings cannot be habitually hidden without being more or less blunted. But here another Japanese trait presents itself—politeness. There is no more polite nation in the world than the Japanese. Whether in real courtesy of heart they excel Occidentals may be open to doubt, but in all the forms of comity they are unrivalled. Now one of the cardinal rules of politeness is to avoid burdening a stranger with the weight of one's own woes. Therefore a mother, passing from the chamber which has just witnessed her paroxysms of grief, will describe calmly to a stranger—especially a foreigner—the death of her only child. The same suppression of emotional display in public is observed in all the affairs of life. Youths and maidens maintain towards each other a demeanour of reserve and even indifference, from which it has been confidently affirmed that love does not exist in Japan. The truth is that in no other country do so many dual suicides occur—suicides of a man and woman who, unable to be united in this world, go to a union beyond the grave. It is true, nevertheless, that love as a prelude to marriage finds only a small place in Japanese ethics. Marriages in the great majority of cases are arranged with little reference to the feelings of the parties concerned. It might be supposed that conjugal fidelity must suffer from such a custom. It does suffer seriously in the case of the husband, but emphatically not in the case of the wife. Even though she be cognisant—as she often is—of her husband's extra-marital relations, she abates nothing of the duty which she has been taught to regard as the first canon of female ethics. From many points of view, indeed, there is no more beautiful type of character than that of the Japanese woman. She is entirely unselfish; exquisitely modest without being anything of a prude; abounding in intelligence which is never obscured by egoism; patient in the hour of suffering; strong in time of affliction; a faithful wife; a loving mother; a good daughter; and capable, as history shows, of heroism rivalling that of the stronger sex. As to the question of sexual virtue and morality in Japan, grounds for a conclusive verdict are hard to find. In the interests of hygiene prostitution is licensed, and that fact is by many critics construed as proof of tolerance. But licensing is associated with strict segregation, and it results that the great cities are conspicuously free from evidences of vice, and that the streets may be traversed by women at all hours of the day and night with perfect impunity and without fear of encountering offensive spectacles. The ratio of marriages is approximately 8·46 per thousand units of the population, and the ratio of divorces is 1·36 per thousand. There are thus about 16 divorces for every hundred marriages. Divorces take place chiefly among the lower orders, who frequently treat marriage merely as a test of a couple's suitability to be helpmates in the struggles of life. If experience develops incompatibility of temper or some other mutually repellent characteristic, separation follows as a matter of course. On the other hand, divorces among persons of the upper classes are comparatively rare, and divorces on account of a wife's unfaithfulness are almost unknown.

Concerning the virtues of truth and probity, extremely conflicting opinions have been expressed. The Japanese *samurai* always prided himself on having "no second word." He never drew his sword without using it; he never gave his word without keeping it. Yet it may be doubted whether the value attached in Japan to the abstract quality, truth, is as high as the value attached to it in England, or whether the consciousness of having told a falsehood weighs as heavily on the heart. Much depends upon the motive. Whatever may be said of the upper class, it is probably true that the average Japanese will not sacrifice expediency on the altar of truth. He will be veracious only so long as the consequences are not seriously injurious. Perhaps no more can be affirmed of any nation. The "white lie" of the Anglo-Saxon and the *hōben no uso* of the Japanese are twins. In the matter of probity, however, it is possible to speak with more assurance. There is undoubtedly in the lower ranks of Japanese tradesmen a comparatively large fringe of persons whose standard of commercial morality is defective. They are descendants of feudal days when the mercantile element, being counted as the dregs of the population, lost its self-respect. Against this blemish—which is in process of gradual correction—the fact has to be set that the better class of merchants, the whole of the artisans and the labouring classes in general, obey canons of probity fully on a level with the best to be found elsewhere. For the rest, frugality, industry and patience characterize all the bread-winners; courage and burning patriotism are attributes of the whole nation.

There are five qualities possessed by the Japanese in a marked degree. The first is frugality. From time immemorial the great mass of the people have lived in absolute ignorance of luxury in any form and in the perpetual presence of a necessity to economize. Amid these circumstances there has emerged capacity to make a little go a long way and to be content with the most meagre fare. The second quality is endurance. It is born of causes cognate with those which have begotten frugality. The average Japanese may be said to live without artificial heat; his paper doors admit the light but do not exclude the cold. His brazier barely suffices to warm his hands and his face. Equally is he a stranger to methods of artificial cooling. He takes the frost that winter inflicts and the fever that summer brings as unavoidable visitors. The third quality is obedience; the offspring of eight centuries passed under the shadow of military autocracy. Whatever he is authoritatively bidden to do, that the Japanese will do. The fourth quality is altruism. In the upper classes the welfare of the family has been set above the interests of each member. The fifth quality is a genius for detail. Probably this is the outcome of an extraordinarily elaborate system of social etiquette. Each generation has added something to the canons of its predecessor, and for every ten points preserved not more than one has been discarded. An instinctive respect for minutiae has thus been inculcated, and has gradually extended to all the affairs of life. That this accuracy may sometimes degenerate into triviality, and that such absorption in trifles may occasionally hide the broad horizon, is conceivable.

But the only hitherto apparent evidence of such defects is an excessive clinging to the letter of the law; a marked reluctance to exercise discretion; and that, perhaps, is attributable rather to the habit of obedience. Certainly the Japanese have proved themselves capable of great things, and their achievements seem to have been helped rather than retarded by their attention to detail.

III.—Language and Literature

Language.—Since the year 1820, when Klaproth concluded that the Japanese language had sprung from the Ural-Altaic stock, philologists have busied themselves in tracing its affinities. If the theories hitherto held with regard to the origin of the Japanese people be correct, close relationship should exist between the Japanese and the Korean tongues, and possibly between the Japanese and the Chinese. Aston devoted much study to the former question, but although he proved that in construction the two have a striking similarity, he could not find any corresponding likeness in their vocabularies. As far back as the beginning of the Christian era the Japanese and the Koreans could not hold intercourse without the aid of interpreters. If then the languages of Korea and Japan had a common stock, they must have branched off from it at a date exceedingly remote. As for the languages of Japan and China, they have remained essentially different throughout some twenty centuries in spite of the fact that Japan adopted Chinese calligraphy and assimilated Chinese literature. Mr K. Hirai has done much to establish his theory that Japanese and Aryan had a common parent. But nothing has yet been substantiated. Meanwhile an inquirer is confronted by the strange fact that of three neighbouring countries between which frequent communication existed, one (China) never deviated from an ideographic script; another (Korea) invented an alphabet, and the third (Japan) devised a syllabary. Antiquaries have sought to show that Japan possessed some form of script before her first contact with either Korea or China. But such traces of prehistoric letters as are supposed to have been found seem to be corruptions of the Korean alphabet rather than independent symbols. It is commonly believed that the two Japanese syllabaries—which, though distinct in form, have identical sounds—were invented by Kukai (790) and Kibi Daijin (760) respectively. But the evidence of old documents seems to show that these syllabaries had a gradual evolution and that neither was the outcome of a single scholar's inventive genius.

The sequence of events appears to have been this:—Japan's earliest contact with an oversea people was with the Koreans, and she made some tentative efforts to adapt their alphabet to the expression of her own language. Traces of these efforts survived, and inspired the idea that the art of writing was practised by the Japanese before the opening of intercourse with their continental neighbours. Korea, however, had neither a literary nor an ethical message to deliver, and thus her script failed to attract much attention. Very different was the case when China presented her noble code of Confucian philosophy and the literature embodying it. The Japanese then recognized a lofty civilization and placed themselves as pupils at its feet, learning its script and deciphering its books. Their veneration extended to ideographs. At first they adapted them frankly to their own tongue. For example, the ideographs signifying *rice* or *metal* or *water* in Chinese were used to convey the same ideas in Japanese. Each ideograph thus came to have two sounds, one Japanese, the other Chinese—*e.g.* the ideograph for *rice* had for Japanese sound *kome* and for Chinese sound *bei*. Nor was this the whole story. There were two epochs in Japan's study of the Chinese language: first, the epoch when she received Confucianism through Korea; and, secondly, the epoch when she began to study Buddhism direct from China. Whether the sounds that came by Korea were corrupt, or whether the interval separating these epochs had sufficed to produce a sensible difference of pronunciation in China itself, it would seem that the students of Buddhism who flocked from Japan to the Middle Kingdom during the Sui era (A.D. 589–619) insisted on the accuracy of the pronunciation acquired there, although it diverged perceptibly from the pronunciation already recognized in Japan. Thus, in fine, each word came to have three sounds—two Chinese, known as the *kan* and the *go*, and one Japanese, known as the *kun*. For example:—

"KAN" SOUND.	"GO" SOUND.	JAPANESE SOUND.	MEANING.
Sei	*Jo*	*Koe*	Voice
Nen	*Zen*	*Toshi*	Year
Jinkan	*Ningen*	*Hito no aida*	Human being.

As to which of the first two methods of pronunciation had chronological precedence, the weight of opinion is that the *kan* came later than the *go*. Evidently this triplication of sounds had many disadvantages, but, on the other hand, the whole Chinese language may be said to have been grafted on the Japanese. Chinese has the widest capacity of any tongue ever invented. It consists of thousands of monosyllabic roots, each having a definite meaning. These monosyllables may be used singly or combined, two, three or four at a time, so that the resulting combinations convey almost any conceivable shades of meaning. Take, for example, the word "electricity." The very idea conveyed was wholly novel in Japan. But scholars were immediately able to construct the following:—

Lightning.	*Den.*	
Exhalation.	*Ki*	
Electricity.	*Denki.*	
Telegram.	*Dempō.*	*Hō* = tidings.
Electric light.	*Dentō.*	*Tō* = lamp.
Negative electricity.	*Indenki.*	*In* = the negative principle.
Positive electricity.	*Yodenki.*	*Yo* = the positive principle.
Thermo-electricity.	*Netsudenki.*	*Netsu* = heat.
Dynamic-electricity.	*Ryūdo-denki.*	*Ryūdo* = fluid.
Telephone.	*Denwa.*	*Wa* = conversation.

Every branch of learning can thus be equipped with a vocabulary. Potent, however, as such a vehicle is for expressing thought, its ideographic script constitutes a great obstacle to general acquisition, and the Japanese soon applied themselves to minimizing the difficulty by substituting a phonetic system. Analysis showed that all the required sounds could be conveyed with 47 syllables, and having selected the ideographs that corresponded to those sounds, they reduced them, first, to forms called *hiragana*, and, secondly, to still more simplified forms called *katakana*.

Such, in brief, is the story of the Japanese language. When we come to dissect it, we find several striking characteristics. First, the construction is unlike that of any European tongue: all qualifiers precede the words they qualify, except prepositions which become postpositions. Thus instead of saying "the house of Mr Smith is in that street," a Japanese says "Smith Mr of house that street in is." Then there is no relative pronoun, and the resulting complication seems great to an English-speaking person, as the following illustration will show:—

JAPANESE.	ENGLISH.
Zenaku wo saiban suru tame no Virtue vice-judging sake of	The unique standard which is used for judging virtue or vice is benevolent conduct solely.
mochiitaru yūitsu no hyojun wa used unique standard	
jiai no kōi tada benevolence of conduct only	
kore nomi. this alone.	

It will be observed that in the above sentence there are two untranslated words, *wo* and *wa*. These belong to a group of four auxiliary particles called *te ni wo ha* (or *wa*), which serve to mark the cases of nouns, *te* (or *de*) being the sign of the instrumental ablative; *ni* that of the dative; *wo* that of the objective, and *wa* that of the nominative. These exist in the Korean language also, but not in any other tongue. There are also polite and ordinary forms of expression, often so different as to constitute distinct languages; and there are a number of honorifics which frequently discharge the duty of pronouns. Another marked peculiarity is that active agency is never attributed to neuter nouns. A Japanese does not say "the poison killed him" but "he died on account of the poison;" nor does he say "the war has caused commodities to appreciate," but "commodities have appreciated in consequence of the war." That the language loses much force owing to this limitation cannot be denied: metaphor and allegory are almost completely banished.

The difficulties that confront an Occidental who attempts to learn Japanese are enormous. There are three languages to be acquired: first, the ordinary colloquial; second, the polite colloquial; and, third, the written. The ordinary colloquial differs materially from its polite form, and both are as unlike the written form as modern Italian is unlike ancient Latin. "Add to this," writes Professor B. H. Chamberlain, "the necessity of committing to memory two syllabaries, one of which has many variant forms, and at least two or three thousand Chinese ideographs, in forms standard and cursive—ideographs, too, most of which are susceptible of three or four different readings according to circumstance,—add, further, that all these kinds of written symbols are apt to be encountered pell mell on the same page, and the task of mastering Japanese becomes almost Herculean." In view of all this there is a strong movement in favour of romanizing the Japanese script: that is to say, abolishing the ideograph and adopting in its place the Roman alphabet. But while every one appreciates the magnitude of the relief that would thus be afforded, there has as yet been little substantial progress. A language which has been adapted from its infancy to ideographic transmission cannot easily be fitted to phonetic uses.

Dictionaries.—F. Brinkley, *An Unabridged Japanese-English Dictionary* (Tōkyō, 1896); Y. Shimada, *English-Japanese Dictionary*, (Tōkyō, 1897); *Webster's Dictionary, trans. into Japanese*, (Tōkyō,

1899); J. H. Gubbins, *Dictionary of Chinese-Japanese Words* (3 vols., London, 1889); J. C. Hepburn, *Japanese-English and English-Japanese Dictionary* (London, 1903); E. M. Satow and I. Masakata, *English-Japanese Dictionary* (London, 1904).

Literature.—From the neighbouring continent the Japanese derived the art of transmitting ideas to paper. But as to the date of that acquisition there is doubt. An authenticated work compiled A.D. 720 speaks of historiographers having been appointed to collect local records for the first time in 403, from which it is to be inferred that such officials had already existed at the court. There is also a tradition that some kind of general history was compiled in 620 but destroyed by fire in 645. At all events, the earliest book now extant dates from 712. Its origin is described in its preface. When the emperor Temmu (673–686) ascended the throne, he found that there did not exist any revised collection of the fragmentary annals of the chief families. He therefore caused these annals to be collated. There happened to be among the court ladies one Hiyeda no Are, who was gifted with an extraordinary memory. Measures were taken to instruct her in the genuine traditions and the old language of former ages, the intention being to have the whole ultimately dictated to a competent scribe. But the emperor died before the project could be consummated, and for twenty-five years Are's memory remained the sole depository of the collected annals. Then, under the auspices of the empress Gemmyō, the original plan was carried out in 712, Yasumaro being the scribe. The work that resulted is known as the *Kojiki* (*Record of Ancient Matters*). It has been accurately translated by Professor B. H. Chamberlain (*Transactions of the Asiatic Society of Japan*, vol.x.), who, in a preface justly regarded by students of Japan as an exegetical classic, makes the pertinent comment: "Taking the word Altaïc in its usual acceptation, viz. as the generic name of all the languages belonging to the Manchu, Mongolian, Turkish and Finnish groups, not only the archaic, but the classical, literature of Japan carries us back several centuries beyond the earliest extant documents of any other Altaïc tongue." By the term "archaic" is to be understood the pure Japanese language of earliest times, and by the term "classical" the quasi-Chinese language which came into use for literary purposes when Japan appropriated the civilization of her great neighbours. The *Kojiki* is written in the archaic form: that is to say, the language is the language of old Japan, the script, although ideographic, is used phonetically only, and the case-indicators are represented by Chinese characters having the same sounds. It is a species of saga, setting forth not only the heavenly beginnings of the Japanese race, but also the story of creation, the succession of the various sovereigns and the salient events of their reigns, the whole interspersed with songs, many of which may be attributed to the 6th century, while some doubtless date from the fourth or even the third. This *Kojiki* marks the parting of the ways. Already by the time of its compilation the influence of Chinese civilization and Chinese literature had prevailed so greatly in Japan that the next authentic work, composed only eight years later, was completely Chinese in style and embodied Chinese traditions and Chinese philosophical doctrines, not distinguishing them from their Japanese context. This volume was called the *Nihongi* (*Chronicles of Japan*). It may be said to have wholly supplanted its predecessor in popular favour, for the classic style —that is to say, the Chinese—had now come to be regarded as the only erudite script. The *Chronicles* re-traversed much of the ground already gone over by the *Record*, preserving many of the songs in occasionally changed form, omitting some portions, supplementing others, and imparting to the whole such an exotic character as almost to disqualify the work for a place in Japanese literature. Yet this was the style which thenceforth prevailed among the litterati of Japan. "Standard Chinese soon became easier to understand than archaic Japanese, as the former alone was taught in the schools, and the native language changed rapidly during the century or two that followed the diffusion of the foreign tongue and civilization" (Chamberlain). The neglect into which the *Kojiki* fell lasted until the 17th century. Almost simultaneously with its appearance in type (1644) and its consequent accessibility, there arose a galaxy of scholars under whose influence the archaic style and the ancient Japanese traditions entered a period of renaissance. The story of this period and of its products has been admirably told by Sir Ernest Satow ("Revival of Pure Shintō," *Proceedings of the Asiatic Society of Japan*, vol. iii.), whose essay, together with Professor Chamberlain's *Kojiki*, the same author's introduction to *The Classical Poetry of the Japanese*, and Mr W. G. Aston's *Nihongi*, are essential to every student of Japanese literature. To understand this 17th century renaissance, knowledge of one fact is necessary, namely, that about the year A.D. 810, a celebrated Buddhist priest, Kūkai, who had spent several years studying in China, compounded out of Buddhism, Confucianism and Shintō a system of doctrine called *Ryōbu Shintō* (Dual Shintō), the prominent tenet of which was that the Shintō deities were merely transmigrations of Buddhist divinities. By this device Japanese conservatism was effectually conciliated, and Buddhism became in fact the creed of the nation, its positive and practical precepts entirely eclipsing the agnostic intuitionalism of Shintō. Against this hybrid faith several Japanese scholars arrayed themselves in the 17th and 18th centuries, the greatest of them being Mabuchi and Motoori. The latter's *magnum opus*, *Kojikiden* (*Exposition of the Record of Ancient Matters*), declared by Chamberlain to be "perhaps the most admirable work of which Japanese erudition can boast," consists of 44 large volumes, devoted to elucidating the *Kojiki* and resuscitating the Shintō cult as it existed in the earliest days. This great work of reconstruction was only one feature of the literary activity which marked the 17th and 18th centuries, when, under Tokugawa rule, the blessing of long-unknown peace came to the nation. Iyeyasu himself devoted the last years of his life to collecting ancient manuscripts. In his country retreat at Shizuoka he formed one of the richest libraries ever brought together in Japan, and by will he bequeathed the Japanese section of it to his eighth son, the feudal chief of Owari, and the Chinese section to his ninth son, the prince of Kishū, with the result that under the former feudatory's auspices two works of considerable merit were produced treating of ancient ceremonials and supplementing the *Nihongi*. Much more memorable, however, was a library formed by Iyeyasu's grandson the feudal chief of Mito (1662–1700), who not only collected a vast quantity of books hitherto scattered among Shintō and Buddhist monasteries and private houses, but also employed a number of scholars to compile a history unprecedented in magnitude, the *Dai-Nihon-shi*. It consisted of 240 volumes, and it became at once the standard in its own branch of literature. Still more comprehensive was a book emanating from the same source and treating of court ceremonials. It ran to more than 500 volumes, and the emperor honoured the work by bestowing on it the title *Reigi Ruiten* (*Rules of Ceremonials*). These compilations together with the *Nihon Gwaishi* (*History of Japan Outside the Court*), written by Rai Sanyo and published in 1827, constituted the chief sources of historical knowledge before the Meiji era. Rai Sanyo devoted twenty years to the preparation of his 22 volumes and took his materials from 259 Japanese and Chinese works. But neither he nor his predecessors recognized in history anything more than a vehicle for recording the mere sequence of events and their relations, together with some account of the personages concerned. Their volumes make profoundly dry reading. Vicarious interest, however, attaches to the productions of the Mito School on account of the political influence they exercised in rehabilitating the nation's respect for the throne by unveiling the picture of an epoch prior to the usurpations of military feudalism. The struggles of the great rival clans, replete with episodes of the most tragic and stirring character, inspired quasi-historical narrations of a more popular character, which often took the form of illuminated scrolls. But it was not until the Meiji era that history, in the modern sense of the term, began to be written. During recent times many students have turned their attention to this branch of literature. Works of wide scope and clear insight have been produced, and the Historiographers' section in the Imperial University of Tōkyō

has been for several years engaged in collecting and collating materials for a history which will probably rank with anything of the kind in existence.

Poetry. In their poetry above everything the Japanese have remained impervious to alien influences. It owes this conservation to its prosody. Without rhyme, without variety of metre, without elasticity of dimensions, it is also without known counterpart. To alter it in any way would be to deprive it of all distinguishing characteristics. At some remote date a Japanese maker of songs seems to have discovered that a peculiar and very fascinating rhythm is produced by lines containing 5 syllables and 7 syllables alternately. That is Japanese poetry (*uta* or *tanka*). There are generally five lines: the first and third consisting of 5 syllables, the second, fourth and fifth of 7, making a total of 31 in all. The number of lines is not compulsory: sometimes they may reach to thirty, forty or even more, but the alternation of 5 and 7 syllables is compulsory. The most attenuated form of all is the *hokku* (or *haikai*) which consists of only three lines, namely, 17 syllables. Necessarily the ideas embodied in such a narrow vehicle must be fragmentary. Thus it results that Japanese poems are, for the most part, impressionist; they suggest a great deal more than they actually express. Here is an example:—

Momiji-ha wo Kaze ni makasete Miru yori mo Hakanaki mono wa Inochi nari keri	More fleeting than the glint of withered leaf wind-blown, the thing called life.

There is no English metre with this peculiar cadence.

It is not to be inferred that the writers of Japan, enamoured as they were of Chinese ideographs and Chinese style, deliberately excluded everything Chinese from the realm of poetry. On the contrary, many of them took pleasure in composing versicles to which Chinese words were admitted and which showed something of the "parallelism" peculiar to Chinese poetry, since the first ideograph of the last line was required to be identical with the final ideograph. But rhyme was not attempted, and the syllabic metre of Japan was preserved, the alternation of 5 and 7 being, however, dispensed with. Such couplets were called *shi* to distinguish them from the pure Japanese *uta* or *tanka*. The two greatest masters of Japanese poetry were Hitomaro and Akahito, both of the early 8th century, and next to them stands Tsurayuki, who flourished at the beginning of the 10th century, and is not supposed to have transmitted his mantle to any successor. The choicest productions of the former two with those of many other poets were brought together in 756 and embodied in a book called the *Manyōshū* (*Collection of a Myriad Leaves*). The volume remained unique until the beginning of the 10th century, when (A.D. 905) Tsurayuki and three coadjutors compiled the *Kokinshū* (*Collection of Odes Ancient and Modern*), the first of twenty-one similar anthologies between the 11th and the 15th centuries, which constitute the *Niju-ichi Dai-shū* (*Anthologies of the One-and-Twenty Reigns*). If to these we add the *Hyaku-ninshū* (*Hundred Odes by a Hundred Poets*) brought together by Teika Kyō in the 13th century, we have all the classics of Japanese poetry. For the composition of the *uta* gradually deteriorated from the end of the 9th century, when a game called *uta-awase* became a fashionable pastime, and aristocratic men and women tried to string together versicles of 31 syllables, careful of the form and careless of the thought. The *uta-awase*, in its later developments, may not unjustly be compared to the Occidental game of *bouts-rimés*. The poetry of the nation remained immovable in the ancient groove until very modern times, when, either by direct access to the originals or through the medium of very defective translations, the nation became acquainted with the masters of Occidental song. A small coterie of authors, headed by Professor Toyama, then attempted to revolutionize Japanese poetry by recasting it on European lines. But the project failed signally, and indeed it may well be doubted whether the Japanese language can be adapted to such uses.

Influence of Women in Japanese Literature. It was under the auspices of an empress (Suiko) that the first historical manuscript is said to have been compiled in 620. It was under the auspices of an empress (Gemmyō) that the *Record of Ancient Matters* was transcribed (712) from the lips of a court lady. And it was under the auspices of an empress that the *Chronicles of Japan* were composed (720). To women, indeed, from the 8th century onwards may be said to have been entrusted the guardianship of the pure Japanese language, the classical, or Chinese, form being adopted by men. The distinction continued throughout the ages. To this day the spoken language of Japanese women is appreciably simpler and softer than that of the men, and to this day while the educated woman uses the hiragana syllabary in writing, eschews Chinese words and rarely pens an ideograph, the educated man employs the ideograph entirely, and translates his thoughts as far as possible into the mispronounced Chinese words without recourse to which it would be impossible for him to discuss any scientific subject, or even to refer to the details of his daily business. Japan was thus enriched with two works of very high merit, the *Genji Monogatari* (*c.* 1004) and the *Makura no Zōshi* (about the same date). The former, by Murasaki no Shikibu—probably a pseudonym—was the first novel composed in Japan. Before her time there had been many *monogatari* (narratives), but all consisted merely of short stories, mythical or quasi-historical, whereas Murasaki no Shikibu did for Japan what Fielding and Richardson did for England. Her work was "a prose epic of real life," the life of her hero, *Genji*. Her language is graceful and natural, her sentiments are refined and sober; and, as Mr Aston well says, her "story flows on easily from one scene of real life to another, giving us a varied and minutely detailed picture of life and society in Kiōto, such as we possess for no other country at the same period." The *Makura no Zōshi* (*Pillow Sketches*), like the *Genji Monogatari*, was by a noble lady—Sei Shōnagon—but it is simply a record of daily events and fugitive thoughts, though not in the form of a diary. The book is one of the most natural and unaffected compositions ever written. Undesignedly it conveys a wonderfully realistic picture of aristocratic life and social ethics in Kiōto at the beginning of the 11th century. "If we compare it with anything that Europe has to show at this period, it must be admitted that it is indeed a remarkable work. What a revelation it would be if we had the court life of Alfred's or Canute's reign depicted to us in a similar way?"

The Dark Age. The period from the early part of the 14th century to the opening of the 17th is generally regarded as the dark age of Japanese literature. The constant wars of the time left their impress upon everything. To them is due the fact that the two principal works compiled during this epoch were, one political, the other quasi-historical. In the former, *Jinkōshōtō-ki* (*History of the True Succession of the Divine Monarchs*), Kitabatake Chikafusa (1340) undertook to prove that of the two sovereigns then disputing for supremacy in Japan, Go-Daigo was the rightful monarch; in the latter, *Taihei-ki* (*History of Great Peace*), Kojima (1370) devoted his pages to describing the events of contemporaneous history. Neither work can be said to possess signal literary merit, but both had memorable consequences. For the *Jinkōshōtō-ki*, by its strong advocacy of the mikado's administrative rights as against the usurpations of military feudalism, may be said to have sowed the seeds of Japan's modern polity; and the *Taihei-ki*, by its erudite diction, skilful rhetoric, simplification of old grammatical constructions and copious interpolation of Chinese words, furnished a model for many imitators and laid the foundations of Japan's 19th-century style. The *Taihei-ki* produced another notable effect; it inspired public readers who soon developed into historical *raconteurs*; a class of professionals who are almost as much in vogue to-day as they were 500 years ago. Belonging to about the same period as the *Jinkōshōtō-ki*, another classic occupies a leading place in Japanese esteem. It is the *Tsure-zure-gusa* (*Materials for Dispelling Ennui*), by Kenkō-bōshi, described by Mr Aston as "one of the most delightful oases in Japanese literature; a collection of short sketches, anecdotes and essays on all imaginable subjects, something in the manner of Selden's *Table Talk*."

The Drama. The so-called dark age of Japanese literature was not entirely unproductive: it gave the drama (*Nō*) to Japan. Tradition ascribes the origin of the drama to a religious dance of a pantomimic character, called *Kagura* and associated with Shintō ceremonials. The Nō, however, owed its development mainly to Buddhist influence. During the medieval era of internecine strife the Buddhist priests were the sole depositaries of literary talent, and seeing that, from the close of the 14th century, the Shintō mime (Kagura) was largely employed by the military class to invoke or acknowledge the assistance of the gods, the monks of Buddha set themselves to compose librettos for this mime, and the performance, thus modified, received the name of Nō. Briefly speaking, the Nō was a dance of the most stately character, adapted to the incidents of dramas "which embrace within their scope a world of legendary lore, of quaint fancies and of religious sentiment." Their motives were chiefly confined to such themes as the law of retribution to which all human beings are subjected, the transitoriness of life and the advisability of shaking off from one's feet the dust of this sinful world. But some were of a purely martial nature. This difference is probably explained by the fact that the idea of thus modifying the Kagura had its origin in musical recitations from the semi-romantic semi-historical narratives of the 14th century. Such recitations were given by itinerant Bonzes, and it is easy to understand the connexion between them and the Nō. Very soon the Nō came to occupy in the estimation of the military class a position similar to that held by the *tanka* as a literary pursuit, and the *gagaku* as a musical, in the Imperial court. All the great aristocrats not only patronized the Nō but were themselves ready to take part in it. Costumes of the utmost magnificence were worn, and the chiselling of masks for the use of the performers occupied scores of artists and ranked as a high glyptic accomplishment. There are 335 classical dramas of this kind in a compendium called the *Yōkyoka Tsūge*, and many of them are inseparably connected with the names of Kwanami Kiyotsugu (1406) and his son Motokiyo (1455), who are counted the fathers of the art. For a moment, when the tide of Western civilization swept over Japan, the Nō seemed likely to be permanently submerged. But the renaissance of nationalism (*kokusui hoson*) saved the venerable drama, and owing to the exertions of Prince Iwakura, the artist Hōsho Kuro and Umewaka Minoru, it stands as high as ever in popular favour. Concerning the

five schools into which the Nō is divided, their characteristics and their differences—these are matters of interest to the initiated alone.

The Japanese are essentially a laughter-loving people. They are highly susceptible of tragic emotions, but they turn gladly to the brighter phases of life. Hence a need was soon felt of something to dispel the pessimism of the Nō, and that something took the form of comedies played in the interludes of the Nō and called *Kyōgen* (mad words). The Kyōgen needs no elaborate description: it is a pure farce, never immodest or vulgar.

The Farce.

The classic drama Nō and its companion the Kyōgen had two children, the *Jōruri* and the *Kabuki*. They were born at the close of the 16th century and they owed their origin to the growing influence of the commercial class, who asserted a right to be amused but were excluded from enjoyment of the aristocratic Nō and the Kyōgen. The Jōruri is a dramatic ballad, sung or recited to the accompaniment of the *samisen* and in unison with the movements of puppets. It came into existence in Kiōto and was thence transferred to Yedo (Tōkyō), where the greatest of Japanese playwrights, Chikamatsu Monzaemon (1653–1724), and a musician of exceptional talent, Takemoto Gidayū, collaborated to render this puppet drama a highly popular entertainment. It flourished for nearly 200 years in Yedo, and is still occasionally performed in Osaka. Like the Nō the Jōruri dealt always with sombre themes, and was supplemented by the Kabuki (farce). This last owed its inception to a priestess who, having abandoned her holy vocation at the call of love, espoused dancing as a means of livelihood and trained a number of girls for the purpose. The law presently interdicted these female comedians (*onna-kabuki*) in the interests of public morality, and they were succeeded by "boy comedians" (*wakashu-kabuki*) who simulated women's ways and were vetoed in their turn, giving place to *yaro-kabuki* (comedians with queues). Gradually the Kabuki developed the features of a genuine theatre; the actor and the playwright were discriminated, and, the performances taking the form of domestic drama (*Wagoto* and *Sewamono*) or historical drama (*Aragoto* or *Jidaimono*), actors of perpetual fame sprang up, as Sakata Tōjūrō and Ichikawa Danjinrō (1660–1704). Mimetic posture-dances (*Shosagoto*) were always introduced as interludes; past and present indiscriminately contributed to the playwright's subjects; realism was carried to extremes; a revolving stage and all mechanical accessories were supplied; female parts were invariably taken by males, who attained almost incredible skill in these simulations; a chorus—relic of the Nō—chanted expositions of profound sentiments or thrilling incidents; and histrionic talent of the very highest order was often displayed. But the *Kabuki-za* and its *yakusha* (actors) remained always a plebeian institution. No *samurai* frequented the former or associated with the latter. With the introduction of Western civilization in modern times, however, the theatre ceased to be tabooed by the aristocracy. Men and women of all ranks began to visit it; the emperor himself consented (1887) to witness a performance by the great stars of the stage at the private residence of Marquis Inouye; a dramatic reform association was organized by a number of prominent noblemen and scholars; drastic efforts were made to purge the old historical dramas of anachronisms and inconsistencies, and at length a theatre (the *Yuraku-za*) was built on purely European lines, where instead of sitting from morning to night witnessing one long-drawn-out drama with interludes of whole farces, a visitor may devote only a few evening-hours to the pastime. The Shosagoto has not been abolished, nor is there any reason why it should be. It has graces and beauties of its own. There remains to be noted the incursion of amateurs into the histrionic realm. In former times the actor's profession was absolutely exclusive in Japan. Children were trained to wear their fathers' mantles, and the idea that a non-professional could tread the hallowed ground of the stage did not enter any imagination. But with the advent of the new regimen in Meiji days there arose a desire for social plays depicting the life of the modern generation, and as these "croppy dramas" (*zampatsu-mono*)—so called in allusion to the European method of cutting the hair close—were not included in the repertoire of the orthodox theatre, amateur troupes (known as *sōshi-yakusha*) were organized to fill the void. Even Shakespeare has been played by these amateurs, and the abundant wit of the Japanese is on the way to enrich the stage with modern farces of unquestionable merit.

The Theatre.

The Tokugawa era (1603–1867), which popularized the drama, had other memorable effects upon Japanese literature. Yedo, the shōgun's capital, displaced Kiōto as the centre of literary activity. Its population of more than a million, including all sorts and conditions of men—notably wealthy merchants and mechanics—constituted a new audience to which authors had to address themselves; and an unparalleled development of mental activity necessitated wholesale drafts upon the Chinese vocabulary. To this may be attributed the appearance of a group of men known as *kangakusha* (Chinese scholars). The most celebrated among them were: Fujiwara Seikwa (1560–1619), who introduced his countrymen to the philosophy of Chu-Hi; Hayashi Rasan (1583–1657), who wrote 170 treatises on scholastic and moral subjects; Kaibara Ekken (1630–1714), teacher of a fine system of ethics; Arai Hakuseki (1657–1725), historian, philosopher, statesman and financier: and Muro Kiusō, the second great exponent of Chu-Hi's philosophy. "Japan owes a profound debt of gratitude to the *kangakusha* of that time. For their day and country they were emphatically the salt of earth." But naturally not all were believers in the same philosophy. The fervour of the followers of Chu-Hi (the orthodox school) could not fail to provoke opposition. Thus some arose who declared allegiance to the idealistic intuitionalism of Wang Yang-ming, and others advocated direct study of the works of Confucius and Mencius. Connected with this rejection of Chu-Hi were such eminent names as those of Itō Junsai (1627–1718), Itō Tōgai (1617–1736), Ogyu Sōrai (1666–1728) and Dazai Shuntai (1679–1747). These Chinese scholars made no secret of their contempt for Buddhism, and in their turn they were held in aversion by the Buddhists and the Japanese scholars (*wagakusha*), so that the second half of the 18th century was a time of perpetual wrangling and controversy. The worshippers at the shrine of Chinese philosophy evoked a reactionary spirit of nationalism, just as the excessive worship of Occidental civilization was destined to do in the 19th century.

Literature of the Tokugawa Era.

Apart from philosophical researches and the development of the drama, as above related, the Tokugawa era is remarkable for folk-lore, moral discourses, fiction and a peculiar form of poetry. This last does not demand much attention. Its principal variety is the *haikai*, which is nothing more than a *tanka* shorn of its concluding fourteen syllables, and therefore virtually identical with the *hokku*, already described. The name of Bashō is immemorially associated with this kind of lilliputian versicle, which reached the extreme of impressionism. A more important addition to Japanese literature was made in the 17th century in the form of children's tales (*Otogibanashi*). They are charmingly simple and graceful, and they have been rendered into English again and again since the beginning of the Meiji era. But whether they are to be regarded as genuine folk-lore or merely as a branch of the fiction of the age when they first appeared in book form, remains uncertain. Of fiction proper there was an abundance. The pioneer of this kind of literature is considered to have been Saikaku (1641–1693), who wrote sketches of every-day life as he saw it, short tales of some merit and novels which deal with the most disreputable phases of human existence. His notable successors in the same line were two men of Kiōto, named Jishō (1675–1745) and Kiseki (1666–1716). They had their own publishing house, and its name *Hachimonji-ya* (figure-of-eight store) came to be indelibly associated with this kind of literature. But these men did little more than pave the way for the true romantic novel, which first took shape under the hand of Santō Kyōden (1761–1816), and culminated in the works of Bakin, Tanehiko, Samba, Ikku, Shunsui and their successors. Of nearly all the books in this class it may be said that they deal largely in sensationalism and pornography, though it does not follow that their language is either coarse or licentious. The life of the virtuous Japanese woman being essentially uneventful, these romancists not unnaturally sought their female types among dancing-girls and courtesans. The books were profusely illustrated with wood-cuts and chromo-xylographs from pictures of the *ukiyoe* masters, who, like the playwright, the actor and the romancer, ministered to the pleasure of the "man in the street." Brief mention must also be made of two other kinds of books belonging to this epoch; namely, the *Shingaku-sho* (ethical essays) and the *Jitsuroku-mono* (true records). The latter were often little more than historical novels founded on facts; and the former, though nominally intended to engraft the doctrines of Buddhism and Shintō upon the philosophy of China, were really of rationalistic tendency.

Although the incursions made into Chinese philosophy and the revival of Japanese traditions during the Tokugawa Epoch contributed materially to the overthrow of feudalism and the restoration of the Throne's administrative power, the immediate tendency of the last two events was to divert the nation's attention wholly from the study of either Confucianism or the *Record of Ancient Matters*. A universal thirst set in for Occidental science and literature, so that students occupied themselves everywhere with readers and grammars modelled on European lines rather than with the Analects or the *Kojiki*. English at once became the language of learning. Thus the three colleges which formed the nucleus of the Imperial University of Tōkyō were presided over by a graduate of Michigan College (Professor Toyama), a member of the English bar (Professor Hōzumi) and a graduate of Cambridge (Baron Kikuchi). If Japan was eminently fortunate in the men who directed her political career at that time, she was equally favoured in those that presided over her literary culture. Fukuzawa Yukichi, founder of the Keiō Gijuku, now one of Japan's four universities, did more than any of his contemporaries by writing and speaking to spread a knowledge of the West, its ways and its thoughts, and Nakamura Keiu laboured in the same cause by translating Smiles's *Self-help* and Mill's *Representative Government*. A universal geography (by Uchida Masao); a history of nations (by Mitsukuri Rinshō); a translation of *Chambers's Encyclopaedia* by the department of education; Japanese renderings of Herbert Spencer and of Guizot and Buckle—all these made their appearance during the first fourteen years of the epoch. The influence of politics may be strongly traced in the literature of that time, for the first romances produced by the new school were all of a political character: *Keikoku Bidan* (*Model for Statesmen*, with Epaminondas for hero) by Yano Fumio;

The Meiji Era.

Setchūbai (*Plum-blossoms in snow*) and *Kwakwan-ō* (*Nightingale Among Flowers*) by Suyehiro. This idea of subserving literature to political ends is said to have been suggested by Nakae Tokusuke's translation of Rousseau's *Contrat social*. The year 1882 saw *Julius Caesar* in a Japanese dress. The translator was Tsubouchi Shōyō, one of the greatest writers of the Meiji era. His *Shōsetsu Shinsui* (*Essentials of a Novel*) was an eloquent plea for realism as contrasted with the artificiality of the characters depicted by Bakin, and his own works illustrative of this theory took the public by storm. He also brought out the first literary periodical published in Japan, namely, the *Waseda Bungaku*, so called because Tsubouchi was professor of literature in the Waseda University, an institution founded by Count Okuma, whose name cannot be omitted from any history of Meiji literature, not as an author but as a patron. As illustrating the rapid development of familiarity with foreign authors, a Japanese retrospect of the Meiji era notes that whereas Macaulay's *Essays* were in the curriculum of the Imperial University in 1881–1882, they were studied, five or six years later, in secondary schools, and pupils of the latter were able to read with understanding the works of Goldsmith, Tennyson and Thackeray. Up to Tsubouchi's time the Meiji literature was all in the literary language, but there was then formed a society calling itself *Kenyūsha*, some of whose associates—as Bimyōsai—used the colloquial language in their works, while others—as Kōyō, Rōhan, &c.—went back to the classical diction of the Genroku era (1655–1703). Rōhan is one of the most renowned of Japan's modern authors, and some of his historical romances have had wide vogue. Meanwhile the business of translating went on apace. Great numbers of European and American authors were rendered into Japanese—Calderon, Lytton, Disraeli, Byron, Shakespeare, Milton, Turgueniev, Carlyle, Daudet, Emerson, Hugo, Heine, De Quincey, Dickens, Körner, Goethe—their name is legion and their influence upon Japanese literature is conspicuous. In 1888 a special course of German literature was inaugurated at the Imperial University, and with it is associated the name of Mori Ogai, Japan's most faithful interpreter of German thought and speech. Virtually every literary magnate of the Occident has found one or more interpreters in modern Japan. Accurate reviewers of the era have divided it into periods of two or three years each, according to the various groups of foreign authors that were in vogue, and every year sees a large addition to the number of Japanese who study the masterpieces of Western literature in the original.

Newspapers and Periodicals.

Newspapers, as the term is understood in the West, did not exist in old Japan, though block-printed leaflets were occasionally issued to describe some specially stirring event. Yet the Japanese were not entirely unacquainted with journalism. During the last decades of the factory at Deshima the Dutch traders made it a yearly custom to submit to the governor of Nagasaki selected extracts from newspapers arriving from Batavia, and these extracts, having been translated into Japanese, were forwarded to the court in Yedo together with their originals. To such compilations the name of *Oranda fusetsu-sho* (*Dutch Reports*) was given. Immediately after the conclusion of the first treaty in 1857, the Yedo authorities instructed the office for studying foreign books (*Bunsho torishirabe-dokoro*) to translate excerpts from European and American journals. Occasionally these translations were copied for circulation among officials, but the bulk of the people knew nothing of them. Thus the first real newspaper did not see the light until 1861, when a Yedo publisher brought out the *Batavia News*, a compilation of items from foreign newspapers, printed on Japanese paper from wooden blocks. Entirely devoid of local interest, this journal did not survive for more than a few months. It was followed, in 1864, by the *Shimbun-shi* (*News*), which was published in Yokohama, with Kishida Ginkō for editor and John Hiko for sub-editor. The latter had been cast away, many years previously, on the coast of the United States and had become a naturalized American citizen. He retained a knowledge of spoken Japanese, but the ideographic script was a sealed book to him, and his editorial part was limited to oral translations from American journals which the editor committed to writing. The *Shimbun-shi* essayed to collect domestic news as well as foreign. It was published twice a month and might possibly have created a demand for its wares had not the editor and sub-editor left for America after the issue of the 10th number. The example, however, had now been set. During the three years that separated the death of the *Shimbun-shi* from the birth of the Meiji era (October 1867) no less than ten quasi-journals made their appearance. They were in fact nothing better than inferior magazines, printed from wood-blocks, issued weekly or monthly, and giving little evidence of enterprise or intellect, though connected with them were the names of men destined to become famous in the world of literature, as Fukuchi Genichiro, Tsūji Shinji (afterwards Baron Tsūji) and Suzuki Yuichi. These publications attracted little interest and exercised no influence. Journalism was regarded as a mere pastime. The first evidence of its potentialities was furnished by the *Kōko Shimbun* (*The World*) under the editorship of Fukuchi Genichiro and Sasano Dempei. To many Japanese observers it seemed that the restoration of 1867 had merely transferred the administrative authority from the Tokugawa Shōgun to the clans of Satsuma and Chōshū. The *Kōko Shimbun* severely attacked the two clans as specious usurpers. It was not in the mood of Japanese officialdom at that time to brook such assaults. The *Kōko Shimbun* was suppressed; Fukuchi was thrust into prison, and all journals or periodicals except those having official sanction were vetoed. At the beginning of 1868 only two newspapers remained in the field. Very soon, however, the enlightened makers of modern Japan appreciated the importance of journalism, and in 1871 the *Shimbun Zasshi* (*News Periodical*) was started under the auspices of the illustrious Kido. Shortly afterwards there appeared in Yokohama—whence it was subsequently transferred to Tōkyō—the *Mainichi Shimbun* (*Daily News*), the first veritable daily and also the first journal printed with movable types and foreign presses. Its editors were Numa Morikage, Shimada Saburo and Koizuka Ryū, all destined to become celebrated not only in the field of journalism but also in that of politics. It has often been said of the Japanese that they are slow in forming a decision but very quick to act upon it. This was illustrated in the case of journalism. In 1870 the country possessed only two quasi-journals, both under official auspices. In 1875 it possessed over 100 periodicals and daily newspapers. The most conspicuous were the *Nichi Nichi Shimbun* (*Daily News*), the *Yūbin Hōchi* (*Postal Intelligence*), the *Chōya Shimbun* (*Government and People News*), the *Akebono Shimbun* (*The Dawn*), and the *Mainichi Shimbun* (*Daily News*). These were called "the five great journals." The *Nichi Nichi Shimbun* had an editor of conspicuous literary ability in Fukuchi Genichirō, and the *Hōchi Shimbun*, its chief rival, received assistance from such men as Yano Fumio, Fujita Makichi, Inukai Ki and Minoura Katsundo. Japan had not yet any political parties, but the ferment that preceded their birth was abroad. The newspaper press being almost entirely in the hands of men whose interests suggested wider opening of the door to official preferment, nearly all editorial pens were directed against the government. So strenuous did this campaign become that, in 1875, a press law was enacted empowering the minister of home affairs and the police to suspend or suppress a journal and to fine or imprison its editor without public trial. Many suffered under this law, but the ultimate effect was to invest the press with new popularity, and very soon the newspapers conceived a device which effectually protected their literary staff, for they employed "dummy editors" whose sole function was to go to prison in lieu of the true editor.

Japanese journalistic writing in these early years of Meiji was marred by extreme and pedantic classicism. There had not yet been any real escape from the tradition which assigned the crown of scholarship to whatever author drew most largely upon the resources of the Chinese language and learning. The example set by the Imperial court, and still set by it, did not tend to correct this style. The sovereign, whether speaking by rescript or by ordinance, never addressed the bulk of his subjects. His words were taken from sources so classical as to be intelligible to only the highly educated minority. The newspapers sacrificed their audience to their erudition and preferred classicism to circulation. Their columns were thus a sealed book to the whole of the lower middle classes and to the entire female population. The *Yomiuri Shimbun* (*Buy and Read News*) was the first to break away from this pernicious fashion. Established in 1875, it adopted a style midway between the classical and the colloquial, and it appended the syllabic characters to each ideograph, so that its columns became intelligible to every reader of ordinary education. It was followed by the *Yeiri Shimbun* (*Pictorial Newspaper*), the first to insert illustrations and to publish *feuilleton* romances. Both of these journals devoted space to social news, a radical departure from the austere restrictions observed by their aristocratic contemporaries.

Era of Political Parties.

The year 1881 saw the nation divided into political parties and within measured distance of constitutional government. Thenceforth the great majority of the newspapers and periodicals ranged themselves under the flag of this or that party. An era of embittered polemics ensued. The journals, while fighting continuously against each other's principles, agreed in attacking the ministry, and the latter found it necessary to establish organs of its own which preached the German system of state autocracy. Editors seemed to be incapable of rising above the dead level of political strife, and their utterances were not relieved even by a semblance of fairness. Readers turned away in disgust, and journal after journal passed out of existence. The situation was saved by a newspaper which from the outset of its career obeyed the best canons of journalism. Born in 1882, the *Jiji Shimpō* (*Times*) enjoyed the immense advantage of having its policy controlled by one of the greatest thinkers of modern Japan, Fukuzawa Yukichi. Its basic principle was liberty of the individual, liberty of the family and liberty of the nation; it was always found on the side of broad-minded justice, and it derived its materials from economic, social and scientific sources. Other newspapers of greatly improved character followed the *Jiji Shimpō*, especially notable among them being the *Kokumin Shimbun*.

Commercial Journalism.

In the meanwhile Osaka, always pioneer in matters of commercial enterprise, had set the example of applying the force of capital to journalistic development. Tōkyō journals were all on a literary or political basis, but the *Osaka Asahi Shimbun* (*Osaka Rising Sun News*) was purely a business undertaking. Its proprietor, Maruyama Ryūhei, spared no expense to obtain news from all quarters of the

world, and for the first time the Japanese public learned what stores of information may be found in the columns of a really enterprising journal. Very soon the *Asahi* had a keen competitor in the *Osaka Mainichi Shimbun* (*Osaka Daily News*) and these papers ultimately crushed all rivals in Osaka. In 1888 Maruyama established another *Asahi* in Tōkyō, and thither he was quickly followed by his Osaka rival, which in Tōkyō took the name of *Mainichi Dempō* (*Daily Telegraph*). These two newspapers now stand alone as purveyors of copious telegraphic news, and in the next rank, not greatly lower, comes the *Jiji Shimpō*.

With the opening of the diet in 1890, politics again obtruded themselves into newspaper columns, but as practical living issues now occupied attention, readers were no longer wearied by the abstract homilies of former days. Moreover, freedom of the press was at length secured. Already (1887) the government had voluntarily made a great step in advance by divesting itself of the right to imprison or fine editors by executive order. But it reserved the power of suppressing or suspending a newspaper, and against that reservation a majority of the lower house voted, session after session, only to see the bill rejected by the peers, who shared the government's opinion that to grant a larger measure of liberty would certainly encourage licence. Not until 1897 was this opposition fully overcome. A new law, passed by both houses and confirmed by the emperor, took from the executive all power over journals, except in cases of lèse majesté, and nothing now remains of the former arbitrary system except that any periodical having a political complexion is required to deposit security varying from 175 to 1000 *yen*. The result has falsified all sinister forebodings. A much more moderate tone pervades the writings of the press since restrictions were entirely removed, and although there are now 1775 journals and periodicals published throughout the empire, with a total annual circulation of some 700 million copies, intemperance of language, such as in former times would have provoked official interference, is practically unknown to-day. Moreover, the best Japanese editors have caught with remarkable aptitude the spirit of modern journalism. But a few years ago they used to compile laborious essays, in which the inspiration was drawn from Occidental text-books, and the alien character of the source was hidden under a veneer of Chinese aphorisms. To-day they write terse, succinct, closely-reasoned articles, seldom diffuse, often witty; and generally free from extravagance of thought or diction. Incidentally they are hastening the assimilation of the written and the spoken languages (*genbun itchi*) which may possibly prelude a still greater reform, abolition of the ideographic script. Yet, with few exceptions, the profession of journalism is not remunerative. Very low rates of subscription, and almost prohibitory charges for advertising, are chiefly to blame.[1] The vicissitudes of the enterprise may be gathered from the fact that, whereas 2767 journals and periodicals were started between 1889 and 1894 (inclusive), no less than 2465 ceased publishing. The largest circulation recorded in 1908 was about 150,000 copies daily, and the honour of attaining that exceptional figure belonged to the *Osaka Asahi Shimbun*. (F. By.)

IV.—Japanese Art

Painting and Engraving.—In Japanese art the impressionist element is predominant. Pictures, as the term is understood in Europe, can scarcely be said to have existed at any time in Japan. The artist did not depict emotion: he depicted the subjects that produce emotion. Therefore he took his motives from nature rather than from history; or, if he borrowed from the latter, what he selected was a scene, not the pains or the passions of its actors. Moreover, he never exhausted his subject, but was always careful to leave a wide margin for the imagination of the spectator. This latter consideration sometimes impelled him to represent things which, to European eyes, seem trivial or insignificant, but which really convey hints of deep significance. In short, Japanese pictures are like Japanese poetry: they do not supply thought but only awaken it. Often their methods show conventionalism, but it is conventionalism so perfect and free in its allurements that nature seems to suggest both the motive and the treatment. Thus though neither botanically nor ornithologically correct, their flowers and their birds show a truth to nature, and a habit of minute observation in the artist, which cannot be too much admired. Every blade of grass, each leaf and feather, has been the object of loving and patient study.

Pictorial Art.

It has been rashly assumed by some writers that the Japanese do not study from nature. All their work is an emphatic protest against this supposition. It can in fact be shown conclusively that the Japanese have derived all their fundamental ideas of symmetry, so different from ours, from a close study of nature and her processes in the attainment of endless variety. A special feature of their art is that, while often closely and minutely imitating natural objects, such as birds, flowers and fishes, the especial objects of their predilection and study, they frequently combine the facts of external nature with a conventional mode of treatment better suited to their purpose. During the long apprenticeship that educated Japanese serve to acquire the power of writing with the brush the complicated characters borrowed from Chinese, they unconsciously cultivate the habit of minute observation and the power of accurate imitation, and with these the delicacy of touch and freedom of hand which only long practice can give. A hair's-breadth deviation in a line is fatal to good calligraphy, both among the Chinese and the Japanese. When they come to use the pencil in drawing, they already possess accuracy of eye and free command of the brush. Whether a Japanese art-worker sets himself to copy what he sees before him or to give play to his fancy in combining what he has seen with some ideal in his mind, the result shows perfect facility of execution and easy grace in all the lines.

The beauties of the human form never appealed to the Japanese artist. Associating the nude solely with the performance of menial tasks, he deemed it worse than a solecism to transfer such subjects to his canvas, and thus a wide field of motive was closed to him. On the other hand, the draped figure received admirable treatment from his brush, and the naturalistic school of the 17th, 18th and 19th centuries reached a high level of skill in depicting men, women and children in motion. Nor has there ever been a Japanese Landseer. Sosen's monkeys and badgers constitute the one possible exception, but the horses, oxen, deer, tigers, dogs, bears, foxes and even cats of the best Japanese artists were ill drawn and badly modelled. In the field of landscape the Japanese painter fully reached the eminence on which his great Chinese masters stood. He did not obey the laws of linear perspective as they are formulated in the Occident, nor did he show cast shadows, but his aerial perspective and his foreshortening left nothing to be desired. It has been suggested that he deliberately eschewed chiaroscuro because his pictures, destined invariably to hang in an alcove, were required to be equally effective from every aspect and had also to form part of a decorative scheme. But the more credible explanation is that he merely followed Chinese example in this matter, as he did also in linear perspective, accepting without question the curious canon that lines converge as they approach the spectator.

It is in the realm of decorative art that the world has chiefly benefited by contact with Japan. Her influence is second only to that of Greece. Most Japanese decorative designs consist of natural objects, treated sometimes in a more or less conventional manner, but always distinguished by delicacy of touch, graceful freedom of conception and delightfully harmonized tints. Perhaps the admiration which the Japanese artist has won in this field is due not more to his wealth of fancy and skilful adaptation of natural forms, than to his individuality of character in treating his subjects. There is complete absence of uniformity and monotony. Repetition without any variation is abhorrent to every Japanese. He will not tolerate the stagnation and tedium of a dull uniformity by mechanical reproduction. His temperament will not let him endure the labour of always producing the same pattern. Hence the repetition of two articles exactly like each other, and, generally, the division of any space into equal parts are instinctively avoided, as nature avoids the production of any two plants, or even any two leaves of the same tree, which in all points shall be exactly alike.

Decorative Art.

The application of this principle in the same free spirit is the secret of much of the originality and the excellence of the decorative art of Japan. Her artists and artisans alike aim at symmetry, not by an equal division of parts, as we do, but rather by a certain balance of corresponding parts, each different from the other, and not numerically even, with an effect of variety and freedom from formality. They seek it, in fact, as nature attains the same end. If we take for instance the skins of animals that

[1] The highest rate of subscription to a daily journal is twelve shillings per annum, and the usual charge for advertisement is from 7d. to one shilling per line of 22 ideographs (about nine words).

JAPAN

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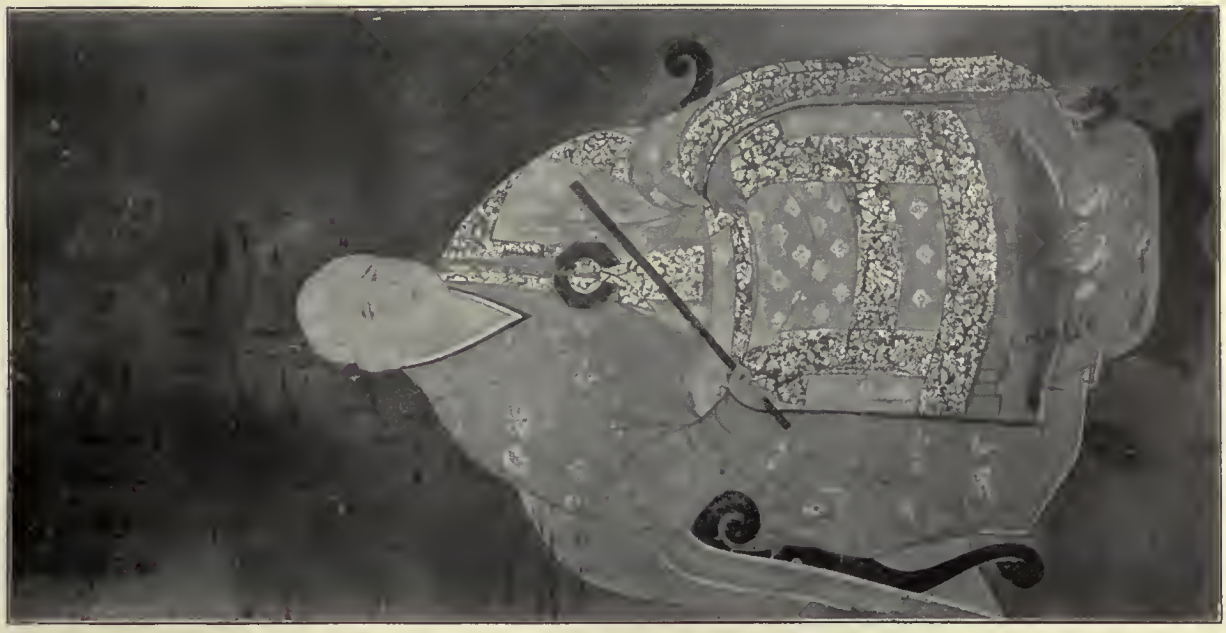

FIG. 3.—PORTRAIT OF THE PRIEST DAITO-KOKUSHI. Tosa School (14th century).

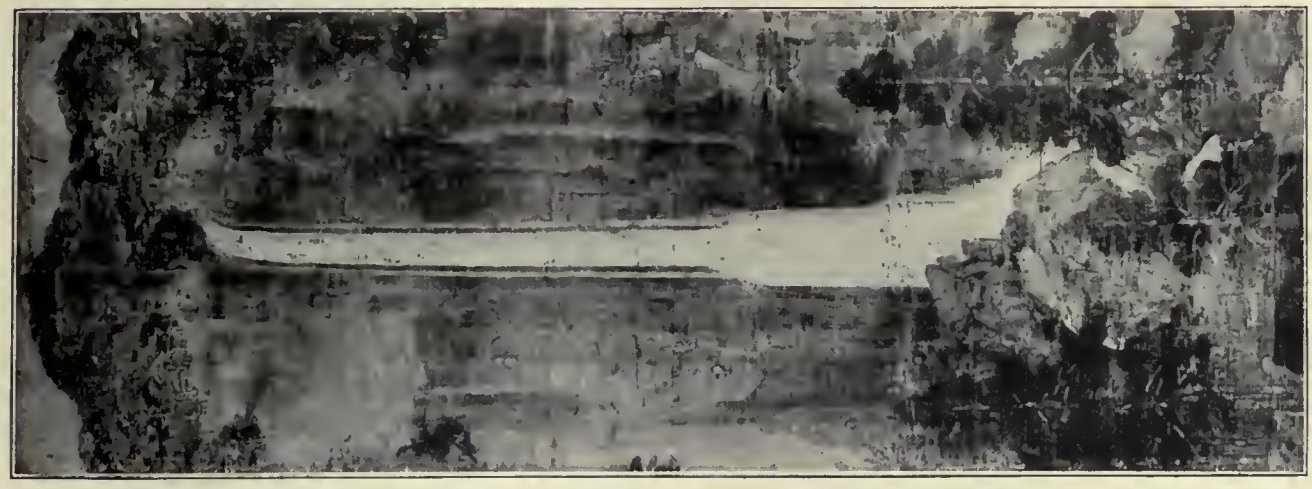

FIG. 2.—WATERFALL OF NACHI. Attributed to Kanaoka (9th century).

FIG. 1.—MANJUSRI, DEITY OF WISDOM. Kosé School (13th century).

JAPAN

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FIG. 4.—PRIESTS CARICATURED BY ANIMALS. By Joba Sojo (1053–1140).

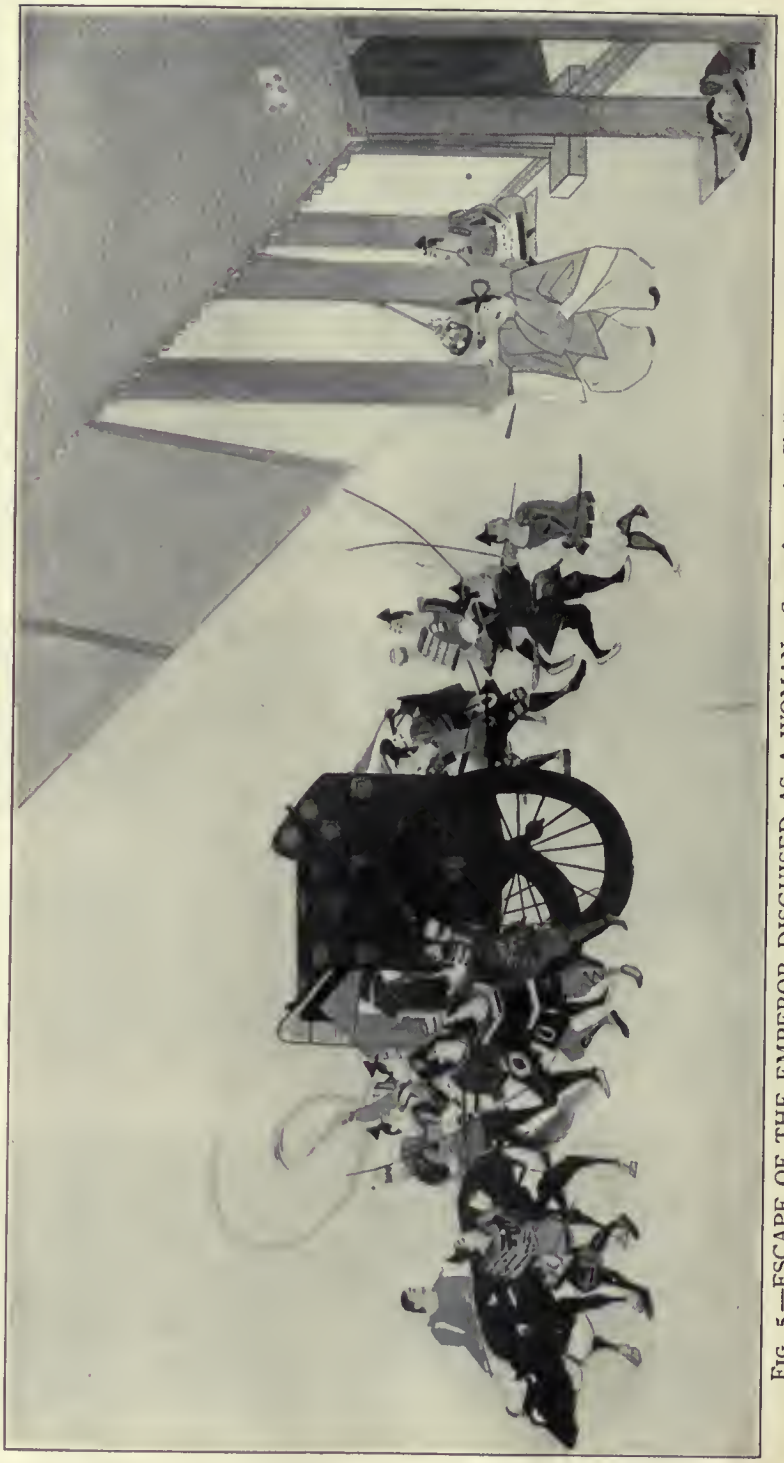


FIG. 5.—ESCAPE OF THE EMPEROR DISGUISED AS A WOMAN. Scene from the Civil War. By Keion (13th century).

are striped or spotted, we have the best possible illustration of nature's methods in this direction. Examining the tiger or the leopard, in all the beauty of their symmetrical adornment, we do not see in any one example an exact repetition of the same stripes or spots on each side of the mesial line. They seem to be alike, and yet are all different. The line of division along the spine, it will be observed, is not perfectly continuous or defined, but in part suggested; and each radiating stripe on either side is full of variety in size, direction, and to some extent in colour and depth of shade. Thus nature works, and so, following in her footsteps, works the Japanese artist. The same law prevailing in all nature's creation, in the plumage of birds, the painting of butterflies' wings, the marking of shells, and in all the infinite variety and beauty of the floral kingdom, the lesson is constantly renewed to the observant eye. Among flowers the orchids, with all their fantastic extravagance and mimic imitations of birds and insects, are especially prolific in examples of symmetrical effects without any repetition of similar parts or divisions into even numbers.

The orchids may be taken as offering fair types of the Japanese artist's ideal in all art work. And thus, close student of nature's processes, methods, and effects as the Japanese art workman is, he ever seeks to produce humble replicas from his only art master. Thus he proceeds in all his decorative work, avoiding studiously the exact repetition of any lines and spaces, and all diametrical divisions, or, if these be forced upon him by the shape of the object, exercising the utmost ingenuity to disguise the fact, and train away the eye from observing the weak point, as nature does in like circumstances. Thus if a lacquer box in the form of a parallelogram is the object, Japanese artists will not divide it in two equal parts by a perpendicular line, but by a diagonal, as offering a more pleasing line and division. If the box be round, they will seek to lead the eye away from the naked regularity of the circle by a pattern distracting attention, as, for example, by a zigzag breaking the circular outline, and supported by other ornaments. A similar feeling is shown by them as colourists, and, though sometimes eccentric and daring in their contrasts, they never produce discords in their chromatic scale. They have undoubtedly a fine sense of colour, and a similarly delicate and subtle feeling for harmonious blending of brilliant and sober hues. As a rule they prefer a quiet and refined style, using full but low-toned colours. They know the value of bright colours, however, and how best to utilize them, both supporting and contrasting them with their secondaries and complementaries.

The development of Japanese painting may be divided into the following six periods, each signalized by a wave of progress.

Division into Periods. (1) From the middle of the 6th to the middle of the 9th century: the naturalization of Chinese and Chino-Buddhist art. (2) From the middle of the 9th to the middle of the 15th century: the establishment of great native schools under Kosé no Kanaoka and his descendants and followers, the pure Chinese school gradually falling into neglect. (3) From the middle of the 15th to the latter part of the 17th century: the revival of the Chinese style. (4) From the latter part of the 17th to the latter part of the 18th century: the establishment of a popular school. (5) From the latter part of the 18th to the latter part of the 19th century: the foundation of a naturalistic school, and the first introduction of European influence into Japanese painting; the acme and decline of the popular school. (6) From about 1875 to the present time: a period of transition.

Tradition refers to the advent of a Chinese artist named Nanriu, invited to Japan in the 5th century as a painter of the Imperial banners, but of the labours and influence of this man and of his descendants we have no record.

First Period. The real beginnings of the study of painting and sculpture in their higher branches must be dated from the introduction of Buddhism from China in the middle of the 6th century, and for three centuries after this event there is evidence that the practice of the arts was carried on mainly by or under the instruction of Korean and Chinese immigrants.

The paintings of which we have any mention were almost limited to representations of Buddhist masters of the Tang dynasty (618–905), notably Wu Tao-zu (8th century), of whose genius romantic stories are related. The oldest existing work of this period is a mural decoration in the hall of the temple of Horyū-ji, Nara, attributed to a Korean priest named Donchô, who lived in Japan in the 6th century; and this painting, in spite of the destructive effects of time and exposure, shows traces of the same power of line, colour and composition that stamps the best of the later examples of Buddhist art.

Second Period. The native artist who crested the first great wave of Japanese painting was a court noble named Kosé no Kanaoka, living under the patronage of the emperor Seiwa (850–859) and his successors down to about the end of the 9th century, in the midst of a period of peace and culture. Of his own work few, if any, examples have reached us; and those attributed with more or less probability to his hand are all representations of Buddhist divinities, showing a somewhat formal and conventional design, with a masterly calligraphic touch and perfect harmony of colouring. Tradition credits him with an especial genius for the delineation of animals and landscape, and commemorates his skill by a curious anecdote of a painted horse which left its frame to ravage the fields, and was reduced to pictorial stability only by the sacrifice of its eyes. He left a line of descendants extending far into the 15th century, all famous for Buddhist pictures, and some engaged in establishing a native style, the *Wa-gwa-ryū*.

At the end of the 9th century there were two exotic styles of painting, Chinese and Buddhist, and the beginning of a native style founded upon these. All three were practised by the same artists, and it was not until a later period that each became the badge of a school.

Chinese Style. The Chinese style (*Kara-ryū*), the fundamental essence of all Japanese art, has a fairly distinct history, dating back to the introduction of Buddhism into China (A. D. 62), and it is said to have been chiefly from the works of Wu Tao-zu, the master of the 8th century, that Kanaoka drew his inspiration. This early Chinese manner, which lasted in the parent country down to the end of the 13th century, was characterized by a virile grace of line, a grave dignity of composition, striking simplicity of technique, and a strong but incomplete naturalistic ideal. The colouring, harmonious but subdued in tone, held a place altogether secondary to that of the outline, and was frequently omitted altogether, even in the most famous works. Shadows and reflections were ignored, and perspective, approximately correct for landscape distances, was isometrical for near objects, while the introduction of a symbolic sun or moon lent the sole distinction between a day and a night scene. The art was one of imperfect evolution, but for thirteen centuries it was the only living pictorial art in the world, and the Chinese deserve the honour of having created landscape painting. The materials used were water-colours, brushes, usually of deer-hair, and a surface of unsized paper, translucid silk or wooden panel. The chief motives were landscapes of a peculiarly wild and romantic type, animal life, trees and flowers, and figure compositions drawn from Chinese and Buddhist history and Taoist legend; and these, together with the grand aims and strange shortcomings of its principles and the limited range of its methods, were adopted almost without change by Japan. It was a noble art, but unfortunately the rivalry of the Buddhist and later native styles permitted it to fall into comparative neglect, and it was left for a few of the faithful, the most famous of whom was a priest of the 14th century named Kawo, to preserve it from inanition till the great Chinese renaissance that lent its stamp to the next period. The reputed founder of Japanese caricature may also be added to the list. He was a priest named Kakuyū, but better known as the abbot of Toba, who lived in the 12th century. An accomplished artist in the Chinese manner, he amused himself and his friends by burlesque sketches, marked by a grace and humour that his imitators never equalled. Later, the motive of the Toba pictures, as such caricatures were called, tended to degenerate, and the elegant figures of Kakuyū were replaced by scrawls that often substituted indecency and ugliness for art and wit. Some of the old masters of the Yamato school were, however, admirable in their rendering of the burlesque, and in modern times Kyōsai, the last of the Hokusai school, outdid all his predecessors in the riotous originality of his weird and comic fancies. A new phase of the art now lives in the pages of the newspaper press.

Buddhist Style. The Buddhist style was probably even more ancient than the Chinese, for the scheme of colouring distinctive of the Buddhist picture was almost certainly of Indian origin; brilliant and decorative, and heightened by a lavish use of gold, it was essential to the effect of a picture destined for the dim light of the Buddhist temple. The style was applied only to the representations of sacred personages and scenes, and

as the traditional forms and attributes of the Brahmanic and Buddhist divinities were mutable only within narrow limits, the subjects seldom afforded scope for originality of design or observation of nature. The principal Buddhist painters down to the 14th century were members of the Kosé, Takuma and Kasuga lines, the first descended from Kanaoka, the second from Takuma Taméuji (ending 10th century), and the third from Fujiwara no Motomitsu (11th century). The last and greatest master of the school was a priest named Meicho, better known as Chō Densu, the Japanese Fra Angelico. It is to him that Japan owes the possession of some of the most stately and most original works in her art, sublime in conception, line and colour, and deeply instinct with the religious spirit. He died in 1427, at the age of seventy-six, in the seclusion of the temple where he had passed the whole of his days.

Native Style.

The native style, *Yamato* or *Wa-gwa-ryū*, was an adaptation of Chinese art canons to motives drawn from the court life, poetry and stories of old Japan. It was undoubtedly practised by the Kose line, and perhaps by their predecessors, but it did not take shape as a school until the beginning of the 11th century under Fujiwara no Motomitsu, who was a pupil of Kose no Kinmochi; it then became known as *Yamato-ryū*, a title which two centuries later was changed to that of *Tosa*, on the occasion of one of its masters, Fujiwara no Taunetaka, assuming that appellation as a family name. The Yamato-Tosa artists painted in all styles, but that which was the speciality of the school, to be found in nearly all the historical rolls bequeathed to us by their leaders, was a lightly-touched outline filled in with flat and bright body-colours, in which verdigris-green played a great part. The originality of the motive did not prevent the adoption of all the Chinese conventions, and of some new ones of the artist's own. The curious expedient of spiriting away the roof of any building of which the artist wished to show the interior was one of the most remarkable of these. Amongst the foremost names of the school are those of Montomitsu (11th century), Nobuzane (13th century), Tsunetaka (13th century), Mitsunobu (15th and 16th centuries), his son Mitsushige, and Mitsuōki (17th century). The struggle between the Taira and Minamoto clans for the power that had long been practically abandoned by the Imperial line lasted through the 11th and the greater part of the 12th centuries, ending only with the rise of Yoritomo to the shōgunate in 1185. These internecine disturbances had been unfavourable to any new departure in art, except in matters appertaining to arms and armour, and the strife between two puppet emperors for a shadow of authority in the 14th century brought another distracting element. It was not until the triumph of the northern dynasty was achieved through the prowess of an interested champion of the Ashikaga clan that the culture of ancient Japan revived. The palace of the Ashikaga shōguns then replaced the Imperial court as the centre of patronage of art and literature and established a new era in art history.

Third Period.

Towards the close of the Ashikaga shōgunate painting entered on a new phase. Talented representatives of the Kose, Takuma and Tosa lines maintained the reputation of the native and Buddhist schools, and the long-neglected Chinese school was destined to undergo a vigorous revival. The initiation of the new movement is attributed to a priest named Jôsetsu, who lived in the early part of the 15th century, and of whom little else is known. It is not even certain whether he was of Chinese or Japanese birth; he is, however, believed by some authorities to have been the teacher of three great artists—Shūbun, Sesshū and Kano Masanobu—who became the leaders of three schools: Shūbun, that of the pure Chinese art of the Sung and Yuan dynasties (10th and 13th centuries); Sesshū, that of a modified school bearing his name; and Masanobu, of the great Kano school, which has reached to the present day. The qualities of the new Chinese schools were essentially those of the older dynasties: breadth, simplicity, a daringly calligraphic play of brush that strongly recalled the accomplishments of the famous scribes, and a colouring that varied between sparing washes of flat local tints and a strength and brilliancy of decorative effort that rivalled even that of the Buddhist pictures. The motives remained almost identical with those of the Chinese masters, and so imbued with the foreign spirit were many of the Japanese disciples that it is said they found it difficult to avoid introducing Chinese accessories even into pictures of native scenery.

Sesshū (1421–1507) was a priest who visited China and studied painting there for several years, at length returning in 1469, disappointed with the living Chinese artists, and resolved to strike out a style of his own, based upon that of the old masters. He was the boldest and most original of Japanese landscape artists, leaving powerful and poetic records of the scenery of his own land as well as that of China, and trusting more to the sure and sweeping stroke of the brush than to colour. Shūbun was an artist of little less power, but he followed more closely his exemplars, the Chinese masters of the 12th and 13th centuries; while Kano Masanobū (1424–1520), trained in the love of Chinese art, departed little from the canons he had learned from Jōsetsu or Oguri Sōtan. It was left to his more famous son, Motonobu, to establish the school which bears the family name. Kano Motonobu (1477–1559) was one of the greatest Japanese painters, an eclectic of genius, who excelled in every style and every branch of his art. His variety was inexhaustible, and he remains to this day a model whom the most distinguished artists are proud to imitate. The names of the celebrated members of this long line are too many to quote here, but the most accomplished of his descendants was Tanyū, who died in 1674, at the age of seventy-three. The close of this long period brought a new style of art, that of the Kōrin school. Ogata Kōrin (1653–1716) is claimed by both the Tosa and Kano schools, but his work bears more resemblance to that of an erratic offshoot of the Kano line named Sōtatsu than to the typical work of the academies. He was an artist of eccentric originality, who achieved wonders in bold decorative effects in spite of a studied contempt for detail. As a lacquer painter he left a strong mark upon the work of his contemporaries and successors. His brother and pupil, Kenzan, adopted his style, and left a reputation as a decorator of pottery hardly less brilliant than Kōrin's in that of lacquer; and a later follower, Hōitsu (1762–1828), greatly excelled the master in delicacy and refinement, although inferior to him in vigour and invention. Down to the end of this era painting was entirely in the hands of a patrician caste—courtiers, priests, feudal nobles and their military retainers, all men of high education and gentle birth, living in a polished circle. It was practised more as a phase of aesthetic culture than with any utilitarian views. It was a labour of loving service, untouched by the spirit of material gain, conferring upon the work of the older masters a dignity and poetic feeling which we vainly seek in much of the later work. Unhappily, but almost inevitably, over-culture led to a gradual falling-off from the old virility. The strength of Meichō, Sesshū, Motonobu and Tanyū gave place to a more or less slavish imitation of the old Japanese painters and their Chinese exemplars, till the heirs to the splendid traditions of the great masters preserved little more than their conventions and shortcomings. It was time for a new departure, but there seemed to be no sufficient strength left within the charmed circle of the orthodox schools, and the new movement was fated to come from the masses, whose voice had hitherto been silent in the art world.

Fourth Period: Popular School.

A new era in art began in the latter half of the 17th century with the establishment of a popular school under an embroiderer's draughtsman named Hishigawa Moronobu (*c.* 1646–1713). Perhaps no great change is ever entirely a novelty. The old painters of the Yamato-Tosa line had frequently shown something of the daily life around them, and one of the later scions of the school, named Iwasa Matahei, had even made a speciality of this class of motive; but so little is known of Matahei and his work that even his period is a matter of dispute, and the few pictures attributed to his pencil are open to question on grounds of authenticity. He probably worked some two generations before the time of Moronobu, but there is no reason to believe that his labours had any material share in determining the creation and trend of the new school.

Moronobu was a consummate artist, with all the delicacy and calligraphic force of the best of the Tosa masters, whom he undoubtedly strove to emulate in style; and his pictures are not only the most beautiful but also the most trustworthy records of the life of his time. It was not to his paintings, however, that he owed his greatest influence, but to the powerful impulse he gave to the illustration of books and broadsides by wood-engravings. It is true that illustrated books were known as early as 1608, if not before, but they were few and unattractive, and did little to inaugurate the great stream of *ehon*, or picture books, that were to take so large a share in the education of his own class. It is to Moronobu that Japan owes the popularization of artistic wood-engravings, for nothing before his series of xylographic albums approached his best work in strength and beauty, and nothing since has surpassed it. Later there came abundant aid to the cause of popular art, partly from pupils of the Kano and Tosa schools, but mainly from the artisan class. Most of these artists were designers for books and broadsides by calling, painters only on occasion, but a few of them did nothing for the engravers. Throughout the whole of this period, embracing about a hundred years, there still continued to work, altogether apart from the men who were making the success of popular art, a large number of able painters of the Kano, Tosa and Chinese schools, who multiplied pictures that had every merit except that of originality. These men, living in the past, paid little attention to the great popular movement, which seemed to be quite outside their social and artistic sphere and scarcely worthy of

cultured criticism. It was in the middle of the 18th century that the decorative, but relatively feeble, Chinese art of the later Ming period found favour in Japan and a clever exponent in a painter named Ryūrikyō It must be regarded as a sad decadence from the old Chinese ideals, which was further hastened, from about 1765, by the popularity of the southern Chinese style. This was a weak affectation that found its chief votaries amongst literary men ambitious of an easily earned artistic reputation. The principal Japanese supporter of this school was Taigadō (1722–1775), but the volume of copies of his sketches, *Taigadō sansui juseki*, published about 1870, is one of the least attractive albums ever printed in Japan.

Fifth Period: Naturalistic School.

The fifth period was introduced by a movement as momentous as that which stamped its predecessor—the foundation of a naturalistic school under a group of men outside the orthodox academical circles. The naturalistic principle was by no means a new one; some of the old Chinese masters were naturalistic in a broad and noble manner, and their Japanese followers could be admirably and minutely accurate when they pleased; but too many of the latter were content to construct their pictures out of fragmentary reminiscences of ancient Chinese masterpieces, not presuming to see a rock, a tree, an ox, or a human figure, except through Chinese spectacles. It was a farmer's son named Okyō, trained in his youth to paint in the Chinese manner, who was first bold enough to adopt as a canon what his predecessors had only admitted under rare exceptions, the principle of an exact imitation of nature. Unfortunately, even he had not all the courage of his creed, and while he would paint a bird or a fish with perfect realism, he no more dared to trust his eyes in larger motives than did the most devout follower of Shūbun or Motonobu. He was essentially a painter of the classical schools, with the speciality of elaborate reproduction of detail in certain sections of animal life, but fortunately this partial concession to truth, emphasized as it was by a rare sense of beauty, did large service.

Okyō rose into notice about 1775, and a number of pupils flocked to his studio in Shijō Street, Kiōto (whence Shijō school). Amongst these the most famous were Goshun (1742–1811), who is sometimes regarded as one of the founders of the school; Sosen (1757–1821), an animal painter of remarkable power, but especially celebrated for pictures of monkey life; Shūhō, the younger brother of the last, also an animal painter; Rōsetsu (1755–1799), the best landscape painter of his school; Keibun, a younger brother of Goshun, and some later followers of scarcely less fame, notably Hoyen, a pupil of Keibun; Tessan, an adopted son of Sosen; Ippō and Yōsai (1788–1878), well known for a remarkable set of volumes, the *Zenken kojitsu*, containing a long series of portraits of ancient Japanese celebrities. Ozui and Ojyu, the sons of Okyō, painted in the style of their father, but failed to attain great eminence. Lastly, amongst the associates of the Shijō master was the celebrated Ganku (1798–1837), who developed a special style of his own, and is sometimes regarded as the founder of a distinct school. He was, however, greatly influenced by Okyō's example, and his sons, Gantai, Ganryo, and Gantoku or Renzan, drifted into a manner almost indistinguishable from that of the Shijō school.

European School.

It remains only to allude to the European school, if school it can be called, founded by Kokan and Denkichi, two contemporaries of Okyō. These artists, at first educated in one of the native schools, obtained from a Hollander in Nagasaki some training in the methods and principles of European painting, and left a few oil paintings in which the laws of light and shade and perspective were correctly observed. They were not, however, of sufficient capacity to render the adopted manner more than a subject of curiosity, except to a few followers who have reached down to the present generation. It is possible that the essays in perspective found in the pictures of Hokusai, Hiroshige, and some of the popular artists of the 19th century, were suggested by Kokan's drawings and writings.

Sixth Period.

The sixth period began about 1875, when an Italian artist was engaged by the government as a professor of painting in the Engineering College at Tōkyō. Since that time some distinguished European artists have visited Japan, and several Japanese students have made a pilgrimage to Europe to see for themselves what lessons may be gained from Western art. These students, confronted by a strong reaction in favour of pure Japanese art, have fought manfully to win public sympathy, and though their success is not yet crowned, it is not impossible that an Occidental school may ultimately be established. Thus far the great obstacle has been that pictures painted in accordance with Western canons are not suited to Japanese interiors and do not appeal to the taste of the most renowned Japanese connoisseurs. Somewhat more successful has been an attempt—inaugurated by Hashimoto Gahō and Kawabata Gyokusho—to combine the art of the West with that of Japan by adding to the latter the chiaroscuro and the linear perspective of the former. If the disciples of this school could shake off the Sesshū tradition of strong outlines and adopt the Kano Motonobu revelation of modelling by mass only, their work would stand on a high place. But they, too, receive little encouragement. The tendency of the time is conservative in art matters.

A series of magnificent publications has popularized art and its best products in a manner such as could never have been anticipated. The *Kokka*, a monthly magazine richly and beautifully illustrated and edited by Japanese students, has reached its 223rd number; the *Shimbi Daikan*, a colossal album containing chromoxylographic facsimiles of celebrated examples in every branch of art, has been completed in 20 volumes; the masterpieces of Kōrin and Motonobu have been reproduced in similar albums; the masterpieces of the *Ukiyo-e* are in process of publication, and it seems certain that the Japanese nation will ultimately be educated to such a knowledge of its own art as will make for permanent appreciation. Meanwhile the intrepid group of painters in oil plod along unflinchingly, having formed themselves into an association (the *hakuba-kai*) which gives periodical exhibitions, and there are, in Tōkyō and Kiōto, well-organized and flourishing art schools which receive a substantial measure of state aid, as well as a private academy founded by Okakura with a band of seceders from the hybrid fashions of the Gahō system. Altogether the nation seems to be growing more and more convinced that its art future should not wander far from the lines of the past. (W. An.; F. By.)

Engraving.

Although a little engraving on copper has been practised in Japan of late years, it is of no artistic value, and the only branch of the art which calls for recognition is the cutting of wood-blocks for use either with colours or without. This, however, is of supreme importance, and as its technique differs in most respects from the European practice, it demands a somewhat detailed description.

The wood used is generally that of the cherry-tree, *sakura*, which has a grain of peculiar evenness and hardness. It is worked plankwise to a surface parallel with the grain, and not across it. A design is drawn by the artist, to whom the whole credit of the production generally belongs, with a brush on thin paper, which is then pasted face downwards on the block. The engraver, who is very rarely the designer, then cuts the outlines into the block with a knife, afterwards removing the superfluous wood with gouges and chisels. Great skill is shown in this operation, which achieves perhaps the finest facsimile reproduction of drawings ever known without the aid of photographic processes. A peculiar but highly artistic device is that of gradually rounding off the surfaces where necessary, in order to obtain in printing a soft and graduated mass of colour which does not terminate too abruptly. In printing with colours a separate block is made in this manner for each tint, the first containing as a rule the mere lines of the composition, and the others providing for the masses of tint to be applied. In all printing the paper is laid on the upper surface of the block, and the impression rubbed off with a circular pad, composed of twisted cord within a covering of paper cloth and bamboo-leaf, and called the *baren*. In colour-printing, the colours, which are much the same as those in use in Europe, are mixed, with rice-paste as a medium, on the block for each operation, and the power of regulating the result given by this custom to an intelligent craftsman (who, again, is neither the artist nor the engraver) was productive in the best period of very beautiful and artistic effects, such as could never have been obtained by any mechanical device. A wonderfully accurate register, or successive superposition of each block, is got mainly by the skill of the printer, who is assisted only by a mark defining one corner and another mark showing the opposite side limit.

The origins of this method of colour-printing are obscure. It has been practised to some extent in China and Korea, but there is no evidence of its antiquity in these countries. It appears to be one of the few indigenous arts of Japan. But before accepting this conclusion as final, one must not lose sight of the fact that the so-called chiaroscuro engraving was at the height of its use in Italy at the same time that embassies from the Christians in Japan visited Rome, and that it is thus possible

that the suggestion at least may have been derived from Europe. The fact that no traces of it have been discovered in Japan would be easily accounted for, when it is remembered that the examples taken home would almost certainly have been religious pictures, would have been preserved in well-known and accessible places, and would thus have been entirely destroyed in the terrible and minute extermination of Christianity by Hideyoshi at the beginning of the 17th century. Japanese tradition ascribes the invention of colour-printing to Idzumiya Gonshirō, who, about the end of the 17th century, first made use of a second block to apply a tint of red (*beni*) to his prints. Sir Ernest Satow states more definitely that "Sakakibara attributes its origin to the year 1695, when portraits of the actor Ichikawa Danjiuro, coloured by this process, were sold in the streets of Yedo for five cash apiece." The credit of the invention is also given to Torii Kiyonobu, who worked at about this time, and, indeed, is said to have made the prints above mentioned. But authentic examples of his work now remaining, printed in three colours, seem to show a technique too complete for an origin quite so recent. However, he is the first artist of importance to have produced the broadsheets —for many years chiefly portraits of notable actors, historical characters and famous courtesans—which are the leading and characteristic use to which the art was applied. Pupils, the chief of whom were Kiyomasa, Kiyotsume, Kiyomitsu, Kiyonaga and Kiyomine, carried on his tradition until the end of the 18th century, the three earlier using but few colours, while the works of the two last named show a technical mastery of all the capabilities of the process.

The next artist of importance is Suzuki Harunobu (worked *c.* 1760–1780), to whom the Japanese sometimes ascribe the invention of the process, probably on the grounds of an improvement in his technique, and the fact that he seems to have been one of the first of the colour-print makers to attain great popularity. Katsukawa Shunshō (d. 1792) must next be mentioned, not only for the beauty of his own work, but because he was the first master of Hokusai; then Yeishi (worked *c.* 1781–1800), the founder of the Hosoda school; Utamaro (1754–1806), whose prints of beautiful women were collected by Dutchmen while he was still alive, and have had in our own day a vogue greater, perhaps, than those of any other of his fellows; and Toyokuni I. (1768–1825), who especially devoted himself to broadsheet portraits of actors and dramatic scenes. The greatest of all the artists of the popular school was, however, Hokusai (1760–1849). His most famous series of broadsheets is the *Thirty-six Views of Mount Fuji* (1823–1829), which, in spite of the conventional title, includes at least forty-six. His work is catalogued in detail by E. de Goncourt. At the beginning of the 19th century the process was technically at its greatest height, and in the hands of the great landscape artist, Hiroshige I., as well as the pupils of Toyokuni I.—Kunisada and Kuniyoshi—and those of Hokusai, it at first kept up an excellent level. But an undue increase in the number of blocks used, combined with the inferiority of the imported colours and carelessness or loss of skill in printing, brought about a rapid decline soon after 1840. This continued until the old traditions were well-nigh exhausted, but since 1880 there has been a distinct revival. The prints of the present day are cut with great skill, and the designs are excellent, though both these branches seem to lack the vigour of conception and breadth of execution of the older masters. The colours now used are almost invariably of cheap German origin, and though they have a certain prettiness—ephemeral, it is to be feared—they again can not compare with the old native productions. Among workers in this style, Yoshitoshi (d. *c.* 1898) was perhaps the best. Living artists in 1908 included Toshihide, Miyagawa Shuntei, Yoshiu Chikanobu—one of the elder generation—Tomisuka Yeishu, Toshikata and Gekko. Formerly the colour-print artist was of mean extraction and low social position, but he now has some recognition at the hands of the professors of more esteemed branches of art. This change is doubtless due in part to Occidental appreciation of the products of his art, which were formerly held in little honour by his own countrymen, the place assigned to them being scarcely higher than that accorded to magazine illustrations in Europe and America. But it is also largely due to his displays of unsurpassed skill in preparing xylographs for the beautiful art publications issued by the *Shimbi Shōin* and the *Kokka* company. These xylographs prove that the Japanese art-artisan of the present day was not surpassed by the greatest of his predecessors in this line. (E. F. S.; F. By.)

The history of the illustrated book in Japan may be said to begin with the *Ise monogatari*, a romance first published in the 10th century, of which an edition adorned with woodcuts appeared in 1608. In the course of the 17th century many other works of the same nature were issued, including some in which the cuts were roughly coloured by hand; but the execution of these is not as good as contemporary European work. The date of the first use of colour-printing in Japanese book illustration is uncertain. In 1667 a collection of designs for *kimono* (garments) appeared, in which inks of several colours were made use of; but these were only employed in turn for single printings, and in no case were two of them used on the same print. It is certain, however, that the mere use of coloured inks must soon have suggested the combination of two or more of them, and it is probable that examples of this will be discovered much earlier in date than those known at present.

Book Illustration.

About the year 1680 Hishigawa Moronobu achieved a great popularity for woodcut illustration, and laid the foundations of the splendid school which followed. The names of the engravers who cut his designs are not known, and in fact the reputation of these craftsmen is curiously subordinated to that of the designers in all Japanese work of the kind. With Moronobu must be associated Okumura Masanobu, a little later perhaps in date, whose work is also of considerable value. During the ensuing thirty years numerous illustrated books appeared, including the earliest yet known which are illustrated by colour-printing. Nishikawa Sukenobu (1671–1751) illustrated a very large number of books, many of which were not published until after his death. With him may be associated Ichiō Shumboku (d. *c.* 1773) and Tsukioka Tange (1717–1786), the latter of whom made the drawings for many of the *meishō* or guide-books which form so interesting and distinctive a branch of Japanese illustration. The work of Tachibana Morikuni (1670–1748) is also of great importance. The books illustrated by the men of this school were mainly collections of useful information, guide-books, romances and historical and religious compilations; but much of the best of their work is to be found in the collections of pictorial designs, very often taken from Chinese sources, which were produced for the use of workers in lacquer, pottery and similar crafts. These, both for design and for skill of cutting, hold their own with the best work of European wood-cutting of any period. The development of the art of Japanese colour-printing naturally had its effect on book-illustration, and the later years of the 18th and the earlier of the 19th century saw a vast increase of books illustrated by this process. The subjects also now include a new series of landscapes and views drawn as seen by the designers, and not reproductions of the work of other men; and also sketches of scenes and characters of every-day life and of the folk-lore in which Japan is so rich. Among the artists of this period, as of all others in Japan, Hokusai (1760–1849) is absolutely pre-eminent. His greatest production in book-illustration was the *Mangwa*, a collection of sketches which cover the whole ground of Japanese life and legend, art and handicraft. It consists of fifteen volumes, which appeared at intervals from 1812 to 1875, twelve being published during his life and the others from material left by him. Among his many other works may be mentioned the *Azuma Asobi* (*Walks round Yedo*, 1799). Of his pupils, Hokkei (1780–1856) and Kyōsai were the greatest. Most of the artists, whose main work was the designing of broadsheets, produced elaborately illustrated books; and this series includes specimens of printing in colours from wood-blocks, which for technique have never been excelled. Among them should be mentioned Shunshō (*Seirō bijin awase kagami*, 1776); Utamaro (*Seirō nenjyū gyoji*, 1804); Toyokuni I. (*Yakusha kono teikishiwa*, 1801); as well as Harunobu Yeishi (*Onna sanjyu rokkasen*, 1798), Kitao Masanobu and Tachibana Minko, each of whom produced beautiful work of the same nature. In the period next following, the chief artists were Keisai Yeisen (*Keisai so-gwa*, 1832) and Kikuchi Yōsai (*Zenken kojitsu*), the latter of whom ranks perhaps as highly as any of the artists who confined their work to black and white. The books produced in the period 1880–1908 in Japan are still of high technical excellence. The colours are, unfortunately, of cheap European manufacture; and the design, although quite characteristic and often beautiful, is as a rule merely pretty. The engraving is as good as ever. Among the book-illustrators of our own generation must be again mentioned Kyōsai; Kōno Bairei (d. 1895), whose books of birds—the *Bairei hyakucho gwafu* (1881 and 1884) and *Yūaka-no-tsuki* (1889)—are unequalled of their kind; Imao Keinen, who also issued a beautiful set of illustrations of birds and flowers (*Keinen kwachō gwafu*), engraved by Tanaka Jirokichi and printed by Miki Nisaburō (1891–1892); and Watanabe Seitei, whose studies of similar subjects have appeared in *Seitei kwachō gwafu* (1890–1891) and the *Bijutsu sekai* (1894), engraved by Gotō Tokujirō. Mention should also be made of several charming series of fairy tales, of which that published in English by the *Kobunsha* in Tōkyō in 1885 is perhaps the best. In their adaptation of modern processes of illustration the Japanese are entirely abreast of Western nations, the chromo-lithographs and other reproductions in the *Kokka*, a periodical record of Japanese works of art (begun in 1889), in the superb albums of the *Shimbi Shōin*, and in the publications of Ogawa being of quite a high order of merit. (E. F. S.; F. By.)

Sculpture and Carving.—Sculpture in wood and metal is of

FIG. 6.—KWANNON, GODDESS OF MERCY.
By Mincho or Cho Densu (1352–1431).

FIG. 7.—LANDSCAPE IN SNOW. By Kano Motonobu (1476–1559).

FIG. 8.—JUROJIN. By Sesshiu (1420–1506).

FIG. 9.—PLUM TREES AND STREAM—SCREEN ON GOLD GROUND. By Korin (1661–1716).

FIG. 10.—PEACOCKS. By Ganku (1749–1838).

ancient date in Japan. Its antiquity is not, indeed, comparable to that of ancient Egypt or Greece, but no country besides Japan can boast a living and highly developed art that has numbered upwards of twelve centuries of unbroken and brilliant productiveness. Setting aside rude prehistoric essays in stone and metal, which have special interest for the antiquary, we have examples of sculpture in wood and metal, magnificent in conception and technique, dating from the earliest periods of what we may term historical Japan; that is, from near the beginning of the great Buddhist propaganda under the emperor Kimmei (540–571) and the princely hierarch, Shōtoku Taishi (573–621). Stone has never been in favour in Japan as a material for the higher expression of the sculptor's art.

Historical Sketch.

The first historical period of glyptic art in Japan reaches from the end of the 6th to the end of the 12th century, culminating in the work of the great Nara sculptors, Unkei and his pupil Kwaikei. Happily, there are still preserved in the great temples of Japan, chiefly in the ancient capital of Nara, many noble relics of this period.

First Period.

The place of honour may perhaps be conferred upon sculptures in wood, representing the Indian Buddhists, Asangha and Vasabandhu, preserved in the Golden Hall of Kofuku-ji, Nara. These are attributed to a Kamakura sculptor of the 8th or 9th century, and in simple and realistic dignity of pose and grand lines of composition are worthy of comparison with the works of ancient Greece. With these may be named the demon lantern-bearers, so perfect in the grotesque treatment of the diabolical heads and the accurate anatomical forms of the sturdy body and limbs; the colossal temple guardians of the great gate of Tōdai-ji, by Unkei and Kwaikei (11th century), somewhat conventionalized, but still bearing evidence of direct study from nature, and inspired with intense energy of action; and the smaller but more accurately modelled temple guardians in the Saikondo, Nara, which almost compare with the "fighting gladiator" in their realization of menacing strength. The "goddess of art" of Akishino-dera, Nara, attributed to the 8th century, is the most graceful and least conventional of female sculptures in Japan, but infinitely remote from the feminine conception of the Greeks. The wooden portrait of Vimalakirtti, attributed to Unkei, at Kofuku-ji, has some of the qualities of the images of the two Indian Buddhists. The sculptures attributed to Jōchō, the founder of the Nara school, although powerful in pose and masterly in execution, lack the truth of observation seen in some of the earlier and later masterpieces.

The most perfect of the ancient bronzes is the great image of Bhaicha-djyaguru in the temple of Yakushi-ji, Nara, attributed to a Korean monk of the 7th century, named Giōgi. The bronze image of the same divinity at Hōryū-ji, said to have been cast at the beginning of the 7th century by Tori Busshi, the grandson of a Chinese immigrant, is of good technical quality, but much inferior in design to the former. The colossal Nara Daibutsu (Vairocana) at Tōdai-ji, cast in 749 by a workman of Korean descent, is the largest of the great bronzes in Japan, but ranks far below the Yakushi-ji image in artistic qualities. The present head, however, is a later substitute for the original, which was destroyed by fire.

The great Nara school of sculpture in wood was founded in the early part of the 11th century by a sculptor of Imperial descent named Jōchō, who is said to have modelled his style upon that of the Chinese wood-carvers of the Tang dynasty; his traditions were maintained by descendants and followers down to the beginning of the 13th century. All the artists of this period were men of aristocratic rank and origin, and were held distinct from the carpenter-architects of the imposing temples which were to contain their works.

Sacred images were not the only specimens of glyptic art produced in these six centuries; reliquaries, bells, vases, incense-burners, candlesticks, lanterns, decorated arms and armour, and many other objects, showing no less mastery of design and execution, have reached us. Gold and silver had been applied to the adornment of helmets and breastplates from the 7th century, but it was in the 12th century that the decoration reached the high degree of elaboration shown us in the armour of the Japanese Bayard, Yoshitsunē, which is still preserved at Kasuga, Nara.

Wooden masks employed in the ancient theatrical performances were made from the 7th century, and offer a distinct and often grotesque phase of wood-carving. Several families of experts have been associated with this class of sculpture, and their designs have been carefully preserved and imitated down to the present day.

The second period in Japanese glyptic art extends from the beginning of the 13th to the early part of the 17th century. The great struggle between the Taira and Minamoto clans had ended, but the militant spirit was still strong, and brought work for the artists who made and ornamented arms and armour. The Miyōchins, a line that claimed ancestry from the 7th century, were at the head of their calling, and their work in iron breastplates and helmets, chiefly in *repoussé*, is still unrivalled. It was not until the latter half of the 15th century that there came into vogue the elaborate decoration of the sword, a fashion that was to last four hundred years.

Second Period.

The metal guard (*tsuba*), made of iron or precious alloy, was adorned with engraved designs, often inlaid with gold and silver. The free end of the hilt was crowned with a metallic cap or pommel (*kashira*), the other extremity next the tsuba was embraced by an oval ring (*fuchi*), and in the middle was affixed on each side a special ornament called the *menuki*, all adapted in material and workmanship to harmonize with the guard. The *kodzuka*, or handle of a little knife implanted into the sheath of the short sword or dagger, was also of metal and engraved with like care. The founder of the first great line of tsuba and menuki artists was Gotō Yūjō (1440–1512), a friend of the painter Kano Motonobu, whose designs he adopted. Many families of sword artists sprang up at a later period, furnishing treasures for the collector even down to the present day, and their labours reached a level of technical mastery and refined artistic judgment almost without parallel in the art industries of Europe. Buddhist sculpture was by no means neglected during this period, but there are few works that call for special notice. The most noteworthy effort was the casting by Ono Goroyémon in 1252 of the well-known bronze image, the Kamakura Daibutsu.

The third period includes the 17th, 18th and the greater part of the 19th centuries. It was the era of the artisan artist. The makers of Buddhist images and of sword ornaments carried on their work with undiminished industry and success, and some famous schools of the latter arose during this period. The Buddhist sculptors, however, tended to grow more conventional and the metal-workers more naturalistic as the 18th century began to wane. It was in connexion with architecture that the great artisan movement began. The initiator was Hidari Jingoro (1594–1652), at first a simple carpenter, afterwards one of the most famous sculptors in the land of great artists. The gorgeous decoration of the mausoleum of Iyeyasu at Nikkō, and of the gateway of the Nishi Hongwan temple at Kiōto, are the most striking instances of his handiwork or direction.

Third Period.

The pillars, architraves, ceilings, panels, and almost every available part of the structure, are covered with arabesques and sculptured figures of dragons, lions, tigers, birds, flowers, and even pictorial compositions with landscapes and figures, deeply carved in solid or open work—the wood sometimes plain, sometimes overlaid with pigment and gilding, as in the panelled ceiling of the chapel of Iyeyasu in Tōkyō. The designs for these decorations, like those of the sword ornaments, were adopted from the great schools of painting, but the invention of the sculptor was by no means idle. From this time the temple carvers, although still attached to the carpenters' guild, took a place apart from the rest of their craft, and the genius of Hidari Jingoro secured for one important section of the artisan world a recognition like that which Hishigawa Moronobu, the painter and book-illustrator, afterwards won for another.

A little later arose another art industry, also emanating from the masses. The use of tobacco, which became prevalent in the 17th century, necessitated the pouch. In order to suspend this from the girdle there was employed a kind of button or toggle—the *netsuke*. The metallic bowl and mouthpiece of the pipe offered a tempting surface for embellishment, as well as the clasp of the pouch; and the netsuke, being made of wood, ivory or other material susceptible of carving, also gave occasion for art and ingenuity.

The engravers of pipes, pouch clasps, and the metallic discs (*kagami-buta*) attached to certain netsuke, sprang from the same class and were not less original. They worked, too, with a skill little inferior to that of the Gotōs, Naras, and other aristocratic sculptors of sword ornaments, and often with a refinement which their relative disadvantages in education and associations render especially remarkable. The netsuke and the pipe, with all that pertained to it, were for the commoners what the sword-hilt and guard were for the gentry. Neither class cared to bestow jewels upon their persons, but neither spared thought or expense in the embellishment of the object they most loved. The final manifestation of popular glyptic art was the *okimono*, an ornament pure and simple, in which utility was altogether secondary in intention to decorative effect. Its manufacture as a special branch of art work dates from the rise of the naturalistic school of painting and the great expansion of the popular school under the Katsugawa, but the okimono formed an occasional amusement of the older glyptic artists. Some of the most exquisite and

most ingenious of these earlier productions, such as the magnificent iron eagle in the South Kensington Museum, the wonderful articulated models of crayfish, dragons, serpents, birds, that are found in many European collections, came from the studios of the Miyōchins; but these were the play of giants, and were not made as articles of commerce. The new artisan makers of the okimono struck out a line for themselves, one influenced more by the naturalistic and popular schools than by the classical art, and the quails of Kamejo, the tortoises of Seimin, the dragons of Tōun and Tōryū, and in recent years the falcons and the peacocks of Suzuki Chokichi, are the joy of the European collector. The best of these are exquisite in workmanship, graceful in design, often strikingly original in conception, and usually naturalistic in ideal. They constitute a phase of art in which Japan has few rivals.

The present generation is more systematically commercial in its glyptic produce than any previous age. Millions of commercial articles in metal-work, wood and ivory flood the European markets, and may be bought in any street in Europe at a small price, but they offer a variety of design and an excellence of workmanship which place them almost beyond Western competition. Above all this, however, the Japanese sculptor is a force in art. He is nearly as thorough as his forefathers, and maintains the same love of all things beautiful; and if he cannot show any epoch-making novelty, he is at any rate doing his best to support unsurpassed the decorative traditions of the past.

History has been eminently careful to preserve the names and records of the men who chiselled sword furniture. The sword being regarded as the soul of the samurai, every one who contributed to its manufacture, whether as forger of the blade or sculptor of the furniture, was held in high repute. The Gotō family worked steadily during 14 generations, and its 19th century representative—Gotō Ichijō—will always be remembered as one of the family's greatest experts. But there were many others whose productions fully equalled and often excelled the best efforts of the Gotō. The following list gives the names and periods of the most renowned families:—

Sword-making Families.

(It should be noted that the division by centuries indicates the time of a family's origin. In a great majority of cases the representatives of each generation worked on through succeeding centuries).

15th and 16th Centuries.

Miyōchin; Gotō; Umetada; Muneta; Aoki; Sōami; Nakai.

17th Century.

Kuwamura; Mizuno; Koichi; Nagayoshi; Kuninaga; Yoshishige; Katsugi; Tsuji; Muneyoshi; Tadahira; Shōami; Hosono; Yokoya; Nara; Okada; Okamoto; Kinai; Akao; Yoshioka; Hirata; Nomura; Wakabayashi; Inouye; Yasui; Chiyo; Kaneko; Uemura; Iwamoto.

18th Century.

Gorobei; Shōemon; Kikugawa; Yasuyama; Noda; Tamagawa; Fujita; Kikuoka; Kizaemon; Hamano; Ōmori; Okamoto; Kashiwaya; Kusakari; Shichibei; Itō.

19th Century.

Natsuo; Ishiguro; Yanagawa; Honjo; Tanaka; Okano; Kawarabayashi; Oda; and many masters of the Ōmori, Hamano and Iwamoto families, as well as the five experts, Shuraku, Temmin, Ryūmin, Minjō and Minkoku. (W. An.; F. By.)

There is a radical difference between the points of view of the Japanese and the Western connoisseur in estimating the merits of sculpture in metal. The quality of the chiselling is the first feature to which the Japanese directs his attention; the decorative design is the prime object of the Occidental's attention. With very rare exceptions, the decorative motives of Japanese sword furniture were always supplied by painters. Hence it is that the Japanese connoisseur draws a clear distinction between the decorative design and its technical execution, crediting the former to the pictorial artist and the latter to the sculptor. He detects in the stroke of a chisel and the lines of a graving tool subjective beauties which appear to be hidden from the great majority of Western dilettanti. He estimates the rank of a specimen by the quality of the chisel-work. The Japanese *kinzoku-shi* (metal sculptor) uses thirty-six principal classes of chisel, each with its distinctive name, and as most of these classes comprise from five to ten sub-varieties, his cutting and graving tools aggregate about two hundred and fifty.

Japanese Point of View.

Scarcely less important in Japanese eyes than the chiselling of the decorative design itself is the preparation of the field to which it is applied. There used to be a strict canon with reference to this in former times. *Namako* (fish-roe) grounds were essential for the mountings of swords worn on ceremonial occasions, the *ishime* (stone-pitting) or *jimigaki* (polished) styles being considered less aristocratic.

The Field for Sculptured Decoration.

Namako is obtained by punching the whole surface—except the portion carrying the decorative design—into a texture of microscopic dots. The first makers of namako did not aim at regularity in the distribution of these dots: they were content to produce the effect of millet-seed sifted haphazard over the surface. But from the 15th century the punching of the dots in rigidly straight lines came to be considered essential, and the difficulty involved was so great that namako-making took its place among the highest technical achievements of the sculptor. When it is remembered that the punching tool was guided solely by the hand and eye, and that three or more blows of the mallet had to be struck for every dot, some conception may be formed of the patience and accuracy needed to produce these tiny protuberances in perfectly straight lines, at exactly equal intervals and of absolutely uniform size. Namako disposed in straight parallel lines originally ranked at the head of this kind of work. But a new kind was introduced in the 16th century. It was obtained by punching the dots in intersecting lines, so arranged that the dots fell uniformly into diamond-shaped groups of five each. This is called *go-no-me-namako*, because of its resemblance to the disposition of chequers in the Japanese game of *go*. A century later, the *daimyō namako* was invented, in which lines of dots alternated with lines of polished ground. *Ishime* may be briefly described as diapering. There is scarcely any limit to the ingenuity and skill of the Japanese expert in diapering a metal surface. It is not possible to enumerate here even the principal styles of ishime, but mention may be made of the *zara-maki* (broad-cast), in which the surface is finely but irregularly pitted after the manner of the face of a stone; the *nashi-ji* (pear-ground), in which we have a surface like the rind of a pear; the *hari-ishime* (needle ishime), where the indentations are so minute that they seem to have been made with the point of a needle; the *gama-ishime*, which is intended to imitate the skin of a toad; the *tsuya-ishime*, produced with a chisel sharpened so that its traces have a lustrous appearance; the *ore-kuchi* (broken-tool), a peculiar kind obtained with a jagged tool; and the *gozamé*, which resembles the plaited surface of a fine straw mat.

Great importance has always been attached by Japanese experts to the patina of metal used for artistic chiselling. It was mainly for the sake of their patina that value attached to the remarkable alloys *shakudo* (3 parts of gold to 97 of copper) and *shibuichi* (1 part of silver to 3 of copper). Neither metal, when it emerges from the furnace, has any beauty, shakudo being simply dark-coloured copper and shibuichi pale gun-metal. But after proper treatment[1] the former develops a glossy black patina with violet sheen, and the latter shows beautiful shades of grey with silvery lustre. Both these compounds afford delicate, unobtrusive and effective grounds for inlaying with gold, silver and other metals, as well as for sculpture, whether incised or in relief. Copper, too, by patina-producing treatment, is made to show not merely a rich golden sheen with pleasing limpidity, but also red of various hues, from deep coral to light vermilion, several shades of grey, and browns of numerous tones from dead-leaf to chocolate. Even greater value has always been set upon the patina of iron, and many secret recipes were preserved in artist families for producing the fine, satin-like texture so much admired by all connoisseurs.

Patina.

In Japan, as in Europe, three varieties of relief carving are distinguished—*alto* (*taka-bori*), mezzo (*chūniku-bori*) and *basso* (*usuniku-bori*). In the opinion of the Japanese expert, these styles hold the same respective rank as that occupied by the three kinds of ideographic script in caligraphy. High relief carving corresponds to the *kaisho*, or most classical form of writing; medium relief to the *gyōsho*, or semi-cursive style; and low relief to the *sōsho* or grass character. With regard to incised chiselling, the commonest form is *kebori* (hair-carving), which may be called engraving, the lines being of uniform thickness and depth. Very beautiful results are obtained by the kebori method, but incomparably the finest work in the incised class is that known as *kata-kiri-bori*. In this kind of chiselling the Japanese artist can claim to be unique as well as unrivalled. Evidently the idea of the great Yokoya experts, the originators of the style, was to break away from the somewhat formal monotony of ordinary engraving, where each line performs exactly the same function, and to convert the chisel into an artist's

Methods of Chiselling.

[1] It is first boiled in a lye obtained by lixiviating wood ashes; it is next polished with charcoal powder; then immersed in plum vinegar and salt; then washed with weak lye and placed in a tub of water to remove all traces of alkali, the final step being to digest in a boiling solution of copper sulphate, verdigris and water.

brush instead of using it as a common cutting tool. They succeeded admirably. In the kata-kiri-bori every line has its proper value in the pictorial design, and strength and directness become cardinal elements in the strokes of the burin just as they do in the brush-work of the picture-painter. The same fundamental rule applied, too, whether the field of the decoration was silk, paper or metal. The artist's tool, be it brush or burin, must perform its task by one effort. There must be no appearance of subsequent deepening, or extending, or re-cutting or finishing. Kata-kiri-bori by a great expert is a delight. One is lost in astonishment at the nervous yet perfectly regulated force and the unerring fidelity of every trace of the chisel. Another variety of carving much affected by artists of the 17th century, and now largely used, is called *shishi-ai-bori* or *niku-ai-bori*. In this style the surface of the design is not raised above the general plane of the field, but an effect of projection is obtained either by recessing the whole space immediately surrounding the design, or by enclosing the latter in a scarped frame. Yet another and very favourite method, giving beautiful results, is to model the design on both faces of the metal so as to give a sculpture in the round. The fashion is always accompanied by chiselling *à jour* (*sukashi-bori*), so that the sculptured portions stand out in their entirety.

Inlaying.

Inlaying with gold or silver was among the early forms of decoration in Japan. The skill developed in modern times is at least equal to anything which the past can show, and the results produced are much more imposing. There are two principal kinds of inlaying: the first called *hon-zōgan* (true inlaying), the second *nunome-zōgan* (linen-mesh inlaying). As to the former, the Japanese method does not differ from that seen in the beautiful iron censers and vases inlaid with gold which the Chinese produced from the *Süen-tē* era (1426–1436). In the surface of the metal the workman cuts grooves wider at the base than at the top, and then hammers into them gold or silver wire. Such a process presents no remarkable features, except that it has been carried by the Japanese to an extraordinary degree of elaborateness. The nunome-zōgan is more interesting. Suppose, for example, that the artist desires to produce an inlaid diaper. His first business is to chisel the surface in lines forming the basic pattern of the design. Thus, for a diamond-petal diaper the chisel is carried across the face of the metal horizontally, tracing a number of parallel bands divided at fixed intervals by ribs which are obtained by merely straightening the chisel and striking it a heavy blow. The same process is then repeated in another direction, so that the new bands cross the old at an angle adapted to the nature of the design. Several independent chiselings may be necessary before the lines of the diaper emerge clearly, but throughout the whole operation no measurement of any kind is taken, the artist being guided entirely by his hand and eye. The metal is then heated, not to redness, but sufficiently to develop a certain degree of softness, and the workman, taking a very thin sheet of gold (or silver), hammers portions of it into the salient points of the design. In ordinary cases this is the sixth process. The seventh is to hammer gold into the outlines of the diaper; the eighth, to hammer it into the pattern filling the spaces between the lines, and the ninth and tenth to complete the details. Of course the more intricate the design the more numerous the processes. It is scarcely possible to imagine a higher effort of hand and eye than this *nunome-zōgan* displays, for while intricacy and elaborateness are carried to the very extreme, absolute mechanical accuracy is obtained. Sometimes in the same design we see gold of three different hues, obtained by varying the alloy. A third kind of inlaying, peculiar to Japan, is *sumi-zōgan* (ink-inlaying), so called because the inlaid design gives the impression of having been painted with Indian ink beneath the transparent surface of the metal. The difference between this process and ordinary inlaying is that for *sumi-zōgan* the design to be inlaid is fully chiselled out of an independent block of metal with sides sloping so as to be broader at the base than at the top. The object which is to receive the decoration is then channelled in dimensions corresponding to those of the design block, and the latter having been fixed in the channels, the surface is ground and polished until an intimate union is obtained between the inlaid design and the metal forming its field. Very beautiful effects are thus produced, for the design seems to have grown up to the surface of the metal field rather than to have been planted in it. Shibuichi inlaid with shakudo used to be the commonest combination of metals in this class of decoration, and the objects usually depicted were bamboos, crows, wild-fowl under the moon, peony sprays and so forth.

Wood-grained Grounds.

A variety of decoration much practised by early experts, and carried to a high degree of excellence in modern times, is *mokume-ji* (wood-grained ground). The process in this case is to take a thin plate of metal and beat it into another plate of similar metal, so that the two, though welded together, retain their separate forms. The mass, while still hot, is coated with *hena-tsuchi* (a kind of marl) and rolled in straw ash, in which state it is roasted over a charcoal fire raised to glowing heat with the bellows. The clay having been removed, another plate of the same metal is beaten in, and the same process is repeated. This is done several times, the number depending on the quality of graining that the expert desires to produce. The manifold plate is then heavily punched from one side, so that the opposite face protrudes in broken blisters, which are then hammered down until each becomes a centre of wave propagation. In fine work the apex of the blister is ground off before the final hammering. Iron was the metal used exclusively for work of this kind down to the 16th century, but various metals began thenceforth to be combined. Perhaps the choicest variety is gold graining in a shakudo field. By repeated hammering and polishing the expert obtains such control of the wood-grain pattern that its sinuosities and eddies seem to have developed symmetry without losing anything of their fantastic grace. There are other methods of producing *mokume-ji*.

Modern and Ancient Skill.

It has been frequently asserted by Western critics that the year (1876) which witnessed the abolition of sword-wearing in Japan, witnessed also the end of her artistic metal-work. That is a great mistake. The art has merely developed new phases in modern times. Not only are its masters as skilled now as they were in the days of the Gotō, the Nara, the Yokoya and the Yanagawa celebrities, but also their productions must be called greater in many respects and more interesting than those of their renowned predecessors. They no longer devote themselves to the manufacture of sword ornaments, but work rather at vases, censers, statuettes, plaques, boxes and other objects of a serviceable or ornamental nature. All the processes described above are practised by them with full success, and they have added others quite as remarkable.

Of these, one of the most interesting is called *kiribame* (insertion). The decorative design having been completely chiselled in the round, is then fixed in a field of a different metal, in which a design of exactly similar outline has been cut out. The result is that the picture has no blank reverse. For example, on the surface of a shibuichi box-lid we see the backs of a flock of geese chiselled in silver, and when the lid is opened, their breasts and the under-sides of their pinions appear. The difficulty of such work is plain. Microscopic accuracy has to be attained in cutting out the space for the insertion of the design, and while the latter must be soldered firmly in its place, not the slightest trace of solder or the least sign of junction must be discernible between the metal of the inserted picture and that of the field in which it is inserted. Suzuki Gensuke is the inventor of this method. He belongs to a class of experts called *uchimono-shi* (hammerers) who perform preparatory work for glyptic artists in metal. The skill of these men is often wonderful. Using the hammer only, some of them can beat out an intricate shape as truly and delicately as a sculptor could carve it with his chisels. Ōhori Masatoshi, an uchimono-shi of Aizu (d. 1897), made a silver cake-box in the form of a sixteen-petalled chrysanthemum. The shapes of the body and lid corresponded so intimately that, whereas the lid could be slipped on easily and smoothly without any attempt to adjust its curves to those of the body, it always fitted so closely that the box could be lifted by grasping the lid only. Another feat of his was to apply a lining of silver to a shakudo box by shaping and hammering only, the fit being so perfect that the lining clung like paper to every part of the box. Suzuki Gensuke and Hirata Sōkō are scarcely less expert. The latter once exhibited in Tōkyō a silver game-cock with soft plumage and surface modelling of the most delicate character. It had been made by means of the hammer only. Suzuki's kiribame process is not to be confounded with the *kiribame-zōgan* (inserted inlaying) of Tōyoda Kokō, also a modern artist. The gist of the latter method is that a design chiselled *à jour* has its outlines veneered with other metal which serves to emphasize them. Thus, having pierced a spray of flowers in a thin sheet of shibuichi, the artist fits a slender rim of gold, silver or shakudo to the petals, leaves and stalks, so that an effect is produced of transparent blossoms outlined in gold, silver or purple. Another modern achievement—also due to Suzuki Gensuke—is *maze-gane* (mixed metals). It is a singular conception, and the results obtained depend largely on chance. Shibuichi and shakudo are melted separately, and when they have cooled just enough not to mingle too intimately, they are cast into a bar which is subsequently beaten flat. The plate thus obtained shows accidental clouding, or massing of dark tones, and these patches are taken as the basis of a pictorial design to which final character is given by inlaying with gold and silver, and by katā-kiri sculpture. Such pictures partake largely of the impressionist character, but they attain much beauty in the hands of the Japanese artist with his extensive *répertoire* of suggestive symbols. A process resembling maze-gane, but less fortuitous, is *shibuichi-dōshi* (combined shibuichi), which involves beating together two kinds of shibuichi and then adding a third variety, after which the details of the picture are worked in as in the case of maze-gane. The charm of these methods is that certain parts of the decorative design seem to float, not on the surface of the metal, but actually within it, an admirable effect of depth and atmosphere being thus produced. Mention must also be made of an extraordinarily elaborate and troublesome process invented by Kajima Ippu, a great artist of the present day. It is called *togi-dashi-zōgan* (ground-out inlaying). In this exquisite and

ingenious kind of work the design appears to be growing up from the depths of the metal, and a delightful impression of atmosphere and water is obtained. All these processes, as well as that of *repoussé*, in which the Japanese have excelled from a remote period, are now practised with the greatest skill in Tōkyō, Kiōto, Osaka and Kanazawa. At the art exhibitions held twice a year in the principal cities there may be seen specimens of statuettes, alcove ornaments, and household utensils which show that the Japanese worker in metals stands more indisputably than ever at the head of the world's artists in that field. The Occident does not yet appear to have full realized the existence of such talent in Japan; partly perhaps because its displays in former times were limited chiefly to sword-furniture, possessing little interest for the average European or American; and partly because the Japanese have not yet learned to adapt their skill to foreign requirements. They confine themselves at present to decorating plaques, boxes and cases for cigars or cigarettes, and an occasional tea or coffee service; but the whole domain of salvers, dessert-services, race-cups and so on remains virtually unexplored. Only within the past few years have stores been established in the foreign settlements for the sale of silver utensils, and already the workmanship on these objects displays palpable signs of the deterioration which all branches of Japanese art have undergone in the attempt to cater for foreign taste. In a general sense the European or American connoisseur is much less exacting than the Japanese. Broad effects of richness and splendour captivate the former, whereas the latter looks for delicacy of finish, accuracy of detail and, above all, evidences of artistic competence. It is nothing to a Japanese that a vase should be covered with profuse decoration of flowers and foliage: he requires that every blossom and every leaf shall be instinct with vitality, and the comparative costliness of fine workmanship does not influence his choice. But if the Japanese sculptor adopted such standards in working for foreign patrons, his market would be reduced to very narrow dimensions. He therefore adapts himself to his circumstances, and, using the mould rather than the chisel, produces specimens which show tawdry handsomeness and are attractively cheap. It must be admitted, however, that even though foreign appreciative faculty were sufficiently educated, the Japanese artist in metals would still labour under the great difficulty of devising shapes to take the place of those which Europe and America have learned to consider classical.

Bronze Casting.

Bronze is called by the Japanese *kara-kane*, a term signifying "Chinese metal" and showing clearly the source from which knowledge of the alloy was obtained. It is a copper-lead-tin compound, the proportions of its constituents varying from 72 to 88 % of copper, from 4 to 20 % of lead and from 2 to 8 % of tin. There are also present small quantities of arsenic and antimony, and zinc is found generally as a mere trace, but sometimes reaching to 6 %. Gold is supposed to have found a place in ancient bronzes, but its presence has never been detected by analysis, and of silver not more than 2 % seems to have been admitted at any time. Mr W. Gowland has shown that, whatever may have been the practice of Japanese bronze makers in ancient and medieval eras, their successors in later days deliberately introduced arsenic and antimony into the compound in order to harden the bronze without impairing its fusibility, so that it might take a sharper impression of the mould. Japanese bronze is well suited for castings, not only because of its low melting-point, great fluidity and capacity for taking sharp impressions, but also because it has a particularly smooth surface and readily develops a fine patina. One variety deserves special mention. It is a golden yellow bronze, called *sentoku*—this being the Japanese pronunciation of *Suen-tē*, the era of the Ming dynasty of China when this compound was invented. Copper, tin, lead and zinc, mixed in various proportions by different experts, are the ingredients, and the beautiful golden hues and glossy texture of the surface are obtained by patina-producing processes, in which branch of metal-work the Japanese show altogether unique skill.

From the time when they began to cast bronze statues, Japanese experts understood how to employ a hollow, removable core round which the metal was run in a skin just thick enough for strength without waste of material; and they also understood the use of wax for modelling purposes. In ordinary circumstances, a casting thus obtained took the form of a shell without any break of continuity. But for very large castings the process had to be modified. The great image of Lochana Buddha at Nara, for example, would measure 138 ft. in height were it standing erect, and its weight is about 550 tons. The colossal Amida at Kamakura has a height only 3 ft. less. It would have been scarcely possible to cast such statues in one piece *in situ*, or, if cast elsewhere, to transport them and elevate them on their pedestals. The plan pursued was to build them up gradually in their places by casting segment after segment. Thus, for the Nara Dai-butsu, the mould was constructed in a series of steps ascending 12 in. at a time, until the head and neck were reached, which, of course, had to be cast in one shell, 12 ft. high.

The term "parlour bronzes" serves to designate objects for domestic use, as flower-vases, incense-burners and alcove ornaments. Bronze-casters began to turn their attention to these objects about the middle of the 17th century. The art of casting bronze reached its culmination in the hands of a group of great experts—Seimin, Tōun, Masatune, Teijō, Sōmin, Keisai, Takusai, Gido, Zenryūsai and Hotokusai—who flourished during the second half of the 18th century and the first half of the 19th. Many brilliant specimens of these men's work survive, their general features being that the motives are naturalistic, that the quality of the metal is exceptionally fine, that in addition to beautifully clear casting obtained by highly skilled use of the *cera-perduta* process, the chisel was employed to impart delicacy and finish to the design, and that modelling in high relief is most successfully introduced. But it is a mistake to assert, as many have asserted, that after the era of the above ten masters—the latest of whom, Sōmin, ceased to work in 1871—no bronzes comparable with theirs were cast. Between 1875 and 1879 some of the finest bronzes ever produced in Japan were turned out by a group of experts working under the business name of Sanseisha. Started by two brothers, Oshima Katsujiro (art-name Jōun) and Oshima Yasutaro (art-name Shōkaku), this association secured the services of a number of skilled chisellers of sword-furniture, who had lost their occupation by the abandonment of sword-wearing. Nothing could surpass the delicacy of the works executed at the Sanseisha's atelier in Tōkyō, but unfortunately such productions were above the standard of the customers for whom they were intended. Foreign buyers, who alone stood in the market at that time, failed to distinguish the fine and costly bronzes of Jōun, Shōkaku and their colleagues from cheap imitations which soon began to compete with them, so that ultimately the Sanseisha had to be closed. This page in the modern history of Japan's bronzes needs little alteration to be true of her applied art in general. Foreign demand has shown so little discrimination that experts, finding it impossible to obtain adequate remuneration for first-class work, have been obliged to abandon the field altogether, or to lower their standard to the level of general appreciation, or by forgery to cater for the perverted taste which attaches unreasoning value to age. Jōun has produced, and is thoroughly capable of producing, bronzes at least equal to the best of Seimin's masterpieces, yet he has often been induced to put Seimin's name on objects for the sake of attracting buyers who attach more value to cachet than to quality. If to the names of Jōun and his brilliant pupil Ryūki we add those of Suzuki Chōkichi, Okazaki Sessei, Hasegawa Kumazō, Kanaya Gorosaburō and Jomi Eisuke, we have a group of modern bronze-casters who unquestionably surpass the ten experts beginning with Seimin and ending with Sōmin. Okazaki Sessei has successfully achieved the casting of huge panels carrying designs in high relief; and whether there is question of patina or of workmanship, Jōmi Eisuke has never been surpassed.

Occidental influence has been felt, of course, in the field of modern bronze-casting. At a school of art officially established in Tōkyō in 1873 under the direction of Italian teachers—a school which owed its signal failure partly to the incompetence and intemperate behaviour of some of its foreign professors, and partly to a strong renaissance of pure Japanese classicism—one of the few accomplishments successfully taught was that of modelling in plaster and chiselling in marble after Occidental methods. Marble statues are out of place in the wooden buildings as well as in the parks of Japan, and even plaster busts or groups, though less incongruous perhaps, have not yet found favour. Hence the skill undoubtedly possessed by several graduates of the defunct art school has to be devoted chiefly to a subordinate purpose, namely, the fashioning of models for metal-casters. To this combination of modellers in European style and metal-workers of such force as Suzuki and Okazaki, Japan owes various memorial bronzes and effigies which are gradually finding a place in her parks, her museums, her shrines or her private houses. There is here little departure from the well-trodden paths of Europe. Studies in drapery, prancing steeds, ideal poses, heads with fragments of torsos attached (in extreme violation of true art), crouching beasts of prey—all the stereotyped styles are reproduced. The imitation is excellent.

Carving in Wood and Ivory.

Among the artists of early times it is often difficult to distinguish between the carver of wood and the caster of bronze. The latter sometimes made his own models in wax, sometimes chiselled them in wood, and sometimes had recourse to a specialist in wood-carving. The group of splendid sculptors in wood that graced the 11th, 12th and 13th centuries left names never to be forgotten, but undoubtedly many other artists of scarcely less force regarded bronze-casting as their principal business. Thus the story of wood-carving is very difficult to trace. Even in the field of architectural

SCULPTURE

FIG. 11.—VAJRA MALLA. By Unkei (13th century).

FIG. 12.—STATUE OF ASANGA (12th century, artist unknown).

FIG. 13.—STATUES OF BUDDHA AMI'TABHA AND TWO BODHISATTVAS (7th century).

JAPAN

METAL WORK AND LACQUER

FIG. 15.—BRONZE DUCK INCENSE BURNER (15th century). British Museum.

FIG. 16.—BRONZE MIRROR (12th to 13th century).

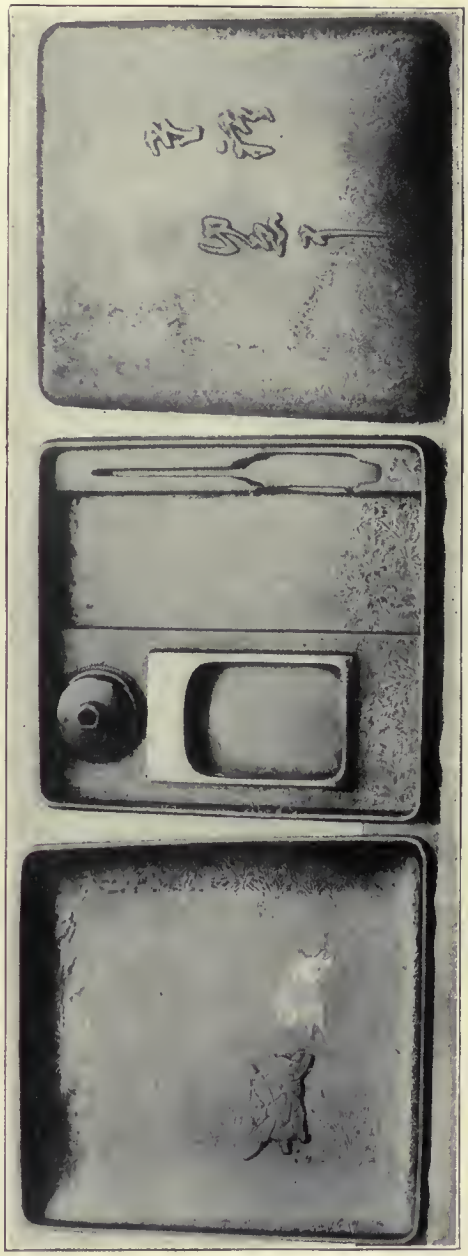


FIG. 17.—INKSTONE BOX IN LACQUER. By Koyetsu (1557–1637).

FIG. 14.—DOOR OF BRONZE LANTERN IN THE TODAI TEMPLE (8th century).

decoration for interiors, tradition tells us scarcely anything about the masters who carved such magnificent works as those seen in the Kiōto temples, the Tokugawa mausolea, and some of the old castles. There are, however, no modern developments of such work to be noted. The ability of former times exists and is exercised in the old way, though the field for its employment has been greatly narrowed.

Netsuke Carvers.

When Japanese sculpture in wood or ivory is spoken of, the first idea that presents itself is connected with the netsuke, which, of all the art objects found in Japan, is perhaps the most essentially Japanese. If Japan had given us nothing but the netsuke, we should still have no difficulty in differentiating the bright versatility of her national genius from the comparatively sombre, mechanic and unimaginative temperament of the Chinese. But the netsuke may now be said to be a thing of the past. The *inro* (medicine-box), which it mainly served to fix in the girdle, has been driven out of fashion by the new civilization imported from the West, and artists who would have carved netsuke in former times now devote their chisels to statuettes and alcove ornaments. It is not to be inferred, however, though it is a favourite assertion of collectors, that no good netsuke have been made in modern times. That theory is based upon the fact that after the opening of the country to foreign intercourse in 1857, hundreds of inferior specimens of netsuke were chiselled by inexpert hands, purchased wholesale by treaty-port merchants, and sent to New York, London and Paris, where, though they brought profit to the exporter, they also disgusted the connoisseur and soon earned discredit for their whole class. But in fact the glyptic artists of Tōkyō, Osaka and Kiōto, though they now devote their chisels chiefly to works of more importance than the netsuke, are in no sense inferior to their predecessors of feudal days, and many beautiful netsuke bearing their signatures are in existence. As for the modern ivory statuette or alcove ornament, of which great numbers are now carved for the foreign market, it certainly stands on a plane much higher than the netsuke, since anatomical defects which escape notice in the latter owing to its diminutive size, become obtrusive in the former.

The Realistic Departure.

One of the most remarkable developments of figure sculpture in modern Japan was due to Matsumoto Kisaburo (1830–1869). He carved human figures with as much accuracy as though they were destined for purposes of surgical demonstration. Considering that this man had neither art education nor anatomical instruction, and that he never enjoyed an opportunity of studying from a model in a studio, his achievements were remarkable. He and the craftsmen of the school he established completely refute the theory that the anatomical solecisms commonly seen in the works of Japanese sculptors are due to faulty observation. Without scientific training of any kind Matsumoto and his followers produced works in which the eye of science cannot detect any error. But it is impossible to admit within the circle of high-art productions these wooden figures of everyday men and women, unrelieved by any subjective element, and owing their merit entirely to the fidelity with which their contours are shaped, their muscles modelled, and their anatomical proportions preserved. They have not even the attraction of being cleanly sculptured in wood, but are covered with thinly lacquered muslin, which, though doubtless a good preservative, accentuates their puppet-like character. Nevertheless, Matsumoto's figures marked an epoch in Japanese wood sculpture. Their vivid realism appealed strongly to the taste of the average foreigner. A considerable school of carvers soon began to work in the Matsumoto style, and hundreds of their productions have gone to Europe and America, finding no market in Japan.

The Semi-foreign School.

Midway between the Matsumoto school and the pure style approved by the native taste in former times stand a number of wood-carvers headed by Takamura Kōun, who occupies in the field of sculpture much the same place as that held by Hashimoto Gaho in the realm of painting. Kōun carves figures in the round which not only display great power of chisel and breadth of style, but also tell a story not necessarily drawn from the motives of the classical school. This departure from established canons must be traced to the influence of the short-lived academy of Italian art established by the Japanese government early in the Meiji era. In the forefront of the new movement are to be found men like Yoneharu Unkai and Shinkai Taketarō; the former chiselled a figure of Jenner for the Medical Association of Japan when they celebrated the centenary of the great physician, and the latter has carved life-size effigies of two Imperial princes who lost their lives in the war with China (1894–95). The artists of the Kōun school, however, do much work which appeals to emotions in general rather than to individual memories. Thus Arakawa Reiun, one of Kōun's most brilliant pupils, has exhibited a figure of a swordsman in the act of driving home a furious thrust. The weapon is not shown. Reiun sculptured simply a man poised on the toes of one foot, the other foot raised, the arm extended, and the body straining forward in strong yet elastic muscular effort. A more imaginative work by the same artist is a figure of a farmer who has just shot an eagle that swooped upon his grandson. The old man holds his bow still raised. Some of the eagle's feathers, blown to his side, suggest the death of the bird; at his feet lies the corpse of the little boy, and the horror, grief and anger that such a tragedy would inspire are depicted with striking realism in the farmer's face. Such work has very close affinities with Occidental conceptions. The chief distinguishing feature is that the glyptic character is preserved at the expense of surface finish. The undisguised touches of the chisel tell a story of technical force and directness which could not be suggested by perfectly smooth surfaces. To subordinate process to result is the European canon; to show the former without marring the latter is the Japanese ideal. Many of Kōun's sculptures appear unfinished to eyes trained in Occidental galleries, whereas the Japanese connoisseur detects evidence of a technical feat in their seeming roughness.

Private Dwellings.

Architecture.—From the evidence of ancient records it appears that before the 5th century the Japanese resided in houses of a very rude character. The sovereign's palace itself was merely a wooden hut. Its pillars were thrust into the ground and the whole framework—consisting of posts, beams, rafters, door-posts and window-frames—was tied together with cords made by twisting the long fibrous stems of climbing plants. The roof was thatched, and perhaps had a gable at each end with a hole to allow the smoke of the wood fire to escape. Wooden doors swung on a kind of hook; the windows were mere holes in the walls. Rugs of skins or rush matting were used for sitting on, and the whole was surrounded with a palisade. In the middle of the 5th century two-storeyed houses seem to have been built, but the evidence on the subject is slender. In the 8th century, however, when the court was moved to Nara, the influence of Chinese civilization made itself felt. Architects, turners, tile-makers, decorative artists and sculptors, coming from China and from Korea, erected grand temples for the worship of Buddha enshrining images of much beauty and adorned with paintings and carvings of considerable merit. The plan of the city itself was taken from that of the Chinese metropolis. A broad central avenue led straight to the palace, and on either side of it ran four parallel streets, crossed at right angles by smaller thoroughfares. During this century the first sumptuary edict ordered that the dwellings of all high officials and opulent civilians should have tiled roofs and be coloured red, the latter injunction being evidently intended to stop the use of logs carrying their bark. Tiles thenceforth became the orthodox covering for a roof, but vermilion, being regarded as a religious colour, found no favour in private dwellings. In the 9th century, after the capital had been established at Kiōto, the palace of the sovereigns and the mansions of ministers and nobles were built on a scale of unprecedented grandeur. It is true that all the structures of the time had the defect of a box-like appearance. Massive, towering roofs, which impart an air of stateliness even to a wooden building and yet, by their graceful curves, avoid any suggestion of ponderosity, were still confined to Buddhist edifices. The architect of private dwellings attached more importance to satin-surfaced boards and careful joinery than to any appearance of strength or solidity.

Except for the number of buildings composing it, the palace had little to distinguish it from a nobleman's mansion. The latter consisted of a principal hall, where the master of the house lived, ate and slept, and of three suites of chambers, disposed on the north, the east and the west of the principal hall. In the northern suite the lady of the house dwelt, the eastern and western suites being allotted to other members of the family. Corridors joined the principal hall to the subordinate edifices, for as yet the idea had not been conceived of having more than one chamber under the same roof. The principal hall was usually 42 ft. square. Its centre was occupied by a "parent chamber," 30 ft. square, around which ran an ambulatory and a veranda, each 6 ft. wide. The parent chamber and the ambulatory were ceiled, sometimes with interlacing strips of bark or broad laths, so as to produce a plaited effect; sometimes with plain boards. The veranda had no ceiling. Sliding doors, a characteristic feature of modern Japanese houses, had not yet come into use, and no means were provided for closing the veranda, but the ambulatory was surrounded by a wall of latticed timber or plain boards, the lower half of which could be removed altogether, whereas the upper half, suspended from hooks, could be swung upward and outward. Privacy was obtained by blinds of

split bamboo, and the parent chamber was separated from the ambulatory by similar bamboo blinds with silk cords for raising or lowering them, or by curtains. The thick rectangular mats of uniform size which, fitting together so as to present a level unbroken surface, cover the floor of all modern Japanese houses, were not yet in use: floors were boarded, having only a limited space matted. This form of mansion underwent little modification until the 12th century, when the introduction of the Zen sect of Buddhism with its contemplative practice called for greater privacy. Interiors were then divided into smaller rooms by means of sliding doors covered with thin rice-paper, which permitted the passage of light while obstructing vision; the hanging lattices were replaced by wooden doors which could be slid along a groove so as to be removable in the daytime, and an alcove was added in the principal chamber for a sacred picture or Buddhist image to serve as an object of contemplation for a devotee while practising the rite of abstraction. Thus the main features of the Japanese dwelling-house were evolved, and little change took place subsequently, except that the brush of the painter was freely used for decorating partitions, and in aristocratic mansions unlimited care was exercised in the choice of rare woods.

Buddhist Temple Architecture.

The Buddhist temple underwent little change at Japanese hands except in the matter of decoration. Such as it was in outline when first erected in accordance with Chinese models, such it virtually remained, though in later times all the resources of the sculptor and the painter were employed to beautify it externally and internally.

"The building, sometimes of huge dimensions, is invariably surrounded by a raised gallery, reached by a flight of steps in the centre of the approach front, the balustrade of which is a continuation of the gallery railing. This gallery is sometimes supported upon a deep system of bracketing, corbelled out from the feet of the main pillars. Within this raised gallery, which is sheltered by the oversailing eaves, there is, in the larger temples, a columned loggia passing round the two sides and the front of the building, or, in some cases, placed on the façade only. The ceilings of the loggias are generally sloping, with richly carved roof-timbers showing below at intervals; and quaintly carved braces connect the outer pillars with the main posts of the building. Some temples are to be seen in which the ceiling of the loggia is boarded flat and decorated with large paintings of dragons in black and gold. The intercolumniation is regulated by a standard of about six or seven feet, and the general result of the treatment of columns, wall-posts, &c., is that the whole mural space, not filled in with doors or windows, is divided into regular oblong panels, which sometimes receive plaster, sometimes boarding and sometimes rich framework and carving or painted panels. Diagonal bracing or strutting is nowhere to be found, and in many cases mortises and other joints are such as very materially to weaken the timbers at their points of connexion. It would seem that only the immense weight of the roofs and their heavy projections prevent a collapse of some of these structures in high winds. The principal façade of the temple is filled in one, two or three compartments with hinged doors, variously ornamented and folding outwards, sometimes in double folds. From these doorways, generally left open, the interior light is principally obtained, windows, as the term is generally understood, being rare. An elaborate cornice of wooden bracketing crowns the walls, forming one of the principal ornaments of the building. The whole disposition of pillars, posts, brackets and rafters is harmonically arranged according to some measure of the standard of length. A very important feature of the façade is the portico or porch-way, which covers the principal steps and is generally formed by producing the central portion of the main roof over the steps and supporting such projection upon isolated wooden pillars braced together near the top with horizontal ties, carved, moulded and otherwise fantastically decorated. Above these ties are the cornice brackets and beams, corresponding in general design to the cornice of the walls, and the intermediate space is filled with open carvings of dragons or other characteristic designs. The forms of roof are various, but mostly they commence in a steep slope at the top, gradually flattening towards the eaves so as to produce a slightly concave appearance, this concavity being rendered more emphatic by the tilt which is given to the eaves at the four corners. The appearance of the ends of the roof is half hip, half gable. Heavy ribs of tile-cresting with large terminals are carried along the ridge and the slope of the gable. The result of the whole is very picturesque, and has the advantage of looking equally satisfactory from any point of view. The interior arrangement of wall columns, horizontal beams and cornice bracketing corresponds with that on the outside. The ceiling is invariably boarded and subdivided by ribs into small rectangular coffers. Sometimes painting is introduced into these panels and lacquer and metal clasps are added to the ribs. When the temple is of very large dimensions an interior peristyle of pillars is introduced to assist in supporting the roof, and in such cases each pillar carries profuse bracketing corresponding to that of the cornice. The construction of the framework of the Japanese roof is such that the weights all act vertically; there is no thrust on the outer walls, and every available point of the interior is used as a means of support.

"The floor is partly boarded and partly matted. The shrines, altars and oblatory tables are placed at the back in the centre, and there are often other secondary shrines at the sides. In temples of the best class the floor of the gallery and of the central portion of the main building from entrance to altar are richly lacquered; in those of inferior class they are merely polished by continued rubbing." —(J. Conder, in the *Proceedings of the Royal Institute of British Architects.*)

Shintō Architecture.

None of the magnificence of the Buddhist temple belongs to the Shintō shrine. In the case of the latter conservatism has been absolute from time immemorial. The shrines of Ise, which may be called the Mecca of Shintō devotees, are believed to present to-day precisely the appearance they presented in 478, when they were moved thither in obedience to a revelation from the Sun-goddess. It has been the custom to rebuild them every twentieth year, alternately on each of two sites set apart for the purpose, the features of the old edifice being reproduced in the new with scrupulous accuracy.

They are enlarged replicas of the primeval wooden hut described above, having rafters with their upper ends crossed; thatched or shingled roof; boarded floors, and logs laid on the roof-ridge at right angles for the purpose of binding the ridge and the rafters firmly together. A thatched roof is imperative in the orthodox shrine, but in modern days tiles or sheets of copper are sometimes substituted. At Ise, however, no such novelties are tolerated. The avenue of approach generally passes under a structure called *torii*. Originally designed as a perch for fowls which sang to the deities at daybreak, this torii subsequently came to be erroneously regarded as a gateway characteristic of the Shintō shrine. It consists of two thick trunks placed upright, their upper ends mortised into a horizontal log which projects beyond them at either side. The structure derives some grace from its extreme simplicity.

Textile Fabrics and Embroidery.—In no branch of applied art does the decorative genius of Japan show more attractive results than in that of textile fabrics, and in none has there been more conspicuous progress during recent years. Her woven and embroidered stuffs have always been beautiful; but in former times few pieces of size and splendour were produced, if we except the curtains used for draping festival cars and the hangings of temples. Tapestry, as it is employed in Europe, was not thought of, nor indeed could the small hand-looms of the period be easily adapted to such work. All that has been changed, however. Arras of large dimensions, showing remarkable workmanship and grand combinations of colours, is now manufactured in Kiōto, the product of years of patient toil on the part of weaver and designer alike. Kawashima of Kiōto has acquired high reputation for work of this kind. He inaugurated the new departure a few years ago by copying a Gobelin, but it may safely be asserted that no Gobelin will bear comparison with the pieces now produced in Japan.

The most approved fashion of weaving is called *tsuzure-ori* (linked-weaving); that is to say, the cross threads are laid in with the fingers and pushed into their places with a comb by hand, very little machinery being used. The threads extend only to the outlines of each figure, and it follows that every part of the pattern has a rim of minute holes like pierced lines separating postage stamps in a sheet, the effect being that the design seems to hang suspended in the ground—linked into it, as the Japanese term implies.[1] A specimen of this nature recently manufactured by Kawashima's weavers measured 20 ft. by 13, and represented the annual festival at the Nikkō mausolea. The chief shrine was shown, as were also the gate and the long flight of stone steps leading up to it, several other buildings, the groves of cryptomeria that surround the mausolea, and the festival procession. All the architectural and decorative details, all the carvings and colours, all the accessories—everything was wrought in silk, and each of the 1500 figures forming the procession wore exactly appropriate costume. Even this wealth of detail, remarkable as it was, seemed less surprising than the fact that the weaver had succeeded in producing the effect of atmosphere and aerial perspective. Through the graceful cryptomerias distant mountains and the still more distant sky could be seen, and between the buildings in the foreground and those in the middle distance atmosphere appeared to be perceptible. Two years of incessant labour with relays of artisans working steadily throughout the twenty-four hours were required to finish this piece. Naturally

[1] This method is some 300 years old. It is by no means a modern invention, as some writers have asserted.

such specimens are not produced in large numbers. Next in decorative importance to tsuzure-ori stands *yūzen birōdo*, commonly known among English-speaking people as cut velvet. Dyeing by the *yūzen* process is an innovation of modern times. The design is painted on the fabric, after which the latter is steamed, and the picture is ultimately fixed by methods which are kept secret. The soft silk known as *habutaye* is a favourite ground for such work, but silk crape also is largely employed. No other method permits the decorator to achieve such fidelity and such boldness of draughtsmanship. The difference between the results of the ordinary and the yūzen processes of dyeing is, in fact, the difference between a stencilled sketch and a finished picture. In the case of cut velvet, the yūzen process is supplemented as follows: The cutter, who works at an ordinary wooden bench, has no tool except a small sharp chisel with a V-shaped point. This chisel is passed into an iron pencil having at the end guards, between which the point of the chisel projects, so that it is impossible for the user to cut beyond a certain depth. When the velvet comes to him, it already carries a coloured picture permanently fixed by the yūzen process, but the wires have not been withdrawn. It is, in fact, velvet that has passed through all the usual stages of manufacture except the cutting of the thread along each wire and the withdrawal of the wires. The cutting artist lays the piece of unfinished velvet on his bench, and proceeds to carve into the pattern with his chisel, just as though he were shading the lines of the design with a steel pencil. When the pattern is lightly traced, he uses his knife delicately; when the lines are strong and the shadows heavy, he makes the point pierce deeply. In short, the little chisel becomes in his fingers a painter's brush, and when it is remembered that, the basis upon which he works being simply a thread of silk, his hand must be trained to such delicacy of muscular effort as to be capable of arresting the edge of the knife at varying depths within the diameter of the tiny filament, the difficulty of the achievement will be understood. Of course it is to be noted that the edge of the cutting tool is never allowed to trespass upon a line which the exigencies of the design require to be solid. The veining of a cherry petal, for example, the tessellation of a carp's scales, the serration of a leaf's edge—all these lines remain intact, spared by the cutter's tool, while the leaf itself, or the petal, or the scales of the fish, have the threads forming them cut so as to show the velvet nap and to appear in soft, low relief. In one variety of this fabric, a slip of gold foil is laid under each wire, and left in position after the wire is withdrawn, the cutting tool being then used with freedom in some parts of the design, so that the gold gleams through the severed thread, producing a rich and suggestive effect. Velvet, however, is not capable of being made the basis for pictures so elaborate and microscopically accurate as those produced by the yūzen process on silk crape or habutaye. The rich-toned, soft plumage of birds or the magnificent blending of colours in a bunch of peonies or chrysanthemums cannot be obtained with absolute fidelity on the ribbed surface of velvet.

Embroidery.

The embroiderer's craft has been followed for centuries in Japan with eminent success, but whereas it formerly ranked with dyeing and weaving, it has now come to be regarded as an art. Formerly the embroiderer was content to produce a pattern with his needle, now he paints a picture. So perfectly does the modern Japanese embroiderer elaborate his scheme of values that all the essential elements of pictorial effects—chiaroscuro, aerial perspective and atmosphere are present in his work. Thus a graceful and realistic school has replaced the comparatively stiff and conventional style of former times.

Further, an improvement of a technical character was recently made, which has the effect of adding greatly to the durability of these embroideries. Owing to the use of paper among the threads of the embroidery and sizing in the preparation of the stuff forming the ground, every operation of folding used to cause perceptible injury to a piece, so that after a few years it acquired a crumpled and dingy appearance. But by the new method embroiderers now succeed in producing fabrics which defy all destructive influences —except, of course, dirt and decay.

Early Period.

Ceramics.—All research proves that up to the 12th century of the Christian era the ceramic ware produced in Japan was of a very rude character. The interest attaching to it is historical rather than technical. Pottery was certainly manufactured from an early date, and there is evidence that kilns existed in some fifteen provinces in the 10th century. But although the use of the potter's wheel had long been understood, the objects produced were simple utensils to contain offerings of rice, fruit and fish at the austere ceremonials of the Shintō faith, jars for storing seeds, and vessels for common domestic use. In the 13th century, however, the introduction of tea from China, together with vessels for infusing and serving it, revealed to the Japanese a new conception of ceramic possibilities, for the potters of the Middle Kingdom had then (Sung dynasty) fully entered the road which was destined to carry them ultimately to a high pinnacle of their craft. It had long been customary in Japan to send students to China for the purpose of studying philosophy and religion, and she now (1223) sent a potter, Kato Shirozaemon, who, on his return, opened a kiln at Seto in the province of Owari, and began to produce little jars for preserving tea and cups for drinking it. These were conspicuously superior to anything previously manufactured. Kato is regarded as the father of Japanese ceramics. But the ware produced by him and his successors at the Seto kilns, or by their contemporaries in other parts of the country, had no valid claim to decorative excellence. Nearly three centuries elapsed before a radically upward movement took place, and on this occasion also the inspiration came from China. In 1520 a potter named Gorodayu Goshonzui (known to posterity as Shonzui) made his way to Fuchow and thence to King-te-chen, where, after five years' study, he acquired the art of manufacturing porcelain, as distinguished from pottery, together with the art of applying decoration in blue under the glaze. He established his kiln at Arita in Hizen, and the event marked the opening of the second epoch of Japanese ceramics. Yet the new departure then made did not lead far. The existence of porcelain clay in Hizen was not discovered for many years, and Shonzui's pieces being made entirely with kaolin imported from China, their manufacture ceased after his death, though knowledge of the processes learned by him survived and was used in the production of greatly inferior wares. The third clearly differentiated epoch was inaugurated by the discovery of true kaolin at Izumi-yama in Hizen, the discoverer being one of the Korean potters who came to Japan in the train of Hideyoshi's generals returning from the invasion of Korea, and the date of the discovery being about 1605. Thus much premised, it becomes possible to speak in detail of the various wares for which Japan became famous.

The principal kinds of ware are Hizen, Kiōto, Satsuma, Kutani, Owari, Bizen, Takatori, Banko, Izumo and Yatsushiro.

Hizen.

There are three chief varieties of Hizen ware, namely, (1) the enamelled porcelain of Arita—the "old Japan" of European collectors; (2) the enamelled porcelain of Nabeshima; and (3) the blue and white, or plain white, porcelain of Hirado. The earliest manufacture of porcelain—as distinguished from pottery—began in the opening years of the 16th century, but its materials were exotic. Genuine Japanese porcelain dates from about a century later. The decoration was confined to blue under the glaze, and as an object of art the ware possessed no special merit. Not until the year 1620 do we find any evidence of the style for which Arita porcelain afterwards became famous, namely, decoration with vitrifiable enamels. The first efforts in this direction were comparatively crude; but before the middle of the 17th century, two experts—Goroshichi and Kakiemon—carried the art to a point of considerable excellence. From that time forward the Arita factories turned out large quantities of porcelain profusely decorated with blue under the glaze and coloured enamels over it. Many pieces were exported by the Dutch, and some also were specially manufactured to their order. Specimens of the latter are still preserved in European collections, where they are classed as genuine examples of Japanese ceramic art, though beyond question their style of decoration was greatly influenced by Dutch interference. The porcelains of Arita were carried to the neighbouring town of Imari for sale and shipment. Hence the ware came to be known to Japanese and foreigners alike as *Imari-yaki* (*yaki* = anything baked; hence ware).

Nabeshima.

The Nabeshima porcelain—so called because of its production at private factories under the special patronage of Nabeshima Naoshige, feudal chief of Hizen—was produced at Okawachiyama. It differed from Imari-yaki in the milky whiteness and softness of its glaze, the comparative sparseness of its enamelled decoration, and the relegation of blue *sous couverte* to an entirely secondary place. This is undoubtedly the finest jewelled porcelain in Japan; the best examples leave nothing to be desired. The factory's period of excellence began about the year 1680, and culminated at the close of the 18th century.

Hirado.

The Hirado porcelain—so called because it enjoyed the special patronage of Matsuura, feudal chief of Hirado—was produced at Mikawa-uchi-yama, but did not attain excellence until the middle of the 18th century, from which time until about 1830 specimens of rare beauty were produced. They were decorated with blue under the glaze, but some were pure white with exquisitely chiselled designs incised or in relief. The production

was always scanty, and, owing to official prohibitions, the ware did not find its way into the general market.

The history of Kiōto ware—which, being for the most part faience, belongs to an entirely different category from the Hizen porcelains spoken of above—is the history of individual ceramists rather than of special manufactures. Speaking broadly, however, four different varieties are usually distinguished. They are *raku-yaki*, *awata-yaki*, *iwakura-yaki* and *kiyomizu-yaki*.

Kiōto.

Raku-yaki is essentially the domestic faience of Japan; for, being entirely hand-made and fired at a very low temperature, its manufacture offers few difficulties, and has consequently been carried on by amateurs in their own homes at various places throughout the country. The raku-yaki of Kiōto is the parent of all the rest. It was first produced by a Korean who emigrated to Japan in the early part of the 16th century. But the term *raku-yaki* did not come into use until the close of the century, when Chōjiro (artistic name, Chōryū) received from Hideyoshi (the Taikō) a seal bearing the ideograph *raku*, with which he thenceforth stamped his productions. Thirteen generations of the same family carried on the work, each using a stamp with the same ideograph, its calligraphy, however, differing sufficiently to be identified by connoisseurs. The faience is thick and clumsy, having soft, brittle and very light *pâte*. The staple type has black glaze showing little lustre, and in choice varieties this is curiously speckled and pitted with red. Salmon-coloured, red, yellow and white glazes are also found, and in late specimens gilding was added. The raku faience owed much of its popularity to the patronage of the tea clubs. The nature of its paste and glaze adapted it for the infusion of powdered tea, and its homely character suited the austere canons of the tea ceremonies.

Raku.

Awata-yaki is the best known among the ceramic productions of Kiōto. There is evidence to show that the art of decoration with enamels over the glaze reached Kiōto from Hizen in the middle of the 17th century. Just at that time there flourished in the Western capital a potter of remarkable ability, called Nomura Seisuke. He immediately utilized the new method, and produced many beautiful examples of jewelled faience, having close, hard *pâte*, yellowish-white, or brownish-white, glaze covered with a network of fine crackle, and sparse decoration in pure full-bodied colours—red, green, gold and silver. He worked chiefly at Awata, and thus brought that factory into prominence. Nomura Seisuke, or Ninsei as he is commonly called, was one of Japan's greatest ceramists. Genuine examples of his faience have always been highly prized, and numerous imitations were subsequently produced, all stamped with the ideograph Ninsei. After Ninsei's time, the most renowned ceramists of the Awata factories were Kenzan (1688–1740); Ebisei, a contemporary of Kenzan; Dōhachi (1751–1763), who subsequently moved to Kiyōmizu-zaka, another part of Kiōto, the faience of which constitutes the Kiyōmizu-yaki mentioned above; Kinkōzan (1745–1760); Hōzan (1690–1721); Taizan (1760–1800); Bizan (1810–1838); and Tanzan, who was still living in 1909. It must be noted that several of these names, as Kenzan, Dōhachi, Kinkōzan, Hōzan and Taizan, were not limited to one artist. They are family names, and though the dates we have given indicate the eras of the most noted ceramists in each family, amateurs must not draw any chronological conclusion from the mere fact that a specimen bears such and such a name.

Awata.

The origin of the Iwakura-yaki is somewhat obscure, and its history, at an early date, becomes confused with that of the Awata yaki, from which, indeed, it does not materially differ.

Iwakura.

In the term Kiyōmizu-yaki may be included roughly all the faience of Kiōto, with the exception of the three varieties described above. The distinction between Kiyōmizu, Awata and Iwakura is primarily local. They are parts of the same city, and if their names have been used to designate particular classes of pottery, it is not because the technical or decorative features of each class distinguish it from the other two, but chiefly for the purpose of identifying the place of production. On the slopes called Kiyōmizu-zaka and Gojō-zaka lived a number of ceramists, all following virtually the same models with variations due to individual genius. The principal Kiyōmizu artists were: Ebisei, who moved from Awata to Gojō-zaka in 1688; Eisen and Rokubei, pupils of Ebisei; Mokubei, a pupil of Eisen, but more celebrated than his master; Shūhei (1790–1810), Kentei (1782–1820), and Zengoro Hozen, generally known as Eiraku (1790–1850). Eisen was the first to manufacture porcelain (as distinguished from faience) in Kiōto, and this branch of the art was carried to a high standard of excellence by Eiraku, whose speciality was a rich coral-red glaze with finely executed decoration in gold. The latter ceramist excelled also in the production of purple, green and yellow glazes, which he combined with admirable skill and taste. Some choice ware of the latter type was manufactured by him in Kishū, by order of the feudal chief of that province. It is known as *Kairaku-yen-yaki* (ware of the Kairaku park).

Kiyōmizu.

No phrase is commoner in the mouths of Western collectors than "Old Satsuma"; no ware is rarer in Western collections. Nine hundred and ninety-nine pieces out of every thousand that do duty as genuine examples of this prince of faiences are simply examples of the skill of modern forgers. In point of fact, the production of faience decorated with gold and coloured enamels may be said to have commenced at the beginning of the 19th century in Satsuma. Some writers maintain that it did actually commence then, and that nothing of the kind had existed there previously. Setting aside, however, the strong improbability that a style of decoration so widely practised and so highly esteemed could have remained unknown during a century and a half to experts working for one of the most puissant chieftains in Japan, we have the evidence of trustworthy traditions and written records that enamelled faience was made by the potters at Tatsumonji—the principal factory of Satsuma-ware in early days—as far back as the year 1676. Mitsuhisa, then feudal lord of Satsuma, was a munificent patron of art. He summoned to his fief the painter Tangen—a pupil of the renowned Tanyū, who died in 1674—and employed him to paint faience or to furnish designs for the ceramists of Tatsumonji. The ware produced under these circumstances is still known by the name of Satsuma Tangen. But the number of specimens was small. Destined chiefly for private use or for presents, their decoration was delicate rather than rich, the colour chiefly employed being brown, or reddish brown, under the glaze, and the decoration over the glaze being sparse and chaste. Not until the close of the 18th century or the beginning of the 19th did the more profuse fashion of enamelled decoration come to be largely employed. It was introduced by two potters who had visited Kiōto, and there observed the ornate methods so well illustrated in the wares of Awata and Kiyōmizu. At the same time a strong impetus was given to the production of faience at Tadeno—then the chief factory in Satsuma—owing to the patronage of Shimazu Tamanobu, lord of the province. To this increase in production and to the more elaborate application of vitrifiable enamels may be attributed the erroneous idea that Satsuma faience decorated with gold and coloured enamels had its origin at the close of the 18th century. For all the purposes of the ordinary collector it may be said to have commenced then, and to have come to an end about 1860; but for the purposes of the historian we must look farther back.

Satsuma.

The ceramic art in Satsuma owed much to the aid of a number of Korean experts who settled there after the return of the Japanese forces from Korea. One of these men, Boku Heii, discovered (1603) clay fitted for the manufacture of white *craquelé* faience. This was the subsequently celebrated *Satsuma-yaki*. But in Boku's time, and indeed as long as the factories flourished, many other kinds of faience were produced, the principal having rich black or *flambé* glazes, while a few were green or yellow monochromes. One curious variety, called *same-yaki*, had glaze chagrined like the skin of a shark. Most of the finest pieces of enamelled faience were the work of artists at the Tadeno factory, while the best specimens of other kinds were by the artists of Tatsumonji.

The porcelain of Kutani is among those best known to Western collectors, though good specimens of the old ware have always been scarce. Its manufacture dates from the close of the 17th century, when the feudal chief of Kaga took the industry under his patronage. There were two principal varieties of the ware: *ao-Kutani*, so called because of a green (*ao*) enamel of great brilliancy and beauty which was largely used in its decoration, and Kutani with painted and enamelled *pâte* varying from hard porcelain to pottery. Many of the pieces are distinguished by a peculiar creamy whiteness of glaze, suggesting the idea that they were intended to imitate the soft-paste wares of China. The enamels are used to delineate decorative subjects and are applied in masses, the principal colours being green, yellow and soft Prussian blue, all brilliant and transparent, with the exception of the last which is nearly opaque. In many cases we find large portions of the surface completely covered with green or yellow enamel overlying black diapers or scroll patterns. The second variety of Kutani ware may often be mistaken for "old Japan" (*i.e.* Imari porcelain). The most characteristic examples of it are distinguishable, however, by the preponderating presence of a peculiar russet red, differing essentially from the full-bodied and comparatively brilliant colour of the Arita pottery. Moreover, the workmen of Kaga did not follow the Arita precedent of massing blue under the glaze. In the great majority of cases they did not use blue at all in this position, and when they did, its place was essentially subordinate. They also employed silver freely for decorative purposes, whereas we rarely find it thus used on "old Japan" porcelain.

Kutani.

About the time (1843) of the ao-Kutani revival, a potter called Iida Hachiroemon introduced a style of decoration which subsequently came to be regarded as typical of all Kaga porcelains. Taking the Eiraku porcelains of Kiōto as models, Hachiroemon employed red grounds with designs traced on them in gold. The style was not absolutely new in Kaga. We find similar decoration on old and choice examples of Kutani-yaki. But the character of the old red differs essentially from that of the modern manufacture—the former being a soft, subdued colour, more like a bloom than an enamel; the latter a glossy and comparatively crude pigment. In Hachiroemon's time and during the twenty years following the date of his innovation, many beautiful examples of elaborately decorated Kutani porcelain were produced. The richness, profusion and microscopic accuracy of their decoration could scarcely have been surpassed; but, with very rare exceptions, their lack of delicacy of technique disqualifies them to rank as fine porcelains.

FIG. 18.—LID OF BOX. By Korin.

FIG. 19.—CASE FOR HEAD OF A SKAKUJO.
Fujiwara Period (851–1069 A.D.).

FIG. 20.—OWL ON A BRANCH. By Ritsuo.

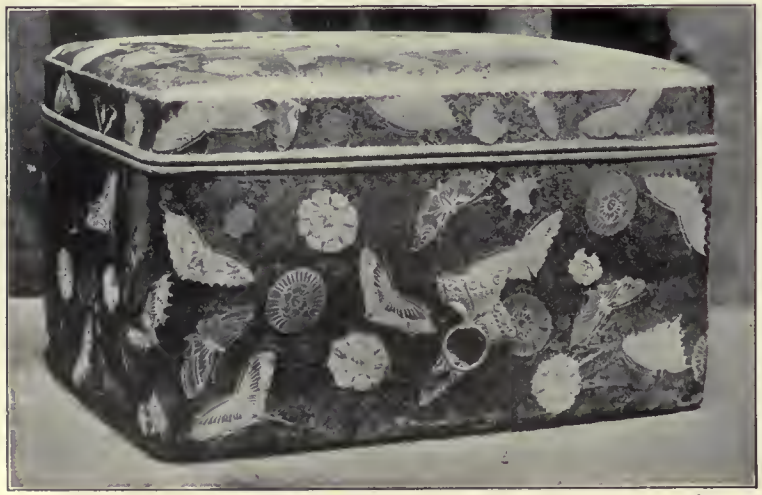


FIG. 21.—BOX WITH BUTTERFLIES AND FLOWERS IN GOLD (12th century).

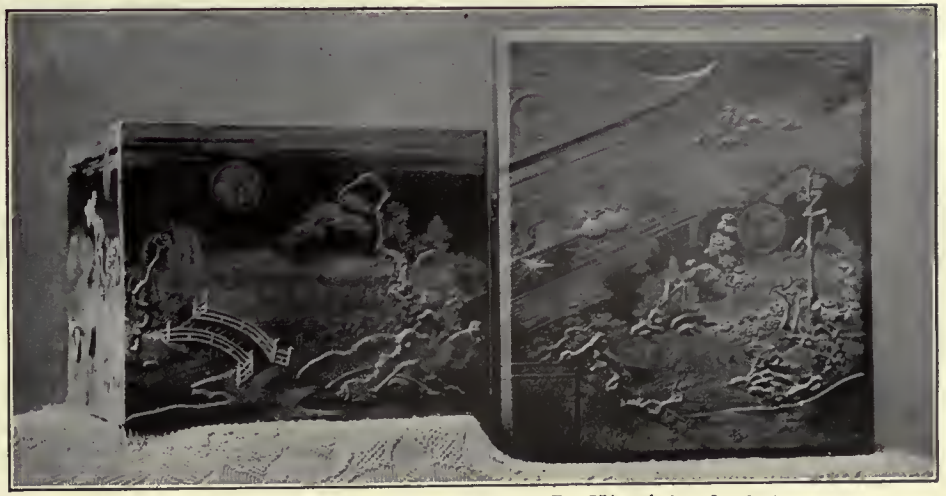


FIG. 22.—LACQUERED BOXES. By Kôami (1598–1651).

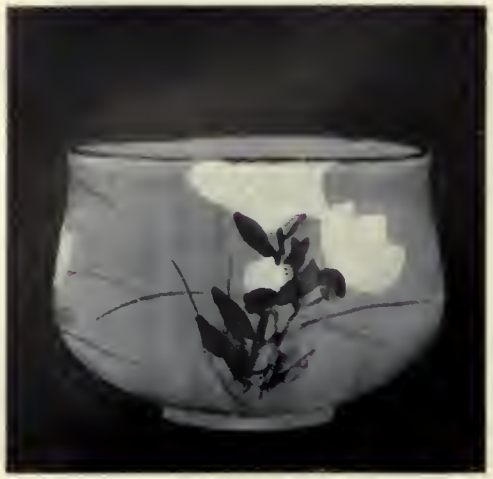


FIG. 23.—TEA BOWL. By Kenzan.

FIG. 24.—TEA JAR. By Ninsei.

FIG. 25.—FIGURE. By Kakiemon. Arita porcelain.

FIG. 26.—LION. By Chojiro Raku.

FIG. 27.—CENSER, WITH KOCHI GLAZE. By Eisen.

FIG. 28.—TEA JAR. By Ninsei.

FIG. 29.—BIZEN WARE. Samantabhadra.

Fig. 30.—CENSER. By Kenzan.

It was at the little village of Seto, some five miles from Nagoya, the chief town of the province of Owari, or Bishū, that the celebrated Kato Shirozaemon made the first Japanese faience worthy to be considered a technical success. Shirozaemon produced dainty little tea-jars, ewers and other *cha-no-yu* utensils. These, being no longer stoved in an inverted position, as had been the habit before Shirozaemon's time, were not disfigured by the bare, blistered lips of their predecessors. Their *pâte* was close and well-manufactured pottery, varying in colour from dark brown to russet, and covered with thick, lustrous glazes —black, amber-brown, chocolate and yellowish grey. These glazes were not monochromatic: they showed differences of tint, and sometimes marked varieties of colour; as when chocolate-brown passed into amber, or black was relieved by streaks and clouds of grey and dead-leaf red. This ware came to be known as *Tōshiro-yaki*, a term obtained by combining the second syllable of Katō with the two first of Shirozaemon. A genuine example of it is at present worth many times its weight in gold to Japanese dilettanti, though in foreign eyes it is little more than interesting. Shirozaemon was succeeded at the kiln by three generations of his family, each representative retaining the name of Tōshiro, and each distinguishing himself by the excellence of his work. Thenceforth Seto became the headquarters of the manufacture of *cha-no-yu* utensils, and many of the tiny pieces turned out there deserve high admiration, their technique being perfect, and their mahogany, russet-brown, amber and buff glazes showing wonderful lustre and richness. Seto, in fact, acquired such a widespread reputation for its ceramic productions that the term *seto-mono* (Seto article) came to be used generally for all pottery and porcelain, just as "China" is in the West. Seto has now ceased to be a pottery-producing centre, and has become the chief porcelain manufactory of Japan. The porcelain industry was inaugurated in 1807 by Tamikichi, a local ceramist, who had visited Hizen and spent three years there studying the necessary processes. Owari abounds in porcelain stone; but it does not occur in constant or particularly simple forms, and as the potters have not yet learned to treat their materials scientifically, their work is often marred by unforeseen difficulties. For many years after Tamikichi's processes had begun to be practised, the only decoration employed was blue under the glaze. Sometimes Chinese cobalt was used, sometimes Japanese, and sometimes a mixture of both. To Kawamoto Hansuke, who flourished about 1830–1845, belongs the credit of having turned out the richest and most attractive ware of this class. But, speaking generally, Japanese blues do not rank on the same decorative level with those of China. At Arita, although pieces were occasionally turned out of which the colour could not be surpassed in purity and brilliancy, the general character of the blue *sous couverte* was either thin or dull. At Hirado the ceramists affected a lighter and more delicate tone than that of the Chinese, and, in order to obtain it, subjected the choice pigment of the Middle Kingdom to refining processes of great severity. The Hirado blue, therefore, belongs to a special aesthetic category. But at Owari the experts were content with an inferior colour, and their blue-and-white porcelains never enjoyed a distinguished reputation, though occasionally we find a specimen of great merit.

Owari.

Decoration with vitrifiable enamels over the glaze, though it began to be practised at Owari about the year 1840, never became a speciality of the place. Nowadays, indeed, numerous examples of porcelains decorated in this manner are classed among Owari products. But they receive their decoration, almost without exception, in Tōkyō or Yokohama, where a large number of artists, called *e-tsuke-shi*, devote themselves entirely to porcelain-painting. These men seldom use vitrifiable enamels, pigments being much more tractable and less costly. The dominant feature of the designs is pictorial. They are frankly adapted to Western taste. Indeed, of this porcelain it may be said that, from the monster pieces of blue-and-white manufactured at Seto—vases six feet high and garden pillar-lamps half as tall again do not dismay the Bishū ceramist—to tiny coffee-cups decorated in Tōkyō, with their delicate miniatures of birds, flowers, insects, fishes and so forth, everything indicates the death of the old severe aestheticism. To such a depth of debasement had the ceramic art fallen in Owari, that before the happy renaissance of the past ten years, Nagoya discredited itself by employing porcelain as a base for cloisonné enamelling. Many products of this vitiated industry have found their way into the collections of foreigners.

Pottery was produced at several hamlets in Bizen as far back as the 14th century, but ware worthy of artistic notice did not make its appearance until the close of the 16th century, when the Taikō himself paid a visit to the factory at Imbe. Thenceforth utensils for the use of the tea clubs began to be manufactured. This *Bizen-yaki* was red stoneware, with thin diaphanous glaze. Made of exceedingly refractory clay, it underwent stoving for more than three weeks, and was consequently remarkable for its hardness and metallic timbre. Some fifty years later, the character of the choicest Bizen-yaki underwent a marked change. It became slate-coloured or bluish-brown faience, with *pâte* as fine as pipe-clay, but very hard. In the *ao-Bizen* (blue Bizen), as well as in the red variety, figures of mythical beings and animals, birds, fishes and other natural objects, were modelled with a degree of plastic ability that can scarcely be spoken of in too high terms. Representative specimens are truly admirable—every line, every contour faithful. The production was very limited, and good pieces soon ceased to be procurable except at long intervals and heavy expense. The Bizen-yaki familiar to Western collectors is comparatively coarse brown or reddish brown, stoneware, modelled rudely, though sometimes redeemed by touches of the genius never entirely absent from the work of the Japanese artisan-artist. Easy to be confounded with it is another ware of the same type manufactured at Shidoro in the province of Tōtōmi.

Bizen.

The Japanese potters could never vie with the Chinese in the production of glazes: the wonderful monochromes and polychromes of the Middle Kingdom had no peers anywhere. In Japan they were most closely approached by the faience of Takatori in the province of Chikuzen. In its early days the ceramic industry of this province owed something to the assistance of Korean experts who settled there after the expedition of 1592. But its chief development took place under the direction of Igarashi Jizaemon, an amateur ceramist, who, happening to visit Chikuzen about 1620, was taken under the protection of the chief of the fief and munificently treated. Taking the renowned *yao-pien-yao*, or "transmutation ware" of China as a model, the Takatori potters endeavoured, by skilful mixing of colouring materials, to reproduce the wonderful effects of oxidization seen in the Chinese ware. They did not, indeed, achieve their ideal, but they did succeed in producing some exquisitely lustrous glazes of the *flambé* type, rich transparent brown passing into claret colour, with flecks or streaks of white and clouds of "iron dust." The *pâte* of this faience was of the finest description, and the technique in every respect faultless. Unfortunately, the best experts confined themselves to working for the tea clubs, and consequently produced only insignificant pieces, as tea-jars, cups and little ewers. During the 18th century, a departure was made from these strict canons. From this period date most of the specimens best known outside Japan—cleverly modelled figures of mythological beings and animals covered with lustrous variegated glazes, the general colours being grey or buff, with tints of green, chocolate, brown and sometimes blue.

Takatori.

A ware of which considerable quantities have found their way westward of late years in the *Awaji-yaki*, so called from the island of Awaji where it is manufactured in the village of Iga. It was first produced between the years 1830 and 1840 by one Kajū Mimpei, a man of considerable private means who devoted himself to the ceramic art out of pure enthusiasm. His story is full of interest, but it must suffice here to note the results of his enterprise. Directing his efforts at first to reproducing the deep green and straw-yellow glazes of China, he had exhausted almost his entire resources before success came, and even then the public was slow to recognize the merits of his ware. Nevertheless he persevered, and in 1838 we find him producing not only green and yellow monochromes, but also greyish white and mirror-black glazes of high excellence. So thoroughly had he now mastered the management of glazes that he could combine yellow, green, white and claret colour in regular patches to imitate tortoise-shell. Many of his pieces have designs incised or in relief, and others are skilfully decorated with gold and silver. Awaji-yaki, or *Mimpei-yaki* as it is often called, is generally porcelain, but we occasionally find specimens which may readily be mistaken for Awata faience.

Awaji.

Banko faience is a universal favourite with foreign collectors. The type generally known to them is exceedingly light ware, for the most part made of light grey, unglazed clay, and having hand-modelled decoration in relief. But there are numerous varieties. Chocolate or dove-coloured grounds with delicate diapers in gold and *engobe*; brown or black faience with white, yellow and pink designs incised or in relief; pottery curiously and deftly marbled by combinations of various coloured clays—these and many other kinds are to be found, all, however, presenting one common feature, namely, skilful finger-moulding and a slight roughening of the surface as though it had received the impression of coarse linen or crape before baking. This modern *banko-yaki* is produced chiefly at Yokkaichi in the province of Ise. It is entirely different from the original banko-ware made in Kuwana, in the same province, by Numanami Gozaemon at the close of the 18th century. Gozaemon was an imitator. He took for his models the raku faience of Kiōto, the masterpieces of Ninsei and Kenzan, the rococo wares of Korea, the enamelled porcelain of China, and the blue-and-white ware of Delft. He did not found a school, simply because he had nothing new to teach, and the fact that a modern ware goes by the same name as his productions is simply because his seal—the inscription on which (*banko*, everlasting) suggested the name of the ware—subsequently (1830) fell into the hands of one Mori Yūsetsu, who applied it to his own ware. Mori Yūsetsu, however, had more originality than Numanami. He conceived the idea of shaping his pieces by putting the mould inside and pressing the clay with the hand into the matrix. The consequence was that his wares received the design on the inner as well as the outer surface, and were moreover thumb-marked—essential characteristics of the banko-yaki now so popular.

Banko.

Among a multitude of other Japanese wares, space allows us to mention only two, those of Izumo and Yatsushiro. The chief of the former is faience, having light grey, close *pâte* and yellow or straw-coloured glaze, with or without crackle,

Izumo.

to which is applied decoration in gold and green enamel. Another variety has chocolate glaze, clouded with amber and flecked with gold dust. The former faience had its origin at the close of the 17th century, the latter at the close of the 18th; but the *Izumo-yaki* now procurable is a modern production.

Yatsushiro.

The Yatsushiro faience is a production of the province of Higo, where a number of Korean potters settled at the close of the 17th century. It is the only Japanese ware in which the characteristics of a Korean original are unmistakably preserved. Its diaphanous, pearl-grey glaze, uniform, lustrous and finely crackled, overlying encaustic decoration in white slip, the fineness of its warm reddish *pâte*, and the general excellence of its technique, have always commanded admiration. It is produced now in considerable quantities, but the modern ware falls far short of its predecessor.

Many examples of the above varieties deserve the enthusiastic admiration they have received, yet they unquestionably belong to a lower rank of ceramic achievements than the choice productions of Chinese kilns. The potters of the Middle Kingdom, from the early eras of the Ming dynasty down to the latest years of the 18th century, stood absolutely without rivals as makers of porcelain. Their technical ability was incomparable—though in grace of decorative conception they yielded the palm to the Japanese—and the representative specimens they bequeathed to posterity remained, until quite recently, far beyond the imitative capacity of European or Asiatic experts. As for faience and pottery, however, the Chinese despised them in all forms, with one notable exception, the *yi-hsing-yao*, known in the Occident as *boccaro*. Even the *yi-hsing-yao*, too, owed much of its popularity to special utility. It was essentially the ware of the tea-drinker. If in the best specimens exquisite modelling, wonderful accuracy of finish and *pâtes* of interesting tints are found, such pieces are, none the less, stamped prominently with the character of utensils rather than with that of works of art. In short, the artistic output of Chinese kilns in their palmiest days was, not faience or pottery, but porcelain, whether of soft or hard paste. Japan, on the contrary, owes her ceramic distinction in the main to her faience. A great deal has been said by enthusiastic writers about the *famille chrysanthemo-pêonienne* of Imari and the *genre Kakiemon* of Nabeshima, but these porcelains, beautiful as they undoubtedly are, cannot be placed on the same level with the *kwan-yao* and *famille rose* of the Chinese experts. The Imari ware, even though its thick biscuit and generally ungraceful shapes be omitted from the account, shows no enamels that can rival the exquisitely soft, broken tints of the *famille rose;* and the *Kakiemon* porcelain, for all its rich though chaste contrasts, lacks the delicate transmitted tints of the shell-like *kwan-yao*. So, too, the blue-and-white porcelain of Hirado, though assisted by exceptional tenderness of *sous-pâte* colour, by milk-white glaze, by great beauty of decorative design, and often by an admirable use of the modelling or graving tool, represents a ceramic achievement palpably below the soft paste *kai-pien-yao* of King-te-chen. It is a curious and interesting fact that this last product of Chinese skill remained unknown in Japan down to very recent days. In the eyes of a Chinese connoisseur, no blue-and-white porcelain worthy of consideration exists, or ever has existed, except the *kai-pien-yao*, with its imponderable *pâte*, its wax-like surface, and its rich, glowing blue, entirely free from superficiality or garishness and broken into a thousand tints by the microscopic crackle of the glaze. The Japanese, although they obtained from their neighbour almost everything of value she had to give them, did not know this wonderful ware, and their ignorance is in itself sufficient to prove their ceramic inferiority. There remains, too, a wide domain in which the Chinese developed high skill, whereas the Japanese can scarcely be said to have entered it at all; namely, the domain of monochromes and polychromes, striking every note of colour from the richest to the most delicate; the domain of *truité* and *flambé* glazes, of *yō-pien-yao* (transmutation ware), and of egg-shell with incised or translucid decoration. In all that region of achievement the Chinese potters stood alone and seemingly unapproachable. The Japanese, on the contrary, made a specialty of faience, and in that particular line they reached a high standard of excellence. No faience produced either in China or any other Oriental country can dispute the palm with really representative specimens of Satsuma ware. Not without full reason have Western connoisseurs lavished panegyrics upon that exquisite production. The faience of the Kiōto artists never reached quite to the level of the Satsuma in quality of *pâte* and glowing mellowness of decoration; their materials were slightly inferior. But their skill as decorators was as great as its range was wide, and they produced a multitude of masterpieces on which alone Japan's ceramic fame might safely be rested.

Change of Style after the Restoration.

When the mediatization of the fiefs, in 1871, terminated the local patronage hitherto extended so munificently to artists, the Japanese ceramists gradually learned that they must thenceforth depend chiefly upon the markets of Europe and America. They had to appeal, in short, to an entirely new public, and how to secure its approval was to them a perplexing problem. Having little to guide them, they often interpreted Western taste incorrectly, and impaired their own reputation in a corresponding degree. Thus, in the early years of the Meiji era, there was a period of complete prostitution. No new skill was developed, and what remained of the old was expended chiefly upon the manufacture of meretricious objects, disfigured by excess of decoration and not relieved by any excellence of technique. In spite of their artistic defects, these specimens were exported in considerable numbers by merchants in the foreign settlements, and their first cost being very low, they found a not unremunerative market. But as European and American collectors became better acquainted with the capacities of the pre-Meiji potters, the great inferiority of these new specimens was recognized, and the prices commanded by the old wares gradually appreciated. What then happened was very natural: imitations of the old wares were produced, and having been sufficiently disfigured by staining and other processes calculated to lend an air of rust and age, they were sold to ignorant persons, who laboured under the singular yet common hallucination that the points to be looked for in specimens from early kilns were, not technical excellence, decorative tastefulness and richness of colour, but dinginess, imperfections and dirt; persons who imagined, in short, that defects which they would condemn at once in new porcelains ought to be regarded as merits in old. Of course a trade of that kind, based on deception, could not have permanent success. One of the imitators of "old Satsuma" was among the first to perceive that a new line must be struck out. Yet the earliest results of his awakened perception helped to demonstrate still further the depraved spirit that had come over Japanese art. For he applied himself to manufacture wares having a close affinity with the shocking monstrosities used for sepulchral purposes in ancient Apulia, where fragments of dissected satyrs, busts of nymphs or halves of horses were considered graceful excrescences for the adornment of an amphora or a pithos. This *Makuzu* faience, produced by the now justly celebrated Miyagawa Shōzan of Ota (near Yokohama), survives in the form of vases and pots having birds, reptiles, flowers, crustacea and so forth plastered over the surface—specimens that disgrace the period of their manufacture, and represent probably the worst aberration of Japanese ceramic conception.

Adoption of Chinese Models.

A production so degraded as the early Makuzu faience could not possibly have a lengthy vogue. Miyagawa soon began to cast about for a better inspiration, and found it in the monochromes and polychromes of the Chinese *Kang-hsi* and *Yung-cheng* kilns. The extraordinary value attaching to the incomparable red glazes of China, not only in the country of their origin but also in the United States, where collectors showed a fine instinct in this matter, seems to have suggested to Miyagawa the idea of imitation. He took for model the rich and delicate "liquid-dawn" monochrome, and succeeded in producing some specimens of considerable merit. Thenceforth his example was largely followed, and it may now be said that the tendency of many of the best Japanese ceramists is to copy Chinese *chefs-d'œuvre*. To find them thus renewing

their reputation by reverting to Chinese models, is not only another tribute to the perennial supremacy of Chinese porcelains, but also a fresh illustration of the eclectic genius of Japanese art. All the products of this new effort are porcelains proper. Seven kilns are devoted, wholly or in part, to the new wares: belonging to Miyagawa Shōzan of Ota, Seifū Yōhei of Kiōto, Takemoto Hayata and Katō Tomojiro of Tōkyō, Higuchi Haruzane of Hirado, Shida Yasukyo of Kaga and Kato Masukichi of Seto.

Seifū of Kiōto.

Among the seven ceramists here enumerated, Seifū of Kiōto probably enjoys the highest reputation. If we except the ware of Satsuma, it may be said that nearly all the fine faience of Japan was manufactured formerly in Kiōto. Nomura Ninsei, in the middle of the 17th century, inaugurated a long era of beautiful productions with his cream-like "fish-roe" *craquelé* glazes, carrying rich decoration of clear and brilliant vitrifiable enamels. It was he who gave their first really artistic impulse to the kilns of Awata, Mizoro and Iwakura, whence so many delightful specimens of faience issued almost without interruption until the middle of the 19th century and continue to issue to-day. The three Kenzan, of whom the third died in 1820; Ebisei; the four Dōhachi, of whom the fourth was still alive in 1909; the Kagiya family, manufacturers of the celebrated Kinkōzan ware; Hōzan, whose imitations of Delft faience and his *pâte-sur-pâte* pieces with fern-scroll decoration remain incomparable; Taizan Yōhei, whose ninth descendant of the same name now produces fine specimens of Awata ware for foreign markets; Tanzan Yōshitaro and his son Rokuro, to whose credit stands a new departure in the form of faience having *pâte-sur-pâte* decoration of lace patterns, diapers and archaic designs executed in low relief with admirable skill and minuteness; the two Bizan, renowned for their representations of richly apparelled figures as decorative motives; Rokubei, who studied painting under Maruyama Ōkyō and followed the naturalistic style of that great artist; Mokubei, the first really expert manufacturer of translucid porcelain in Kiōto; Shūhei, Kintei, and above all, Zengoro Hōzen, the celebrated potter of Eiraku wares—these names and many others give to Kiōto ceramics an eminence as well as an individuality which few other wares of Japan can boast. Nor is it to be supposed that the ancient capital now lacks great potters. Okamura Yasutaro, commonly called Shōzan, produces specimens which only a very acute connoisseur can distinguish from the work of Nomura Ninsei; Tanzan Rokuro's half-tint enamels and soft creamy glazes would have stood high in any epoch; Taizan Yōhei produces Awata faience not inferior to that of former days; Kagiya Sōbei worthily supports the reputation of the Kinkōzan ware; Kawamoto Eijiro has made to the order of a well-known Kiōto firm many specimens now figuring in foreign collections as old masterpieces; and Itō Tōzan succeeds in decorating faience with seven colours *sous couverte* (black, green, blue, russet-red, tea-brown, purple and peach), a feat never before accomplished. It is therefore an error to assert that Kiōto has no longer a title to be called a great ceramic centre. Seifū Yōhei, however, has the special faculty of manufacturing monochromatic and jewelled porcelain and faience, which differ essentially from the traditional Kiōto types, their models being taken directly from China. But a sharp distinction has to be drawn between the method of Seifū and that of the other six ceramists mentioned above as following Chinese fashions. It is this, that whereas the latter produce their chromatic effects by mixing the colouring matter with the glaze, Seifū paints the biscuit with a pigment over which he runs a translucid colourless glaze. The Kiōto artist's process is much easier than that of his rivals, and although his monochromes are often of most pleasing delicacy and fine tone, they do not belong to the same category of technical excellence as the wares they imitate. From this judgment must be excepted, however, his ivory-white and *céladon* wares, as well as his porcelains decorated with blue, or blue and red *sous couverte*, and with vitrifiable enamels over the glaze. In these five varieties he is emphatically great. It cannot be said, indeed, that his *céladon* shows the velvety richness of surface and tenderness of colour that distinguished the old *Kuang-yao* and *Lungchuan-yao* of China, or that he has ever essayed the moss-edged crackle of the beautiful *Ko-yao*. But his *céladon* certainly equals the more modern Chinese examples from the *Kang-hsi* and *Yung-cheng* kilns. As for his ivory-white, it distinctly surpasses the Chinese Ming *Chen-yao* in every quality except an indescribable intimacy of glaze and *pâte* which probably can never be obtained by either Japanese or European methods.

Miyagawa Shōzan.

Miyagawa Shōzan, or Makuzu, as he is generally called, has never followed Seifū's example in descending from the difficult manipulation of coloured glazes to the comparatively simple process of painted biscuit. This comment does not refer to the use of blue and red *sous couverte*. In that class of beautiful ware the application of pigment to the unglazed *pâte* is inevitable, and both Seifū and Miyagawa, working on the same lines as their Chinese predecessors, produce porcelains that almost rank with choice Kang-hsi specimens, though they have not yet mastered the processes sufficiently to employ them in the manufacture of large imposing pieces or wares of moderate price. But in the matter of true monochromatic and polychromatic glazes, to Shōzan belongs the credit of having inaugurated Chinese fashions, and if he has never fully succeeded in achieving *lang-yao* (sang-de-bœuf), *chi-hung* (liquid-dawn red), *chiang-tou-hung* (bean-blossom red, the "peach-blow" of American collectors), or above all *pin-kwo-tsing* (apple-green with red bloom), his efforts to imitate them have resulted in some very interesting pieces.

Tōkyō Ceramists.

Takemoto and Katō of Tōkyō entered the field subsequently to Shōzan, but followed the same models approximately. Takemoto, however, has made a speciality of black glazes, his aim being to rival the *Sung Chien-yao*, with its glaze of mirror-black or raven's-wing green, and its leveret fur streaking or russet-moss dappling, the prince of all wares in the estimation of the Japanese tea-clubs. Like Shōzan, he is still very far from his original, but, also like Shōzan, he produces highly meritorious pieces in his efforts to reach an ideal that will probably continue to elude him for ever. Of Katō there is not much to be said. He has not succeeded in winning great distinction, but he manufactures some very delicate monochromes, fully deserving to be classed among prominent evidences of the new departure. Tōkyō was never a centre of ceramic production. Even during the 300 years of its conspicuous prosperity as the administrative capital of the Tokugawa shōguns, it had no noted factories, doubtless owing to the absence of any suitable potter's clay in the immediate vicinity. Its only notable production of a ceramic character was the work of Miura Kenya (1830–1843), who followed the methods of the celebrated Haritsu (1688–1704) of Kiōto in decorating plain or lacquered wood with mosaics of raku faience having coloured glazes. Kenya was also a skilled modeller of figures, and his factory in the Imado suburb obtained a considerable reputation for work of that nature. He was succeeded by Tozawa Benshi, an old man of over seventy in 1909, who, using clay from Owari or Hizen, has turned out many porcelain statuettes of great beauty. But although the capital of Japan formerly played only an insignificant part in Japanese ceramics, modern Tōkyō has an important school of artist-artisans. Every year large quantities of porcelain and faience are sent from the provinces to the capital to receive surface decoration, and in wealth of design as well as carefulness of execution the results are praiseworthy. But of the pigments employed nothing very laudatory could be said until very recent times. They were generally crude, of impure tone, and without depth or brilliancy. Now, however, they have lost these defects and entered a period of considerable excellence. Figure-subjects constitute the chief feature of the designs. A majority of the artists are content to copy old pictures of Buddha's sixteen disciples, the seven gods of happiness, and other similar assemblages of mythical or historical personages, not only because such work offers large opportunity for the use of striking colours and the production of meretricious effects, dear to the eye of the average Western householder and tourist, but also because a complicated design, as compared with a simple one, has the advantage of hiding the technical imperfections of the ware. Of late there have happily appeared some decorators who prefer to choose their subjects from the natural field in which their great predecessors excelled, and there is reason to hope that this more congenial and more pleasing style will supplant its modern usurper. The best known factory in Tōkyō for decorative purposes is the Hyōchi-en. It was established in the Fukagawa suburb in 1875, with the immediate object of preparing specimens for the first Tōkyō exhibition held at that time. Its founders obtained a measure of official aid, and were able to secure the services of some good artists, among whom may be mentioned Obanawa and Shimauchi. The porcelains of Owari and Arita naturally received most attention at the hands of the Hyōchi-en decorators, but there was scarcely one of the principal wares of Japan upon which they did not try their skill, and if a piece of monochromatic Minton or Sèvres came in their way, they undertook to improve it by the addition of designs copied from old masters or suggested by modern taste. The cachet of the Fukagawa atelier was indiscriminately applied to all such pieces, and has probably proved a source of confusion to collectors. Many other factories for decoration were established from time to time in Tōkyō. Of these some still exist; others, ceasing to be profitable, have been abandoned. On the whole, the industry may now be said to have assumed a domestic character. In a house, presenting no distinctive features whatsoever, one finds the decorator with a cupboard full of bowls and vases of glazed biscuit, which he adorns, piece by piece, using the simplest conceivable apparatus and a meagre supply of pigments. Sometimes he fixes the decoration himself, employing for that purpose a small kiln which stands in his back garden; sometimes he entrusts this part of the work to a factory. As in the case of everything Japanese, there is no pretence, no useless expenditure about the process. Yet it is plain that this school of Tōkyō decorators, though often choosing their subjects badly, have contributed much to the progress of the ceramic art during the past few years. Little by little there has been developed a degree of skill which compares not unfavourably with the work of the old masters. Table services of Owari porcelain — the ware itself excellently manipulated and of almost egg-shell fineness—are now decorated with floral scrolls, landscapes, insects, birds, figure-subjects and all

sorts of designs, chaste, elaborate or quaint; and these services, representing so much artistic labour and originality, are sold for prices that bear no due ratio to the skill required in their manufacture.

There is only one reservation to be made in speaking of the modern decorative industry of Japan under its better aspects. In Tōkyō, Kiōto, Yokohama and Kobe—in all of which places decorating ateliers (*etsuke-dokoro*), similar to those of Tōkyō, have been established in modern times—the artists use chiefly pigments, seldom venturing to employ vitrifiable enamels. That the results achieved with these different materials are not comparable is a fact which every connoisseur must admit. The glossy surface of a porcelain glaze is ill fitted for rendering artistic effects with ordinary colours. The proper field for the application of these is the biscuit, in which position the covering glaze serves at once to soften and to preserve the pigment. It can scarcely be doubted that the true instincts of the ceramist will ultimately counsel him to confine his decoration over the glaze to vitrifiable enamels, with which the Chinese and Japanese potters of former times obtained such brilliant results. But to employ enamels successfully is an achievement demanding special training and materials not easy to procure or to prepare. The Tōkyō decorators are not likely, therefore, to change their present methods immediately.

An impetus was given to ceramic decoration by the efforts of a new school, which owed its origin to Dr G. Wagener, an eminent German expert formerly in the service of the Japanese government. Dr Wagener conceived the idea of developing the art of decoration under the glaze, as applied to faience. Faience thus decorated has always been exceptional in Japan. Rare specimens were produced in Satsuma and Kiōto, the colour employed being chiefly blue, though brown and black were used in very exceptional instances. The difficulty of obtaining clear, rich tints was nearly prohibitive, and though success, when achieved, seemed to justify the effort, this class of ware never received much attention in Japan. By careful selection and preparation of *pâte*, glaze and pigments, Dr Wagener proved not only that the manufacture was reasonably feasible, but also that decoration thus applied to pottery possesses unique delicacy and softness. Ware manufactured by his direction at the Tōkyō school of technique (*shokkō gakkō*), under the name of *asahi-yaki*, ranks among the interesting productions of modern Japan. The decorative colour chiefly employed is chocolate brown, which harmonizes excellently with the glaze. But the ware has never found favour in Japanese eyes, an element of unpleasant garishness being imparted to it by the vitreous appearance of the glaze, which is manufactured according to European methods. The modern faience of Ito Tōzan of Kiōto, decorated with colour under the glaze, is incomparably more artistic than the Tōkyō *asahi-yaki*, from which, nevertheless, the Kiōto master doubtless borrowed some ideas. The decorative industry in Tōkyō owed much also to the kōshō-kaisha, an institution started by Wakai and Matsuo in 1873, with official assistance. Owing to the intelligent patronage of this company, and the impetus given to the ceramic trade by its enterprise, the style of the Tōkyō *etsuke* was much improved and the field of their industry extended. It must be acknowledged, however, that the Tōkyō artists often devote their skill to purposes of forgery, and that their imitations, especially of old Satsuma-yaki, are sometimes franked by dealers whose standing should forbid such frauds. In this context it may be mentioned that, of late years, decoration of a remarkably microscopic character has been successfully practised in Kiōto, Osaka and Kobe, its originator being Meisan of Osaka. Before dismissing the subject of modern Tōkyō ceramics, it may be added that Katō Tomatarō, mentioned above in connexion with the manufacture of special glazes, has also been very successful in producing porcelains decorated with blue *sous couverte* at his factory in the Koishikawa suburb.

Higuchi of Hirado is to be classed with ceramists of the new school on account of one ware only, namely, porcelain having translucid decoration, the so-called "grains of rice" of American collectors, designated *hotaru-de* (firefly style) in Japan. That, however, is an achievement of no small consequence, especially since it had never previously been essayed outside China. The Hirado expert has not yet attained technical skill equal to that of the Chinese. He cannot, like them, cover the greater part of a specimen's surface with a lacework of transparent decoration, exciting wonder that *pâte* deprived so greatly of continuity could have been manipulated without accident. But his artistic instincts are higher than those of the Chinese, and there is reasonable hope that in time he may excel their best works. In other respects the Hirado factories do not produce wares nearly so beautiful as those manufactured there between 1759 and 1840, when the *Hirado-yaki* stood at the head of all Japanese porcelain on account of its pure, close-grained *pâte*, its lustrous milk-white glaze, and the soft clear blue of its carefully executed decoration.

Modern Wares of Hirado.

The Owari potters were slow to follow the lead of Miyagawa Shōzan and Seifū Yōhei. At the industrial exhibition in Kiōto (1895) the first results of their efforts were shown, attracting attention at once. In medieval times Owari was celebrated for faience glazes of various colours, much affected by the tea-clubs, but its staple manufacture from the beginning of the 19th century was porcelain decorated with blue under the glaze, the best specimens of which did not approach their Chinese prototypes in fineness of *pâte*, purity of glaze or richness of colour. During the first twenty-five years of the Meiji era the Owari potters sought to compensate the technical and artistic defects of their pieces by giving them magnificent dimensions; but at the Tōkyō industrial exhibition (1891) they were able to contribute some specimens showing decorative, plastic and graving skill of no mean order. Previously to that time, one of the Seto experts, Katō Gosuke, had developed remarkable ability in the manufacture of *céladon*, though in that field he was subsequently distanced by Seifū of Kiōto. Only lately did Owari feel the influence of the new movement towards Chinese types. Its potters took *flambé* glazes for models, and their pieces possessed an air of novelty that attracted connoisseurs. But the style was not calculated to win general popularity, and the manufacturing processes were too easy to occupy the attention of great potters. On a far higher level stood egg-shell porcelain, remarkable examples of which were sent from Seto to the Kiōto industrial exhibition of 1895. Chinese potters of the Yung-lo era (1403–1414) enriched their country with a quantity of ware to which the name of *totai-ki* (bodiless utensil) was given on account of its wonderfully attenuated *pâte*. The finest specimens of this porcelain had incised decoration, sparingly employed but adding much to the beauty of the piece. In subsequent eras the potters of King-te-chen did not fail to continue this remarkable manufacture, but its only Japanese representative was a porcelain distinctly inferior in more than one respect, namely, the egg-shell utensils of Hizen and Hirado, some of which had finely woven basket-cases to protect their extreme fragility. The Seto experts, however, are now making bowls, cups and vases that rank nearly as high as the celebrated Yung-lo totai-ki. In purity of tone and velvet-like gloss of surface there is distinct inferiority on the side of the Japanese ware, but in thinness of *pâte* it supports comparison, and in profusion and beauty of incised decoration it excels its Chinese original.

Ware of Owari.

Latest of all to acknowledge the impulse of the new departure have been the potters of Kaga. For many years their ware enjoyed the credit, or discredit, of being the most lavishly decorated porcelain in Japan. It is known to Western collectors as a product blazing with red and gold, a very degenerate offspring of the Chinese Ming type, which Hozen of Kiōto reproduced so beautifully at the beginning of the 19th century under the name of *eiraku-yaki*. Undoubtedly the best specimens of this *kinran-de* (brocade) porcelain of Kaga merit praise and admiration; but, on the whole, ware so gaudy could not long hold a high place in public esteem. The Kaga potters ultimately appreciated that defect. They still manufacture quantities of tea and coffee sets, and dinner or dessert services of red-and-gold porcelain for foreign markets; but about 1885 some of them made zealous and patient efforts to revert to the processes that won so much fame for the old Kutani-yaki, with its grand combinations of rich, lustrous, soft-toned glazes. The attempt was never entirely successful, but its results restored something of the Kaga kilns' reputation. Since 1895, again, a totally new departure has been made by Morishita Hachizaemon, a ceramic expert, in conjunction with Shida Yasukyo, president of the Kaga products joint stock company (*Kaga bussan kabushiki kaisha*) and teacher in the Kaga industrial school. The line chosen by these ceramists is purely Chinese. Their great aim seems to be the production of the exquisite Chinese monochromes known as *u-kwo-tien-tsing* (blue of the sky after rain) and *yueh-peh* (*clair-de-lune*). But they also devote much attention to porcelains decorated with blue or red *sous couverte*. Their work shows much promise, but like all fine specimens of the Sino-Japanese school, the prices are too high to attract wide custom.

Ware of Kaga.

The sum of the matter is that the modern Japanese ceramist, after many efforts to cater for the taste of the Occident, evidently concludes that his best hope consists in devoting all his technical and artistic resources to reproducing the celebrated wares of China. In explanation of the fact that he did not essay this route in former times, it may be noted, first, that he had only a limited acquaintance with the wares in question; secondly, that Japanese connoisseurs never attached any value to their countrymen's imitation of Chinese porcelains so long as the originals were obtainable; thirdly, that the ceramic art of China not having fallen into its present state of decadence, the idea of competing with it did not occur to outsiders; and fourthly, that Europe and America had not developed their present keen appreciation of Chinese masterpieces. Yet it is remarkable that China, at the close of the 19th century, should have again furnished models to Japanese eclecticism.

Summary.

Lacquer.—Japan derived the art of lacquering from China (probably about the beginning of the 6th century), but she ultimately carried it far beyond Chinese conception. At first her experts confined themselves to plain black lacquer. From

the early part of the 8th century they began to ornament it with dust of gold or mother-of-pearl, and throughout the Heian epoch (9th to 12th century) they added pictorial designs, though of a formal character, the chief motives being floral subjects, arabesques and scrolls. All this work was in the style known as *hira-makie* (flat decoration); that is to say, having the decorative design in the same plane as the ground. In the days of the great dilettante Yoshimasa (1449–1490), lacquer experts devised a new style, *taka-makie*, or decoration in relief, which immensely augmented the beauty of the ware, and constituted a feature altogether special to Japan. Thus when, at the close of the 16th century, the Taikō inaugurated the fashion of lavishing all the resources of applied art on the interior decoration of castles and temples, the services of the lacquerer were employed to an extent hitherto unknown, and there resulted some magnificent work on friezes, coffered ceilings, door panels, altar-pieces and cenotaphs. This new departure reached its climax in the Tokugawa mausolea of Yedo and Nikkō, which are enriched by the possession of the most splendid applications of lacquer decoration the world has ever seen, nor is it likely that anything of comparable beauty and grandeur will be again produced in the same line. Japanese connoisseurs indicate the end of the 17th century as the golden period of the art, and so deeply rooted is this belief that whenever a date has to be assigned to any specimen of exceptionally fine quality, it is unhesitatingly referred to the time of Joken-in (Tsunayoshi).

Among the many skilled artists who have practised this beautiful craft since the first on record, Kiyohara Norisuye (*c.* 1169), may be mentioned Kōyetsu (1558–1637) and his pupils, who are especially noted for their *inro* (medicine-cases worn as part of the costume); Kajikawa Kinjirō (*c.* 1680), the founder of the great Kajikawa family, which continued up to the 19th century; and Koma Kyūhaku (d. 1715), whose pupils and descendants maintained his traditions for a period of equal length. Of individual artists, perhaps the most notable is Ogata Kōrin (d. 1716), whose skill was equally great in the arts of painting and pottery. He was the eldest son of an artist named Ogato Sōken, and studied the styles of the Kanō and Tosa schools successively. Among the artists who influenced him were Kanō Tsunenobu, Nomura Sōtatsu and Kōyetsu. His lacquer-ware is distinguished for a bold and at times almost eccentric impressionism, and his use of inlay is strongly characteristic. Ritsuō (1663–1747), a pupil and contemporary of Kōrin, and like him a potter and painter also, was another lacquerer of great skill. Then followed Hanzan, the two Shiome, Yamamoto Shunshō and his pupils, Yamada Jōka and Kwanshōsai Tōyō (late 18th century). In the beginning of the 19th century worked Shōkwasai, who frequently collaborated with the metal-worker Shibayama, encrusting his lacquer with small decorations in metal by the latter.

Modern Work.

No important new developments have taken place during modern times in Japan's lacquer manufacture. Her artists follow the old ways faithfully; and indeed it is not easy to see how they could do better. On the other hand, there has not been any deterioration; all the skill of former days is still active. The contrary has been repeatedly affirmed by foreign critics, but no one really familiar with modern productions can entertain such a view. Lacquer-making, however, being essentially an art and not a mere handicraft, has its eras of great masters and its seasons of inferior execution. Men of the calibre of Kōyetsu Kōrin, Ritsuō, Kajikawa and Mitsutoshi must be rare in any age, and the epoch when they flourished is justly remembered with enthusiasm. But the Meiji era has had its Zeshin, and it had in 1909 Shirayama Fukumatsu, Kawanabe Itchō, Ogāwa Shōmin, Uematsu Hōmin, Shibayama Sōichi, Morishita Morihachi and other lesser experts, all masters in designing and execution. Zeshin, shortly before he died, indicated Shirayama Fukumatsu as the man upon whom his mantle should descend, and that the judgment of this really great craftsman was correct cannot be denied by any one who has seen the works of Shirayama. He excels in his representations of landscapes and waterscapes, and has succeeded in transferring to gold-lacquer panels tender and delicate pictures of nature's softest moods—pictures that show balance, richness, harmony and a fine sense of decorative proportion. Kawanabe Itchō is celebrated for his representations of flowers and foliage, and Morishita Morihachi and Asano Saburo (of Kaga) are admirable in all styles, but especially, perhaps, in the charming variety called *togi-dashi* (ground down), which is pre-eminent for its satin-like texture and for the atmosphere of dreamy softness that pervades the decoration. The togi-dashi design, when finely executed, seems to hang suspended in the velvety lacquer or to float under its silky surface. The magnificent sheen and richness of the pure *kin-makie* (gold lacquer) are wanting, but in their place we have inimitable tenderness and delicacy.

The only branch of the lacquerer's art that can be said to have shown any marked development in the Meiji era is that in which parts of the decorative scheme consist of objects in gold, silver, shakudo, shibuichi, iron, or, above all, ivory or mother-of pearl. It might indeed be inferred, from some of the essays published in Europe on the subject of Japan's ornamental arts, that this application of ivory and mother-of-pearl holds a place of paramount importance. Such is not the case. Cabinets, fire-screens, plaques and boxes resplendent with gold lacquer grounds carrying elaborate and profuse decoration of ivory and mother-of-pearl[1] are not objects that appeal to Japanese taste. They belong essentially to the catalogue of articles called into existence to meet the demand of the foreign market, being, in fact, an attempt to adapt the lacquerer's art to decorative furniture for European houses. On the whole it is a successful attempt. The plumage of gorgeously-hued birds, the blossoms of flowers (especially the hydrangea), the folds of thick brocade, microscopic diapers and arabesques, are built up with tiny fragments of iridescent shell, in combination with silver-foil, gold-lacquer and coloured bone, the whole producing a rich and sparkling effect. In fine specimens the workmanship is extraordinarily minute, and every fragment of metal, shell, ivory or bone, used to construct the decorative scheme, is imbedded firmly in its place. But in a majority of cases the work of building is done by means of paste and glue only, so that the result lacks durability. The employment of mother-of-pearl to ornament lacquer grounds dates from a period as remote as the 8th century, but its use as a material for constructing decorative designs began in the 17th century, and was due to an expert called Shibayama, whose descendant, Shibayama Sōichi, has in recent years been associated with the same work in Tōkyō.

New Development.

In the manufacture of Japanese lacquer there are three processes. The first is the extraction and preparation of the lac; the second, its application; and the third, the decoration of the lacquered surface. The lac, when taken from an incision in the trunk of the *Rhus vernicifera* (*urushi-no-ki*), contains approximately 70% of lac acid, 4% of gum arabic, 2% of albumen, and 24% of water. It is strained, deprived of its moisture, and receives an admixture of gamboge, cinnabar, acetous protoxide or some other colouring matter. The object to be lacquered, which is generally made of thin white pine, is subjected to singularly thorough and painstaking treatment, one of the processes being to cover it with a layer of Japanese paper or thin hempen cloth, which is fixed by means of a pulp of rice-paste and lacquer. In this way the danger of warping is averted, and exudations from the wooden surface are prevented from reaching the overlaid coats of lacquer. Numerous operations of luting, sizing, lacquering, polishing, drying, rubbing down, and so on, are performed by the *nurimono-shi*, until, after many days' treatment, the object emerges with a smooth, lustre-like dark-grey or coloured surface, and is ready to pass into the hands of the *makie-shi*, or decorator. The latter is an artist; those who have performed the preliminary operations are merely skilled artisans. The makie-shi may be said to paint a picture on the surface of the already lacquered object. He takes for subject a landscape, a seascape, a battle-scene, flowers, foliage, birds, fishes, insects—in short, anything. This he sketches in outline with a paste of white lead, and then, having filled in the details with gold and colours, he superposes a coat of translucid lacquer, which is finally subjected to careful polishing. If parts of the design are to be in relief, they are built up with a putty of black lacquer, white lead, camphor and lamp-black. In all fine lacquers gold predominates so largely that the general impression conveyed by the object is one of glow and richness. It is also an inviolable rule that every part must show beautiful and highly finished work, whether it be an external or an internal part. The makie-shi ranks almost as high as the pictorial artist in Japanese esteem. He frequently signs his works, and a great number of names have been thus handed down during the past two centuries.

Processes.

Cloisonné Enamel.—Cloisonné enamel is essentially of modern development in Japan. The process was known at an early period, and was employed for the purpose of subsidiary decoration from the close of the 16th century, but not until the 19th century did Japanese experts begin to manufacture the objects known in Europe as "enamels;" that is to say, vases, plaques, censers, bowls, and so forth, having their surface covered with vitrified pastes applied either in the *champlevé* or the *cloisonné* style. It is necessary to insist upon this fact, because it has been stated with apparent authority that numerous specimens which began to be exported from 1865 were the outcome of industry commencing in the 16th century and reaching its point of culmination at the beginning of the 18th. There is not the slenderest ground for such a theory. The work began in 1838, and Kaji Tsunekichi of Owari was its originator. During 20 years previously to the reopening of the country in 1858,

[1] Obtained from the shell of the *Halictis*.

cloisonné enamelling was practised in the manner now understood by the term; when foreign merchants began to settle in Yokohama, several experts were working skilfully in Owari after the methods of Kaji Tsunekichi. Up to that time there had been little demand for enamels of large dimensions, but when the foreign market called for vases, censers, plaques and such things, no difficulty was found in supplying them. Thus, about the year 1865, there commenced an export of enamels which had no prototypes in Japan, being destined frankly for European and American collectors. From a technical point of view these specimens had much to recommend them. The base, usually of copper, was as thin as cardboard; the cloisons, exceedingly fine and delicate, were laid on with care and accuracy; the colours were even, and the designs showed artistic judgment. Two faults, however, marred the work—first, the shapes were clumsy and unpleasing, being copied from bronzes whose solidity justified forms unsuited to thin enamelled vessels; secondly, the colours, sombre and somewhat impure, lacked the glow and mellowness that give decorative superiority to the technically inferior Chinese enamels of the later Ming and early Tsing eras. Very soon, however, the artisans of Nagoya (Owari), Yokohama and Tōkyō—where the art had been taken up—found that faithful and fine workmanship did not pay. The foreign merchant desired many and cheap specimens for export, rather than few and costly. There followed then a period of gradual decline, and the enamels exported to Europe showed so much inferiority that they were supposed to be the products of a widely different era and of different makers. The industry was threatened with extinction, and would certainly have dwindled to insignificant dimensions had not a few earnest artists, working in the face of many difficulties and discouragements, succeeded in striking out new lines and establishing new standards for excellence.

New Schools.

Three clearly differentiated schools now (1875) came into existence. One, headed by Namikawa Yasuyuki of Kiōto, took for its objects the utmost delicacy and perfection of technique, richness of decoration, purity of design and harmony of colour. The thin clumsily-shaped vases of the Kaji school, with their uniformly distributed decoration of diapers, scrolls and arabesques in comparatively dull colours, ceased altogether to be produced, their place being taken by graceful specimens, technically flawless, and carrying designs not only free from stiffness, but also executed in colours at once rich and soft. This school may be subdivided, Kiōto representing one branch, Nagoya, Tōkyō and Yokohama the other. In the products of the Kiōto branch the decoration generally covered the whole surface of the piece; in the products of the other branch the artist aimed rather at pictorial effect, placing the design in a monochromatic field of low tone. It is plain that such a method as the latter implies great command of coloured pastes, and, indeed, no feature of the manufacture is more conspicuous than the progress made during the period 1880–1900 in compounding and firing vitrifiable enamels. Many excellent examples of cloisonné enamel have been produced by each branch of this school. There has been nothing like them in any other country, and they stand at an immeasurable distance above the works of the early Owari school represented by Kaji Tsunekichi and his pupils and colleagues.

Cloisonless Enamels.

The second of the modern schools is headed by Namikawa Sosuke of Tōkyō. It is an easily traced outgrowth of the second branch of the first school just described, for one can readily understand that from placing the decorative design in a monochromatic field of low tone, which is essentially a pictorial method, development would proceed in the direction of concealing the mechanics of the art in order to enhance the pictorial effect. Thus arose the so-called "cloisonless enamels" (*musenjippō*). They are not always without cloisons. The design is generally framed at the outset with a ribbon of thin metal, precisely after the manner of ordinary cloisonné ware. But as the work proceeds the cloisons are hidden—unless their presence is necessary to give emphasis to the design—and the final result is a picture in vitrified enamels.

Monochromatic Enamels.

The characteristic productions of the third among the modern schools are monochromatic and translucid enamels. All students of the ceramic art know that the monochrome porcelains of China owe their beauty to the fact that the colour is in the glaze, not under it. The ceramist finds no difficulty in applying a uniform coat of pigment to porcelain biscuit, and covering the whole with a diaphanous glaze. The colour is fixed and the glaze set by secondary firing at a lower temperature than that necessary for hardening the *pâte*. Such porcelains, however, lack the velvet-like softness and depth of tone so justly prized in the genuine monochrome, where the glaze itself contains the colouring matter, *pâte* and glaze being fired simultaneously at the same high temperature. It is apparent that a vitrified enamel may be made to perform, in part at any rate, the function of a porcelain glaze. Acting upon that theory, the experts of Tōkyō and Nagoya have produced many very beautiful specimens of monochrome enamel—yellow (canary or straw), *rose du Barry*, liquid-dawn, red, aubergine purple, green (grass or leaf), dove-grey and lapis lazuli blue. The pieces do not quite reach the level of Chinese monochrome porcelains, but their inferiority is not marked. The artist's great difficulty is to hide the metal base completely. A monochrome loses much of its attractiveness when the colour merges into a metal rim, or when the interior of a vase is covered with crude unpolished paste. But to spread and fix the enamel so that neither at the rim nor in the interior shall there be any break of continuity, or any indication that the base is copper, not porcelain, demands quite exceptional skill.

Translucid Enamel.

The translucid enamels of the modern school are generally associated with decorative bases. In other words, a suitable design is chiselled in the metal base so as to be visible through the diaphanous enamel. Very beautiful effects of broken and softened lights, combined with depth and delicacy of colour, are thus obtained. But the decorative designs which lend themselves to such a purpose are not numerous. A gold base deeply chiselled in wave-diaper and overrun with a paste of aubergine purple is the most pleasing. A still higher achievement is to apply to the chiselled base designs executed in coloured enamels, finally covering the whole with translucid paste. Admirable results are thus produced; as when, through a medium of cerulean blue, bright goldfish and blue-backed carp appear swimming in silvery waves, or brilliantly plumaged birds seem to soar among fleecy clouds. The artists of this school show also much skill in using enamels for the purposes of subordinate decoration—suspending enamelled butterflies, birds or floral sprays, among the reticulations of a silver vase chiselled *à jour*; or filling with translucid enamels parts of a decorative scheme sculptured in iron, silver, gold or shakudo.

V.—Economic Conditions

Roads and Posts In Early Times.

Communications.—From the conditions actually existing in the 8th century after the Christian era the first compilers of Japanese history inferred the conditions which might have existed in the 7th century before that era. One of their inferences was that, in the early days, communication was by water only, and that not until 549 B.C. did the most populous region of the empire—the west coast—come into possession of public roads. Six hundred years later, the local satraps are represented as having received instructions to build regular highways, and in the 3rd century the massing of troops for an over-sea expedition invested roads with new value. Nothing is yet heard, however, about posts. These evidences of civilization did not make their appearance until the first great era of Japanese reform, the Taika period (645–650), when stations were established along the principal highways, provision was made of post-horses, and a system of bells and checks was devised for distinguishing official carriers. In those days ordinary travellers were required to carry passports, nor had they any share in the benefits of the official organization, which was entirely under the control of the minister of war.. Great difficulties attended the movements of private persons. Even the task of transmitting to the central government provincial taxes paid in kind had to be discharged by specially organized parties, and this journey from the north-eastern districts to the capital generally occupied three months. At the close of the 7th century the emperor Mommu is said to have enacted a law that wealthy persons living near the highways must supply rice to travellers, and in 745 an empress (Koken) directed that a stock of medical necessaries must be kept at the postal stations. Among the benevolent acts attributed to renowned Buddhist priests posterity specially remembers their efforts to encourage the building of roads and bridges. The great emperor Kwammu (782–806) was constrained to devote a space of five years to the reorganization of the whole system of post-stations. Owing to the anarchy which prevailed during the 10th, 11th and 12th centuries, facilities of communication disappeared almost entirely, even for men of rank a long journey involved danger of starvation or fatal exposure, and the pains and perils of travel became a household word among the people.

Yoritomo, the founder of feudalism at the close of the 12th century, was too great a statesman to underestimate the value of roads and

posts. The highway between his stronghold, Kamakura, and the Imperial city, Kiōto, began in his time to develop features which ultimately entitled it to be called one of the finest roads in the world. But after Yoritomo's death the land became once more an armed camp, in which the rival barons discouraged travel beyond the limits of their own domains. Not until the Tokugawa family obtained military control of the whole empire (1603), and, fixing its capital at Yedo, required the feudal chiefs to reside there every second year, did the problem of roads and post-stations force itself once more on official attention. Regulations were now strictly enforced, fixing the number of horses and carriers available at each station, the loads to be carried by them and their charges, as well as the transport services that each feudal chief was entitled to demand and the fees he had to pay in return. Tolerable hostelries now came into existence, but they furnished only shelter, fuel and the coarsest kind of food. By degrees, however, the progresses of the feudal chiefs to and from Yedo, which at first were simple and economical, developed features of competitive magnificence, and the importance of good roads and suitable accommodation received increased attention. This found expression in practice in 1663. A system more elaborate than anything antecedent was then introduced under the name of "flying transport." Three kinds of couriers operated. The first class were in the direct employment of the shōgunate. They carried official messages between Yedo and Osaka—a distance of 348 miles—in four days by means of a well organized system of relays. The second class maintained communications between the fiefs and the Tokugawa court as well as their own families in Yedo, for in the alternate years of a feudatory's compulsory residence in that city his family had to live there. The third class were maintained by a syndicate of 13 merchants as a private enterprise for transmitting letters between the three great cities of Kiōto, Osaka and Yedo and intervening places. This syndicate did not undertake to deliver a letter direct to an addressee. The method pursued was to expose letters and parcels at fixed places in the vicinity of their destination, leaving the addressees to discover for themselves that such things had arrived. Imperfect as this system was, it represented a great advance from the conditions in medieval times.

The nation does not seem to have appreciated the deficiencies of the syndicate's service, supplemented as it was by a network of waterways which greatly increased the facilities for transport. After the cessation of civil wars under the sway of the Tokugawa, the building and improvement of roads went on steadily. It is not too much to say, indeed, that when Japan opened her doors to foreigners in the middle of the 19th century, she possessed a system of roads some of which bore striking testimony to her medieval greatness.

The Tōkaidō. The most remarkable was the Tōkaidō (eastern-sea way), so called because it ran eastward along the coast from Kiōto. This great highway, 345 m. long, connected Osaka and Kiōto with Yedo. The date of its construction is not recorded, but it certainly underwent signal improvement in the 12th and 13th centuries, and during the two and a half centuries of Tokugawa sway in Yedo. A wide, well-made and well-kept avenue, it was lined throughout the greater part of its length by giant pine-trees, rendering it the most picturesque highway in the world. Iyeyasu, the founder of the Tokugawa dynasty of shōguns, directed that his body should be interred at Nikkō, a place of exceptional beauty, consecrated eight hundred years previously. This meant an extension of the Tōkaidō (under a different name) nearly a hundred miles northward, for the magnificent shrines erected then at Nikkō and the periodical ceremonies thenceforth performed there demanded a correspondingly fine avenue of approach. The original Tōkaidō was taken for model, and Yedo and Nikkō were joined by a highway flanked by rows of cryptomeria. Second only to the Tōkaidō is

The Nakasendō. the Nakasendō (mid-mountain road), which also was constructed to join Kiōto with Yedo, but follows an inland course through the provinces of Yamashiro, Omi, Mino, Shinshū, Kōtzuke and Musashi. Its length is 340 m., and though not flanked by trees or possessing so good a bed as the Tōkaidō, it is nevertheless a sufficiently remarkable highway. A

The Oshūkaidō. third road, the Oshūkaidō runs northward from Yedo (now Tōkyō) to Aomori on the extreme north of the main island, a distance of 445 m., and several lesser highways give access to other regions.

Modern Superintendence of Roads. The question of road superintendence received early attention from the government of the restoration. At a general assembly of local prefects held at Tōkyō in June 1875 it was decided to classify the different roads throughout the empire, and to determine the several sources from which the sums necessary for their maintenance and repair should be drawn. After several days' discussion all roads were eventually ranged under one or other of the following heads:—

I. National roads, consisting of—
  Class 1. Roads leading from Tōkyō to the various treaty ports.
  Class 2. Roads leading from Tōkyō to the ancestral shrines in the province of Isē, and also to the cities or to military stations.
  Class 3. Roads leading from Tōkyō to the prefectural offices, and those forming the lines of connexion between cities and military stations.

II. Prefectural roads, consisting of—
  Class 1. Roads connecting different prefectures, or leading from military stations to their outposts.
  Class 2. Roads connecting the head offices of cities and prefectures with their branch offices.
  Class 3. Roads connecting noted localities with the chief town of such neighbourhoods, or leading to seaports convenient of access.

III. Village roads, consisting of—
  Class 1. Roads passing through several localities in succession, or merely leading from one locality to another.
  Class 2. Roads specially constructed for the convenience of irrigation, pasturage, mines, factories, &c., in accordance with measures determined by the people of the locality.
  Class 3. Roads constructed for the benefit of Shintō shrines, Buddhist temples, or to facilitate the cultivation of rice-fields and arable land.

Of the above three headings, it was decided that all national roads should be maintained at the national expense, the regulations for their up-keep being entrusted to the care of the prefectures along the line of route, and the cost incurred being paid from the Imperial treasury. Prefectural roads are maintained by a joint contribution from the government and from the particular prefecture, each paying one-half of the sum needed. Village roads, being for the convenience of local districts alone, are maintained at the expense of such districts under the general supervision of the corresponding prefecture. The width of national roads was determined at 42 ft. for class 1, 36 ft. for class 2, and 30 ft. for class 3; the prefectural roads were to be from 24 to 30 ft., and the dimensions of the village roads were optional, according to the necessity of the case.

Vehicles. The vehicles chiefly employed in ante-Meiji days were ox-carriages, *norimono*, *kago* and carts drawn by hand. Ox-carriages were used only by people of the highest rank. They were often constructed of rich lacquer; the curtains suspended in front were of the finest bamboo workmanship, with thick cords and tassels of plaited silk, and the draught animal, an ox of handsome proportions, was brilliantly caparisoned. The care and expense lavished upon these highly ornate structures would have been deemed extravagant even in medieval Europe. They have passed entirely out of use, and are now to be seen in museums only, but the type still exists in China. The norimono resembled a miniature house slung by its roof-ridge from a massive pole which projected at either end sufficiently to admit the shoulders of a carrier. It, too, was frequently of very ornamental nature and served to carry aristocrats or officials of high position. The kago was the humblest of all conveyances recognized as usable by the upper classes. It was an open palanquin, V-shaped in cross section, slung from a pole which rested on the shoulders of two bearers. Extraordinary skill and endurance were shown by the men who carried the norimono and the kago, but none the less these vehicles were both profoundly uncomfortable. They have now been relegated to the warehouses of undertakers, where they serve as bearers for folks too poor to employ catafalques, their place on the roads and in the streets having been completely taken by the *jinrikisha*, a two-wheeled vehicle pulled by one or two men who think nothing of running 20 m. at the rate of 6 m. an hour. The

The Jinrikisha. jinrikisha was devised by a Japanese in 1870, and since then it has come into use throughout the whole of Asia eastward of the Suez Canal. Luggage, of course, could not be carried by norimono or kago. It was necessary to have recourse to packmen, packhorses or baggage-carts drawn by men or horses. All these still exist and are as useful as ever within certain limits. In the cities and towns horses used as beasts of burden are now shod with iron, but in rural or mountainous districts straw shoes are substituted, a device which enables the animals to traverse rocky or precipitous roads with safety.

Railways.—It is easy to understand that an enterprise like railway construction, requiring a great outlay of capital with returns long delayed, did not at first commend itself to the Japanese, who were almost entirely ignorant of co-operation as a factor of business organization. Moreover, long habituated to snail-like modes of travel, the people did not rapidly appreciate the celerity of the locomotive. Neither the ox-cart, the norimono, nor the kago covered a daily distance of over 20 m. on the average,

and the packhorse was even slower. Amid such conditions the idea of railways would have been slow to germinate had not a catastrophe furnished some impetus. In 1869 a rice-famine occurred in the southern island, Kiūshiū, and while the cereal was procurable abundantly in the northern provinces, people in the south perished of hunger owing to lack of transport facilities. Sir Harry Parkes, British representative in Tōkyō, seized this occasion to urge the construction of railways. Ito and Okuma, then influential members of the government, at once recognized the wisdom of his advice. Arrangements were made for a loan of a million sterling in London on the security of the customs revenue, and English engineers were engaged to lay a line between Tōkyō and Yokohama (18 m.). Vehement voices of opposition were at once raised in private and official circles alike, all persons engaged in transport business imagined themselves threatened with ruin, and conservative patriots detected loss of national independence in a foreign loan. So fierce was the antagonism that the military authorities refused to permit operations of survey in the southern suburb of Tōkyō, and the road had to be laid on an embankment constructed in the sea. Ito and Okuma, however, never flinched, and they were ably supported by Marquis M. Inouye and M. Mayejima. The latter published, in 1870, the first Japanese work on railways, advocating the building of lines from Tōkyō to Kiōto and Osaka; the former, appointed superintendent of the lines, held that post for 30 years, and is justly spoken of as "the father of Japanese railways."

September 1872 saw the first official opening of a railway (the Tōkyō-Yokohama line) in Japan, the ceremony being performed by the emperor himself, a measure which effectually silenced all further opposition. Eight years from the time of turning the first sod saw 71 m. of road open to traffic, the northern section being that between Tōkyō and Yokohama, and the southern that between Kiōto and Kobe. A period of interruption now ensued, owing to domestic troubles and foreign complications, and when, in 1878, the government was able to devote attention once again to railway problems, it found the treasury empty. Then for the first time a public works loan was floated in the home market, and about £300,000 of the total thus obtained passed into the hands of the railway bureau, which at once undertook the building of a road from Kiōto to the shore of Lake Biwa, a work memorable as the first line built in Japan without foreign assistance.[1] During all this time private enterprise had remained wholly inactive in the matter of railways, and it became a matter of importance to rouse the people from this apathetic attitude. For the ordinary process of organizing a joint-stock company and raising share-capital the nation was not yet prepared. But shortly after the abolition of feudalism there had come into the possession of the former feudatories state loan-bonds amounting to some 18 millions sterling, which represented the sum granted by the treasury in commutation of the revenues formerly accruing to these men from their fiefs. Already events had shown that the feudatories, quite devoid of business experience, were not unlikely to dispose of these bonds and devote the proceeds to unsound enterprises. Prince Iwakura, one of the leaders of the Meiji statesmen, persuaded the feudatories to employ a part of the bonds as capital for railway construction, and thus the first private railway company was formed in Japan under the name *Nippon tetsudo kaisha* (Japan railway company), the treasury guaranteeing 8% on the paid-up capital for a period of 15 years. Some time elapsed before this example found followers, but ultimately a programme was elaborated and carried out having for its basis a grand trunk line extending the whole length of the main island from Aomori on the north to Shimonoseki on the south, a distance of 1153 m.; and a continuation of the same line throughout the length of the southern island of Kiūshiū, from Moji on the north—which lies on the opposite side of the strait from Shimonoseki—to Kagoshima on the south, a distance of 232¾ m.; as well as a line from Moji to Nagasaki, a distance of 163½ m. Of this main road the state undertook to build the central section (376 m.), between Tōkyō and Kōbe (via Kiōto); the Japan railway company undertook the portion (457 m.) northward of Tōkyō to Aomori; the Sanyō railway company undertook the portion (320 m.) southward of Tōkyō to Shimonoseki; and the Kiūshiū railway company undertook the lines in Kiūshiū. The whole line is now in operation. The first project was to carry the Tōkyō-Kiōto line through the interior of the island so as to secure it against enterprises on the part of a maritime enemy. Such engineering difficulties presented themselves, however, that the coast route was ultimately chosen, and though the line through the interior was subsequently constructed, strategical considerations were not allowed completely to govern its direction.

When this building of railways began in Japan, much discussion was taking place in England and India as to the relative advantages of the wide and narrow gauges, and so strongly did the arguments in favour of the latter appeal to the English advisers of the Japanese government that the metre gauge was chosen. Some fitful efforts made in later years to change the system proved unsuccessful. The lines are single, for the most part; and as the embankments, the cuttings, the culverts and the bridge-piers have not been constructed for a double line, any change now would be very costly. The average speed of passenger trains in Japan is 18 m. an hour, the corresponding figure over the metre-gauge roads in India being 16 m., and the figure for English parliamentary trains from 19 to 28 m. British engineers surveyed the routes for the first lines and superintended the work of construction, but within a few years the Japanese were able to dispense with foreign aid altogether, both in building and operating their railways. They also construct carriages, wagons and locomotives, and they may therefore be said to have become entirely independent in the matter of railways, for a government iron-foundry at Wakamatsu in Kiūshiū is able to manufacture steel rails.

The total length of lines open for traffic at the end of March 1906 was 4746 m., 1470 m. having been built by the state and 3276 by private companies; the former at a cost of 16 millions sterling for construction and equipment, and the latter at a cost of 25 millions. Thus the expenditure by the state averaged £10,884 per mile, and that by private companies, £7631. This difference is explained by the facts that the state lines having been the pioneers, portions of them were built before experience had indicated cheap methods; that a very large and costly foreign staff was employed on these roads in the early days, whereas no such item appeared in the accounts of private lines; that extensive works for the building of locomotives and rolling stock are connected with the government's roads, and that it fell to the lot of the state to undertake lines in districts presenting exceptional engineering difficulties, such districts being naturally avoided by private companies. The gross earnings of all the lines during the fiscal year 1905–1906 were 7 millions sterling, approximately, and the gross expenses (including the payment of interest on loans and debentures) were under 3½ millions, so that there remained a net profit of 3½ millions, being at the rate of a little over 8½% on the invested capital. The facts that the outlays averaged less than 47% of the gross income, and that accidents and irregularities are not numerous, prove that Japanese management in this kind of enterprise is efficient.

Nationalization of Private Railways.

When the fiscal year 1906–1907 opened, the number of private companies was no less than 36, owning and operating 3276 m. of railway. To say that this represented an average of 91 m. per company is to convey an over-favourable idea, for, as a matter of fact, 15 of the companies averaged less than 24 m. Anything like efficient co-operation was impossible in such circumstances, and constant complaints were heard about delays in transit and undue expense. The defects of divided ownership had long suggested the expediency of nationalization, but not until 1906 could the diet be induced to give its consent. On March 31 of that year, a railway nationalization law was promulgated. It enacted that, within a period of 10 years from 1906 to 1915, the state should purchase the 17 principal private roads, which had a length of 2812 m., and whose cost of construction and equipment had been 23½ millions sterling. The original scheme included 15 other railways, with an aggregate mileage of only 353 m.; but these were eliminated as being lines of local interest only. The actual purchase price of the 17 lines was calculated at 43 millions sterling (about double their cost price), on the following basis: (*a*) An amount equal to 20 times the sum obtained by multiplying the cost of construction at the date of purchase by the average ratio of the profit to the cost of construction during the six business terms of the company from the second half-year of 1902 to the first half-year of 1905. (*b*) The amount of the actual cost of stored articles converted according to current prices thereof into public loan-bonds at face value, except in the case of articles which had been purchased with borrowed money. The government agreed to hand over the purchase money within 5 years from the date of the acquisition of the lines, in public loan-bonds bearing 5% interest calculated at their face value; the bonds to be redeemed out of the net profits accruing from the purchased railways. It was calculated that this redemption would be effected in a period of 32 years, after which the annual profit accruing to the state from the lines would be 5½ millions sterling. But the nationalization scheme, though apparently the only effective method of linking together and co-ordinating an excessively subdivided system of lines, has proved a source of considerable financial embarrassment. For when the state constituted itself virtually the sole owner of railways, it necessarily assumed responsibility for extending them so that they should suffice to meet the wants of a nation numbering some 50 millions. Such extension could be effected only by borrowing money. Now the government was pledged by the diet in 1907 to an expenditure of 11½ millions (spread over 8 years) for extending the old state system of roads, and an expenditure of 6¼ millions (spread over 12 years) for improving them. But from the beginning of that year, a

[1] In 1877 there were 120 English engineers, drivers and foremen in the service of the railway bureau. Three years later only three advisers remained.

period of extreme commercial and financial depression set in, and the treasury had to postpone all recourse to loans for whatever purpose, so that railway progress was completely checked in the field alike of the original and the acquired state lines. Moreover, all securities underwent such sharp depreciation that, on the one hand, the government hesitated to hand over the bonds representing the purchase-price of the railways, lest such an addition to the volume of stocks should cause further depreciation, and, on the other, the former owners of the nationalized lines found the character of their bargain greatly changed. In these circumstances the government decided to take a strong step, namely, to place the whole of the railways owned by it—the original state lines as well as those nationalized—in an account independent of the regular budget, and to devote their entire profits to works of extension and improvement, supplementing the amount with loans from the treasury when necessary.

South Manchuria Railway.

In the sequel of the war of 1904–5 Japan, with China's consent, acquired from Russia the lease of the portion of the South-Manchuria railway (see MANCHURIA) between Kwang-cheng-tsze (Chang-chun) on the north and Tairen (Dalny), Port Arthur and Niuchwang on the south—a total length of 470 m. At the close of 1906 this road was handed over to a joint-stock company with a capital of 20 millions sterling, the government contributing 10 millions in the form of the road and its associated properties; the public subscribing 2 millions, and the company being entitled to issue debentures to the extent of 8 millions, the principal and interest of these debentures being officially guaranteed. Four millions' worth of debentures were issued in London in 1907 and 4 millions in 1908. This company's programme is not limited to operating the railway. It also works coal-fields at Yentai and Fushun; has a line of steamers plying between Tairen and Shanghai; and engages in enterprises of electricity, warehousing and the management of houses and lands within zones 50 *li* (17 m.) wide on either side of the line. The government guarantees 6% interest on the capital paid up by the general public.

Electric Railways.

Not until 1905 did Japan come into possession of an electric railway. It was a short line of 8 m., built in Kiōto for the purposes of a domestic exhibition held in that city. Thenceforth this class of enterprise grew steadily in favour, so that, in 1907, there were 16 companies with an aggregate capital of 8 millions sterling, having 165 m. open to traffic and 77 m. under construction. Fifteen other companies with an aggregate capital of 3 millions had also obtained charters. The principal of these is the Tōkyō railway company, with a subscribed capital of 6 millions (3¾ paid up), 90¼ m. of line open and 149 m. under construction. In 1907 it carried 153 million passengers, and its net earnings were £300,000.

Maritime Communications.

The traditional story of prehistoric Japan indicates that the first recorded emperor was an over-sea invader, whose followers must therefore have possessed some knowledge of ship-building and navigation. But in what kind of craft they sailed and how they handled them, there is nothing to show clearly. Nine centuries later, but still 500 years before the era of surviving written annals, an empress is said to have invaded Korea, embarking her forces at Kobe (then called Takekura) in 500 vessels. In the middle of the 6th century we read of a general named Abe-no-hirafu who led a flotilla up the Amur river to the invasion of Manchuria (then called Shukushin). All these things show that the Japanese of the earliest era navigated the high sea with some skill, and at later dates down to medieval times they are found occasionally sending forces to Korea and constantly visiting China in vessels which seem to have experienced no difficulty in making the voyage. The 16th century was a period of maritime activity so marked that, had not artificial checks been applied, the Japanese, in all probability, would have obtained partial command of Far-Eastern waters. They invaded Korea; their corsairs harried the coasts of China; two hundred of their vessels, sailing under authority of the Taikō's vermilion seal, visited Siam, Luzon, Cochin China and Annam, and they built ships in European style which crossed the Pacific to Acapulco. But this spirit of adventure was chilled at the close of the 16th century and early in the 17th, when events connected with the propagation of Christianity taught the Japanese to believe that national safety could not be secured without international isolation. In 1638 the ports were closed to all foreign ships except those flying the flag of Holland or of China, and a strictly enforced edict forbade the building of any vessel having a capacity of more than 500 *koku* (150 tons) or constructed for purposes of ocean navigation. Thenceforth, with rare exceptions, Japanese craft confined themselves to the coastwise trade. Ocean-going enterprise ceased altogether.

Things remained thus until the middle of the 19th century, when a growing knowledge of the conditions existing in the West warned the Tokugawa administration that continued isolation would be suicidal. In 1853 the law prohibiting the construction of sea-going ships was revoked and the Yedo government built at Uraga a sailing vessel of European type aptly called the "Phoenix" ("Howo Maru"). Just 243 years had elapsed since the founder of the Tokugawa dynasty constructed Japan's first ship after a foreign model, with the aid of an English pilot, Will Adams. In 1853 Commodore M. C. Perry made his appearance, and thenceforth everything conspired to push Japan along the new path. The Dutch, who had been proximately responsible for the adoption of the seclusion policy in the 17th century, now took a prominent part in promoting a liberal view. They sent to the Tokugawa a present of a man-of-war and urged the vital necessity of equipping the country with a navy. Then followed the establishment of a naval college at Tsukiji in Yedo, the building of iron-works at Nagasaki, and the construction at Yokosuka of a dockyard destined to become one of the greatest enterprises of its kind in the East. This last undertaking bore witness to the patriotism of the Tokugawa rulers, for they resolutely carried it to completion during the throes of a revolution which involved the downfall of their dynasty. Their encouragement of maritime enterprise had borne fruit, for when, in 1867, they restored the administration to the Imperial court, 44 ocean-going ships were found among their possessions and 94 were in the hands of the feudatories, a steamer and 20 sailing vessels having been constructed in Japan and the rest purchased abroad.

If the Tokugawa had been energetic in this respect, the new government was still more so. It caused the various maritime carriers to amalgamate into one association called the *Nippon-koku yubin jokisen kaisha* (Mail SS. Company of Japan), to which were transferred, free of charge, the steamers, previously the property of the Tokugawa or the feudatories, and a substantial subsidy was granted by the state. This, the first steamship company ever organized in Japan, remained in existence only four years. Defective management and incapacity to compete with foreign-owned vessels plying between the open ports caused its downfall (1875). Already, however, an independent company had appeared upon the scene. Organized and controlled by a man (Iwasaki Yataro) of exceptional enterprise and business faculty, this *mitsubishi kaisha* (three lozenge company, so called from the design on its flag), working with steamers chartered from the former feudatory of Tosa, to which clan Iwasaki belonged, proved a success from the outset, and grew with each vicissitude of the state. For when (1874) the Meiji government's first complications with a foreign country necessitated the despatch of a military expedition to Formosa, the administration had to purchase 63 foreign steamers for transport purposes, and these were subsequently transferred to the mitsubishi company together with all the vessels (17) hitherto in the possession of the Mail SS. Company, the Treasury further granting to the mitsubishi a subsidy of £50,000 annually. Shortly afterwards it was decided to purchase a service maintained by the Pacific Mail SS. Company with 4 steamers between Yokohama and Shanghai, and money for the purpose having been lent by the state to the mitsubishi, Japan's first line of steamers to a foreign country was firmly established, just 20 years after the law interdicting the construction of ocean-going vessels had been rescinded.

The next memorable event in this chapter of history occurred in 1877, when the Satsuma clan, eminently the most powerful and most warlike among all the former feudatories, took the field in open rebellion. For a time the fate of the government hung in the balance, and only by a flanking movement over-sea was the rebellion crushed. This strategy compelled the purchase of 10 foreign steamers, and these too were subsequently handed over to the mitsubishi company, which, in 1880, found itself possessed of 32 ships aggregating 25,600 tons, whereas all the other vessels of foreign type in the country totalled only 27 with a tonnage of 6500. It had now become

apparent that the country could not hope to meet emergencies which might at any moment arise, especially in connexion with Korean affairs, unless the development of the mercantile marine proceeded more rapidly. Therefore in 1881 the formation of a new company was officially promoted. It had the name of the *kyōdō unyu kaisha* (Union Transport Company); its capital was about a million sterling; it received a large subsidy from the state, and its chief purpose was to provide vessels for military uses and as commerce-carriers. Japan had now definitely embraced the policy of entrusting to private companies rather than to the state the duty of acquiring a fleet of vessels capable of serving as transports or auxiliary cruisers in time of war. But there was now seen the curious spectacle of two companies (the Mitsubishi and the Union Transport) competing in the same waters and both subsidized by the treasury. After this had gone on for four years, the two companies were amalgamated (1885) into the *Nippon yusen kaisha* (Japan Mail SS. Company) with a capital of £1,100,000 and an annual subsidy of £88,000, fixed on the basis of 8% of the capital. Another company had come into existence a few months earlier. Its fleet consisted of 100 small steamers, totalling 10,000 tons, which had hitherto been competing in the Inland Sea.

Japan now possessed a substantial mercantile marine, the rate of whose development is indicated by the following figures:—

Year.	Steamers.		Sailing Vessels.		Totals.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.
1870	35	15,498	11	2,454	46	17,952
1892	642	122,300	780	46,065	1,422	168,365

Nevertheless, only 23% of the exports and imports was transported in Japanese bottoms in 1892, whereas foreign steamers took 77%. This discrepancy was one of the subjects discussed in the first session of the diet, but a bill presented by the government for encouraging navigation failed to obtain parliamentary consent, and in 1893 the Japan Mail SS. Company, without waiting for state assistance, opened a regular service to Bombay mainly for the purpose of carrying raw cotton from India to supply the spinning industry which had now assumed great importance in Japan. Thus the rising sun flag flew for the first time outside Far-Eastern waters. Almost immediately after the establishment of this line, Japan had to engage in war with China, which entailed the despatch of some two hundred thousand men to the neighbouring continent and their maintenance there for more than a year. All the country's available shipping resources did not suffice for this task. Additional vessels had to be purchased or chartered, and thus, by the beginning of 1896, the mercantile marine of Japan had grown to 899 steamers of 373,588 tons, while the sailing vessels had diminished to 644 of 44,000 tons.

In 1897 there occurred an event destined to exercise a potent influence on the fortunes not only of Japan herself but also of her mercantile marine. No sooner had she exchanged with China ratifications of a treaty of peace which seemed to prelude a long period of tranquillity, than Russia, Germany and France ordered her to restore all the continental territory ceded to her by China. Japan then recognized that her hope of peace was delusive, and that she must be prepared to engage in a struggle incomparably more serious than the one from which she had just emerged. Determined that when the crucial moment came she should not be found without ample means for transporting her armies, the government, under the leadership of Prince Ito and with the consent of the diet, enacted, in March 1896 laws liberally encouraging ship-building and navigation. Under the navigation law "any Japanese subject or any commercial company whose partners or shareholders were all Japanese subjects, engaged in carrying passengers and cargo between Japan and foreign countries or between foreign ports, in their own vessels, which must be of at least 1000 tons and registered in the shipping list of the Empire, became entitled to subsidies proportionate to the distance run and the tonnage of the vessels"; and under the ship-building law, bounties were granted for the construction of iron or steel vessels of not less than 700 tons gross by any Japanese subject or any commercial company whose partners and shareholders were all Japanese. The effect of this legislation was marked. In the period of six years ended 1902, no less than 835 vessels of 455,000 tons were added to the mercantile marine, and the treasury found itself paying encouragement money which totalled six hundred thousand pounds annually. Ship-building underwent remarkable development. Thus, while in 1870 only 2 steamers aggregating 57 tons had been constructed in Japanese yards, 53 steamers totalling 5380 tons and 193 sailing vessels of 17,873 tons were launched in 1900. By the year 1907 Japan had 216 private ship yards and 42 private docks,[1] and while the government yards were able to build first-class line-of-battle ships of the largest size, the private docks were turning out steamers of 9000 tons burden. When war broke out with Russia in 1904, Japan had 567,000 tons of steam shipping, but that stupendous struggle obliged her to materially augment even this great total. In operations connected with the war she lost 71,000 tons, but on the other hand, she built 27,000 tons at home and bought 177,000 abroad, so that the net increase to her mercantile fleet of steamers was 133,000 tons. The following table shows the growth of her marine during the ten years ending 1907:—

Year.	Steamers.		Sailing Vessels.		Totals.	
	Number.	Gross Tonnage.	Number.	Gross Tonnage.	Number.	Gross Tonnage.
1898	1130	477,430	1914	170,194	3044	648,324
1899	1221	510,007	3322	286,923	4543	467,930
1900	1329	543,365	3850	320,572	5179	863,937
1901	1395	583,532	4026	336,528	5471	920,060
1902	1441	610,445	3907	336,154	5348	946,600
1903	1570	663,220	3934	328,953	5504	992,173
1904	1815	798,240	3940	329,125	5755	1,127,365
1905	1988	939,749	4132	336,571	6170	1,276,320
1906	2103	1,041,569	4547	353,356	6700	1,395,925
1907	2139	1,115,880	4728	365,559	6867	1,481,439

With regard to the development of ship-building in Japanese yards the following figures convey information:—

NUMBERS OF VESSELS BUILT IN JAPAN AND NUMBERS PURCHASED ABROAD

Year.	Built in Japan.		Purchased abroad.	
	Steamers.	Sailing Vessels.	Steamers.	Sailing Vessels.
1898	479	1301	194	9
1899	554	2771	199	12
1900	653	3302	206	7
1901	754	3559	215	6
1902	813	3585	220	6
1903	855	5304	233	8
1904	947	3324	277	8
1905	1028	3508	357	11
1906	1100	3859	387	11
1907	1150	4033	419	12

In the building of iron and steel ships the Japanese are obliged to import much of the material used, but a large steel-foundry has been established under government auspices at Wakamatsu in Kiūshiū, that position having been chosen on account of comparative proximity to the Taiya iron mine in China, where the greater part of the iron ore used for the foundry is procured.

Simultaneously with the growth of the mercantile marine there has been a marked development in the number of licensed mariners; that is to say, seamen registered by the government as having passed the examination prescribed by law. ***Seamen.*** In 1876 there were only 4 Japanese subjects who satisfied that definition as against 74 duly qualified foreigners holding responsible positions. In 1895 the numbers were 4135 Japanese and 835 foreigners, and ten years later the corresponding figures were 16,886 and 349 respectively. In 1904 the ordinary seamen of the mercantile marine totalled 202,710.

There are in Japan various institutions where the theory and practice of navigation are taught. The principal of these is the *Tōkyō shōsen gakkō* (Tōkyō mercantile marine college, established in 1875), where some 600 of the men now serving as officers and engineers have graduated. Well ***Education of Mariners.*** equipped colleges exist also in seven other places, all having been established with official co-operation. Mention must be made of a mariners' assistance association (*kaiin ekizai-kai*, established in 1800) which acts as a kind of agency for supplying mariners to shipowners, and of a distressed mariners' relief association (*suinan kyūsai-kai*) which has succoured about a hundred thousand seamen since its establishment in 1899.

The duty of overseeing all matters relating to the maritime carrying trade devolves on the department of state for communications, and is delegated by the latter to one of its bureaus (the *Kwansen-kyoku*, or ships superintendence bureau), which, again, is divided into three sections: ***Maritime Administration.*** one for inspecting vessels, one for examining mariners, and one for the general control of all shipping in Japanese waters. For the better discharge of its duties this bureau parcels out the empire into 4 districts, having their headquarters at Tōkyō, Osaka, Nagasaki and Hakodate; and these four districts are in turn subdivided into 18 sections, each having an office of marine affairs (*kwaiji-kyoku*).

Competition between Japanese and foreign ships in the carriage of the country's over-sea trade soon began to assume appreciable dimensions. Thus, whereas in 1891 the portion carried in Japanese bottoms was only 1½ millions sterling against 12½ millions carried by foreign vessels, the corresponding figures in 1902 were 20¾ millions against 32½ millions. In other words, Japanese steamers carried only 11% of the total trade in 1891, but their share rose to 39% in 1902. The prospect suggested by this record caused some uneasiness, which was not allayed by observing that while the tonnage of Japanese vessels in Chinese ports was only 2% ***Competition between Japanese and Foreign Ships.***

[1] The largest is the mitsubishi at Nagasaki. It has a length of 722 ft. Next stands the kawasaki at Kobe, and in the third place is the uraga.

in 1896 as compared with foreign vessels, the former figure grew to 16% in 1902; while in Korean ports Japanese steamers almost monopolized the carrying trade, leaving only 18% to their foreign rivals, and even in Hong-Kong the tonnage of Japanese ships increased from 3% in 1896 to 13% in 1900. In 1898 Japan stood eleventh on the list of the thirteen principal maritime countries of the world, but in 1907 she rose to the fifth place. Her principal company, the Nippon yusen kaisha, though established as lately as 1885, now ranks ninth in point of tonnage among the 21 leading maritime companies of the world. This company was able to supply 55 out of a total fleet of 207 transports furnished by all the steamship companies of Japan for military and naval purposes during the war with Russia in 1904-5. It may be noted in conclusion that the development of Japan's steam-shipping during the five decades ended 1907 was as follows:—

	Tons.
At the end of 1868	17,952
At the end of 1878	63,468
At the end of 1888	197,365
At the end of 1898	648,324
At the end of 1907	1,115,880

Open Ports. There are 33 ports in Japan open as places of call for foreign steamers. Their names with the dates of their opening are as follow:—

Name.	Date of Opening.	Situation.
Yokohama	1859	Main Island.
Kobe	1868	do.
Niigata	1867	do.
Osaka	1899	do.
Yokkaichi	do.	do.
Shimonoseki	do.	do.
Itozaki	do.	do.
Taketoyo	do.	do.
Shimizu	do.	do.
Tsuruga	do.	do.
Nanao	do.	do.
Fushiki	do.	do.
Sakai	do.	do.
Hamada	do.	do.
Miyazu	do.	do.
Aomori	1906	do.
Nagasaki	1859	Kiūshiū.
Moji	1899	do.
Hakata	do.	do.
Karatsu	do.	do.
Kuchinotsu	do.	do.
Misumi	do.	do.
Suminoye	1906	do.
Izuhara	1899	Tsushima.
Sasuna	do.	do.
Shikami	do.	do.
Nafa	do.	Riūkiū.
Otaru	do.	Yezo.
Kushiro	do.	do.
Mororan	do.	do.
Hakodate	1865	do.
Kelung	1899	Formosa.
Tamsui	do.	do.
Takow	do.	do.
Anping	do.	do.

Emigration.—Characteristic of the Japanese is a spirit of adventure: they readily emigrate to foreign countries if any inducement offers. A strong disposition to exclude them has displayed itself in the United States of America, in Australasia and in British Columbia, and it is evident that, since one nation cannot force its society on another at the point of the sword, this anti-Asiatic prejudice will have to be respected, though it has its origin in nothing more respectable than the jealousy of the labouring classes. One result is an increase in the number of Japanese emigrating to Korea, Manchuria and S. America. The following table shows the numbers residing at various places outside Japan in 1904 and 1906 respectively:—

Place.	Number in 1904.	Number in 1906.
China	9,417	27,126
Korea	31,093	100,000
Manchuria	—	43,823
Hong-Kong	600	756
Singapore	1,292	1,428
British India	413	530
Europe	183	697
United States of America	33,849	130,228
Canada	3,838	5,088
Mexico	456	1,294
S. America	1,496	2,500
Philippines	2,652	2,185
Hawaii	65,008	64,319
Australasia	71,129	3,274

Foreign Residents.—The number of foreigners residing in Japan and their nationalities in 1889, 1899 and 1906, respectively, were as follow:—

	1889.	1899.	1906.
Americans	899	1,296	1,650
British	1,701	2,013	2,155
Russians	63	134	211
French	335	463	540
Portuguese	108	158	165
Germans	550	532	670
Chinese	4,975	6,372	12,425
Koreans	8	188	254

There are also small numbers of Dutch, Peruvians, Belgians, Swiss, Italians, Danes, Swedes, Austrians, Hungarians, &c. This slow growth of the foreign residents is remarkable when contrasted with the fact that the volume of the country's foreign trade, which constitutes their main business, grew in the same period from 13½ millions sterling to 92 millions.

Posts and Telegraphs.—The government of the Restoration did not wait for the complete abolition of feudalism before organizing a new system of posts in accordance with modern needs. At first, letters only were carried, but before the close of 1871 the service was extended so as to include newspapers, printed matter, books and commercial samples, while the area was extended so as to embrace all important towns between Hakodate in the northern island of Yezo and Nagasaki in the southern island of Kiūshiū. Two years later this field was closed to private enterprise, the state assuming sole charge of the business. A few years later saw Japan in possession of an organization comparable in every respect with the systems existing in Europe. In 1892 a foreign service was added. Whereas in 1871 the number of post-offices throughout the empire was only 179, it had grown to 6449 in 1907, while the mail matter sent during the latter year totalled 1254 millions (including 15 millions of parcels), and 67,000 persons were engaged in handling it. Japan labours under special difficulties for postal purposes, owing to the great number of islands included in the empire, the exceptionally mountainous nature of the country, and the wide areas covered by the cities in proportion to the number of their inhabitants. It is not surprising to find, therefore, that the means of distribution are varied. The state derives a net revenue of 5 million *yen* approximately from its postal service. It need scarcely be added that the system of postal money-orders was developed *pari passu* with that of ordinary correspondence, but in this context one interesting fact may be noted, namely, that while Japan sends abroad only some £25,000 annually to foreign countries through the post, she receives over £450,000 from her over-sea emigrants.

Postal Savings Banks. Japan at the time of the Restoration (1867) was not entirely without experience which prepared her for the postal money-order system. Some 600 years ago the idea of the bill of exchange was born in the little town of Totsugawa (Yamato province), though it did not obtain much development before the establishment of the Tokugawa shōgunate in the 17th century. The feudal chiefs, having then to transmit large sums to Yedo for the purposes of their compulsory residence there, availed themselves of bills of exchange, and the shōgun's government, which received considerable amounts in Osaka, selected ten brokers to whom the duty of effecting the transfer of these funds was entrusted. Subsequently the 10 chosen brokers were permitted to extend their services to the general public, and a recent Japanese historian notes that Osaka thus became the birthplace of banking business in Japan. Postal money-orders were therefore easily appreciated at the time of their introduction in 1875. This was not true of the postal savings bank, however, an institution which came into existence in the same year. It was

altogether a novel idea that the public at large, especially the lower sections of it, should entrust their savings to the government for safe keeping, especially as the minimum and maximum deposited at one time were fixed at such petty sums as 10 *sen* (2½d.) and 50 *sen* (1s.), respectively. Indeed, in the circumstances, the fact that £1500 was deposited in the first year must be regarded as notable. Subsequently deposits were taken in postage stamps, and arrangements were effected for enabling depositors to pay money to distant creditors through the bank by merely stating the destination and the amount of the nearest post office. In 1908 the number of depositors in the post office savings bank was 8217, and their deposits exceeded 10 millions sterling. Thirty per cent. of the depositors belonged to the agricultural classes, 13 to the commercial and only 6 to the industrial.

Telegraphs. Rapid communication by means of beacons was not unknown in ancient Japan, but code-signalling by the aid of flags was not introduced until the 17th century and was probably suggested by observing the practice of foreign merchantmen. Its use, however, was peculiar. The central office stood at Osaka, between which city and many of the principal provincial towns rudely constructed towers were placed at long distances, and from one to another of these intelligence as to the market price of rice was flashed by flag-shaking, the signals being read with telescopes. The Japanese saw a telegraph for the first time in 1854, when Commodore Perry presented a set of apparatus to the shōgun, and four years later the feudal chief of Satsuma (Shimazu Nariakira) caused wires to be erected within the enclosure of his castle. The true value of electric telegraphy was first demonstrated to the Japanese in connexion with an insurrection in 1877, under the leadership of Saigo, the favourite of this same Shimazu Nariakira. Before that time, however, a line of telegraph had been put up between Tōkyō and Yokohama (18 m.) and a code of regulations had been enacted. Sudden introduction to such a mysterious product of foreign science created superstitious dread in the minds of a few of the lower orders, and occasional attempts were made at the outset to wreck the wires. In 1886 the postal and telegraph offices were amalgamated and both systems underwent large development. Whereas the length of wires at the end of the fourth year after the introduction of the system was only 53 m., and the number of messages 20,000, these figures had grown in 1907 to 95,623 and 25 millions, respectively. Several cables are included in these latter figures, the longest being that to Formosa (1229 m.). Wireless telegraphy began to come into general use in 1908, when several vessels belonging to the principal steamship companies were equipped with the apparatus. It had already been employed for some years by the army and navy, especially during the war with Russia, when the latter service installed a new system, the joint invention of Captain Tonami of the navy, Professor S. Kimura of the naval college and Mr M. Matsushiro of the department of communications. The telegraph service in Japan barely pays the cost of operating and maintenance.

Telephones. The introduction of the telephone into Japan took place in 1877, but it served official purposes solely during 13 years, and even when (1890) it was placed at the disposal of the general public its utilities found at first few appreciators. But this apathy soon yielded to a mood of eager employment, and the resources of the government (which monopolized the enterprise) proved inadequate to satisfy public demand. Automatic telephones were ultimately set up at many places in the principal towns and along the most frequented highways. The longest distance covered was from Tōkyō to Osaka (348 m.). In 1907 Japan had 140,440 m. of telephone wires, 262 exchanges, 159 automatic telephones, and the approximate number of messages sent was 160 millions. The telephone service pays a net revenue of about £100,000 annually.

Agriculture.—The gross area of land in Japan—excluding Formosa and Sakhalin—is 89,167,880 acres, of which 53,487,022 acres represent the property of the crown, the state and the communes, the rest (35,680,868 acres) being owned by private persons. Of the grand total the arable lands represent 15,301,297 acres. With regard to the immense expanse remaining unproductive, experts calculate that if all lands inclined at less than 15° be considered cultivable, an area of 10,684,517 acres remains to be reclaimed, though whether the result would repay the cost is a question hitherto unanswered. The cultivated lands are thus classified, namely, wet fields (called also paddy fields or rice lands), 6,871,437 acres; dry fields (or upland farms), 5,741,745 acres, and others, 2,688,115 acres.

Rice. Paddy fields are to be seen in every valley or dell where farming is practicable; they are divided into square, oblong or triangular plots by grass-grown ridges a few inches in height and on an average a foot in breadth—the rice being planted in the soft mud thus enclosed. Narrow pathways intersect these rice-valleys at intervals, and rivulets (generally flowing between low banks covered with clumps of bamboo) feed ditches cut for purposes of irrigation. The fields are generally kept under water to a depth of a few inches while the crops are young, but are drained immediately before harvesting. They are then dug up, and again flooded before the second crop is planted out. The rising grounds which skirt the rice-land are tilled by the hoe, and produce Indian corn, millet and edible roots. The well-wooded slopes supply the peasants with timber and firewood. Thirty-six per cent. of the rice-fields yield two crops yearly. The seed is sown in small beds, and the seedlings are planted out in the fields after attaining the height of about 4 in. The finest rice is produced in the fertile plains watered by the Tonegawa in the province of Shimōsa, but the grain of Kaga and of the two central provinces of Settsu and Harima is also very good.

Sake. Not only does rice form the chief food of the Japanese but also the national beverage, called sake, is brewed from it. In colour the best sake resembles very pale sherry; the taste is rather acid. None but the finest grain is used in its manufacture. Of sake there are many varieties, from the best quality down to *shiro-zake* or "white sake," and the turbid sort, drunk only in the poorer districts, known as *nigori-zake*; there is also a sweet sort, called *mirin*.

The various cereal and other crops cultivated in Japan, the areas devoted to them and the annual production are shown in the following table:—

	1898. Acres.	1902. Acres.	1906. Acres.
Rice	7,044,060	7,117,990	7,246,982
Barley	1,649,240	1,613,270	1,674,595
Rye	1,703,410	1,688,635	1,752,095
Wheat	1,164,020	1,210,435	1,107,967
Millet	693,812	652,492	594,280
Beans	1,503,395	1,488,600	1,478,345
Buckwheat	450,100	414,375	402,575
Rape-seed	377,070	392,612	352,807
Potatoes	92,297	105,350	140,197
Sweet Potatoes	668,130	693,427	717,620
Cotton	100,720	51,750	24,165
Hemp	62,970	42,227	34,845
Indigo (leaf)	122,180	92,982	40,910
	1903.	1905.	1906.
Sugar Cane	41,750	43,308	45,087

It is observable that no marked increase is taking place in the area under cultivation, and that the business of growing cotton, hemp and indigo is gradually diminishing, these staples being supplied from abroad. In Germany and Italy the annual additions made to the arable area average 8% whereas in Japan the figure is only 5%. Moreover, of the latter amount the rate for paddy fields is only 3·3% against 7·9% in the case of upland farms. This means that the population is rapidly outgrowing its supply of home-produced rice, the great food-stuff of the nation, and the price of that cereal consequently shows a steady tendency to appreciate. Thus whereas the market value was 5s. 5d. per bushel in 1901, it rose to 6s. 9d. in 1906.

Silk and Tea. Scarcely less important to Japan than the cereals she raises are her silk and tea, both of which find markets abroad. Her production of the latter staple does not show any sign of marked development, for though tea is almost as essential an article of diet in Japan as rice, its foreign consumers are practically limited to the United States and their demand does not increase. The figures for the 10-year period ended 1906 are as follow:—

	Area under cultivation (acres).	Tea produced (lb av.).
1897	147,230	70,063,076
1901	122,120	57,975,486
1906	126,125	58,279,286

Sericulture, on the contrary, shows steady development year by year. The demand of European and American markets has very elastic limits, and if Japanese growers are content with moderate, but still substantial, gains they can find an almost unrestricted sale in the West. The development from 1886 to 1906 was as follows:—

	Raw silk produced yearly (lb).
Average from 1886 to 1889	8,739,273
1895	19,087,310
1900	20,705,644
1905	21,630,829
1906	24,215,324

The chief silk-producing prefectures in Japan, according to the order of production, are Nagano, Gumma, Yamanashi, Fukushima, Aichi and Saitama. At the close of 1906 there were 3843 filatures throughout the country, and the number of families engaged in sericulture was 397,885.

Lacquer, vegetable wax and tobacco are also important staples of production. The figures for the ten-year period, 1897 to 1906, are as follow:—

	Lacquer (lb).	Vegetable wax (lb).	Tobacco (lb).
1897	344,267	25,850,790	110,572,925
1906	668,266	39,714,661	101,718,592

While the quantity of certain products increases, the number of filatures and factories diminishes, the inference being that industries are coming to be conducted on a larger scale than was formerly the case. Thus in sericulture the filatures diminished from 4723 in 1897 to 3843 in 1906; the number of lacquer factories from 1637 to 1123 at the same dates, and the number of wax factories from 2619 to 1929.

Agricultural improvements.

It is generally said that whereas more than 60% of Japan's entire population is engaged in agriculture, she remains far behind the progressive nations of Europe in the application of scientific principles to farming. Nevertheless if we take for unit the average value of the yield per hectare in Italy, we obtain the following figures:—

	Yield per hectare
Italy	100
India	51
Germany	121
France	122
Egypt	153
Japan	213

In the realm of agriculture, as in all departments of modern Japan's material development, abundant traces are found of official activity. Thus, in the year 1900, the government enacted laws designed to correct the excessive subdivision of farmers' holdings; to utilize unproductive areas lying between cultivated fields; to straighten roads; to facilitate irrigation; to promote the use of machinery; to make known the value of artificial fertilizers; to conserve streams and to prevent inundations. Further, in order to furnish capital for the purposes of farming, 46 agricultural and commercial banks—one in each prefecture—were established with a central institution called the hypothec bank which assists them to collect funds. A Hokkaidō colonial bank and subsequently a bank of Formosa were also organized, and a law was framed to encourage the formation of co-operative societies which should develop a system of credit, assist the business of sale and purchase and concentrate small capitals. Experimental stations were another official creation. Their functions were to carry on investigations relating to seeds, diseases of cereals, insect pests, stock-breeding, the use of implements, the manufacture of agricultural products and cognate matters. Encouragement by grants in aid was also given to the establishment of similar experimental farms by private persons in the various prefectures, and such farms are now to be found everywhere. This official initiative, with equally successful results, extended to the domain of sericulture and tea-growing. There are two state sericultural training institutions where not only the rearing of silk-worms and the management of filatures are taught, but also experiments are made; and these institutions, like the state agricultural stations, have served as models for institutes on the same lines under private auspices. A silk-conditioning house at Yokohama; experimental tea-farms; laws to prevent and remove diseases of plants, cereals, silkworms and cattle, and regulations to check dishonesty in the matter of fertilizers, complete the record of official efforts in the realm of agriculture during the Meiji era.

Stock-breeding.

One of the problems of modern Japan is the supply of cattle. With a rapidly growing taste for beef—which, in former days, was not an article of diet—there is a slow but steady diminution in the stock of cattle. Thus while the number of the latter in 1897 was 1,214,163, out of which total 158,504 were slaughtered, the corresponding figures in 1906 were 1,190,373 and 167,458, respectively. The stock of sheep (3500 in 1906) increases slowly, and the stocks of goats (58,694 in 1897 and 74,750 in 1906) and swine (206,217 in 1897 and 284,708 in 1906) grow with somewhat greater rapidity, but mutton and pork do not suit Japanese taste, and goats are kept mainly for the sake of their milk. The government has done much towards the improvement of cattle and horses by importing bulls and sires, but, on the whole, the mixed breed is not a success, and the war with Russia in 1904–5 having clearly disclosed a pressing need of heavier horses for artillery and cavalry purposes, large importations of Australian, American and European cattle are now made, and the organization of race-clubs has been encouraged throughout the country.

Forests.—Forests occupy an area of 55 millions of acres, or 60% of the total superficies of Japan, and one-third of that expanse, namely, 18 million acres, approximately, is the property of the state. It cannot be said that any very practical attempt has yet been made to develop this source of wealth. The receipts from forests stood at only 13 million *yen* in the budget for 1907–1908, and even that figure compares favourably with the revenue of only 3 millions derived from the same source in the fiscal year 1904–1905. This failure to utilize a valuable asset is chiefly due to defective communications, but the demand for timber has already begun to increase. In 1907 a revised forestry law was promulgated, according to which the administration is competent to prevent the destruction of forests and to cause the planting of plains and waste-lands, or the re-planting of denuded areas. A plan was also elaborated for systematically turning the state forests to valuable account, while, at the same time, providing for their conservation.

Fisheries.—From ancient times the Japanese have been great fishermen. The seas that encircle their many-coasted islands teem with fish and aquatic products, which have always constituted an essential article of diet. Early in the 18th century, the Tokugawa administration, in pursuance of a policy of isolation, interdicted the construction of ocean-going ships, and the people's enterprise in the matter of deep-sea fishing suffered a severe check. But shortly after the Restoration in 1867, not only was this veto rescinded, but also the government, organizing a marine bureau and a marine products examination office, took vigorous measures to promote pelagic industry. Then followed the formation of the marine products association under the presidency of an imperial prince. Fishery training schools were the next step; then periodical exhibitions of fishery and marine products; then the introduction and improvement of fishing implements; and then by rapid strides the area of operations widened until Japanese fishing boats of improved types came to be seen in Australasia, in Canada, in the seas of Sakhalin, the Maritime Province, Korea and China; in the waters of Kamchatka and in the Sea of Okhotsk. No less than 9000 fishermen with 2000 boats capture yearly about £300,000 worth of fish in Korean waters; at least 8000 find a plentiful livelihood off the coasts of Sakhalin and Siberia, and 200 Japanese boats engage in the salmon-fishing of the Fraser River. In 1893, the total value of Japanese marine products and fish captured did not exceed 1¼ millions sterling, whereas in 1906 the figure had grown to 5½ millions, to which must be added 3¼ millions of manufactured marine products. Fourteen kinds of fish represent more than 50% of the whole catch, namely, (in the order of their importance) bonito (*katsuo*), sardines (*iwashi*), pagrus (*tai*), cuttle-fish and squid (*tako* and *ika*), mackerel (*saba*), yellow tail (*buri*), tunny-fish (*maguro*), prawns (*ebi*), sole (*karei*), grey mullet (*bora*), eels (*unagi*), salmon (*shake*), sea-ear (*awabi*) and carp (*koi*). Altogether 700 kinds of aquatic products are known in Japan, and 400 of them constitute articles of diet. Among manufactured aquatic products the chief are (in the order of their importance) dried bonito, fish guano, dried cuttle-fish, dried and boiled sardines, dried herring and dried prawns. The export of marine products amounted to £900,000 in 1906 against £400,000 ten years previously; China is the chief market. As for imports, they were insignificant at the beginning of the Meiji era, but by degrees a demand was created for salted fish, dried sardines (for fertilizing), edible sea-weed, canned fish and turtle-shell, so that whereas the total imports were only £1600 in 1868, they grew to over £400,000 in 1906.

Minerals.—Crystalline schists form the axis of Japan. They run in a general direction from south-west to north-east, with chains starting east and west from Shikoku. On these schists rocks of every age are superimposed, and amid these somewhat complicated geological conditions numerous minerals occur. Precious stones, however, are not found, though crystals of quartz and antimony as well as good specimens of topaz and agate are not infrequent.

Gold.

Gold occurs in quartz veins among schists, paleozoic or volcanic rocks and in placers. The quantity obtained is not large, but it shows tolerably steady development, and may possibly be much increased by more generous use of capital and larger recourse to modern methods.

Silver.

The value of the silver mined is approximately equal to that of the gold. It is found chiefly in volcanic rocks (especially tuff), in the form of sulphide, and it is usually associated with gold, copper, lead or zinc.

Copper.

Much more important in Japan's economics than either of the precious metals is copper. Veins often showing a thickness of from 70 to 80 ft., though of poor quality (2 to 8%), are found bedded in crystalline schists or paleozoic sedimentary rocks, but the richest (10 to 30%) occur in tuff and other volcanic rocks.

Iron.

There have not yet been found any evidences that Japan is rich in iron ores. Her largest known deposit (magnetite) occurs at Kamaishi in Iwate prefecture, but the quantity of pig-iron produced from the ore mined there does not exceed 37,000 tons annually, and Japan is obliged to import from the neighbouring continent the greater part of the iron needed by her for ship-building and armaments.

Coal.

Considerable deposits of coal exist, both anthracite and bituminous. The former, found chiefly at Amakusa, is not greatly inferior to the Cardiff mineral; and the latter—obtained in abundance in Kiūshiū and Yezo—is a brown coal of good medium quality. Altogether there are 29 coal-fields now actually worked in Japan, and she obtained an important addition to her sources of supply in the sequel to the war with Russia, when the Fushun mines near Mukden, Manchuria, were transferred to her. During the 10 years ending in 1906, the market value of the coal mined in Japan grew from less than 2 millions sterling to over 6 millions.

Petroleum.

Petroleum also has of late sprung into prominence on the list of her mineral products. The oil-bearing strata—which occur mainly in tertiary rocks—extend from Yezo to Formosa, but the principal are in Echigo, which yields the greater part of the petroleum now obtained, the Yezo and Formosa wells

being still little exploited. The quantity of petroleum obtained in Japan in 1897 was 9 million gallons, whereas the quantity obtained in 1906 was 55 millions.

Japanese mining enterprise was more than trebled during the decade 1897 to 1906, for the value of the minerals taken out in the former year was only 3½ millions sterling, whereas the corresponding figure for 1906 was 11 millions. The earliest mention of gold-mining in Japan takes us back to the year A.D. 696, and by the 16th century the country had acquired the reputation of being rich in gold. During the days of her medieval intercourse with the outer world, her stores of the precious metals were largely reduced, for between the years 1602 and 1766, Holland, Spain, Portugal and China took from her 313,800 lb (troy) of gold and 11,230,000 lb of silver.

Copper occupied a scarcely less important place in Old Japan. From a period long anterior to historic times this metal was employed to manufacture mirrors and swords, and the introduction of Buddhism in the 6th century was quickly followed by the casting of sacred images, many of which still survive. Finding in the 18th century that her foreign intercourse not only had largely denuded her of gold and silver, but also threatened to denude her of copper, Japan set a limit (3415 tons) to the yearly export of the latter metal. After the resumption of administrative power by the emperor in 1867, attention was quickly directed to the question of mineral resources; several Western experts were employed to conduct surveys and introduce Occidental mining methods, and ten of the most important mines were worked under the direct auspices of the state in order to serve as object lessons. Subsequently these mines were all transferred to private hands, and the government now retains possession of only a few iron and coal mines whose products are needed for dockyard and arsenal purposes. The following table shows the recent progress and present condition of mining industry in Japan:—

	Gold		Silver		Copper		Lead	
	Quantity. oz.	Value. £	Quantity. oz.	Value. £	Quantity. Tons.	Value. £	Quantity. Tons.	Value. £
1897 . .	34,553	136,834	1,809,805	208,200	19,722	869,266	746	10,343
1901 . .	82,517	330,076	1,824,842	211,682	26,495	1,625,244	1,744	24,640
1906 . .	90,842	363,715	2,623,212	243,914	37,254	3,007,992	2,721	49,690

	Iron		Coal		Petroleum		Sulphur	
	Quantity. Tons.	Value. £	Quantity. Tons.	Value. £	Quantity. Gallons.	Value. £	Quantity. Tons.	Value. £
1897 . .	35,178	103,559	5,229,662	1,899,592	9,248,800	44,389	13,138	33,588
1901 . .	46,456	123,701	9,025,325	3,060,931	39,351,960	227,841	16,007	38,612
1906 . .	85,203	268,911	12,980,103	6,314,400	55,135,880	314,550	27,406	61,386

	Antimony		Manganese		Others	
	Quantity. Tons.	Value. £	Quantity. Tons.	Value. £	Value. £	Total Values. £
1897 . .	1,133	27,362	13,175	8,758	3,863	3,345,662
1901 . .	529	13,481	15,738	10,846	3,450	5,670,508
1906 . .	293	22,862	12,322	51,365	41,338	10,839,783

The number of mine employees in 1907 was 190,000, in round numbers; the number of mining companies, 189; and the aggregate paid-up capital, 10 millions sterling.

Industries.—In the beginning of the Meiji era Japan was practically without any manufacturing industries, as the term is understood in the Occident, and she had not so much as one joint-stock company. At the end of 1906, her joint-stock companies and partnerships totalled 9329, their paid up capital exceeded 100 millions sterling, and their reserves totalled 26 millions. It is not to be inferred, however, from the absence of manufacturing organizations 50 years ago that such pursuits were deliberately eschewed or despised in Japan. On the contrary, at the very dawn of the historical epoch we find that sections of the people took their names from the work carried on by them, and that specimens of expert industry were preserved in the sovereign's palace side by side with the imperial insignia. Further, skilled artisans from the neighbouring continent always found a welcome in Japan, and when Korea was successfully invaded in early times, one of the uses which the victors made of their conquest was to import Korean weavers and dyers. Subsequently the advent of Buddhism, with its demand for images, temples, gorgeous vestments and rich paraphernalia, gave a marked impulse to the development of artistic industry, which at the outset took its models from China, India and Greece, but gradually, while assimilating many of the best features of the continental schools, subjected them to such great modifications in accordance with Japanese genius that they ceased to retain more than a trace of their originals. From the 9th century luxurious habits prevailed in Kiōto under the sway of the Fujiwara regents, and the imperial city's munificent patronage drew to its precincts a crowd of artisans. But these were not industrials, in the Western sense of the term, and, further, their organization was essentially domestic, each family selecting its own pursuit and following it from generation to generation without co-operation or partnership with any outsider. The establishment of military feudalism in the 12th century brought a reaction from the effeminate luxury of the metropolis, and during nearly 300 years no industry enjoyed large popularity except that of the armourer and the sword-smith. No sooner, however, did the prowess of Oda Nobunaga and, above all, of Hideyoshi, the taikō, bring within sight a cessation of civil war and the unification of the country, than the taste for beautiful objects and artistic utensils recovered vitality. By degrees there grew up among the feudal barons a keen rivalry in art industry, and the shōgun's court in Yedo set a standard which the feudatories constantly strove to attain. Ultimately, in the days immediately antecedent to its fall, the shōgun's administration sought to induce a more logical system by encouraging local manufacturers to supply local needs only, leaving to Kiōto and Yedo the duty of catering to general wants.

But before this reform had approached maturity, the second advent of Western nations introduced to Japan the products of an industrial civilization centuries in advance of her own from the point of view of utility, though nowise superior in the application of art. Immediately the nation became alive to the necessity of correcting its own inferiority in this respect. But the people being entirely without models for organization, without financial machinery and without the idea of joint stock enterprise, the government had to choose between entering the field as an instructor, and leaving the nation to struggle along an arduous and expensive way to tardy development. There could be no question as to which course would conduce more to the general advantage, and thus, in days immediately subsequent to the resumption of administrative power by the emperor, the spectacle was seen of official excursions into the domains of silk-reeling, cement-making, cotton and silk spinning, brick-burning, printing and book-binding, soap-boiling, type-casting and ceramic decoration, to say nothing of their establishing colleges and schools where all branches of applied science were taught. Domestic exhibitions also were organized, and specimens of the country's products and manufactures were sent under government auspices to exhibitions abroad. On the other hand, the effect of this new departure along Western lines could not but be injurious to the old domestic industries of the country, especially to those which owed their existence to tastes and traditions now regarded as obsolete. Here again the government came to the rescue by establishing a firm whose functions were to familiarize foreign markets with the products of Japanese artisans, and to instruct the latter in adaptations likely to appeal to Occidental taste. Steps were also taken for training women as artisans, and the government printing bureau set the example of employing female labour, an innovation which soon developed large dimensions. In short, the authorities applied themselves to educate an industrial disposition throughout the country, and as soon as success seemed to be in sight, they gradually transferred from official to private direction the various model enterprises, retaining only such as were required to supply the needs of the state.

The result of all this effort was that whereas, in the beginning of the Meiji era, Japan had virtually no industries worthy of the name, she possessed in 1896—that is to say, after an interval of 25 years

of effort—no less than 4595 industrial and commercial companies, joint stock or partnership, with a paid-up capital of 40 millions sterling. Her development during the decade ending in 1906 is shown in the following table:—

	Number of companies.	Paid-up capital (millions sterling).	Reserves (millions sterling).
1897	6,113	53	6
1901	8,602	83	12
1906	9,329	107	26

What effect this development exercised upon the country's over-sea trade may be inferred from the fact that, whereas the manufactured goods exported in 1870 were nil, their value in 1901 was 8 millions sterling, and in 1906 the figure rose to over 20 millions. In the following table are given some facts relating to the principal industries in which foreign markets are interested:—

COTTON YARNS

	Spindles.	Operatives.		Quantity produced.	Remarks.
		Male.	Female.		
				lb	
1897	768,328	9,933	35,059	216,913,196	This is a wholly new industry in Japan. It had no existence before the Meiji era.
1901	1,181,762	13,481	49,540	274,861,380	
1906	1,425,406	13,032	59,281	383,359,113	

WOVEN GOODS

	Looms.	Operatives.		Market value of products.	Remarks.
		Male.	Female.		
				Millions sterling.	
1897	947,134	54,119	987,110	19	It is observable that a decrease in the number of operatives is concurrent with an increase of production.
1901	719,550	43,172	747,946	24	
1906	736,828	40,886	751,605	36	

MATCHES

	Families engaged.	Operatives.		Quantity produced.	Value.	Remarks.
		Male.	Female.			
				Gross.	£	
1897	269	21,447	26,277	24,038,960	654,849	This is an altogether new industry. Japanese matches now hold the leading place in all Far-Eastern markets.
1901	261	5,656	16,504	32,901,319	926,689	
1906	250	5,468	18,721	54,802,293	1,551,698	

FOREIGN PAPER (as distinguished from Japanese)

	Factories.	Operatives.		Quantity produced.	Value.	Remarks.
		Male.	Female.			
				lb	£	
1897	9	164	109	46,256,649	300,662	Had not Japanese factories been established all this paper must have been imported.
1901	13	2,635	1,397	113,348,340	714,094	
1906	22	3,774	1,778	218,022,434	1,415,778	

In the field of what may be called minor manufactures—as ceramic wares, lacquers, straw-plaits, &c.—there has been corresponding growth, for the value of these productions increased from 1¼ millions sterling in 1897 to 3½ millions in 1906. But as these manufactures do not enter into competition with foreign goods in either Eastern or Western markets, they are interesting only as showing the development of Japan's producing power. They contribute nothing to the solution of the problem whether Japanese industries are destined ultimately to drive their foreign rivals from the markets of Asia, if not to compete injuriously with them even in Europe and America. Japan seems to have one great advantage over Occidental countries: she possesses an abundance of dexterous and exceptionally cheap labour. It has been said, indeed, that this latter advantage is not likely to be permanent, since the wages of labour and the cost of living are fast increasing. The average cost of labour doubled in the interval between 1895 and 1906, but, on the other hand, the number of manufacturing organizations doubled in the same time, while the amount of their paid-up capital nearly trebled. As to the necessaries of life, if those specially affected by government monopolies be excluded, the rate of appreciation between 1900 and 1906 averaged about 30%, and it thus appears that the cost of living is not increasing with the same rapidity as the remuneration earned by labour. The manufacturing progress of the nation seems, therefore, to have a bright future, the only serious impediment being deficient capital. There is abundance of coal, and steps have been taken on a large scale to utilize the many excellent opportunities which the country offers for developing electricity by water-power.

Silk-weaving.

The fact that Japan's exports of raw silk amount to more than 12 millions sterling, while she sends over-sea only 3½ millions' worth of silk fabrics, suggests some marked inferiority on the part of her weavers. But the true explanation seems to be that her distance from the Occident handicaps her in catering for the changing fashions of the West. There cannot be any doubt that the skill of Japanese weavers was at one time eminent. The sun goddess herself, the predominant figure in the Japanese pantheon, is said to have practised weaving; the names of four varieties of woven fabrics were known in prehistoric times; the 3rd century of the Christian era saw the arrival of a Korean maker of cloth; after him came an influx of Chinese who were distributed throughout the country to improve the arts of sericulture and silk-weaving; a sovereign (Yuriaku) of the 5th century employed 92 groups of naturalized Chinese for similar purposes; in 421 the same emperor issued a decree encouraging the culture of mulberry trees and calling for taxes on silk and cotton; the manufacture of textiles was directly supervised by the consort of this sovereign; in 645 a bureau of weaving was established; many other evidences are conclusive as to the great antiquity of the art of silk and cotton weaving in Japan.

The coming of Buddhism in the 6th century contributed not a little to the development of the art, since not only did the priests require for their own vestments and for the decoration of temples silken fabrics of more and more gorgeous description, but also these holy men themselves, careful always to keep touch with the continental developments of their faith, made frequent voyages to China, whence they brought back to Japan a knowledge of whatever technical or artistic improvements the Middle Kingdom could show. When Kiōto became the permanent metropolis of the empire, at the close of the 8th century, a bureau was established for weaving brocades and rich silk stuffs to be used in the palace. This preluded an era of some three centuries of steadily developing luxury in Kiōto; an era when an essential part of every aristocratic mansion's furniture was a collection of magnificent silk robes for use in the sumptuous *Nō*. Then, in the 15th century came the "Tea Ceremonial," when the brocade mountings of a picture or the wrapper of a tiny tea-jar possessed an almost incredible value, and such skill was attained by weavers and dyers that even fragments of the fabrics produced by them command extravagant prices to-day. Kiōto always remained, and still remains, the chief producing centre, and to such a degree has the science of colour been developed there that no less than 4000 varieties of tint are distinguished. The sense of colour, indeed, seems to have been a special endowment of the Japanese people from the earliest times, and some of the combinations handed down from medieval times are treasured as incomparable examples. During the long era of peace under the Tokugawa administration the costumes of men and women showed an increasing tendency to richness and beauty. This culminated in the Genroku epoch (1688–1700), and the aristocracy of the present day delight in viewing histrionic performances where the costumes of that age and of its rival, the Momoyama (end of the 16th century) are reproduced.

It would be possible to draw up a formidable catalogue of the various kinds of silk fabrics manufactured in Japan before the opening of the Meiji era, and the signal ability of her weavers has derived a new impulse from contact with the Occident. Machinery has been largely introduced, and though the products of hand-looms still enjoy the reputation of greater durability, there has unquestionably been a marked development of producing power. Japanese looms now turn out about 17 millions sterling of silk textiles, of which less than 4 millions go abroad. Nor is increased quantity alone to be noted, for at the factory of Kawashima in Kiōto Gobelins are produced such as have never been rivalled elsewhere.

Commerce in Tokugawa Times.—The conditions existing in Japan during the two hundred and fifty years prefatory to the modern opening of the country were unfavourable to the development alike of national and of international trade. As to the former, the system of feudal government exercised a crippling influence, for each feudal chief endeavoured to check the exit of any kind of property from his fief, and free interchange of

commodities was thus prevented so effectually that cases are recorded of one feudatory's subjects dying of starvation while those of an adjoining fief enjoyed abundance. International commerce, on the other hand, lay under the veto of the central government, which punished with death anyone attempting to hold intercourse with foreigners. Thus the fiefs practised a policy of mutual seclusion at home, and united to maintain a policy of general seclusion abroad. Yet it was under the feudal system that the most signal development of Japanese trade took place, and since the processes of that development have much historical interest they invite close attention.

As the bulk of a feudal chief's income was paid in rice, arrangements had to be made for sending the grain to market and transmitting its proceeds. This was effected originally by establishing in Osaka stores (*kura-yashiki*), under the charge of samurai, who received the rice, sold it to merchants in that city and remitted the proceeds by official carriers. But from the middle of the 17th century these stores were placed in the charge of tradesmen to whom was given the name of *kake-ya* (agent). They disposed of the products entrusted to them by a fief and held the money, sending it by monthly instalments to an appointed place, rendering yearly accounts and receiving commission at the rate of from 2 to 4%. They had no special licence, but they were honourably regarded and often distinguished by an official title or an hereditary pension. In fact a kake-ya, of such standing as the Mitsui and the Konoike families, was, in effect, a banker charged with the finances of several fiefs. In Osaka the method of sale was uniform. Tenders were invited, and these having been opened in the presence of all the store officials and kake-ya, the successful tenderers had to deposit bargain-money, paying the remainder within ten days, and thereafter becoming entitled to take delivery of the rice in whole or by instalments within a certain time, no fee being charged for storage. A similar system existed in Yedo, the shōgun's capital. Out of the custom of deferred delivery developed the establishment of exchanges where advances were made against sale certificates, and purely speculative transactions came into vogue. There followed an experience common enough in the West at one time: public opinion rebelled against these transactions in margins on the ground that they tended to enhance the price of rice. Several of the brokers were arrested and brought to trial; marginal dealings were thenceforth forbidden, and a system of licences was inaugurated in Yedo, the number of licensed dealers [1] being restricted to 108.

The system of organized trading companies had its origin in the 12th century, when, the number of merchants admitted within the confines of Yedo being restricted, it became necessary for those not obtaining that privilege to establish some mode of co-operation, and there resulted the formation of companies with representatives stationed in the feudal capital and share-holding members in the provinces. The Ashikaga shōguns developed this restriction by selling to the highest bidder the exclusive right of engaging in a particular trade, and the Tokugawa administration had recourse to the same practice. But whereas the monopolies instituted by the Ashikaga had for sole object the enrichment of the exchequer, the Tokugawa regarded it chiefly as a means of obtaining worthy representatives in each branch of trade. The first licences were issued in Yedo to keepers of bath-houses in the middle of the 17th century. As the city grew in dimensions these licences increased in value, so that pawnbrokers willingly accepted them in pledge for loans. Subsequently almanack-sellers were obliged to take out licences, and the system was afterwards extended to money-changers.

It was to the fishmongers, however, that the advantages of commercial organization first presented themselves vividly. The greatest fish-market in Japan is at Nihon-bashi in Tōkyō (formerly Yedo). It had its origin in the needs of the Tokugawa court. When Iyeyasu (founder of the Tokugawa dynasty) entered Yedo in 1590, his train was followed by some fishermen of Settsu, to whom he granted the privilege of plying their trade in the adjacent seas, on condition that they furnished a supply of their best fish for the use of the garrison. The remainder they offered for sale at Nihon-bashi. Early in the 17th century one Sukegoro of Yamato province (hence called Yamato-ya) went to Yedo and organized the fishmongers into a great gild. Nothing is recorded about this man's antecedents, though his mercantile genius entitles him to historical notice. He contracted for the sale of all the fish obtained in the neighbouring seas, advanced money to the fishermen on the security of their catch, constructed preserves for keeping the fish alive until they were exposed in the market, and enrolled all the dealers in a confederation which ultimately consisted of 391 wholesale merchants and 246 brokers. The main purpose of Sukegoro's system was to prevent the consumer from dealing direct with the producer. Thus in return for the pecuniary accommodation granted to fishermen to buy boats and nets they were required to give every fish they caught to the wholesale merchant from whom they had received the advance; and the latter, on his side, had to sell in the open market at prices fixed by the confederation. A somewhat similar system applied to vegetables, though in this case the monopoly was never so close.

It will be observed that this federation of fishmongers approximated closely to a trust, as the term is now understood; that is to say, an association of merchants engaged in the same branch of trade and pledged to observe certain rules in the conduct of their business as well as to adhere to fixed rates. The idea was extended to nearly every trade, 10 monster confederations being organized in Yedo and 24 in Osaka. These received official recognition, and contributed a sum to the exchequer under the euphonious name of "benefit money," amounting to nearly £20,000 annually. They attained a high state of prosperity, the whole of the cities' supplies passing through their hands.[2] No member of a confederation was permitted to dispose of his licence except to a near relative, and if anyone not on the roll of a confederation engaged in the same business he became liable to punishment at the hands of the officials. In spite of the limits thus imposed on the transfer of licences, one of these documents commanded from £80 to £6,400, and in the beginning of the 19th century the confederations, or gilds, had increased to 68 in Yedo, comprising 1195 merchants. The gild system extended to maritime enterprise also. In the beginning of the 17th century a merchant of Sakai (near Osaka) established a junk service between Osaka and Yedo, but this kind of business did not attain any considerable development until the close of that century, when 10 gilds of Yedo and 24 of Osaka combined to organize a marine-transport company for the purpose of conveying their own merchandise. Here also the principle of monopoly was strictly observed, no goods being shipped for unaffiliated merchants. This carrying trade rapidly assumed large dimensions. The number of junks entering Yedo rose to over 1500 yearly. They raced from port to port, just as tea-clippers from China to Europe used to race in recent times, and troubles incidental to their rivalry became so serious that it was found necessary to enact stringent rules. Each junk-master had to subscribe a written oath that he would comply strictly with the regulations and observe the sequence of sailing as determined by lot. The junks had to call *en route* at Uraga for the purpose of undergoing official examination. The order of their arrival there was duly registered, and the master making the best record throughout the year received a present in money as well as a complimentary garment, and became the shippers' favourite next season.

Operations relating to the currency also were brought under the control of gilds. The business of money-changing seems to have been taken up as a profession from the beginning of the 15th century, but it was then in the hands of pedlars who carried strings of copper cash which they exchanged for gold or silver coins, then in rare circulation, or for parcels of gold dust. From the early part of the 17th century exchanges were opened in Yedo, and in 1718 the men engaged in this business formed a gild after the fashion of the time. Six hundred of these received licences, and no unlicensed person was permitted to purchase the avocation. Four representatives of the chief exchange met daily and fixed the ratio between gold and silver, the figure being then communicated to the various exchanges and to the shōgun's officials. As for the prices of gold or silver in terms of copper or bank-notes, 24 representatives of the exchanges met every evening, and, in the presence of an official censor, settled the figure for the following day and recorded the amount of transactions during the past 24 hours, full information on these points being at once sent to the city governors and the street elders.

The exchanges in their ultimate form approximated very closely to the Occidental idea of banks. They not only bought gold, silver and copper coins, but they also received money on deposit, made loans and issued vouchers which played a very important part in commercial transactions. The voucher seems to have come into existence in Japan in the 14th century. It originated in the Yoshino market of Yamato province, where the hilly nature of the district rendered the carriage of copper money so arduous that rich merchants began to substitute written receipts and engagements which quickly became current. Among these documents there was a "joint voucher" (*kumiai-fuda*), signed by several persons, any one of whom might be held responsible for its redemption. This had large vogue, but it did not obtain official recognition until 1636, when the third Tokugawa shōgun selected 30 substantial merchants and divided them into 3 gilds, each authorized to issue vouchers, provided that a certain sum was deposited by way of security. Such vouchers were obviously a form of bank-note. Their circulation by the exchange came about in a similar manner. During many years the treasure of the shōgun and of the feudal

[1] They were called *fuda-sashi* (ticket-holders), a term derived from the fact that rice-vouchers were usually held in a split bamboo which was thrust into a pile of rice-bags to indicate their buyer.

[2] In 1725, when the population of Yedo was about three-quarters of a million, the merchandise that entered the city was 861,893 bags of rice; 795,856 casks of sake; 132,892 casks of soy (fish-sauce); 18,209,987 bundles of fire-wood; 809,790 bags of charcoal; 90,811 tubs of oil; 1,670,850 bags of salt and 3,613,500 pieces of cotton cloth.

chiefs was carried to Yedo by pack-horses and coolies of the regular postal service. But the costliness of such a method led to the selection in 1691 of 10 exchange agents who were appointed bankers to the Tokugawa government and were required to furnish money within 30 days of the date of an order drawn on them. These agents went by the name of the "ten-men gild." Subsequently the firm of Mitsui was added, but it enjoyed the special privilege of being allowed 150 days to collect a specified amount. The gild received moneys on account of the Tokugawa or the feudal chiefs at provincial centres, and then made its own arrangements for cashing the cheques drawn upon it by the shōgun or the daimyō in Yedo. If coin happened to be immediately available, it was employed to cash the cheques; otherwise the vouchers of the gild served instead. It was in Osaka, however, that the functions of the exchanges acquired fullest development. That city has exhibited, in all eras, a remarkable aptitude for trade. Its merchants, as already shown, were not only entrusted with the duty of selling the rice and other products of the surrounding fiefs, but also they became depositories of the proceeds, which they paid out on account of the owners in whatever sums the latter desired. Such an evidence of official confidence greatly strengthened their credit, and they received further encouragement from the second Tokugawa shōgun (1605–1623) and from Ishimaru Sadatsugu, governor of the city in 1661. He fostered wholesale transactions, sought to introduce a large element of credit into commerce by instituting a system of credit sales; took measures to promote the circulation of cheques; inaugurated market sales of gold and silver and appointed ten chiefs of exchange who were empowered to oversee the business of money-exchanging in general. These ten received exemption from municipal taxation and were permitted to wear swords. Under them were 22 exchanges forming a gild, whose members agreed to honour one another's vouchers and mutually to facilitate business. Gradually they elaborated a regular system of banking, so that, in the middle of the 18th century, they issued various descriptions of paper-orders for fixed sums payable at certain places within fixed periods; deposit notes redeemable on the demand of an indicated person or his order; bills of exchange drawn by *A* upon *B* in favour of *C* (a common form for use in monthly or annual settlements); promissory notes to be paid at a future time, or cheques payable at sight, for goods purchased; and storage orders engaging to deliver goods on account of which earnest money had been paid. These last, much employed in transactions relating to rice and sugar, were generally valid for a period of 3 years and 3 months, were signed by a confederation of exchanges or merchants on joint responsibility, and guaranteed the delivery of the indicated merchandise independently of all accidents. They passed current as readily as coin, and advances could always be obtained against them from pawnbrokers.

All these documents, indicating a well-developed system of credit, were duly protected by law, severe penalties being inflicted for any failure to implement the pledges they embodied. The merchants of Yedo and Osaka, working on the system of trusts here described, gradually acquired great wealth and fell into habits of marked luxury. It is recorded that they did not hesitate to pay £5 for the first bonito of the season and £11 for the first egg-fruit. Naturally the spectacle of such extravagance excited popular discontent. Men began to grumble against the so-called "official merchants" who, under government auspices, monopolized every branch of trade; and this feeling grew almost uncontrollable in 1836, when rice rose to an unprecedented price owing to crop failure. Men loudly ascribed that state of affairs to regrating on the part of the wholesale companies, and murmurs similar to those raised at the close of the 19th century in America against the trust system began to reach the ears of the authorities perpetually. The celebrated Fujita Toko of Mito took up the question. He argued that the monopoly system, since it included Osaka, exposed the Yedo market to all the vicissitudes of the former city, which had then lost much of its old prosperity.

Finally, in 1841, the shōgun's chief minister, Mizuno Echizen-no-Kami, withdrew all trading licences, dissolved the gilds and proclaimed that every person should thenceforth be free to engage in any commerce without let or hindrance. This recklessly drastic measure, vividly illustrating the arbitrariness of feudal officialdom, not only included the commercial gilds, the shipping gilds, the exchange gilds and the land transport gilds, but was also carried to the length of forbidding any company to confine itself to wholesale dealings. The authorities further declared that in times of scarcity wholesale transactions must be abandoned altogether and retail business alone carried on, their purpose being to bring retail and wholesale prices to the same level. The custom of advancing money to fishermen or to producers in the provincial districts was interdicted; even the fuda-sashi might no longer ply their calling, and neither bath-house keepers nor hairdressers were allowed to combine for the purpose of adopting uniform rates of charges. But this ill-judged interference produced evils greater than those it was intended to remedy. The gilds had not really been exacting. Their organization had reduced the cost of distribution, and they had provided facilities of transport which brought produce within quick and cheap reach of central markets.

Ten years' experience showed that a modified form of the old system would conduce to public interests. The gilds were re-established, licence fees, however, being abolished, and no limit set to the number of firms in a gild. Things remained thus until the beginning of the Meiji era (1867), when the gilds shared the cataclysm that overtook all the country's old institutions.

Japanese commercial and industrial life presents another feature which seems to suggest special aptitude for combination. In mercantile or manufacturing families, while the eldest son always succeeded to his father's business, not only the younger sons but also the apprentices and employees, after they had served faithfully for a number of years, expected to be set up as branch houses under the auspices of the principal family, receiving a place of business, a certain amount of capital and the privilege of using the original house-name. Many an old-established firm thus came to have a plexus of branches all serving to extend its business and strengthen its credit, so that the group held a commanding position in the business world. It will be apparent from the above that commercial transactions on a large scale in pre-Meiji days were practically limited to the two great cities of Yedo and Osaka, the people in the provincial fiefs having no direct association with the gild system, confining themselves, for the most part, to domestic industries on a small scale, and not being allowed to extend their business beyond the boundaries of the fief to which they belonged.

Foreign Commerce during the Meiji Era.—If Japan's industrial development in modern times has been remarkable, the same may be said even more emphatically about the development of her over-sea commerce. This was checked at first not only by the unpopularity attaching to all intercourse with outside nations, but also by embarrassments resulting from the difference between the silver price of gold in Japan and its silver price in Europe, the precious metals being connected in Japan by a ratio of 1 to 8, and in Europe by a ratio of 1 to 15. This latter fact was the cause of a sudden and violent appreciation of values; for the government, seeing the country threatened with loss of all its gold, tried to avert the catastrophe by altering and reducing the weights of the silver coins without altering their denominations, and a corresponding difference exhibited itself, as a matter of course, in the silver quotations of commodities. Another difficulty was the attitude of officialdom. During several centuries Japan's over-sea trade had been under the control of officialdom, to whose coffers it contributed a substantial revenue. But when the foreign exporter entered the field under the conditions created by the new system, he diverted to his own pocket the handsome profit previously accruing to the government; and since the latter could not easily become reconciled to this loss of revenue, or wean itself from its traditional habit of interference in affairs of foreign commerce, and since the foreigner, on his side, not only desired secrecy in order to prevent competition, but was also tormented by inveterate suspicions of Oriental espionage, not a little friction occurred from time to time. Thus the scanty records of that early epoch suggest that trade was beset with great difficulties, and that the foreigner had to contend against most adverse circumstances, though in truth his gains amounted to 40 or 50%.

Tea and Silk.

The chief staples of the early trade were tea and silk. It happened that just before Japan's raw silk became available for export, the production of that article in France and Italy had been largely curtailed owing to a novel disease of the silkworm. Thus, when the first bales of Japanese silk appeared in London, and when it was found to possess qualities entitling it to the highest rank, a keen demand sprang up. Japanese green tea also, differing radically in flavour and bouquet from the black tea of China, appealed quickly to American taste, so that by the year 1907 Japan found herself selling to foreign countries tea to the extent of 1¼ millions sterling, and raw silk to the extent of 12½ millions. This remarkable development is typical of the general history of Japan's foreign trade in modern times. Omitting the first decade and a half, the statistics for which are imperfect, the volume of the trade grew from 5 millions sterling in 1873—3 shillings per head of the population—to 93 millions in 1907—or 38 shillings per head. It was not a uniform growth. The period of 35 years divides itself conspicuously into two eras: the first, of 15 years (1873–1887), during which the development was from 5 millions to 9·7 millions, a ratio of 1 to 2, approximately; the second, of 20 years (1887–1907), during which the development was from 9·7 millions to 93 millions, a ratio of ·1 to 10.

That a commerce which scarcely doubled itself in the first fifteen years should have grown nearly tenfold in the next twenty is a fact inviting attention. There are two principal causes: one general, the other special. The general cause was that several years necessarily elapsed before the nation's material condition began to respond perceptibly to the improvements effected by the Meiji government in matters of administration, taxation and transport facilities. Fiscal burdens had been reduced and security of life and property obtained, but railway building and road-making, harbour construction, the growth of posts, telegraphs, exchanges and banks, and the development of a mercantile marine did not exercise a sensible influence on the nation's prosperity until 1884 or 1885. From that time the country entered a period of steadily growing prosperity, and from that time private enterprise may be said to have finally started upon a career of independent activity. The special cause which, from 1885, contributed to a marked growth of trade was the resumption of specie payments. Up to that time the treasury's fiat notes had suffered such marked fluctuations of specie value that sound or successful commerce became very difficult. Against the importing merchant the currency trouble worked with double potency. Not only did the gold with which he purchased goods appreciate constantly in terms of the silver for which he sold them, but the silver itself appreciated sharply and rapidly in terms of the fiat notes paid by Japanese consumers. Cursory reflection may suggest that these factors should have stimulated exports as much as they depressed imports. But such was not altogether the case in practice. For the exporter's transactions were hampered by the possibility that a delay of a week or even a day might increase the purchasing power of his silver in Japanese markets by bringing about a further depreciation of paper, so that he worked timidly and hesitatingly, dividing his operations as minutely as possible in order to take advantage of the downward tendency of the fiat notes. Not till this element of pernicious disturbance was removed did the trade recover a healthy tone and grow so lustily as to tread closely on the heels of the foreign commerce of China, with her 300 million inhabitants and long-established international relations.

Japan's trade with the outer world was built up chiefly by the energy and enterprise of the foreign middleman. He acted the part of an almost ideal agent. As an exporter, his command of cheap capital, his experience, his knowledge of foreign markets, and his connexions enabled him to secure sales such as must have been beyond reach of the Japanese working independently. Moreover, he paid to native consumers ready cash for their staples, taking upon his own shoulders all the risks of finding markets abroad. As an importer, he enjoyed, in centres of supply, credit which the Japanese lacked, and he offered to native consumers foreign produce brought to their doors with a minimum of responsibility on their part. Finally, whether as exporters or importers, foreign middlemen always competed with each other so keenly that their Japanese clients obtained the best possible terms from them. Yet the ambition of the Japanese to oust them cannot be regarded as unnatural. Every nation must desire to carry on its own commerce independently of alien assistance; and moreover, the foreign middleman's residence during many years within Japanese territory, but without the pale of Japanese sovereignty, invested him with an aggressive character which the anti-Oriental exclusiveness of certain Occidental nations helped to accentuate. Thus from the point of view of the average Japanese there are several reasons for wishing to dispense with alien middlemen, and it is plain that these reasons are operative; for whereas, in 1888, native merchants carried on only 12% of the country's over-sea trade without the intervention of the foreign middlemen, their share rose to 35% in 1899 and has since been slowly increasing.

The Foreign Middleman.

Analysis of Japan's foreign trade during the Meiji era shows that during the 35-year period ending in 1907, imports exceeded exports in 21 years and exports exceeded imports in 14 years. This does not suggest a very badly balanced trade. But closer examination accentuates the difference, for when the figures are added, it is found that the excesses of exports aggregated only 11 millions sterling, whereas the excesses of imports totalled 71 millions, there being thus a so-called "unfavourable balance" of 60 millions over all. The movements of specie do not throw much light upon this subject, for they are complicated by large imports of gold resulting from war indemnities and foreign loans. Undoubtedly the balance is materially redressed by the expenditures of the foreign communities in the former settlements, of foreign tourists visiting Japan and of foreign vessels engaged in the carrying trade, as well as by the earnings of Japanese vessels and the interest on investments made by foreigners. Nevertheless there remains an appreciable margin against Japan, and it is probably to be accounted for by the consideration that she is still engaged equipping herself for the industrial career evidently lying before her.

Balance of Trade.

The manner in which Japan's over-sea trade was divided in 1907 among the seven foreign countries principally engaged in it may be seen from the following table:—

Trade with Various Countries.

	Exports to £ (millions).	Imports from £ (millions).	Total £ (millions).
United States	13½	8½	22
China	8¾	6¼	15
Great Britain	2¼	11¾	14
British India	1¾	7⅔	9
Germany	1⅝	4⅓	6
France	4¼	⅔	5
Korea	3⅓	1⅔	5

Among the 33 open ports of Japan, the first place belongs to Yokohama in the matter of foreign trade, and Kobe ranks second. The former far outstrips the latter in exports, but the case is reversed when imports are considered. As to the percentages of the whole trade standing to the credit of the five principal ports, the following figures may be consulted:—Yokohama, 40%; Kobe, 35·6; Osaka, 10; Moji, 5; and Nagasaki, 2.

VI.—Government, Administration, &c.

Emperor and Princes.—At the head of the Japanese State stands the emperor, generally spoken of by foreigners as the *mikado* (honourable gate[1]), a title comparable with sublime porte and by his own subjects as *tenshi* (son of heaven) or *tennō* (heavenly king). The emperor Mutou Hito (*q.v.*) was the 121st of his line, according to Japanese history, which reckons from 660 B.C., when Jimmu ascended the throne. But as written records do not carry us back farther than A.D. 712, the reigns and periods of the very early monarchs are more or less apocryphal. Still the fact remains that Japan has been ruled by an unbroken dynasty ever since the dawn of her history, in which respect she is unique among all the nations in the world. There are four families of princes of the blood, from any one of which a successor to the throne may be taken in default of a direct heir: Princes Arisugawa, Fushimi, Kanin and Higashi Fushimi. These families are all direct descendants of emperors, and their heads have the title of *shinnō* (prince of the blood), whereas the other imperial princes, of whom there are ten, have only the second syllable of *shinnō* (pronounced *wō* when separated from *shin*). Second and younger sons of a *shinnō* are all *wō*, and eldest sons lose the title *shin* and become *wō* from the fifth generation.

The Peerage.—In former times there were no Japanese titles of nobility, as the term is understood in the Occident. Nobles there were, however, namely, *kuge*, or court nobles, descendants of younger sons of emperors, and *daimyō* (great name), some of whom could trace their lineage to mikados; but all owed their exalted position as feudal chiefs to military prowess. The Meiji restoration of 1867 led to the abolition of the *daimyōs* as feudal chiefs, and they, together with the kuge, were merged into one class called *kwazoku* (flower families), a term corresponding to aristocracy, all inferior persons being *heimin* (ordinary folk). In 1884, however, the five Chinese titles of *ki* (prince), *kō* (marquis), *haku* (count), *shi* (viscount) and *dan* (baron) were introduced, and patents were not only granted to the ancient nobility but also conferred on men who had rendered conspicuous public service. The titles are all hereditary, but they descend to the firstborn only, younger children having no distinguishing appellation. The first list in 1884 showed 11 princes, 24 marquises, 76 counts, 324 viscounts and 74 barons. After the war with China (1894–95) the total grew to 716, and the war with

[1] Some derive this term from *mika*, an ancient Japanese term for "great," and *to*, "place."

Russia (1904–5) increased the number to 912, namely, 15 princes, 39 marquises, 100 counts, 376 viscounts and 382 barons.

Household Department.—The Imperial household department is completely differentiated from the administration of state affairs. It includes bureaux of treasury, forests, peerage and hunting, as well as boards of ceremonies and chamberlains, officials of the empress's household and officials of the crown prince's household. The annual allowance made to the throne is £300,000, and the Imperial estate comprises some 12,000 acres of building land, 3,850,000 acres of forests, and 300,000 acres of miscellaneous lands, the whole valued at some 19 millions sterling, but probably not yielding an income of more than £200,000 yearly. Further, the household owns about 3 millions sterling (face value) of bonds and shares, from which a revenue of some £250,000 is derived, so that the whole income amounts to three-quarters of a million sterling, approximately. Out of this the households of the crown prince and all the Imperial princes are supported; allowances are granted at the time of conferring titles of nobility; a long list of charities receive liberal contributions, and considerable sums are paid to encourage art and education. The emperor himself is probably one of the most frugal sovereigns that ever occupied a throne.

Departments of State.—There are nine departments of state presided over by ministers—foreign affairs, home affairs, finance, war, navy, justice, education, agriculture and commerce, communications. These ministers form the cabinet, which is presided over by the minister president of state, so that its members number ten in all. Ministers of state are appointed by the emperor and are responsible to him alone. But between the cabinet and the crown stand a small body of men, the survivors of those by whose genius modern Japan was raised to her present high position among the nations. They are known as "elder statesmen" (*genrō*). Their proved ability constitutes an invaluable asset, and in the solution of serious problems their voice may be said to be final. At the end of 1909 four of these renowned statesmen remained—Prince Yamagata, Marquises Inouye and Matsukata and Count Okuma. There is also a privy council, which consists of a variable number of distinguished men—in 1909 there were 29, the president being Field-Marshal Prince Yamagata. Their duty is to debate and advise upon all matters referred to them by the emperor, who sometimes attends their meetings in person.

Civil Officials.—The total number of civil officials was 137,819 in 1906. It had been only 68,876 in 1898, from which time it grew regularly year by year. The salaries and allowances paid out of the treasury every year on account of the civil service are 4 millions sterling, approximately, and the annual emoluments of the principal officials are as follow:—Prime minister, £960; minister of a department, £600; ambassador, £500, with allowances varying from £2200 to £3000; president of privy council, £500; resident-general in Seoul, £600; governor-general of Formosa, £600; vice-minister, £400; minister plenipotentiary, £400, with allowances from £1000 to £1700; governor of prefecture, £300 to £360; judge of the court of cassation, £200 to £500; other judges, £60 to £400; professor of imperial university, from £80 to £160, with allowances from £40 to £120; privy councillor, £400; director of a bureau, £300; &c.

Legislature.—The first Japanese Diet was convoked the 29th of November, 1890. There are two chambers, a house of peers (*kizoku-in*) and a house of representatives (*shugi-in*). Each is invested with the same legislative power.

The upper chamber consists of four classes of members. They are, first, hereditary members, namely, princes and marquises, who are entitled to sit when they reach the age of 25; secondly, counts, viscounts and barons, elected—after they have attained their 25th year—by their respective orders in the maximum ratio of one member to every five peers; thirdly, men of education or distinguished service who are nominated by the emperor; and, fourthly, representatives of the highest tax-payers, elected, one for each prefecture, by their own class. The minimum age limit for non-titled members is 30, and it is provided that their total number must not exceed that of the titled members. The house was composed in 1909 of 14 princes of the blood, 15 princes, 39 marquises, 17 counts, 69 viscounts, 56 barons, 124 Imperial nominees, and 45 representatives of the highest tax-payers—that is to say, 210 titled members and 169 non-titled.

The lower house consists of elected members only. Originally the property qualification was fixed at a minimum annual payment of 30s. in direct taxes (*i.e.* taxes imposed by the central government), but in 1900 the law of election was amended, and the property qualification for electors is now a payment of £1 in direct taxes, while for candidates no qualification is required either as to property or as to locality. Members are of two kinds, namely, those returned by incorporated cities and those returned by prefectures. In each case the ratio is one member for every 130,000 electors, and the electoral district is the city or prefecture.

Voting is by ballot, one man one vote, and a general election must take place once in 4 years for the house of representatives, and once in 7 years for the house of peers. The house of representatives, however, is liable to be dissolved by order of the sovereign as a disciplinary measure, in which event a general election must be held within 5 months from the date of dissolution, whereas the house of peers is not liable to any such treatment. Otherwise the two houses enjoy equal rights and privileges, except that the budget must first be submitted to the representatives. Each member receives a salary of £200; the president receives £500, and the vice-president £300. The presidents are nominated by the sovereign from three names submitted by each house, but the appointment of a vice-president is within the independent right of each chamber. The lower house consists of 379 members, of whom 75 are returned by the urban population and 304 by the rural. Under the original property qualification the number of franchise-holders was only 453,474, or 11·5 to every 1000 of the nation, but it is now 1,676,007, or 15·77 to every 1000. By the constitution which created the diet freedom of conscience, of speech and of public meeting, inviolability of domicile and correspondence, security from arrest or punishment except by due process of law, permanence of judicial appointments and all the other essential elements of civil liberty were granted. In the diet full legislative authority is vested: without its consent no tax can be imposed, increased or remitted; nor can any public money be paid out except the salaries of officials, which the sovereign reserves the right to fix at will. In the emperor are vested the prerogatives of declaring war and making peace, of concluding treaties, of appointing and dismissing officials, of approving and promulgating laws, of issuing urgent ordinances to take the temporary place of laws, and of conferring titles of nobility.

Procedure of the Diet.—It could scarcely have been expected that neither tumult nor intemperance would disfigure the proceedings of a diet whose members were entirely without parliamentary experience, but not without grievances to ventilate, wrongs (real or fancied) to avenge, and abuses to redress. On the whole, however, there has been a remarkable absence of anything like disgraceful licence. The politeness, the good temper, and the sense of dignity which characterize the Japanese, generally saved the situation when it threatened to degenerate into a "scene." Foreigners entering the house of representatives in Tōkyō for the first time might easily misinterpret some of its habits. A number distinguishes each member. It is painted in white on a wooden indicator, the latter being fastened by a hinge to the face of the member's desk. When present he sets the indicator standing upright, and lowers it when leaving the house. Permission to speak is not obtained by catching the president's eye, but by calling out the aspirant's number, and as members often emphasize their calls by hammering their desks with the indicators, there are moments of decided din. But, for the rest, orderliness and decorum habitually prevail. Speeches have to be made from a rostrum. There are few displays of oratory or eloquence. The Japanese formulates his views with remarkable facility. He is absolutely free from *gaucherie* or self-consciousness when speaking in public: he can think on his feet. But his mind does not usually busy itself with abstract ideas and subtleties of philosophical or religious thought. Flights of fancy, impassioned bursts of sentiment, appeals to the heart rather than to the reason of an audience, are devices strange to his mental habit. He can be rhetorical, but not eloquent. Among all the speeches hitherto delivered in the Japanese diet it would be difficult to find a passage deserving the latter epithet.

From the first the debates were recorded verbatim. Years before the date fixed for the promulgation of the constitution, a little band of students elaborated a system of stenography and adapted it to the Japanese syllabary. Their labours remained almost without recognition or remuneration until the diet was on the eve of meeting, when it was discovered that a competent staff of shorthand reporters could be organized at an hour's notice. Japan can thus boast that, alone among the countries of the world, she possesses an exact record of the proceedings of her Diet from the moment when the first word was spoken within its walls.

A special feature of the Diet's procedure helps to discourage oratorical displays. Each measure of importance has to be submitted to a committee, and not until the latter's report has been received does serious debate take place. But in ninety-nine cases out of every hundred the committee's report determines the attitude of the house, and speeches are felt to be more or less superfluous. One result of this system is that business is done with a degree of celerity scarcely known in Occidental legislatures. For example, the meetings of the house of representatives during the session 1896–1897 were 32, and the number of hours occupied by the sittings aggregated 116. Yet the result was 55 bills debated and passed, several of them measures of prime importance, such as the gold standard bill, the budget and a statutory tariff law. It must be remembered that although actual sittings of the houses are comparatively few and brief, the committees remain almost constantly at work from morning to evening throughout the twelve weeks of the session's duration.

Divisions of the Empire.—The earliest traditional divisions of Japan into provinces was made by the emperor Seimu (131–190), in whose time the sway of the throne did not extend farther north than a line curving from Sendai Bay, on the north-east coast of the main island, to the vicinity of Niigata (one of the treaty ports), on the north-west coast. The region northward of this line was then occupied by barbarous tribes, of whom the Ainu (still to be found in Yezo) are probably the remaining descendants. The whole country was then divided into thirty-two provinces. In the 3rd century the empress Jingō, on her return from her victorious expedition against Korea, portioned out the empire into five home provinces and seven circuits, in imitation of the Korean system. By the emperor Mommu (696–707) some of the provinces were subdivided so as to increase the whole number to sixty-six, and the boundaries then fixed by him were re-surveyed in the reign of the emperor Shōmu (723–756). The old division is as follows[1]:—

I. The *Go-kinai* or "five home provinces" *i.e.* those lying immediately around Kyōto, the capital, viz.:—

Yamashiro, also called		Jōshū	Izumi, also called		*Senshū*
Yamato	,,	Washū	*Settsu*	,,	Sesshū
Kawachi	,,	Kashū			

II. The seven circuits, as follow:—

1. The *Tōkaidō*, or "eastern-sea circuit," which comprised fifteen provinces, viz.:—

Iga	or	Ishū	Kai	or	*Kōshyū*
Isé	,,	*Seishū*	*Sagami*	,,	*Sōshyū*
Shima	,,	Shinshū	Musashi	,,	*Bushyū*
Owari	,,	*Bishū*	Awa	,,	*Bōshū*
Mikawa	,,	*Sanshū*	*Kazusa*	,,	Sōshū
Tōtōmi	,,	*Enshū*	*Shimōsa*	,,	Sōshū
Suruga	,,	*Sunshū*	*Hitachi*	,,	Jōshū
Izu	,,	Dzushū			

2. The *Tōzandō*, or "eastern-mountain circuit," which comprised eight provinces, viz.:—

Ōmi	or	*Gōshū*	Kōzuke	or	*Jōshū*
Mino	,,	Nōshū	Shimotsuke	,,	*Yashū*
Hida	,,	Hishū	Mutsu	,,	*Ōshū*
Shinano	,,	*Shinshū*	*Dewa*	,,	Ushū

3. The *Hokurikudō*, or "northern-land circuit," which comprised seven provinces, viz.:—

Wakasa	or	*Jakushū*	*Etchiu*	or	Esshū
Echizen	,,	Esshū	*Echigo*	,,	Esshū
Kaga	,,	*Kashū*	*Sado* (island)	,,	Sashū
Noto	,,	Nōshū			

4. The *Sanindō*, or "mountain-back circuit," which comprised eight provinces, viz.:—

Tamba	or	Tanshū	*Hōki*	or	Hakushū
Tango	,,	Tanshū	Izumo	,,	*Unshū*
Tajima	,,	Tanshū	Iwami	,,	*Sekishū*
Inaba	,,	*Inshū*	*Oki* (group of islands)		

5. The *Sanyōdō*, or "mountain-front circuit," which comprised eight provinces, viz.:—

Harima	or	*Banshū*	*Bingo*	or	Bishū
Mimasaka	,,	*Sakushū*	Aki	,,	*Geishū*
Bizen	,,	Bishū	*Suwō*	,,	Bōshū
Bitchiu	,,	Bishū	Nagato	,,	*Chōshū*

6. The *Nankaidō*, or "southern-sea circuit," which comprised six provinces, viz.:—

Kii	or	*Kishū*	*Sanuki*	or	Sanshū
Awaji (island)	,,	Tanshū	*Iyo*	,,	Yoshū
Awa	,,	*Ashū*	*Tosa*	,,	*Toshū*

[1] The names given in italics are those more commonly used. Those in the first column are generally of pure native derivation; those in the second column are composed of the Chinese word *shū*, a "province," added to the Chinese pronunciation of one of the characters with which the native name is written. In a few cases both names are used.

7. The *Saikaidō*, or "western-sea circuit," which comprised nine provinces, viz:—

Chikuzen	or	Chikushū	*Higo*	or	Hishū
Chikugo	,,	Chikushū	*Hiuga*	,,	Nisshū
Buzen	,,	Hōshū	*Osumi*	,,	Gūshū
Bungo	,,	Hōshū	Satsuma	,,	*Sasshū*
Hizen	,,	Hishū			

III. The two islands, viz.:—

1. Tsushima or *Taishū* | 2. *Iki* or Ishū

Upon comparing the above list with a map of Japan, it will be seen that the main island contains the Go-kinai, Tōkaidō, Tōzandō, Hokurikudō, Sanindō, Sanyōdō, and one province (Kishu) of the Nankaidō. Omitting also the island of Awaji, the remaining provinces of the Nankaidō give the name Shikoku (the "four provinces") to the island in which they lie; while Saikaidō coincides exactly with the large island Kiūshiū (the "nine provinces").

In 1868, when the rebellious nobles of Ōshū and Dewa, in the Tōzandō, had submitted to the emperor, those two provinces were subdivided, Dewa into Uzen and Ugo, and Ōshū into Iwaki, Iwashiro, Rikuzen, Rikuchū and Michinoku (usually called Mutsu). This increased the old number of provinces from sixty-six to seventy-one. At the same time there was created a new circuit, called the *Hokkaidō*, or "northern-sea circuit," which comprised the eleven provinces into which the large island of Yezo was then divided (viz. Oshima, Shiribeshi, Ishikari, Teshibo, Kitami, Iburi, Hiaka, Tokachi, Kushiro, and Nemuro) and the Kurile Islands (Chishima).

Another division of the old sixty-six provinces was made by taking as a central point the ancient barrier of Osaka on the frontier of Ōmi and Yamashiro,—the region lying on the east, which consisted of thirty-three provinces, being called *Kwantō*, or "east of the barrier," the remaining thirty-three provinces on the west being styled *Kwansei*, or "west of the barrier." At the present time, however, the term Kwantō is applied to only the eight provinces of Musashi, Sagami, Kōzuke, Shimotsuke, Kazusa, Shimōsa, Awa and Hitachi,—all lying immediately to the east of the old barrier of Hakone, in Sagami.

Chū-goku, or "central provinces," is a name in common use for the Sanindō and Sanyōdō taken together. *Saikoku*, or "western provinces," is another name for Kiūshiū, which in books again is frequently called *Chinsei*.

Local Administrative Divisions.—For purposes of local administration Japan is divided into 3 urban prefectures (*fu*), 43 rural prefectures (*ken*), and 3 special dominions (*chō*), namely Formosa, Hokkaidō and South Sakhalin. Formosa and Sakhalin not having been included in Japan's territories until 1895 and 1905, respectively, are still under the military control of a governor-general, and belong, therefore, to an administrative system different from that prevailing throughout the rest of the country. The prefectures and Hokkaidō are divided again into 638 sub-prefectures (*gun* or *kōri*); 60 towns (*shi*); 125 urban districts (*chō*) and 12,274 rural districts (*son*). The three urban prefectures are Tōkyō, Osaka and Kiōto, and the urban and rural districts are distinguished according to the number of houses they contain. Each prefecture is named after its chief town, with the exception of Okinawa, which is the appellation of a group of islands called also Riūkiū (Luchu). The following table shows the names of the prefectures, their areas, populations, number of sub-prefectures, towns and urban and rural divisions:—

Prefecture.	Area in sq. m.	Population.	Sub-prefectures.	Towns.	Urban Districts.	Rural Districts.
Tōkyō	749·76	1,795,128[2]	8	1	20	157
Kanagawa	927·79	776,642	11	1	19	202
Saitama	1,585·30	1,174,094	9	—	42	343
Chiba	1,943·85	1,273,387	12	—	69	286
Ibaraki	2,235·67	1,131,556	14	1	45	335
Tochigi	2,854·14	788,324	8	1	30	145
Gumma	2,427·21	774,654	11	2	38	169
Nagano	5,088·41	1,237,584	16	1	22	371
Yamanashi	1,727·50	498,539	9	1	7	235
Shizuoka	3,002·76	1,199,805	13	1	38	306
Aichi	1,864·17	1,591,357	19	1	74	592
Miye	2,196·56	495,389	15	2	19	325
Gifu	4,001·84	996,062	18	1	42	299
Shiga	1,540·30	712,024	12	1	12	190
Fukui	1,621·50	633,840	11	1	9	171
Ishikawa	1,611·59	392,905	8	1	16	259
Toyama	1,587·80	785,554	8	2	31	239
The above 17 prefectures form Central Japan.						
Niigata	4,914·55	1,812,289	16	1	47	401
Fukushima	5,042·57	1,057,971	17	1	37	388
Miyagi	3,223·11	835,830	16	1	31	172
Yamagata	3,576·89	829,210	11	2	24	206
Akita	4,493·84	775,077	9	1	42	197

[2] This is not the population of the city proper, but that of the urban prefecture.

Prefecture.	Area in sq. m.	Population.	Sub-prefectures.	Towns.	Urban Districts.	Rural Districts.
Iwate	5,359·17	726,380	13	1	23	217
Aomori	3,617·89	612,171	8	2	9	159
The above 7 prefectures form Northern Japan.						
Kiōto	1,767·43	931,576[1]	18	1	20	260
Osaka	689·69	1,311,909[1]	9	2	13	289
Nara	1,200·46	538,507	10	1	18	142
Wakayama	1,851·29	681,572	7	1	16	215
Hiōgo	3,318·31	1,667,226	25	2	29	403
Okayama	2,509·04	1,132,000	19	1	29	383
Hiroshima	3,103·84	1,436,415	16	3	27	420
Yamaguchi	1,324·34	986,161	11	1	10	215
Shimane	2,597·48	721,448	16	1	14	276
Tottori	1,335·99	418,929	6	1	8	227
The above 10 prefectures form Southern Japan.						
Tokushima	1,616·82	699,398	10	1	2	137
Kagawa	976·46	700,462	7	2	12	166
Ehime	2,033·57	997,481	12	1	18	283
Kochi	2,720·13	616,549	6	1	14	183
The above 4 prefectures form the island of Shikoku.						
Nagasaki	1,401·49	821,323	9	2	15	288
Saga	984·07	621,011	8	1	7	127
Fukuoka	1,894·14	1,362,743	19	4	38	340
Kumamoto	2,774·20	1,151,401	12	1	33	331
Oita	2,400·27	839,485	12	—	28	251
Miyazaki	2,904·54	454,707	8	—	9	91
Kagoshima	3,589·76	1,104,631	12	1	—	380
Okinawa	935·18	469,203	5	2	—	52
The above 8 prefectures form Kiūshiū.						
Hokkaidō	36,328·34	610,155	88	3	19	456

Local Administrative System.—In the system of local administration full effect is given to the principle of popular representation. Each prefecture (urban or rural), each sub-prefecture, each town and each district (urban or rural) has its local assembly, the number of members being fixed in proportion to the population. There is no superior limit of number in the case of a prefectural assembly, but the inferior limit is 30. For a town assembly, however, the superior limit is 60 and the inferior 30; for a sub-prefectural assembly the corresponding figures are 40 and 15, and for a district assembly, 30 and 8. These bodies are all elective. The property qualification for the franchise in the case of prefectural and sub-prefectural assemblies is an annual payment of direct national taxes to the amount of 3 *yen*; and in the case of town and district assemblies, 2 *yen*; while to be eligible for election to a prefectural assembly a yearly payment of 10 *yen* of direct national taxes is necessary; to a sub-prefectural assembly, 5 *yen*, and to a town or district assembly, 2 *yen*. Under these qualifications the electors aggregate 2,009,745, and those eligible for election total 919,507. In towns and districts franchise-holders are further divided into classes with regard to their payment of local taxes. Thus for town electors there are three classes, differentiated by the following process: On the list of ratepayers the highest are checked off until their aggregate payments are equal to one-third of the total taxes. These persons form the first class. Next below them the persons whose aggregate payments represent one-third of the total amount are checked off to form the second class, and all the remainder form the third class. Each class elects one-third of the members of assembly. In the districts there are only two classes, namely, those whose payments, in order from the highest, aggregate one-half of the total, the remaining names on the list being placed in the second class. Each class elects one-half of the members. This is called the system of *ō-jinushi* (large landowners) and is found to work satisfactorily as a device for conferring representative rights in proportion to property. The franchise is withheld from all salaried local officials, from judicial officials, from ministers of religion, from persons who, not being barristers by profession, assist the people in affairs connected with law courts or official bureaux, and from every individual or member of a company that contracts for the execution of public works or the supply of articles to a local administration, as well as from persons unable to write their own names and the name of the candidate for whom they vote. Members of assembly are not paid. For prefectural and sub-prefectural assemblies the term is four years; for town and district assemblies, six years, with the provision that one-half of the members must be elected every third year. The prefectural assemblies hold one session of 30 days yearly; the sub-prefectural assemblies, one session of not more than 14 days. The town and district assemblies have no fixed session; they are summoned by the mayor or the head-man when their deliberations appear necessary, and they continue in session till their business is concluded.

The chief function of the assemblies is to deal with all questions of local finance. They discuss and vote the yearly budgets; they pass the settled accounts; they fix the local taxes within a maximum limit which bears a certain ratio to the national taxes; they make representations to the minister for home affairs; they deal with the fixed property of the locality; they raise loans, and so on. It is necessary, however, that they should obtain the consent of the minister for home affairs, and sometimes of the minister of finance also, before disturbing any objects of scientific, artistic or historical importance; before contracting loans; before imposing special taxes or passing the normal limits of taxation; before enacting new local regulations or changing the old; before dealing with grants in aid made by the central treasury, &c. The governor of a prefecture, who is appointed by the central administration, is invested with considerable power. He oversees the carrying out of all works undertaken at the public expense; he causes bills to be drafted for discussion by an assembly; he is responsible for the administration of the funds and property of the prefecture; he orders payments and receipts; he directs the machinery for collecting taxes and fees; he summons a prefectural assembly, opens it and closes it, and has competence to suspend its session should such a course seem necessary. Many of the functions performed by the governor with regard to prefectural assemblies are discharged by a head-man (*gun-chô*) in the case of sub-prefectural assemblies. This head-man is a salaried official appointed by the central administration. He convenes, opens and closes the sub-prefectural assembly; he may require it to reconsider any of its financial decisions that seem improper, explaining his reasons for doing so, and should the assembly adhere to its original view, he may refer the matter to the governor of the prefecture. On the other hand, the assembly is competent to appeal to the home minister from the governor's decision. The sub-prefectural head-man may also take upon himself, in case of emergency, any of the functions falling within the competence of the sub-prefectural assembly, provided that he reports the fact to the assembly and seeks its sanction at the earliest possible opportunity. In each district also there is a head-man, but his post is always elective and generally non-salaried. He occupies towards a district assembly the same position that the sub-prefecture head-man holds towards a sub-prefectural assembly. Over the governors stands the minister for home affairs, who discharges general duties of superintendence and sanction, has competence to delete any item of a local budget, and may, with the emperor's consent, order the dissolution of a local assembly, provided that steps are taken to elect and convene another within three months.

The machinery of local administration is completed by councils, of which the governor of a prefecture, the mayor[2] of a town, or the head-man of a sub-prefecture or district, is *ex officio* president, and the councillors are partly elective, partly nominated by the central government. The councils may be said to stand in an executive position towards the local legislatures, namely, the assemblies, for the former give effect to the measures voted by the latter, take their place in case of emergency and consider questions submitted by them. This system of local government has now been in operation since 1885, and has been found to work well. It constitutes a thorough method of political education for the people. In feudal days popular representation had no existence, but a very effective chain of local responsibility was manufactured by dividing the people—apart from the samurai—into groups of five families, which were held jointly liable for any offence committed by one of their members. Thus it cannot be said that the people were altogether unprepared for this new system.

The Army.—The Japanese—as distinguished from the aboriginal inhabitants of Japan—having fought their way into the country, are naturally described in their annals as a nation of soldiers. The sovereign is said to have been the commander-in-chief and his captains were known as *o-omi* and *o-muraji*, while the duty of serving in the ranks devolved on all subjects alike. This information is indeed

The Ancient System.

[1] This is not the population of the city proper, but that of the urban prefecture.

[2] The mayor of a town (*shichō*) is nominated by the minister for home affairs from three men chosen by the town assembly.

derived from tradition only, since the first written record goes back no further than 712. We are justified, however, in believing that at the close of the 7th century of the Christian era, when the empress Jito sat upon the throne, the social system of the Tang dynasty of China commended itself for adoption; the distinction of civil and military is said to have been then established for the first time, though it probably concerned officials only. Certain officers received definitely military commissions, as generals, brigadiers, captains and so on; a military office (*hyōbu-shō*) was organized, and each important district throughout the empire had its military division (*gundan*). One-third—some say one-fourth—of the nation's able-bodied males constituted the army. Tactically there was a complete organization, from the squad of 5 men to the division of 600 horse and 400 foot. Service was for a defined period, during which taxes were remitted, so that military duties always found men ready to discharge them. Thus the hereditary soldier—afterwards known as the *samurai* or *bushi*—did not yet exist, nor was there any such thing as an exclusive right to carry arms. Weapons of war, the property of the state, were served out when required for fighting or for training purposes.

At the close of the 8th century stubborn insurrections on the part of the aborigines gave new importance to the soldier. The conscription list had to be greatly increased, and it came to be a recognized principle that every stalwart man should bear arms, every weakling become a bread-winner. Thus, for the first time, the distinction between "soldier" and "working man"[1] received official recognition, and in consequence of the circumstances attending the distinction a measure of contempt attached to the latter. The next stage of development had its origin in the assumption of high offices of state by great families, who encroached upon the imperial prerogatives, and appropriated as hereditary perquisites posts which should have remained in the gift of the sovereign. The Fujiwara clan, taking all the civil offices, resided in the capital, whereas the military posts fell to the lot of the Taira and the Minamoto, who, settling in the provinces and being thus required to guard and police the outlying districts, found it expedient to surround themselves with men who made soldiering a profession. These latter, in their turn, transmitted their functions to their sons, so that there grew up in the shadow of the great houses a number of military families devoted to maintaining the power and promoting the interests of their masters, from whom they derived their own privileges and emoluments.

From the middle of the 10th century, therefore, the terms *samurai* and *bushi* acquired a special significance, being applied to themselves and their followers by the local magnates, whose power tended more and more to eclipse even that of the throne, and finally, in the 12th century, when the Minamoto brought the whole country under the sway of military organization, the privilege of bearing arms was restricted to the samurai. Thenceforth the military class entered upon a period of administrative and social superiority which lasted, without serious interruption, until the middle of the 19th century. But it is to be observed that the distinction between soldier and civilian, samurai and commoner, was not of ancient existence, nor did it arise from any question of race or caste, victor or vanquished, as is often supposed and stated. It was an outcome wholly of ambitious usurpations, which, relying for success on force of arms, gave practical importance to the soldier, and invested his profession with factitious honour.

Weapons.

The bow was always the chief weapon of the fighting-man in Japan. "War" and "bow-and-arrow" were synonymous terms. Tradition tells how Tametomo shot an arrow through the crest of his brother's helmet, in order to recall the youth's allegiance without injuring him; how Nasuno Michitaka discharged a shaft that severed the stem of a fan swayed by the wind; how Mutsuru, ordered by an emperor to rescue a fish from the talons of an osprey without killing bird or fish, cut off the osprey's feet with a crescent-headed arrow so that the fish dropped into the palace lake and the bird continued its flight; and there are many similar records of Japanese skill with the weapon. Still better authenticated were the feats performed at the "thirty-three-span halls" in Kiōto and Yedo, where the archer had to shoot an arrow through the whole length of a corridor 128 yards long and only 16 ft. high. Wada Daihachi, in the 17th century, succeeded in sending 8133 arrows from end to end of the corridor in 24 consecutive hours, being an average of over 5 shafts per minute; and Masatoki, in 1852, made 5383 successful shots in 20 hours, more than 4 a minute. The lengths of the bow and arrow were determined with reference to the capacity of the archer. In the case of the bow, the unit of measurement was the distance between the tips of the thumb and the little finger with the hand fully stretched. Fifteen of these units gave the length of the bow—the maximum being about 7½ ft. The unit for the arrow was from 12 to 15 hand-breadths, or from 3 ft. to 3¾ ft. Originally the bow was of unvarnished boxwood or *zelkowa*; but subsequently bamboo alone came to be employed. Binding with cord or rattan served to strengthen the bow, and for precision of flight the arrow had three feathers, an eagle's wing being most esteemed for that purpose, and after it, in order, that of the copper pheasant, the crane, the adjutant and the snipe.

Next in importance to the bow came the sword, which is often spoken of as the samurai's chief weapon, though there can be no doubt that during long ages it ranked after the bow. It was a single-edged weapon remarkable for its three exactly similar curves—edge, face-line and back; its almost imperceptibly convexed blade; its admirable tempering; its consummately skilled forging; its razor-like sharpness; its cunning distribution of weight, giving a maximum efficiency of stroke. The 10th century saw this weapon carried to perfection, and it has been inferred that only from that epoch did the samurai begin to esteem his sword as the greatest treasure he possessed, and to rely on it as his best instrument of attack and defence. But it is evident that the evolution of such a blade must have been due to an urgent, long-existing demand, and that the *katana* came as the sequel of innumerable efforts on the part of the sword-smith and generous encouragement on that of the soldier. Many pages of Japanese annals and household traditions are associated with its use. In every age numbers of men devoted their whole lives to acquiring novel skill in swordsmanship. Many of them invented systems of their own, differing from one another in some subtle details unknown to any save the master himself and his favourite pupils. Not merely the method of handling the weapon had to be studied. Associated with sword-play was an art variously known as *shinobi*, *yawara*, and *jujutsu*, names which imply the exertion of muscular force in such a manner as to produce a maximum of effect with a minimum of effort, by directing an adversary's strength so as to become auxiliary to one's own. It was an essential element of the expert's art not only that he should be competent to defend himself with any object that happened to be within reach, but also that without an orthodox weapon he should be capable of inflicting fatal or disabling injury on an assailant. In the many records of great swordsmen instances are related of men seizing a piece of firewood, a brazier-iron, or a druggist's pestle as a weapon of offence, while, on the other side, an umbrella, an iron fan or even a pot-lid served for protection. The samurai had to be prepared for every emergency. Were he caught weaponless by a number of assailants, his art of yawara was supposed to supply him with expedients for emerging unscathed. Nothing counted save the issue. The methods of gaining victory or the circumstances attending defeat were scarcely taken into consideration. The true samurai had to rise superior to all contingencies. Out of this perpetual effort on the part of hundreds of experts to discover and perfect novel developments of swordsmanship, there grew a habit which held its vogue down to modern times, namely, that when a man had mastered one style of sword-play in the school of a teacher, he set himself to study all others, and for that purpose undertook a tour throughout the provinces, challenging every expert, and, in the event of defeat, constituting himself the victor's pupil. The sword exercised a potent influence on the life of the Japanese nation. The distinction of wearing it, the rights that it conferred, the deeds wrought with it, the fame attaching to special skill in its use, the superstitions connected with it, the incredible value set upon a fine blade, the honours bestowed on an expert sword-smith, the traditions that had grown up around celebrated weapons, the profound study needed to be a competent judge of a sword's qualities—all these things conspired to give the katana an importance beyond the limits of ordinary comprehension. A samurai carried at least two swords, a long and a short. Their scabbards of lacquered wood were thrust into his girdle, not slung from it, being fastened in their place by cords of plaited silk. Sometimes he increased the number of swords to three, four or even five, before going into battle, and this array was supplemented by a dagger carried in the bosom. The short sword was not employed in the actual combat. Its use was to cut off an enemy's head after overthrowing him, and it also served a defeated soldier in his last resort—suicide. In general the long sword did not measure more than 3 ft., including the hilt; but some were 5 ft. long, and some 7. Considering that the scabbard, being

[1] The term *hyaku-shō*, here translated "working man," means literally "one engaged in any of the various callings" apart from military service. In a later age a further distinction was established between the agriculturist, the artisan, and the trader, and the word *hyaku-shō* then came to carry the signification of "husbandman" only.

fastened to the girdle, had no play, the feat of drawing one of these very long swords demanded extraordinary aptitude.

Spear and glaive were also ancient Japanese weapons. The oldest form of spear was derived from China. Its handle measured about 6 ft. and its blade 8 in., and it had sickle-shaped horns at the junction of blade and hilt (somewhat resembling a European *ranseur*). This weapon served almost exclusively for guarding palisades and gates. In the 14th century a true lance came into use. Its length varied greatly, and it had a hog-backed blade tempered almost as finely as the sword itself. This, too, was a Chinese type, as was also the glaive. The glaive (*naginata*, long sword) was a scimitar-like blade, some 3 ft. in length, fixed on a slightly longer haft. Originally the warlike monks alone employed this weapon, but from the 12th century it found much favour among military men. Ultimately, however, its use may be said to have been limited to women and priests. The spear, however, formed a useful adjunct of the sword, for whereas the latter could not be used except by troops in very loose formation, the former served for close-order fighting.

Armour.

Japanese armour (*gusoku*) may be broadly described as plate armour, but the essential difference between it and the European type was that, whereas the latter took its shape from the body, the former neither resembled nor was intended to resemble ordinary garments. Hence the only changes that occurred in Japanese armour from generation to generation had their origin in improved methods of construction. In general appearance it differed from the panoply of all other nations, so that, although to its essential parts we may apply with propriety the European terms —helmet, corselet, &c.—individually and in combination these parts were not at all like the originals of those names. Perhaps the easiest way of describing the difference is to say that whereas a European knight seemed to be clad in a suit of metal clothes, a Japanese samurai looked as if he wore protective curtains. The Japanese armour was, in fact, suspended from, rather than fitted to, the person. Only one of its elements found a counterpart in the European suit, namely, a tabard, which, in the case of men of rank, was made of the richest brocade. Iron and leather were the chief materials, and as the laminae were strung together with a vast number of coloured cords—silk or leather—an appearance of considerable brilliancy was produced. Ornamentation did not stop there. Plating and inlaying with gold and silver, and finely wrought decoration in chiselled, inlaid and *repoussé* work were freely applied. On the whole, however, despite the highly artistic character of its ornamentation, the loose, pendulous nature of Japanese armour detracted greatly from its workmanlike aspect, especially when the *horo* was added—a curious appendage in the shape of a curtain of fine transparent silk, which was either stretched in front between the horns of the helmet and the tip of the bow, or worn on the shoulders and back, the purpose in either case being to turn the point of an arrow. A true samurai observed strict rules of etiquette with regard even to the garments worn under his armour, and it was part of his soldierly capacity to be able to bear the great weight of the whole without loss of activity, a feat impossible to any untrained man of modern days. Common soldiers were generally content with a comparatively light helmet and a corselet.

War-horses.

The Japanese never had a war-horse worthy to be so called. The mis-shapen ponies which carried them to battle showed qualities of hardiness and endurance, but were so deficient in stature and massiveness that when mounted by a man in voluminous armour they looked painfully puny. Nothing is known of the early Japanese saddle, but at the beginning of historic times it approximated closely to the Chinese type. Subsequently a purely Japanese shape was designed. It consisted of a wooden frame so constructed that a padded numnah could be fastened to it. Galled backs or withers were unknown with such a saddle: it fitted any horse. The stirrup, originally a simple affair resembling that of China and Europe, afterwards took the form of a shoe-sole with upturned toe. Both stirrups and saddle-frame were often of beautiful workmanship, the former covered with rich gold lacquer, the latter inlaid with gold or silver. In the latter part of the military epoch chain-armour was adopted for the horse, and its head was protected by a monster-faced mask of iron.

Early Strategy and Tactics.

Flags were used in battle as well as on ceremonial occasions. Some were monochrome, as the red and white flags of the Taira and the Minamoto clans in their celebrated struggle during the 12th century; and some were streamers emblazoned with figures of the sun, the moon, a dragon, a tiger and so forth, or with religious legends. Fans with iron ribs were carried by commanding officers, and signals to advance or retreat were given by beating drums and metal gongs and blowing conches. During the military epoch a campaign was opened or a contest preluded by a human sacrifice to the god of war, the victim at this rite of blood (*chi-matsuri*) being generally a prisoner or a condemned criminal. Although ambuscades and surprises played a large part in all strategy, pitched battles were the general rule, and it was essential that notice of an intention to attack should be given by discharging a singing arrow. Thereafter the assaulting army, taking the word from its commander, raised a shout of "Ei! Ei!" to which the other side replied, and the formalities having been thus satisfied, the fight commenced. In early medieval days tactics were of the crudest description. An army consisted of a congeries of little bands, each under the order of a chief who considered himself independent, and instead of subordinating his movements to a general plan, struck a blow wherever he pleased. From time immemorial a romantic value has attached in Japan to the first of anything: the first snow of winter; the first water drawn from the well on New Year's Day; the first blossom of the spring; the first note of the nightingale. So in war the first to ride up to the foe or the wielder of the first spear was held in high honour, and a samurai strove for that distinction as his principal duty. It necessarily resulted, too, not only from the nature of the weapons employed, but also from the immense labour devoted by the true samurai to perfecting himself in their use, that displays of individual prowess were deemed the chief object in a battle. Some tactical formations borrowed from China were familiar in Japan, but their intelligent use and their modification to suit the circumstances of the time were inaugurated only by the great captains of the 15th and 16th centuries. Prior to that epoch a battle resembled a gigantic fencing match. Men fought as individuals, not as units of a tactical formation, and the engagement consisted of a number of personal duels, all in simultaneous progress. It was the samurai's habit to proclaim his name and titles in the presence of the enemy, sometimes adding from his own record or his father's any details that might tend to dispirit his hearers. Then some one advancing to cross weapons with him would perform the same ceremony of self-introduction, and if either found anything to upbraid in the other's antecedents or family history, he did not fail to make loud reference to it, such a device being counted efficacious as a means of disturbing an adversary's *sang-froid*, though the principle underlying the mutual introduction was courtesy. The duellists could reckon on finishing their fight undisturbed, but the victor frequently had to endure the combined assault of a number of the comrades or retainers of the vanquished. Of course a skilled swordsman did not necessarily seek a single combat; he was equally ready to ride into the thick of the fight without discrimination, and a group of common soldiers never hesitated to make a united attack upon a mounted officer if they found him disengaged. But the general feature of a battle was individual contests, and when the fighting had ceased, each samurai proceeded to the tent[1] of the commanding officer and submitted for inspection the heads of those whom he had killed.

Change of Tactics.

The disadvantage of such a mode of fighting was demonstrated for the first time when the Mongols invaded Japan in 1274. The invaders moved in phalanx, guarding themselves with pavises, and covering their advance with a host of archers shooting clouds of poisoned arrows.[2] When a Japanese samurai advanced singly and challenged one of them to combat, they opened their ranks, enclosed the challenger and cut him to pieces. Many Japanese were thus slain, and it was not until they made a concerted movement of attack that they produced any effect upon the enemy. But although the advantage of massing strength seems to have been recognized, the Japanese themselves did not adopt the formation which the Mongols had shown to be so formidable. Individual prowess continued to be the prominent factor in battles down to a comparatively recent period. The great captains Takeda Shingen and Uyesugi Kenshin are supposed to have been Japan's pioneer tacticians. They certainly appreciated the value of a formation in which the action of the individual should be subordinated to the unity of the whole. But when it is remembered that firearms had already been in the hands of the Japanese for several years, and that they had means of acquainting themselves with

[1] A tent was simply a space enclosed with strips of cloth or silk, on which was emblazoned the crest of the commander. It had no covering.

[2] The Japanese never at any time of their history used poisoned arrows; they despised them as depraved and inhuman weapons.

the tactics of Europe through their intercourse with the Dutch, it is remarkable that the changes attributed to Takeda and Uyesugi were not more drastic. Speaking broadly, what they did was to organize a column with the musqueteers and archers in front; the spearmen and swordsmen in the second line; the cavalry in the third line; the commanding officer in the rear, and the drums and standards in the centre. At close quarters the spear proved a highly effective weapon, and in the days of Hideyoshi (1536–1598) combined flank and front attacks by bands of spearmen became a favourite device. The importance of a strong reserve also received recognition, and in theory, at all events, a tolerably intelligent system of tactics was adopted. But not until the close of the 17th century did the doctrine of strictly disciplined action obtain practical vogue. Yamaga Soko is said to have been the successful inculcator of this principle, and from his time the most approved tactical formation was known as the *Yamagaryū* (Yamaga style), though it showed no other innovation than strict subordination of each unit to the general plan.

Military Principles.

Although, tactically speaking, the samurai was everything and the system nothing before the second half of the 17th century, and although strategy was chiefly a matter of deception, surprises and ambushes, it must not be supposed that there were no classical principles. The student of European military history searches in vain for the rules and maxims of war so often invoked by glib critics, but the student of Japanese history is more successful. Here, as in virtually every field of things Japanese, retrospect discovers the ubiquitous Chinaman. The treatises of Sung and 'Ng (called in Japan Son and Go) Chinese generals of the third century after Christ, were the classics of Far-Eastern captains through all generations. (See *The Book of War*, tr. E. F. Calthrop, 1908.) Yoshitsunē, in the 12th century, deceived a loving girl to obtain a copy of Sung's work which her father had in his possession, and Yamaga, in the 17th century, when he set himself to compose a book on tactics, derived his materials almost entirely from the two Chinese monographs. These treatises came into the hands of the Japanese in the 8th century, when the celebrated Kibi no Mabi went to study civilization in China, just as his successors of the 19th century went to study a new civilization in Europe and America. Thenceforth Son and Go became household words among Japanese soldiers. Their volumes were to the samurai what the *Mahayana* was to the Buddhist. They were believed to have collected whatever of good had preceded them, and to have forecast whatever of good the future might produce. The character of their strategic methods, somewhat analogous to those of 18th-century Europe, may be gathered from the following:—

"An army undertaking an offensive campaign must be twice as numerous as the enemy. A force investing a fortress should be numerically ten times the garrison. When the adversary holds high ground, turn his flank; do not deliver a frontal attack. When he has a mountain or a river behind him, cut his lines of communication. If he deliberately assumes a position from which victory is his only escape, hold him there, but do not molest him. If you can surround him, leave one route open for his escape, since desperate men fight fiercely. When you have to cross a river, put your advance-guard and your rear-guard at a distance from the banks. When the enemy has to cross a river, let him get well engaged in the operation before you strike at him. In a march, make celerity your first object. Pass no copse, enter no ravine, nor approach any thicket until your scouts have explored it fully."

Such precepts are multiplied; but when these ancient authors discuss tactical formations, they do not seem to have contemplated anything like rapid, well-ordered changes of mobile, highly trained masses of men from one formation to another, or their quick transfer from point to point of a battlefield. The basis of their tactics is *The Book of Changes*. Here again is encountered the superstition that underlies nearly all Chinese and Japanese institutions: the superstition that took captive even the great mind of Confucius. The positive and the negative principles; the sympathetic and the antipathetic elements; cosmos growing out of chaos; chaos re-absorbing cosmos—on such fancies they founded their tactical system. The result was a phalanx of complicated organization, difficult to manœuvre and liable to be easily thrown into confusion. Yet when Yamaga in the 17th century interpreted these ancient Chinese treatises, he detected in them suggestions for a very shrewd use of the principle of échelon, and applied it to devise formations which combined much of the frontal expansion of the line with the solidity of the column. More than that cannot be said for Japanese tactical genius. The samurai was the best fighting unit in the Orient—probably one of the best fighting units the world ever produced. It was perhaps because of that excellence that his captains remained indifferent tacticians.

Ethics of the Samurai.

In estimating the military capacity of the Japanese, it is essential to know something of the ethical code of the samurai, the *bushido* (way of the warrior) as it was called. A typical example of the rules of conduct prescribed by feudal chieftains is furnished in the code of Kato Kiyomasa, a celebrated general of the 16th century:—

Regulations for Samurai of every Rank; the Highest and Lowest alike.

1. The routine of service must be strictly observed. From 6 a.m. military exercises shall be practised. Archery, gunnery and horsemanship must not be neglected. If any man shows exceptional proficiency he shall receive extra pay.

2. Those that desire recreation may engage in hawking, deer-hunting or wrestling.

3. With regard to dress, garments of cotton or pongee shall be worn. Any man incurring debts owing to extravagance of costume or living shall be considered a law-breaker. If, however, being zealous in the practice of military arts suitable to his rank, he desires to hire instructors, an allowance may be granted to him for that purpose.

4. The staple of diet shall be unhulled rice. At social entertainments one guest for one host is the proper limit. Only when men are assembled for military exercises shall many dine together.

5. It is the duty of every samurai to make himself acquainted with the principles of his craft. Extravagant displays of adornment are forbidden in battle.

6. Dancing or organizing dances is unlawful; it is likely to betray sword-carrying men into acts of violence. Whatever a man does should be done with his heart. Therefore for the soldier military amusements alone are suitable. The penalty for violating this provision is death by suicide.

7. Learning shall be encouraged. Military books must be read. The spirit of loyalty and filial piety must be educated before all things. Poem-composing pastimes are not to be engaged in by samurai. To be addicted to such amusements is to resemble a woman. A man born a samurai should live and die sword in hand. Unless he is thus trained in time of peace, he will be useless in the hour of stress. To be brave and warlike must be his invariable condition.

8. Whosoever finds these rules too severe shall be relieved from service. Should investigation show that any one is so unfortunate as to lack manly qualities, he shall be singled out and dismissed forthwith. The imperative character of these instructions must not be doubted.

The plainly paramount purpose of these rules was to draw a sharp line of demarcation between the samurai and the courtiers living in Kiōto. The dancing, the couplet-composing, the sumptuous living and the fine costumes of the officials frequenting the imperial capital were strictly interdicted by the feudatories. Frugality, fealty and filial piety—these may be called the fundamental virtues of the samurai. Owing to the circumstances out of which his caste had grown, he regarded all bread-winning pursuits with contempt, and despised money. To be swayed in the smallest degree by mercenary motives was despicable in his eyes. Essentially a stoic, he made self-control the ideal of his existence, and practised the courageous endurance of suffering so thoroughly that he could without hesitation inflict on his own body pain of the most horrible description. Nor can the courage of the samurai justly be ascribed to bluntness of moral sensibility resulting from semi-savage conditions of life. From the 8th century onwards the current of existence in Japan set with general steadiness in the direction of artistic refinement and voluptuous luxury, amidst which men could scarcely fail to acquire habits and tastes inconsistent with acts of high courage and great endurance. The samurai's mood was not a product of semi-barbarism, but rather a protest against emasculating civilization. He schooled himself to regard death by his own hand as a normal eventuality. The story of other nations shows

epochs when death was welcomed as a relief and deliberately invited as a refuge from the mere weariness of living. But wherever there has been liberty to choose, and leisure to employ, a painless mode of exit from the world, men have invariably selected it. The samurai, however, adopted in *harakiri* (disembowelment) a mode of suicide so painful and so shocking that to school the mind to regard it with indifference and perform it without flinching was a feat not easy to conceive. Assistance was often rendered by a friend who stood ready to decapitate the victim immediately after the stomach had been gashed; but there were innumerable examples of men who consummated the tragedy without aid, especially when the sacrifice of life was by way of protest against the excesses of a feudal chief or the crimes of a ruler, or when some motive for secrecy existed. It must be observed that the suicide of the samurai was never inspired by any doctrine like that of Hegesias. Death did not present itself to him as a legitimate means of escaping from the cares and disappointments of life. Self-destruction had only one consolatory aspect, that it was the soldier's privilege to expiate a crime with his own sword, not under the hand of the executioner. It rested with his feudal chief to determine his guilt, and his peremptory duty was never to question the justice of an order to commit suicide, but to obey without murmur or protest. For the rest, the general motives for suicide were to escape falling into the hands of a victorious enemy, to remonstrate against some official abuse which no ordinary complaint could reach, or, by means of a dying protest, to turn a liege lord from pursuing courses injurious to his reputation and his fortune. This last was the noblest and by no means the most infrequent reason for suicide. Scores of examples are recorded of men who, with everything to make existence desirable, deliberately laid down their lives at the prompting of loyalty. Thus the samurai rose to a remarkable height of moral nobility. He had no assurance that his death might not be wholly fruitless, as indeed it often proved. If the sacrifice achieved its purpose, if it turned a liege lord from evil courses, the samurai could hope that his memory would be honoured. But if the lord resented such a violent and conspicuous mode of reproving his excesses, then the faithful vassal's retribution would be an execrated memory and, perhaps, suffering for his family and relatives. Yet the deed was performed again and again. It remains to be noted that the samurai entertained a high respect for the obligations of truth; "A bushi has no second word," was one of his favourite mottoes. However, a reservation is necessary here. The samurai's doctrine was not truth for truth's sake, but truth for the sake of the spirit of uncompromising manliness on which he based all his code of morality. A pledge or a promise must never be broken, but the duty of veracity did not override the interests or the welfare of others. Generosity to a defeated foe was also one of the tenets of the samurai's ethics. History contains many instances of the exercise of that quality.

Something more, however, than a profound conception of duty was needed to nerve the samurai for sacrifices such as he seems to have been always ready to make. It is true that Japanese parents of the military class took pains to familiarize their children of both sexes from very tender years with the idea of self-destruction at any time. But superadded to the force of education and the incentive of tradition there was a transcendental influence. Buddhism supplied it. The tenets of that creed divided themselves, broadly speaking, into two doctrines, salvation by faith and salvation by works, and the chief exponent of the latter principle is the sect which prescribes meditation as the vehicle of enlightenment. Whatever be the mental processes induced by this rite, those who have practised it insist that it leads finally to a state of absorption, in which the mind is flooded by an illumination revealing the universe in a new aspect, absolutely free from all traces of passion, interest or affection, and showing, written across everything in flaming letters, the truth that for him who has found Buddha there is neither birth nor death, growth nor decay. Lifted high above his surroundings, he is prepared to meet every fate with indifference. The attainment of that state seems to have been a fact in the case both of the samurai of the military epoch and of the Japanese soldier to-day.

Religious Influence.

The policy of seclusion adopted by the Tokugawa administration after the Shimabara insurrection included an order that no samurai should acquire foreign learning. Nevertheless some knowledge could not fail to filter in through the Dutch factory at Deshima, and thus, a few years before the advent of the American ships, Takashima Shūhan, governor of Nagasaki, becoming persuaded of the fate his country must invite if she remained oblivious of the world's progress, memorialized the Yedo government in the sense that, unless Japan improved her weapons of war and reformed her military system, she could not escape humiliation such as had just overtaken China. He obtained small arms and field-guns of modern type from Holland, and, repairing to Yedo with a company of men trained according to the new tactics, he offered an object lesson for the consideration of the conservative officials. They answered by throwing him into prison. But Egawa, one of his retainers, proved a still more zealous reformer, and his foresight being vindicated by the appearance of the American war-vessels in 1853, he won the government's confidence and was entrusted with the work of planning and building forts at Shinagawa and Shimoda. At Egawa's instance rifles and cannon were imported largely from Europe, and their manufacture was commenced in Japan, a powder-mill also being established with machinery obtained from Holland. Finally, in 1862, the shōgun's government adopted the military system of the West, and organized three divisions of all arms, with a total strength of 13,600 officers and men. Disbanded at the fall of the shōgunate in 1867, this force nevertheless served as a model for a similar organization under the imperial government, and in the meanwhile the principal fiefs had not been idle, some—as Satsuma—adopting English tactics, others following France or Germany, and a few choosing Dutch. There appeared upon the stage at this juncture a great figure in the person of Omura Masujiro, a samurai of the Chōshū clan. He established Japan's first military school at Kiōto in 1868; he attempted to substitute for the hereditary soldier conscripts taken from all classes of the people, and he conceived the plan of dividing the whole empire into six military districts. An assassin's dagger removed him on the threshold of these great reforms, but his statue now stands in Tōkyō and his name is spoken with reverence by all his countrymen. In 1870 Yamagata Aritomo (afterwards Field-Marshal Prince Yamagata) and Saigo Tsugumichi (afterwards Field-Marshal Marquis Saigo) returned from a tour of military inspection in Europe, and in 1872 they organized a corps of Imperial guards, taken from the three clans which had been conspicuous in the work of restoring the administrative power to the sovereign, namely, the clans of Satsuma, Chōshū and Tosa. They also established garrisons in Tōkyō, Sendai, Osaka and Kumamoto, thus placing the military authority in the hands of the central government. Reforms followed quickly. In 1872, the *hyōbushō*, an office which controlled all matters relating to war, was replaced by two departments, one of war and one of the navy, and, in 1873, an imperial decree substituted universal conscription for the system of hereditary militarism. Many persons viewed this experiment with deep misgiving. They feared that it would not only alienate the samurai, but also entrust the duty of defending the country to men unfitted by tradition and custom for such a task, namely, the farmers, artisans and tradespeople, who, after centuries of exclusion from the military pale, might be expected to have lost all martial spirit. The government, however, was not deterred by these apprehensions. It argued that since the distinction of samurai and commoner had not originally existed, and since the former was a product simply of accidental conditions, there was no valid reason to doubt the military capacity of the people at large. The justice of this reasoning was put to a conclusive test a few years later. Originally the period of service with the colours was fixed at 3 years, that of service with the first and second reserves being 2 years each. One of the serious difficulties

Abolition of the Samurai.

encountered at the outset was that samurai conscripts were too proud to stand in the ranks with common rustics or artisans, and above all to obey the commands of plebeian officers. But patriotism soon overcame this obstacle. The whole country—with the exception of the northern island, Yezo—was parcelled out into six military districts (headquarters Tōkyō, Osaka, Nagoya, Sendai, Hiroshima and Kumamoto) each furnishing a division of all arms and services. There was also from 1876 a guards division in Tōkyō. The total strength on a peace footing was 31,680 of all arms, and on a war footing, 46,350. The defence of Yezo was entrusted to a colonial militia. It may well be supposed that to find competent officers for this army greatly perplexed its organizers. The military school—now in Tōkyō but originally founded by Omura in Kiōto—had to turn out graduates at high pressure, and private soldiers who showed any special aptitude were rapidly promoted to positions of command. French military instructors were engaged, and the work of translating manuals was carried out with all celerity. In 1877, this new army of conscripts had to endure a crucial test: it had to take the field against the Satsuma samurai, the very flower of their class, who in that year openly rebelled against the Tōkyō government. The campaign lasted eight months; as there had not yet been time to form the reserves, the Imperial forces were soon seriously reduced in number by casualties in the field and by disease, the latter claiming many victims owing to defective commissariat. It thus became necessary to have recourse to volunteers, but as these were for the most part samurai, the expectation was that their hereditary instinct of fighting would compensate for lack of training. That expectation was not fulfilled. Serving side by side in the field, the samurai volunteer and the heimin[1] regular were found to differ by precisely the degree of their respective training. The fact was thus finally established that the fighting qualities of the farmer and artisan reached as high a standard as those of the bushi.

Thenceforth the story of the Japanese army is one of steady progress and development. In 1878, the military duties of the empire were divided among three offices: namely, the army department, the general staff and the inspection department, while the six divisions of troops were organized into three army corps.

In 1879, the total period of colour and reserve service became 10 years. In 1883 the period was extended to 12 years, the list of exemptions was abbreviated, and above all substitution was no longer allowed. Great care was devoted to the training of officers; promotion went by merit, and at least ten of the most promising officers were sent abroad every year to study. A comprehensive system of education for the rank and file was organized. Great difficulty was experienced in procuring horses suitable for cavalry, and indeed the Japanese army long remained weak in this arm. In 1886, the whole littoral of the empire was divided into five districts, each with its admiralty and its naval port, and the army being made responsible for coast defence, a battery construction corps was formed. Moreover, an exhaustive scheme was elaborated to secure full co-operation between the army and navy. In 1888 the seven divisions of the army first found themselves prepared to take the field, and, in 1893, a revised system of mobilization was sanctioned, to be put into operation the following year, for the Chino-Japanese War (*q.v.*). At this period the division, mobilized for service in the field, consisted of 12 battalions of infantry, 3 troops of cavalry, 4 batteries of field and 2 of mountain artillery, 2 companies of sappers and train, totalling 18,492 of all arms with 5633 horses. The guards had only 8 battalions and 4 batteries (field). The field army aggregated over 120,000, with 168 field and 72 mountain guns, and the total of all forces, field, garrison and dépôt, was 220,580 of all arms, with 47,220 horses and 294 guns. Owing, however, to various modifications necessitated by circumstances, the numbers actually on duty were over 240,000, with 6495 non-combatant employees and about 100,000 coolies who acted as carriers. The infantry were armed with the Murata single-loader rifle, but the field artillery was inferior, and the only two divisions equipped with magazine rifles and smokeless powder never came into action. The experiences gained in this war bore large fruit. The total term of service with the colours and the reserves was slightly increased; the colonial militia of Yezo (Hokkaidō) was organized as a seventh line division; 5 new divisions were added, bringing the whole number of divisions to 13 (including the guards); a mixed brigade was stationed in Formosa (then newly added to Japan's dominions); a high military council composed of field-marshals was created; the cavalry was brigaded; the garrison artillery was increased; strenuous efforts were made to improve the education of officers and men; and lastly, sanitary arrangements underwent much modification. An arsenal had been established in Tōkyō, in 1868, for the manufacture of small arms and small-arm ammunition; this was followed by an arsenal in Osaka for the manufacture of guns and gun-ammunition; four powder factories were opened, and in later years big-gun factories at Kure and Mororan. Japan was able to make 12-inch guns in 1902, and her capacity for this kind of work was in 1909 second to none. She has her own patterns of rifle and field gun, so that she is independent of foreign aid so far as armaments are concerned. In 1900, she sent a force to North China to assist in the campaign for the relief of the foreign legations in Peking, and on that occasion her troops were able to observe at first hand the qualities and methods of European soldiers. In 1904 took place the great war with Russia (see Russo-Japanese War). After the war important changes were made in the direction of augmenting and improving the armed forces. The number of divisions was increased to 19 (including the guards), of which one division is for service in Korea and one for service in Manchuria. Various technical corps were organized, as well as horse artillery, heavy field artillery and machine-gun units. The field-gun was replaced by a quick-firer manufactured at Osaka, and much attention was given to the question of remounts—for, both in the war with China and in that with Russia, the horsing of the cavalry had been poor. Perhaps the most far-reaching change in all armies of late years is the shortening of the term of service with the colours to 2 years for the infantry, 3 years remaining the rule for other arms. This was adopted by Japan after the war, the infantry period of service with the reserves being extended to 14½ years, and of course has the effect of greatly augmenting the potential war strength. As to this, figures are kept secret, nor can any accurate approximation be attempted without danger of error. Rough estimates of Japan's war strength have, however, been made, giving 550,000 as the war strength of the first line army, plus 34,000 for garrisons overseas and 150,000 special reserves (*hojū*); 370,000 second line or *kōbi*, and 110,000 for the fully trained portion of the territorial forces, or *Kokumin-hei*. All these branches can further draw upon half-trained elements to the number of about 800,000 to replace losses. Japan's available strength in the last resort for home defence was recently (1909) stated by the Russian *Novoye Vremya* at 3,000,000. In 20 years, when the present system has produced its full effect, the first line should be 740,000 strong, the second line 780,000, and the third line about 3,850,000 (3,000,000 untrained and 850,000 partly trained). Details can be found in *Journal of the R. United Service Institution*, Dec. 1909–Jan. 1910.

Recruiting.

At 20 years of age every Japanese subject, of whatever status, becomes liable for military service. But the difficulty of making service universal in the case of a growing population is felt here as in Europe, and practically the system has elements of the old-fashioned conscription. The minimum height is 5·2 ft. (artillery and engineers, 5·4 ft.). There are four principal kinds of service, namely, service with the colours (*genyeki*), for two years; service with the first reserves (*yobi*), for 7½ years; service with the second reserves (*kōbi*), for 7 years; and service with the territorial troops (*ko kumin-hei*) up to the age of 40. Special reserve (*hojū*) takes up men who, though liable for conscription and medically qualified, have escaped the lot for service with the colours. It consists of two classes, one of men remaining in the category of *hojū* for 7½ years, the other for 1½ year, before passing into the territorial army. Their purpose is similar to that of special or *ersatz* reserves elsewhere. The first class receives the usual short initial training. Men of the second class, in ordinary circumstances, pass, after their 1½ year's inability, to the territorial army untrained. As for the first and second general reserves (*yobi* and *kōbi*), each is called out twice during its full term for short "refresher" courses. After reaching the territorial army a man is relieved from all further training. The total number of youths eligible for conscription each year is about 435,000, but the annual contingent for full service is not much more than 100,000. Conscripts in the active army may be discharged before the expiration of two years if their conduct and aptitude are exceptional.

A youth is exempted if it be clearly established[2] that his family is dependent upon his earnings. Except for permanent deformities men are put back for one year before being finally rejected on medical grounds. Men who have been convicted of crime are disqualified, but those who have been temporarily deprived of civil rights must present themselves for conscription at the termination of their sentence. Educated men may enrol themselves as one-year volunteers instead of drawing lots, this privilege of entry enduring up to the age of 28, after which, service for the full term without drawing lots is imposed. Residence in a foreign country secures exemption up to the age of 32—provided that official permission to go abroad has been obtained. A man returning after the age of 32 is drafted into the territorial army, but if he returns before that age he must volunteer to receive training, otherwise he is taken without lot for service with the colours. The system of volunteering is largely resorted to by persons of the better classes. Any youth who

[1] The general term for commoners as distinguished from samurai.

[2] The privilege at first led to great abuses. It became a common thing to employ some aged and indigent person, set him up as the head of a "branch family," and give him for adopted son a youth liable to conscription.

possesses certain educational qualifications is entitled to volunteer for training. If accepted after medical inspection, he serves with the colours for one year, during three months of which time he must live in barracks—unless a special permit be granted by his commanding officer. A volunteer has to contribute to his maintenance and equipment, although youths who cannot afford the full expense, if otherwise qualified, are assisted by the state. At the conclusion of a year's training the volunteer is drafted into the first reserve for 6½ years, and then into the second reserve for 5 years, so that his total period (12¼ years) of service before passing into the territorial army is the same as that of an ordinary conscript. The main purpose of the one-year voluntariat, as in Germany, is to provide officers for the reserves to territorial troops. Qualified teachers in the public service are only liable to a very short initial training, after which they pass at once into the territorial army. But if a teacher abandons that calling before the age of 28, he becomes liable, without lot,[1] to two years with the colours, unless he adopts the alternative of volunteering.

Officers. Officers are obtained in two ways. There are six local preparatory cadet schools (*yonen-gakko*) in various parts of the empire, for boys of from 13 to 15. After 3 years at one of these schools[2] a graduate spends 21 months at the central preparatory school (*chuo-yonen-gakko*), Tōkyō, and if he graduates with sufficient credit at the latter institution, he becomes eligible for admission to the officers' college (*shikan-gakko*) without further test of proficiency. The second method of obtaining officers is by competitive examination for direct admission to the officers' college. In either case the cadet is sent to serve with the colours for 6 to 12 months as a private and non-commissioned officer, before commencing his course at the officers' college. The period of study at the officers' college is one year, and after graduating successfully the cadet serves with troops for 6 months on probation. If at the end of that time he is favourably reported on, he is commissioned as a sub-lieutenant. Young officers of engineers and artillery receive a year's further training at a special college. Officers' ranks are the same as in the British army, but the nomenclature is more simple. The terms, with their English equivalents, are *shōi* (second lieutenant), *chūi* (first lieutenant), *tai* (captain), *shōsa* (major), *chūsa* (lieut.-colonel), *taisa* (colonel), *shōshō* (major-general), *chūjō* (lieut.-general), *taishō* (general), *gensui* (field-marshal). All these except the last apply to the same relative ranks in the navy. Promotion of officers in the junior grades is by seniority or merit, but after the rank of captain all promotion is by merit, and thus many officers never rise higher than captain, in which case retirement is compulsory at the age of 48. Except in the highest ranks, a certain minimum period has to be spent in each rank before promotion to the next.

Soldiers. There are three grades of privates: upper soldiers (*jōtō-hei*), first-class soldiers (*ittō-sotsu*), and second-class soldiers (*nitō-sotsu*). A private on joining is a second-class soldier. For proficiency and good conduct he is raised to the rank of first-class soldier, and ultimately to that of upper soldier. Non-commissioned officers are obtained from the ranks, or from those who wish to make soldiering a profession, as in European armies. The grades are corporal (*gochō*), sergeant (*gunsō*), sergeant-major (*sōchō*) and special sergeant-major (*tokumu-sōchō*).

The pay of the conscript is, as it is everywhere, a trifle (1s. 10d.–3s. 0½d. per month). The professional non-commissioned officers are better paid, the lowest grade receiving three times as much as an upper soldier. Officers' pay is roughly at about three-quarters of the rates prevailing in Germany, sub-lieutenants receiving about £34, captains £71, colonels £238 per annum, &c. Pensions for officers and non-commissioned officers, according to scale, can be claimed after 11 years' colour service.

The emperor is the commander-in-chief of the army, and theoretically the sole source of military authority, which he exercises through a general staff and a war department, with the assistance of a board of field-marshals (*gensuifu*). The general staff has for chief a field-marshal, and for vice-chief a general or lieutenant-general. It includes besides the usual general staff departments, various survey and topographical officers, and the military college is under its direction. The war department is presided over by a general officer on the active list, who is a member of the cabinet without being necessarily affected by ministerial changes. There are, further, artillery and engineer committees, and a remount bureau. The headquarters of coast defences under general officers are Tōkyō, Yokohama, Shimonoseki and Yura. The whole empire is divided into three military districts—eastern, central and western—each under the command of a general or lieutenant-general. The divisional headquarters are as follows:—Guard Tōkyō, I. Tōkyō, II. Sendai, III. Nagoya, IV. Wakayama, V. Hiroshima, VI. Kumamoto, VII. Asahikawa, VIII. Hirosaki, IX. Kasanava, X. Himeji, XI. Senzui, XII. Kokura, XIII. Takata, XIV. Utsonomia, XV. Fushimi, XVI. Kiōto, XVII. Okayama, XVIII. Kurume. Some of these divisions are permanently on foreign service, but their recruiting areas in Japan are maintained. There are also four cavalry brigades, and a number of unassigned regiments of field and mountain artillery, as well as garrison artillery and army technical troops. The organization of the active army by regiments is 176 infantry regiments of 3 battalions; 27 cavalry regiments; 30 field artillery regiments each of 6 and 3 mountain artillery regiments each of 3 batteries; 6 regiments and 6 battalions of siege, heavy field and fortress artillery; 20 battalions engineers; 19 supply and transport battalions.

Medical Service. The medical service is exceptionally well organized. It received unstinted praise from European and American experts who observed it closely during the wars of 1900 and 1904–5. The establishment of surgeons to each division is approximately 100, and arrangements complete in every detail are made for all lines of medical assistance. Much help is rendered by the red cross society of Japan, which has an income of 2,000,000 *yen* annually, a fine hospital in Tōkyō, a large nursing staff and two specially built and equipped hospital ships. During the early part of the campaign in Pechili, in 1900, the French column entrusted its wounded to the care of the Japanese.

Supply. The staple article of commissariat for a Japanese army in the field is *hoshii* (dried rice), of which three days' supply can easily be carried in a bag by the soldier. When required for use the rice, being placed in water, swells to its original bulk, and is eaten with a relish of salted fish, dried sea-weed or pickled plums. The task of provisioning an army on these lines is comparatively simple. The Japanese soldier, though low in stature, is well set up, muscular and hardy. He has great powers of endurance, and manœuvres with remarkable celerity, doing everything at the run, if necessary, and continuing to run without distress for a length of time astonishing to European observers. He is greatly subject, however, to attacks of *kakke* (beri-beri), and if he has recourse to meat diet, which appears to be the best preventive, he will probably lose something of his capacity for prolonged rapid movement. He attacks with apparent indifference to danger, preserves his cheerfulness amid hardships, is splendidly patriotic and has always shown himself thoroughly amenable to discipline.

Military Schools. Of the many educational and training establishments, the most important is the *rikugun daigakkō*, or army college, where officers, (generally subalterns), are prepared for service in the upper ranks and for staff appointments, the course of study extending over three years. The Toyama school stands next in importance. The courses pursued there are attended chiefly by subaltern officers of dismounted branches, non-commissioned officers also being allowed to take the musketry course. The term of training is five months. Young officers of the scientific branches are instructed at the *hōkōgakkō* (school of artillery and engineers). There are, further, two special schools of gunnery—one for field, the other for garrison artillery, attended chiefly by captains and senior subalterns of the two branches. There is an inspection department of military education, the inspector-general being a lieutenant-general, under whom are fifteen field and general officers, who act as inspectors of the various schools and colleges and of military educational matters in general.

The Japanese officer's pay is small and his mode of life frugal. He lives out of barracks, frequently with his own family. His uniform is plain and inexpensive,[3] and he has no desire to exchange it for mufti. He has no mess expenses, contribution to a band, or luxuries of any kind, and as he is nearly always without private means to supplement his pay, his habits are thoroughly economical. He devotes himself absolutely to his profession, living for nothing else, and since he is strongly imbued with an effective conception of the honour of his cloth, instances of his incurring disgrace by debt or dissipation are exceptional. The samurai may be said to have been revived in the officers of the modern army, who preserve and act up to all the old traditions. The system of promotion has evidently much to do with this good result, for no Japanese officer can hope to rise above the rank of captain unless, by showing himself really zealous and capable, he obtains from his commanding officer the recommendation without which all higher educational opportunities are closed to him. Yet promotion by merit has not degenerated into promotion by favour, and corruption appears to be virtually absent. In the stormiest days of parliamentary warfare, when charges of dishonesty were freely preferred by party politicians against all departments of officialdom, no whisper ever impeached the integrity of army officers.

The training of the troops is thorough and strictly progressive, the responsibility of the company, squadron and battery commanders for the training of their commands, and the latitude granted them in choice of means being, as in Germany, the keystone of the system.

Originally the government engaged French officers to assist in

[1] Conscription without lot is thus the punishment for all failures to comply with and attempts to evade the military laws.

[2] Sons of officers' widows, or of officers in reduced circumstances, are educated at these schools either free or at reduced charges, but are required to complete the course and to graduate.

[3] Uniform does not vary according to regiments or divisions. There is only one type for the whole of the infantry, one for the cavalry, and so on (see UNIFORMS, NAVAL AND MILITARY). Officers largely obtain their uniforms and equipment, as well as their books and technical literature through the *Kai-ko-sha*, which is a combined officers' club, benefit society and co-operative trading association to which nearly all belong.

organizing the army and elaborating its system of tactics and strategy, and during several years a military mission of French officers resided in Tōkyō and rendered valuable aid to the Japanese. Afterwards German officers were employed, with Jakob Meckel at their head, and they left a perpetually grateful memory. But ultimately the services of foreigners were dispensed with altogether, and Japan now adopts the plan of sending picked men to complete their studies in Europe. Up to 1904 she followed Germany in military matters almost implicitly, but since then, having the experience of her own great war to guide her, she has, instead of modelling herself on any one foreign system, chosen from each whatever seemed most desirable, and also, in many points, taken the initiative herself.

Foreign Assistance.

When the power of the sword was nominally restored to the Imperial government in 1868, the latter planned to devote one-fourth of the state's ordinary revenue to the army and navy. Had the estimated revenue accrued, this would have given a sum of about 3 millions sterling for the two services. But not until 1871, when the troops of the fiefs were finally disbanded, did the government find itself in a position to include in the annual budgets an adequate appropriation on account of armaments. Thenceforth, from 1872 to 1896, the ordinary expenditures of the army varied from three-quarters of a million sterling to 1½ millions, and the extraordinary outlays ranged from a few thousands of pounds to a quarter of a million. Not once in the whole period of 25 years —if 1877 (the year of the Satsuma rebellion) be excepted—did the state's total expenditures on account of the army exceed 1½ millions sterling, and it redounds to the credit of Japan's financial management that she was able to organize, equip and maintain such a force at such a small cost. In 1896, as shown above, she virtually doubled her army, and a proportionate increase of expenditure ensued, the outlays for maintenance jumping at once from an average of about 1¼ millions sterling to 2¼ millions, and growing thenceforth with the organization of the new army, until in the year (1903) preceding the outbreak of war with Russia, they reached the figure of 4 millions. Then again, in 1906, six divisions were added, and additional expenses had to be incurred on account of the new overseas garrisons, so that, in 1909, the ordinary outlays reached a total of 7 millions, or about one-seventh of the ordinary revenue of the state. This takes no account of extraordinary outlays incurred for building forts and barracks, providing new patterns of equipment, &c. In 1909 the latter, owing to the necessity of replacing the weapons used in the Russian War, and in particular the field artillery gun (which was in 1905 only a semi-quickfirer), involved a relatively large outlay.

Military Finance.

The Navy.—The traditions of Japan suggest that the art of navigation was not unfamiliar to the inhabitants of a country consisting of hundreds of islands and abounding in bays and inlets. Some interpreters of her cosmography discover a great ship in the "floating bridge of heaven" from which the divine procreators of the islands commenced their work, and construe in a similar sense other poetically named vehicles of that remote age. But though the seas were certainly traversed by the early invaders of Japan, and though there is plenty of proof that in medieval times the Japanese flag floated over merchantmen which voyaged as far as Siam and India, and over piratical craft which harassed the coasts of Korea and China, it is unquestionable that in the matter of naval architecture Japan fell behind even her next-door neighbours. Thus, when a Mongol fleet came to Kiūshiū in the 13th century, Japan had no vessels capable of contending against the invaders, and when, at the close of the 16th century, a Japanese army was fighting in Korea, repeated defeats of Japan's squadrons by Korean war-junks decided the fate of the campaign on shore as well as on sea. It seems strange that an enterprising nation like the Japanese should not have taken for models the great galleons which visited the Far East in the second half of the 16th century under the flags of Spain, Portugal, Holland and England. With the exception, however, of two ships built by a castaway English pilot to order of Iyeyasu, no effort in that direction appears to have been made, and when an edict vetoing the construction of sea-going vessels was issued in 1636 as part of the Tokugawa policy of isolation, it can scarcely be said to have checked the growth of Japan's navy, for she possessed nothing worthy of the name. It was to the object lesson furnished by the American ships which visited Yedo bay in 1853 and to the urgent counsels of the Dutch that Japan owed the inception of a naval policy. A seamen's training station was opened under Dutch instructors in 1855 at Nagasaki, a building-slip was constructed and an iron factory established at the same place, and shortly afterwards a naval school was organized at Tsukiji in Yedo, a war-ship the "Kwanko Maru"[1]—presented by the Dutch to the shōgun's government—being used for exercising the cadets. To this vessel two others, purchased from the Dutch, were added in 1857 and 1858, and these, with one given by Queen Victoria, formed the nucleus of Japan's navy. In 1860, we find the Pacific crossed for the first time by a Japanese war-ship—the "Kwanrin Maru"—and subsequently some young officers were sent to Holland for instruction in naval science. In fact the Tokugawa statesmen had now thoroughly appreciated the imperative need of a navy. Thus, in spite of domestic unrest which menaced the very existence of the Yedo government, a dock-yard was established and fully equipped, the place chosen as its site being, by a strange coincidence, the village of Yokosuka where Japan's first foreign ship-builder, Will Adams, had lived and died 250 years previously. This dockyard was planned and its construction superintended by a Frenchman, M. Bertin. But although the Dutch had been the first to advise Japan's acquisition of a navy, and although French aid was sought in the case of the important and costly work at Yokosuka, the shōgun's government turned to England for teachers of the art of maritime warfare. Captain Tracey, R.N., and other British officers and warrant-officers were engaged to organize and superintend the school at Tsukiji. They arrived, however, on the eve of the fall of the Tokugawa shōgunate, and as the new administration was not prepared to utilize their services immediately, they returned to England. It is not to be inferred that the Imperial government underrated the importance of organizing a naval force. One of the earliest Imperial rescripts ranked a navy among "the country's most urgent needs" and ordered that it should be "at once placed on a firm foundation." But during the four years immediately subsequent to the restoration, a semi-interregnum existed in military affairs, the power of the sword being partly transferred to the hands of the sovereign and partly retained by the feudal chiefs. Ultimately, not only the vessels which had been in the possession of the shōgunate but also several obtained from Europe by the great feudatories had to be taken over by the Imperial government, which, on reviewing the situation, found itself owner of a motley squadron of 17 war-ships aggregating 13,812 tons displacement, of which two were armoured, one was a composite ship, and the rest were of wood. Steps were now taken to establish and equip a suitable naval college in Tsukiji, and application having been made to the British government for instructors, a second naval mission was sent from England in 1873, consisting of 30 officers and warrant-officers under Commander (afterwards Vice-Admiral Sir) Archibald Douglas. At the very outset occasions for active service afloat presented themselves. In 1868, the year after the fall of the shōgunate, such ships as could be assembled had to be sent to Yezo to attack the main part of the Tokugawa squadron which had raised the flag of revolt and retired to Hakodate under the command of the shōgun's admiral, Enomoto. Then in 1874 the duty of convoying a fleet of transports to Formosa had to be undertaken; and in 1877 sea power played its part in crushing the formidable rebellion in Satsuma. Meanwhile the work of increasing and organizing the navy went on steadily. The first steam war-ship constructed in Japan had been a gun-boat (138 tons) launched in 1866 from a building-yard established at Ishikawajima, an island near the mouth of the Sumida river on which Tōkyō stands. At this yard and at Yokosuka two vessels of 897 tons and 1450 tons, respectively, were launched in 1875 and 1876, and Japan now found herself competent not only to execute all repairs but also to build ships of considerable size. An order was placed in England in 1875, which produced, three years later, the "Fusō," Japan's first ironclad (3717 tons) and the "Kongo" and "Hiei," steel-frame sister-cruisers of 2248 tons. Meanwhile training, practical and theoretical, in seamanship, gunnery, torpedo-practice and naval architecture went on vigorously, and in 1878 the Japanese flag was for the first time seen in European waters,

Early Japanese War-vessels.

[1] The term *maru* subsequently became applicable to merchantmen only, war-ships being distinguished as *kan*.

floating over the cruiser "Seiki" (1897 tons) built in Japan and navigated solely by Japanese. The government, constantly solicitous of increasing the fleet, inaugurated, in 1882, a programme of 30 cruisers and 12 torpedo-boats, and in 1886 this was extended, funds being obtained by an issue of naval loan-bonds. But the fleet did not yet include a single battleship. When the diet opened for the first time in 1890, a plan for the construction of two battleships encountered stubborn opposition in the lower house, where the majority attached much less importance to voting money for war-ships than to reducing the land tax. Not until 1892 was this opposition overcome in deference to an order from the throne that thirty thousand pounds sterling should be contributed yearly from the privy purse and that a tithe of all official salaries should be devoted during the same interval to naval needs. Had the house been more prescient, Japan's position at the outbreak of war with China in 1894 would have been very different. She entered the contest with 28 fighting craft, aggregating 57,600 tons, and 24 torpedo-boats, but among them the most powerful was a belted cruiser of 4300 tons. Not one battleship was included, whereas China had two ironclads of nearly 8000 tons each. Under these conditions the result of the naval conflict was awaited with much anxiety in Japan. But the Chinese suffered signal defeats (see CHINO-JAPANESE WAR) off the Yalu and at Wei-hai-wei, and the victors took possession of 17 Chinese craft, including one battleship. The resulting addition to Japan's fighting force was, however, insignificant. But the naval strength of Japan did not depend on prizes. Battleships and cruisers were ordered and launched in Europe one after the other, and when the Russo-Japanese War (*q.v.*) came, the fleet promptly asserted its physical and moral superiority in the surprise of Port Arthur, the battle of the 10th of August 1904, and the crowning victory of Tsushima.

As to the development of the navy from 1903 onwards, it is not possible to detail with absolute accuracy the plans laid down by the admiralty in Tōkyō, but the actual state of the fleet in the year 1909 will be apparent from the figures given below.

Japan's naval strength at the outbreak of the war with Russia in 1904 was:—

	Number.	Displacement. Tons.
Battleships	6	84,652
Armoured cruisers	8	73,982
Other cruisers	44	111,470
Destroyers	19	6,519
Torpedo-boats	80	7,119
Totals	157	283,742
Losses during the war were:—		
Battleships	2	27,300
Cruisers (second and smaller classes)	8	18,009
Destroyers	2	705
Torpedo-boats	7	557
Totals	19	46,571
The captured vessels repaired and added to the fleet were:—		
Battleships	5	62,524
Cruisers	11	71,276
Destroyers	5	1,740
Totals	21	135,530
The vessels built or purchased after the war and up to the close of 1908 were:—		
Battleships	4	71,500
Armoured cruisers	4	56,700
Other cruisers	5	7,000
Destroyers	33	12,573
Torpedo-boats	5	760
Totals	51	148,533
Some of the above have been superannuated, and the serviceable fleet in 1909 was:—		
Battleships	13	191,380
Armoured cruisers	12	130,683
Other cruisers, coast-defence ships and gun-boats	47	165,253
Destroyers	55	20,508
Torpedo-boats	77	7,258
Totals	204	515,082

To the foregoing must be added two armoured cruisers—the "Kurama" (14,000) launched at Yokosuka in October 1907, and the "Ibuki" (14,700) launched at Kure in November 1907, but no other battleships or cruisers were laid down in Japan or ordered abroad up to the close of 1908.

Naval Dockyards.

There are four naval dockyards, namely, at Yokosuka, Kure, Sasebo and Maizuru. Twenty-one vessels built at Yokosuka since 1876 included a battleship (19,000 tons) and an armoured cruiser (14,000 tons); seven built at Kure since 1898 included a battleship (19,000 tons) and an armoured cruiser (14,000 tons). The yards at Sasebo and Maizuru had not yet been used in 1909 for constructing large vessels. Two private yards—the Mitsubishi at Nagasaki and Kobe, and the Kawasaki at the latter place—have built several cruisers, gunboats and torpedo craft, and are competent to undertake more important work. Nevertheless in 1909 Japan did not yet possess complete independence in this matter, for she was obliged to have recourse to foreign countries for a part of the steel used in ship-building. Kure manufactures practically all the steel it requires, and there is a government steel-foundry at Wakamatsu on which more than 3 millions sterling had been spent in 1909, but it did not yet keep pace with the country's needs. When this independence has been attained, it is hoped to effect an economy of about 18 % on the outlay for naval construction, owing to the cheapness of manual labour and the disappearance both of the manufacturer's profit and of the expenses of transfer from Europe to Japan.

There are five admiralties—Yokosuka, Kure, Sasebo, Maizuru and Port Arthur; and four naval stations—Takeshiki (in Tsushima), Mekong (in the Pescadores), Ominato and Chinhai (in southern Korea).

Personnel.

The navy is manned partly by conscripts and partly by volunteers. About 5500 are taken every year, and the ratio is, approximately, 55 % of volunteers and 45 % of conscripts. The period of active service is 4 years and that of service with the reserve 7 years. On the average 200 cadets are admitted yearly, of whom 50 are engineers, and in 1906 the personnel of the navy consisted of the following:—

Admirals, combative and non-combative	77
Officers, combative and non-combative, below the rank of admiral	2,867
Warrant officers	9,075
Bluejackets	29,667
Cadets	721
Total	42,407

Naval Education.

The highest educational institution for the navy is the naval staff college, in which there are five courses for officers alone. The gunnery and torpedo schools are attended by officers, and also by selected warrant-officers and bluejackets, who consent to extend their service. There is also a mechanical school for junior engineers, warrant-officers and ordinary artificers.

At the naval cadet academy—originally situated in Tkōyō but now at Etajima near Kure—aspirants for service as naval officers receive a 3 years' academical course and 1 year's training at sea; and, finally, there is a naval engineering college collateral to the naval cadet academy.

Since 1882, foreign instruction has been wholly dispensed with in the Japanese navy; since 1886 she has manufactured her own prismatic powder; since 1891 she has been able to make quick-firing guns and Schwartzkopf torpedoes, and in 1892 one of her officers invented a particularly potent explosive, called (after its inventor) Shimose powder.

The Feudal Period.

Finance.—Under the feudal system of the Tokugawa (1603–1871), all land in Japan was regarded as state property, and parcelled out into 276 fiefs, great and small, which were assigned to as many feudatories. These were empowered to raise revenue for the support of their households, for administrative purposes, and for the maintenance of troops. The basis of taxation varied greatly in different districts, but, at the time of the Restoration in 1867, the general principle was that four-tenths of the gross produce should go to the feudatory, six-tenths to the farmer. In practice this rule was applied to the rice crop only, the assessments for other kinds of produce being levied partly in money and partly in manufactured goods. Forced labour also was exacted, and artisans and tradesmen were subjected to pecuniary levies. The yield of rice in 1867 was about 154 million bushels,[1] of which the market value at prices then ruling was £24,000,000, or

[1] The reader should be warned that absolute accuracy cannot be claimed for statistics compiled before the Meiji era.

240,000,000 *yen*.[1] Hence the grain tax represented, at the lowest calculation, 96,000,000 *yen*. When the administration reverted to the emperor in 1867 the central treasury was empty, and the funds hitherto employed for governmental purposes in the fiefs continued to be devoted to the support of the feudatories, to the payment of the samurai, and to defraying the expenses of local administration, the central treasury receiving only whatever might remain after these various outlays.

The shōgun himself, whose income amounted to about £3,500,000, did not, on abdicating, hand over to the sovereign either the contents of his treasury or the lands from which he derived his revenues. He contended that funds for the government of the nation as a whole should be levied from the people at large. Not until 1871 did the feudal system cease to exist. The fiefs being then converted into prefectures, their revenues became an asset of the central treasury, less 10 % allotted for the support of the former feudatories.[2]

But during the interval between 1867 and 1871, the men on whom had devolved the direction of national affairs saw no relief from crippling impecuniosity except an issue of paper money. This was not a novelty in Japan. Paper money had been known to the people since the middle of the 17th century, and in the era of which we are now writing no less than 1694 varieties of notes were in circulation. There were gold notes, silver notes, cash-notes, rice-notes, umbrella-notes, ribbon-notes, lathe-article-notes, and so on through an interminable list, the circulation of each kind being limited to the issuing fief. Many of these notes had almost ceased to have any purchasing power, and nearly all were regarded by the people as evidences of official greed. The first duty of a centralized progressive administration should have been to reform the currency. The political leaders of the time appreciated that duty, but saw themselves compelled by stress of circumstances to adopt the very device which in the hands of the feudal chiefs had produced such deplorable results. The ordinary revenue amounted to only 3,000,000 *yen*, while the extraordinary aggregated 29,000,000, and was derived wholly from issues of paper money or other equally unsound sources.

Paper Money.

Even on the abolition of feudalism in 1871 the situation was not immediately relieved. The land tax, which constituted nine-tenths of the feudal revenues, had been assessed by varying methods and at various rates by the different feudatories, and re-assessment of all the land became a preliminary essential to establishing a uniform system. Such a task, on the basis of accurate surveys, would have involved years of work, whereas the financial needs of the state had to be met immediately. Under the pressure of this imperative necessity a re-assessment was roughly made in two years, and being continued thereafter with greater accuracy, was completed in 1881. This survey, eminently liberal to the agriculturists, assigned a value of 1,200,000,000 *yen* to the whole of the arable land, and the treasury fixed the tax at 3 % of the assessed value of the land, which was about one-half of the real market value. Moreover, the government contemplated a gradual reduction of this already low impost until it should ultimately fall to 1 %. Circumstances prevented the consummation of that purpose. The rate underwent only one reduction of ½ %, and thereafter had to be raised on account of war expenditures. On the whole, however, no class benefited more conspicuously from the change of administration than the peasants, since not only was their burden of taxation light, but also they were converted from mere tenants into actual proprietors. In brief, they acquired the fee-simple of their farms in consideration of paying an annual rent equal to about one sixty-sixth of the market value of the land.

Land Tax.

In 1873, when these changes were effected, the ordinary revenue of the state rose from 24,500,000 *yen* to 70,500,000 *yen*. But seven millions sterling is a small income for a country confronted by such problems as Japan had to solve. She had to build railways; to create an army and a navy; to organize posts, telegraphs, prisons, police and education; to construct roads, improve harbours, light and buoy the coasts; to create a mercantile marine; to start under official auspices numerous industrial enterprises which should serve as object lessons to the people, as well as to lend to private persons large sums in aid of similar projects. Thus, living of necessity beyond its income, the government had recourse to further issues of fiduciary notes, and in proportion as the volume of the latter exceeded actual currency requirements their specie value depreciated.

State Revenue.

This question of paper currency inaugurates the story of banking; a story on almost every page of which are to be found inscribed the names of Prince Itō, Marquis Inouye, Marquis Matsukata, Count Okuma and Baron Shibusawa, the fathers of their country's economic and financial progress in modern times. The only substitutes for banks in feudal days were a few private firms—"households" would, perhaps, be a more correct expression—which received local taxes in kind, converted them into money, paid the proceeds to the central government or to the feudatories, gave accommodation to officials, did some exchange business, and occasionally extended accommodation to private individuals. They were not banks in the Occidental sense, for they neither collected funds by receiving deposits nor distributed capital by making loans. The various fiefs were so isolated that neither social nor financial intercourse was possible, and moreover the mercantile and manufacturing classes were regarded with some disdain by the gentry. The people had never been familiarized with combinations of capital for productive purposes, and such a thing as a joint-stock company was unknown. In these circumstances, when the administration of state affairs fell into the hands of the men who had made the restoration, they not only lacked the first essential of rule, money, but were also without means of obtaining any, for they could not collect taxes in the fiefs, these being still under the control of the feudal barons; and in the absence of widely organized commerce or finance, no access to funds presented itself. Doubtless the minds of these men were sharpened by the necessities confronting them, yet it speaks eloquently for their discernment that, samurai as they were, without any business training whatever, one of their first essays was to establish organizations which should take charge of the national revenue, encourage industry and promote trade and production by lending money at comparatively low rates of interest. The tentative character of these attempts is evidenced by frequent changes. There was first a business bureau, then a trade bureau, then commercial companies, and then exchange companies, these last being established in the principal cities and at the open ports, their personnel consisting of the three great families—Mitsui, Shimada and Ono—houses of ancient repute, as well as other wealthy merchants in Kiōto, Osaka and elsewhere. These exchange companies were partnerships, though not strictly of the joint-stock kind. They formed the nucleus of banks in Japan, and their functions included, for the first time, the receiving of deposits and the lending of money to merchants and manufacturers. They had power to issue notes, and, at the same time, the government issued notes on its own account. Indeed, in this latter fact is to be found one of the motives for organizing the exchange companies, the idea being that if the state's notes were lent to the companies, the people would become familiarized with the use of such currency, and the companies would find them convenient capital. But this system was essentially unsound: the notes, alike of the treasury and of the companies, though nominally convertible, were not secured by any fixed stock of specie. Four years sufficed to prove the unpracticality of such an arrangement, and in 1872 the exchange companies were swept away, to be succeeded in July 1873 by the establishment of national banks on a system which combined some of the features of English banking with the general

Banks.

[1] The *yen* is a silver coin worth about 2s.: 10 *yen* = £1.

[2] In addition to the above grant, the feudatories were allowed to retain the reserves in their treasuries; thus many of the feudal nobles found themselves possessed of substantial fortunes, a considerable part of which they generally devoted to the support of their former vassals.

bases of American. Each bank had to pay into the treasury 60 % of its capital in government notes. It was credited in return with interest-bearing bonds, which bonds were to be left in the treasury as security for the issue of bank-notes to an equal amount, the banks being required to keep in gold the remaining 40 % of their capital as a fund for converting the notes, which conversion must always be effected on application. The elaborators of this programme were Ito, Inouye, Okuma and Shibusawa. They added a provision designed to prevent the establishment of too small banks, namely, that the capital of each bank must bear a fixed ratio to the population of its place of business. Evidently the main object of the treasury was gradually to replace its own fiat paper with convertible bank-notes. But experience quickly proved that the scheme was unworkable. The treasury notes had been issued in such large volume that sharp depreciation had ensued; gold could not be procured except at a heavy cost, and the balance of foreign trade being against Japan, some 300,000,000 *yen* in specie flowed out of the country between 1872 and 1874.

It should be noted that at this time foreign trade was still invested with a perilous character in Japanese eyes. In early days, while the Dutch had free access to her ports, they sold her so much and bought so little in return that an immense quantity of the precious metals flowed out of her coffers. Again, when over-sea trade was renewed in modern times, Japan's exceptional financial condition presented to foreigners an opportunity of which they did not fail to take full advantage. For, during her long centuries of seclusion, gold had come to hold to silver in her coinage a ratio of 1 to 8, so that gold cost, in terms of silver, only one-half of what it cost in the West. On the other hand, the treaty gave foreign traders the right to exchange their own silver coins against Japanese, weight for weight, and thus it fell out that the foreigner, going to Japan with a supply of Mexican dollars, could buy with them twice as much gold as they had cost in Mexico. Japan lost very heavily by this system, and its effects accentuated the dread with which her medieval experience had invested foreign commerce. Thus, when the balance of trade swayed heavily in the wrong direction between 1872 and 1874, the fact created undue consternation, and moreover there can be no doubt that the drafters of the bank regulations had over-estimated the quantity of available gold in the country.

All these things made it impossible to keep the bank-notes long in circulation. They were speedily returned for conversion; no deposits came to the aid of the banks, nor did the public make any use of them. Disaster became inevitable. The two great firms of Ono and Shimada, which had stood high in the nation's estimation alike in feudal and in imperial days, closed their doors in 1874; a panic ensued, and the circulation of money ceased almost entirely.

Evidently the banking system must be changed. The government bowed to necessity. They issued a revised code of banking regulations which substituted treasury notes in the place of specie. Each bank was thenceforth required to invest 80% of its capital in 6% state bonds, and these being lodged with the treasury, the bank became competent to issue an equal quantity of its own notes, forming with the remainder of its capital a reserve of treasury notes for purposes of redemption. This was a complete subversion of the government's original scheme. But no alternative offered. Besides, the situation presented a new feature. The hereditary pensions of the feudatories had been commuted with bonds aggregating 174,000,000 *yen*. Were this large volume of bonds issued at once, their heavy depreciation would be likely to follow, and moreover their holders, unaccustomed to dealing with financial problems, might dispose of the bonds and invest the proceeds in hazardous enterprises. To devise some opportunity for the safe and profitable employment of these bonds seemed, therefore, a pressing necessity, and the newly organized national banks offered such an opportunity. For bond-holders, combining to form a bank, continued to draw from the treasury 6% on their bonds, while they acquired power to issue a corresponding amount of notes which could be lent at profitable rates. The programme worked well. Whereas, up to 1876, only five banks were established under the original regulations, the number under the new rule was 151 in 1879, their aggregate capital having grown in the same interval from 2,000,000 *yen* to 40,000,000 *yen*, and their note issues from less than 1,000,000 to over 34,000,000. Here, then, was a rapidly growing system resting wholly on state credit. Something like a mania for bank-organizing declared itself, and in 1878 the government deemed it necessary to legislate against the establishment of any more national banks, and to limit to 34,000,000 *yen* the aggregate note issues of those already in existence.

Change of the Banking System.

It is possible that the conditions which prevailed immediately after the establishment of the national banks might have developed some permanency had not the Satsuma rebellion broken out in 1877. Increased taxation to meet military outlay being impossible in such circumstances, nothing offered except recourse to further note issues. The result was that by 1881, fourteen years after the Restoration, notes whose face value aggregated 164,000,000 *yen* had been put into circulation; the treasury possessed specie amounting to only 8,000,000 *yen*, and 18 paper *yen* could be purchased with 10 silver ones.

Up to 1881 fitful efforts had been made to strengthen the specie value of fiat paper by throwing quantities of gold and silver upon the market from time to time, and 23,000,000 *yen* had been devoted to the promotion of industries whose products, it was hoped, would go to swell the list of exports, and thus draw specie to the country. But these devices were now finally abandoned, and the government applied itself steadfastly to reducing the volume of the fiduciary currency on the one hand, and accumulating a specie reserve on the other. The steps of the programme were simple. By cutting down administrative expenditure; by transferring certain charges from the treasury to the local communes; by suspending all grants in aid of provincial public works and private enterprises, and by a moderate increase of the tax on alcohol, an annual surplus of revenue, totalling 7,500,000 *yen*, was secured. This was applied to reducing the volume of the notes in circulation. At the same time, it was resolved that all officially conducted industrial and agricultural works should be sold—since their purpose of instruction and example seemed now to have been sufficiently achieved—and the proceeds, together with various securities (aggregating 26,000,000 *yen* in face value) held by the treasury, were applied to the purchase of specie. Had the government entered the market openly as a seller of its own fiduciary notes, its credit must have suffered. There were also ample reasons to doubt whether any available stores of precious metal remained in the country. In obedience to elementary economical laws, the cheap money had steadily driven out the dear, and although the government mint at Osaka, founded in 1871, had struck gold and silver coins worth 80,000,000 *yen* between that date and 1881, the customs returns showed that a great part of this metallic currency had flowed out of the country. In these circumstances Japanese financiers decided that only one course remained: the treasury must play the part of national banker. Produce and manufactures destined for export must be purchased by the state with fiduciary notes, and the metallic proceeds of their sales abroad must be collected and stored in the treasury. This programme required the establishment of consulates in the chief marts of the Occident, and the organization of a great central bank—the present Bank of Japan—as well as of a secondary bank—the present Specie Bank of Yokohama—the former to conduct transactions with native producers and manufacturers, the latter to finance the business of exportation. The outcome of these various arrangements was that, by the middle of 1885, the volume of fiduciary notes had been reduced to 119,000,000 *yen*, their depreciation had fallen to 3%, and the metallic reserve of the treasury had increased to 45,000,000 *yen*. The resumption of specie payments was then announced, and became, in the autumn of that year, an accomplished fact. From the time when this programme began to be effective, Japan entered a period of favourable balance of trade. According to accepted economic theories, the influence of an appreciating currency should be to encourage imports; but the converse was seen in Japan's case, for from 1882 her exports annually exceeded her imports, the maximum excess being reached in 1886, the very year after the resumption of specie payments.

Resumption of Specie Payments.

The above facts deserve to figure largely in a retrospect of Japanese finance, not merely because they set forth a fine economic feat, indicating clear insight, good organizing capacity, and courageous energy, but also because volumes of adverse foreign criticism were written in the margin of the story during the course of the incidents it embodies. Now Japan was charged with robbing her own people because she bought their goods with paper money and sold them for specie; again, she was accused of an official conspiracy to ruin the foreign local banks because she purchased exporters' bills on Europe and America at rates that defied ordinary competition; and while some declared that she was plainly without any understanding of her own doings, others predicted that her heroic method of dealing with the problem would paralyze industry, interrupt trade and produce widespread suffering. Undoubtedly, to carry the currency of a nation from a discount of 70 or 80% to par in the course of four years, reducing its volume at the same time from 160 to 119 million *yen*, was a financial enterprise violent and daring almost to rashness. The gentler expedient of a foreign loan would have commended itself to the majority of economists. But it may be here stated, once for all, that until her final adoption of a gold standard in 1897, the foreign money market was practically closed to Japan. Had she borrowed abroad it must have been on a sterling basis. Receiving a fixed sum in silver, she would have had to discharge her debt in rapidly appreciating gold. Twice, indeed, she had recourse to London for small sums, but when she came to cast up her accounts the cost of the accommodation stood out in deterrent proportions. A 9% loan, placed in England in 1868 and paid off in 1889, produced 3,750,000 *yen*, and cost altogether 11,750,000 *yen* in round figures; and a 7% loan, made in 1872 and paid off in 1897, produced 10,750,000 *yen*, and cost 36,000,000 *yen*. These considerations were supplemented by a strong aversion from incurring pecuniary obligations to Western states before the latter had consented

to restore Japan's judicial and tariff autonomy. The example of Egypt showed what kind of fate might overtake a semi-independent state falling into the clutches of foreign bond-holders. Japan did not wish to fetter herself with foreign debts while struggling to emerge from the rank of Oriental powers.

After the revision of the national bank regulations, semi-official banking enterprise won such favour in public eyes that the government found it necessary to impose limits. This conservative policy proved an incentive to private banks and banking companies, so that, by the year 1883, no less than 1093 banking institutions were in existence throughout Japan with an aggregate capital of 900,000,000 *yen*. But these were entirely lacking in arrangements for combination or for equalizing rates of interest, and to correct such defects, no less than ultimately to constitute the sole note-issuing institution, a central bank (the Bank of Japan) was organized on the model of the Bank of Belgium, with due regard to corresponding institutions in other Western countries and to the conditions existing in Japan. Established in 1882 with a capital of 4,000,000 *yen*, this bank has now a capital of 30 millions, a security reserve of 206 millions, a note-issue of 266 millions, a specie reserve of 160 millions, and loans of 525 millions.

Closing of the National Banks.

The banking machinery of the country being now complete, in a general sense, steps were taken in 1883 for converting the national banks into ordinary joint-stock concerns and for the redemption of all their note-issues. Each national bank was required to deposit with the treasury the government paper kept in its strong room as security for its own notes, and further to take from its annual profits and hand to the treasury a sum equal to 2½ % of its notes in circulation. With these funds the central bank was to purchase state bonds, devoting the interest to redeeming the notes of the national banks. Formed with the object of disturbing the money market as little as possible, this programme encountered two obstacles. The first was that, in view of the Bank of Japan's purchases, the market price of state bonds rose rapidly, so that, whereas official financiers had not expected them to reach par before 1897, they were quoted at a considerable premium in 1886. The second was that the treasury having in 1886 initiated the policy of converting its 6 % bonds into 5 % consols, the former no longer produced interest at the rate estimated for the purposes of the banking scheme. The national banks thus found themselves in an embarrassing situation and began to clamour for a revision of the programme. But the government, seeing compensations for them in other directions, adhered firmly to its scheme. Few problems have caused greater controversy in modern Japan than this question of the ultimate fate of the national banks. Not until 1896 could the diet be induced to pass a bill providing for their dissolution at the close of their charter terms, or their conversion into ordinary joint-stock concerns without any note-issuing power, and not until 1899 did their notes cease to be legal tender. Out of a total of 153 of these banks, 132 continued business as private institutions, and the rest were absorbed or dissolved. Already (1890 and 1893) minute regulations had been enacted bringing all the banks and banking institutions—except the special banks to be presently described—within one system of semi-annual balance-sheets and official auditing, while in the case of savings banks the directors' responsibility was declared unlimited and these banks were required to lodge security with the treasury for the protection of their depositors.

Just as the ordinary banks were all centred on the Bank of Japan[1] and more or less connected with it, so in 1895, a group of special institutions, called agricultural and commercial banks, were organized and centred on a hypothec bank, the object of this system being to supply cheap capital to farmers and manufacturers on the security of real estate. The hypothec bank had its head office in Tōkyō and was authorized to obtain funds by issuing premium-bearing bonds, while an agricultural and industrial bank was established in each prefecture and received assistance from the hypothec bank. Two years later (1900), an industrial bank—sometimes spoken of as the *crédit mobilier* of Japan—was brought into existence under official auspices, its purpose being to lend money against bonds, debentures and shares, as well as to public corporations. These various institutions, together with clearing houses, bankers' associations, the Hokkaidō colonial bank, the bank of Formosa, savings banks (including a post-office savings bank), and a mint complete the financial machinery of modern Japan.

Special Banks.

Reviewing this chapter of Japan's material development, we find that whereas, at the beginning of the Meiji era (1867), the nation did not possess so much as one banking institution worthy of the name, forty years later it had 2211 banks, with a paid-up capital of £40,000,000, reserves of £12,000,000, and deposits of £147,000,000; and whereas there was not one savings bank in 1867, there were 487 in 1906 with deposits of over £50,000,000. The average yearly dividends of these banks in the ten years ending 1906 varied between 9·1 and 9·9 %.

Review of Banking Development.

Necessarily the movement of industrial expansion was accompanied by a development of insurance business. The beginnings of this kind of enterprise did not become visible, however, until 1881, and even at that comparatively recent date no Japanese laws had yet been enacted for the control of such operations. The commercial code, published in March 1890, was the earliest legislation which met the need, and from that time the number of insurance companies and the volume of their transactions grew rapidly. In 1897, there were 35 companies with a total paid-up capital of 7,000,000 *yen* and policies aggregating 971,000,000 *yen*, and in 1906 the corresponding figures were 65 companies, 22,000,000 *yen* paid up and policies of 4,149,000,000 *yen*. The premium reserves grew in the same period from 7,000,000 to 108,000,000. The net profits of these companies in 1906 were (in round numbers) 10,000,000 *yen*.

Insurance.

The origin of clearing houses preceded that of insurance companies in Japan by only two years (1879). Osaka set the example, which was quickly followed by Tōkyō, Kobe, Yokohama, Kiōto and Nagoya. In 1898 the bills handled at these institutions amounted to 1,186,000,000 *yen*, and in 1907 to 7,484,000,000 *yen*. Japanese clearing houses are modelled after those of London and New York.

Clearing Houses.

Exchanges existed in Japan as far back as the close of the 17th century. At that time the income of the feudal chiefs consisted almost entirely of rice, and as this was sold to brokers, the latter found it convenient to meet at fixed times and places for conducting their business. Originally their transactions were all for cash, but afterwards they devised time bargains which ultimately developed into a definite form of exchange. The reform of abuses incidental to this system attracted the early attention of the Meiji government, and in 1893 a law was promulgated for the control of exchanges, which then numbered 146. Under this law the minimum share capital of a bourse constituted as a joint-stock company was fixed at 100,000 *yen*, and the whole of its property became liable for failure on the part of its brokers to implement their contracts. There were 51 bourses in 1908.

Bourses.

Not less remarkable than this economic development was the large part acted in it by officialdom. There were two reasons for this. One was that a majority of the men gifted with originality and foresight were drawn into the ranks of the administration by the great current of the revolution; the other, that the feudal system had tended to check rather than to encourage material development, since the limits of each fief were also the limits of economical and industrial enterprise. Ideas for combination and co-operation had been confined to a few families, and there was nothing to suggest the organization of companies nor any law to protect them if organized. Thus the opening of the Meiji era found the Japanese nation wholly unqualified for the commercial and manufacturing competition in which it was thenceforth required to engage, and therefore upon those who had brought the country out of its isolation there devolved the responsibility of speedily preparing their fellow countrymen for the new situation. To these leaders banking facilities seemed to be the first need, and steps were accordingly taken in the manner already described. But how to educate men of affairs at a moment's notice? How to replace by a spirit of intelligent progress the ignorance and conservatism of the hitherto despised traders and artisans? When the first bank was organized, its two founders—men who had been urged, nay almost compelled, by officialdom to make the essay—were obliged to raise four-fifths of the capital themselves, the general public not being willing to subscribe more than one-fifth—a petty sum of 500,000 *yen*—and when its staff commenced their duties, they had not the most shadowy conception of what to do. That was a faithful reflection of the condition of the business world at large. If the initiative of the people themselves had been awaited, Japan's career must have been slow indeed.

The Government and Economic Development.

Only one course offered, namely, that the government itself should organize a number of productive enterprises on modern lines, so that they might serve as schools and also as models. Such, as already noted under *Industries*, was the programme adopted. It provoked much hostile criticism from foreign onlookers, who had learned to decry all official incursions into trade and industry, but had not properly appreciated the special conditions existing in Japan. The end justified the means. At the outset of its administration we find the Meiji government not only forming plans for the circulation of money, building railways and organizing posts and telegraphs, but also establishing dockyards, spinning mills, printing-houses, silk-reeling filatures, paper-making factories and so forth, thus by example encouraging these kinds of enterprise and by legislation providing for their safe prosecution. Yet progress was slow. One by one and at long intervals joint-stock companies came into existence, nor was it until the resumption of specie payments in 1886 that a really effective spirit of enterprise manifested itself among the people. Railways, harbours, mines, spinning, weaving,

[1] The Bank of Japan was established as a joint-stock company in 1882. The capital in 1909 was 30,000,000 *yen*. In it alone is vested note-issuing power. There is no limit to its issues against gold or silver coins and bullion, but on other securities (state bonds, treasury bills and other negotiable bonds or commercial paper) its issues are limited to 120 millions, any excess over that figure being subject to a tax of 5 % per annum.

paper-making, oil-refining, brick-making, leather-tanning, glass-making and other industries attracted eager attention, and whereas the capital subscribed for such works aggregated only 50,000,000 *yen* in 1886, it exceeded 1,000,000,000 *yen* in 1906.

Adoption of the Gold Standard.

When specie payments were resumed in 1885, the notes issued by the Bank of Japan were convertible into silver on demand, the silver standard being thus definitely adopted, a complete reversal of the system inaugurated at the establishment of the national banks on Prince Ito's return from the United States. Japanese financiers believed from the outset in gold monometallism. But, in the first place, the country's stock of gold was soon driven out by her depreciated fiat currency; and, in the second, not only were all other Oriental nations silver-using, but also the Mexican silver dollar had long been the unit of account in Far-Eastern trade. Thus Japan ultimately drifted into silver monometallism, the silver *yen* becoming her unit of currency. So soon, however, as the indemnity that she received from China after the war of 1894–95 had placed her in possession of a stock of gold, she determined to revert to the gold standard. Mechanically speaking, the operation was very easy. Gold having appreciated so that its value in terms of silver had exactly doubled during the first 30 years of the Meiji era, nothing was necessary except to double the denominations of the gold coins in terms of *yen*, leaving the silver subsidiary coins unchanged. Thus the old 5-*yen* gold piece, weighing 2·22221 *momme* of 900 fineness, became a 10-*yen* piece in the new currency, and a new 5-*yen* piece of half the weight was coined. No change whatever was required in the reckonings of the people. The *yen* continued to be their coin of account, with a fixed sterling value of a small fraction over two shillings, and the denominations of the gold coins were doubled. Gold, however, is little seen in Japan; the whole duty of currency is done by notes.

It is not to be supposed that all this economic and financial development was unchequered by periods of depression and severe panic. There were in fact six such seasons: in 1874, 1881, 1889, 1897, 1900 and 1907. But no year throughout the whole period failed to witness an increase in the number of Japan's industrial and commercial companies, and in the amount of capital thus invested.

State Revenue.

To obtain a comprehensive idea of Japan's state finance, the simplest method is to set down the annual revenue at quinquennial periods, commencing with the year 1878–1879, because it was not until 1876 that the system of duly compiled and published budgets came into existence.

REVENUE (omitting fractions)

Year.[1]	Ordinary Revenue (millions of *yen*).	Extraordinary Revenue (millions of *yen*).	Total Revenue (millions of *yen*).
1878–9	53	9	62
1883–4	76	7	83
1888–9	74	18	92
1893–4	86	28	114
1898–9	133	87	220
1903–4	224	36	260
1908–9	476	144	620

The most striking feature of the above table is the rapid growth of revenue during the last three periods. So signal was the growth that the revenue may be said to have sextupled in the 15 years ended 1909. This was the result of the two great wars in which Japan was involved, that with China in 1894–95 and that with Russia in 1904–5. The details will be presently shown.

Turning now to the expenditure and pursuing the same plan, we have the following figures:—

EXPENDITURE (omitting fractions)

Year.	Ordinary Expenditures (millions of *yen*).	Extraordinary Expenditures (millions of *yen*).	Total Expenditures (millions of *yen*).
1878–9	56	5	61
1883–4	68	15	83
1888–9	66	15	81
1893–4	64	20	84
1898–9	119	101	220
1903–4	170	80	250
1908–9	427	193	620

It may be here stated that, with three exceptions, the working of the budget showed a surplus in every one of the 41 years between 1867 and 1908.

[1] The Japanese fiscal year is from April 1 to March 31.

The sources from which revenue is obtained are as follow:—

ORDINARY REVENUE

	1894–5.	1898–9.	1903–4.	1908–9.
	millions of *yen*.	millions of *yen*.	millions of *yen*.	millions of *yen*.
Taxes	70·50	96·20	146·10	299·61
Receipts from stamps and Public Undertakings	14·75	33·00	96·87	164·66
Various Receipts	4·58	3·67	8·15	11·48

It appears from the above that during 15 years the weight of taxation increased fourfold. But a correction has to be applied, first, on account of the tax on alcoholic liquors and, secondly, on account of customs dues, neither of which can properly be called general imposts. The former grew from 16 millions in 1894–1895 to 72 millions in 1908–1909, and the latter from 5¼ millions to 41½ millions. If these increases be deducted, it is found that taxes, properly so called, grew from 70·5 millions in 1894–1895 to 207·86 millions in 1908–1909, an increase of somewhat less than three-fold. Otherwise stated, the burden per unit of population in 1894–1895 was 3s. 6d., whereas in 1908–1909 it was 8s. 4d. To understand the principle of Japanese taxation and the manner in which the above development took place, it is necessary to glance briefly at the chief taxes separately.

Land Tax.

The land tax is the principal source of revenue. It was originally fixed at 3% of the assessed value of the land, but in 1877 this ratio was reduced to 2½%, on which basis the tax yielded from 37 to 38 million *yen* annually. After the war with China (1894–1895) the government proposed to increase this impost in order to obtain funds for an extensive programme of useful public works and expanded armaments (known subsequently as the "first *post bellum* programme"). By that time the market value of agricultural land had largely appreciated owing to improved communications, and urban land commanded greatly enhanced prices. But the lower house of the diet, considering itself guardian of the farmers' interests, refused to endorse any increase of the tax. Not until 1889 could this resistance be overcome, and then only on condition that the change should not be operative for more than 5 years. The amended rates were 3·3% on rural lands and 5% on urban building sites. Thus altered, the tax produced 46,000,000 *yen*, but at the end of the five-year period it would have reverted to its old figure, had not war with Russia broken out. An increase was then made so that the impost varied from 3% to 17½% according to the class of land, and under this new system the tax yielded 85 millions. Thus the exigencies of two wars had augmented it from 38 millions in 1889 to 85 millions in 1907.

Income Tax.

The income tax was introduced in 1887. It was on a graduated scale, varying from 1% on incomes of not less than 300 *yen*, to 3% on incomes of 30,000 *yen* and upwards. At these rates the tax yielded an insignificant revenue of about 2,000,000 *yen*. In 1899, a revision was effected for the purposes of the first *post bellum* programme. This revision increased the number of classes from five to ten, incomes of 300 *yen* standing at the bottom and incomes of 100,000 *yen* or upwards at the top, the minimum and maximum rates being 1% and 5½%. The tax now produced approximately 8,000,000 *yen*. Finally in 1904, when war broke out with Russia, these rates were again revised, the minimum now becoming 2%, and the maximum 8·2%. Thus revised, the tax yields a revenue of 27,000,000 *yen*.

Business Tax.

The business tax was instituted in 1896, after the war with China, and the rates have remained unchanged. For the purposes of the tax all kinds of business are divided into nine classes, and the tax is levied on the amounts of sales (wholesale and retail), on rental value of buildings, on number of employees and on amount of capital. The yield from the tax grows steadily. It was only 4,500,000 *yen* in 1897, but it figured at 22,000,000 *yen* in the budget for 1908–1909.

Tax on Alcoholic Liquors.

The above three imposts constitute the only direct taxes in Japan. Among indirect taxes the most important is that upon alcoholic liquors. It was inaugurated in 1871; doubled, roughly speaking, in 1878; still further increased thenceforth at intervals of about 3 years, until it is now approximately twenty times as heavy as it was originally. The liquor taxed is mainly sake; the rate is about 50 *sen* (one shilling) per gallon, and the annual yield is 72,000,000 *yen*.

Customs Duties.

In 1859, when Japan re-opened her ports to foreign commerce, the customs dues were fixed on a basis of 10% *ad valorem*, but this was almost immediately changed to a nominal 5% and a real 3%. The customs then yielded a very petty return—not more than three or four million *yen*—and the Japanese government had no discretionary power to alter the rates. Strenuous efforts to change this system were at length successful, and, in 1899, the tariff was divided into two sections, conventional and statutory; the rates in the former being governed by a treaty valid for 12 years; those in the latter being fixed at Japan's will. Things remained thus until the war with Russia

compelled a revision of the statutory tariff. Under this system the ratio of the duties to the value of the dutiable goods was about 15·65 %. The customs yield a revenue of about 42,000,000 *yen*.

Other Taxes.

In addition to the above there are eleven taxes, some in existence before the war of 1904–5, and some created for the purpose of carrying on the war or to meet the expenses of a *post bellum* programme.

Taxes in existence before 1904–1905:—

Name.	Yield (millions of *yen*).
Tax on soy	4
Tax on sugar	16¼
Mining tax	2
Tax on bourses	2
Tax on issue of bank-notes	1
Tonnage dues	½

Taxes created on account of the war (1904–5) or in its immediate sequel:—

Name.	Yield (millions of *yen*).
Consumption tax on textile fabrics	19½
Tax on dealers in patent medicines	¼
Tax on communications	2½
Consumption tax on kerosene	1½
Succession tax	1½

Also, as shown above, the land tax was increased by 39 millions; the income tax by 19 millions; the business tax by 15 millions; and the tax on alcoholic liquors by 15 millions. On the whole, if taxes of general incidence and those of special incidence be lumped together, it appears that the burden swelled from 160,000,000 *yen* before the war to 320,000,000 after it.

State Monopolies and Manufactures.

The government of Japan carries on many manufacturing undertakings for purposes of military and naval equipment, for shipbuilding, for the construction of railway rolling stock, for the manufacture of telegraph and light-house materials, for iron-founding and steel-making, for printing, for paper-making and so forth. There are 48 of these institutions, giving employment to 108,000 male operatives and 23,000 female, together with 63,000 labourers. But the financial results do not appear independently in the general budget. Three other government undertakings, however, constitute important budgetary items: they are, the profits derived from the postal and telegraph services, 39,000,000 *yen*; secondly, from forests, 13,000,000 *yen*; and thirdly, from railways, 37,000,000 *yen*. The government further exercises a monopoly of three important staples, tobacco, salt and camphor. In each case the crude article is produced by private individuals from whom it is taken over at a fair price by the government, and, having been manufactured (if necessary), it is resold by government agents at fixed prices. The tobacco monopoly yields a profit of some 33,000,000 *yen*; the salt monopoly a profit of 12,000,000 yen, and the camphor monopoly a profit of 1,000,000 *yen*. Thus the ordinary revenue of the state consisted in 1908–1909 of:—

	Yen.
Proceeds of taxes	320,000,000
Proceeds of state enterprises (posts and telegraphs, forests and railways)	89,000,000
Proceeds of monopolies	56,000,000
Sundries	11,000,000
Total	476,000,000

The ordinary expenditures of the nine departments of state aggregated—in 1908–1909—427,000,000 *yen*, so that there was a surplus revenue of 49,000,000 *yen*.

Extraordinary Expenditures.

Japanese budgets have long included an extraordinary section, so called because it embodies outlays of a special and terminable character as distinguished from ordinary and perpetually recurring expenditures. The items in this extraordinary section possessed deep interest in the years 1896 and 1907, because they disclosed the special programmes mapped out by Japanese financiers and statesmen after the wars with China and Russia. Both programmes had the same bases—expansion of armaments and development of the country's material resources. After her war with China, Japan received a plain intimation that she must either fight again after a few years or resign herself to a career of insignificance on the confines of the Far East. No other interpretation could be assigned to the action of Russia, Germany and France in requiring her to retrocede the territory which she had acquired by right of conquest. Japan therefore made provision for the doubling of her army and her navy, for the growth of a mercantile marine qualified to supply a sufficiency of troop-ships, and for the development of resources which should lighten the burden of these outlays.

The war with Russia ensued nine years after these preparations had begun, and Japan emerged victorious. It then seemed to the onlooking nations that she would rest from her warlike efforts. On the contrary, just as she had behaved after her war with China, so she now behaved after her war with Russia—made arrangements to double her army and navy and to develop her material resources. The government drafted for the year 1907–1908 a budget with three salient features. First, instead of proceeding to deal in a leisurely manner with the greatly increased national debt, Japan's financiers made dispositions to pay it off completely in the space of 30 years. Secondly, a total outlay of 422,000,000 *yen* was set down for improving and expanding the army and the navy. Thirdly, expenditures aggregating 304,000,000 *yen* were estimated for productive purposes. All these outlays, included in the extraordinary section of the budget, were spread over a series of years commencing in 1907 and ending in 1913, so that the disbursements would reach their maximum in the fiscal year 1908–1909 and would thenceforth decline with growing rapidity. To finance this programme three constant sources of annual revenue were provided, namely, increased taxation, yielding some 30 millions yearly; domestic loans, varying from 30 to 40 millions each year; and surpluses of ordinary revenue amounting to from 45 to 75 millions. There were also some exceptional and temporary assets: such as 100,000,000 *yen* remaining over from the war fund; 50 millions paid by Russia for the maintenance of her officers and soldiers during their imprisonment in Japan; occasional sales of state properties and so forth. But the backbone of the scheme was the continuing revenue detailed above.

The house of representatives unanimously approved this programme. By the bulk of the nation, however, it was regarded with something like consternation, and a very short time sufficed to demonstrate its impracticability. From the beginning of 1907 a cloud of commercial and industrial depression settled down upon Japan, partly because of so colossal a programme of taxes and expenditures, and partly owing to excessive speculation during the year 1906 and to unfavourable financial conditions abroad. To float domestic loans became a hopeless task, and thus one of the three sources of extraordinary revenue ceased to be available. There remained no alternative but to modify the programme, and this was accomplished by extending the original period of years so as correspondingly to reduce the annual outlays. The nation, however, as represented by its leading men of affairs, clamoured for still more drastic measures, and it became evident that the government must study retrenchment, not expansion, eschewing above all things any increase of the country's indebtedness. A change of ministry took place, and the new cabinet drafted a programme on five bases: first, that all expenditures should be brought within the margin of actual visible revenue, loans being wholly abstained from; secondly, that the estimates should not include any anticipated surpluses of yearly revenue; thirdly, that appropriations of at least 50,000,000 *yen* should be annually set aside to form a sinking fund, the whole of the foreign debt being thus extinguished in 27 years; fourthly, that the state railways should be placed in a separate account, all their profits being devoted to extensions and repairs; and fifthly, that the period for completing the *post bellum* programme should be extended from 6 years to 11. This scheme had the effect of restoring confidence in the soundness of the national finances.

National Debt.—When the fiefs were surrendered to the sovereign at the beginning of the Meiji era, it was decided to provide for the feudal nobles and the samurai by the payment of lump sums in commutation, or by handing to them public bonds, the interest on which should constitute a source of income. The result of this transaction was that bonds having a total face value of 191,500,000 *yen* were issued, and ready-money payments were made aggregating 21,250,000 *yen*.[1] This was the foundation of Japan's national debt. Indeed, these public bonds may be said to have represented the bulk of the state's liabilities during the first 25 years of the Meiji period. The government had also to take over the debts of the fiefs, amounting to 41,000,000 *yen*, of which 21,500,000 *yen* were paid with interest-bearing bonds, the remainder with ready money. If to the above figures be added two foreign loans aggregating 16,500,000 *yen* (completely repaid by the year 1897); a loan of 15,000,000 *yen* incurred on account of the Satsuma revolt of 1877; loans of 33,000,000 *yen* for public works, 13,000,000 *yen* for naval construction, and 14,500,000 *yen*[2] in connexion with the fiat currency, we have a total of 305,000,000 *yen*, being the whole national debt of Japan during the first 28 years of her new era under Imperial administration.

The second epoch dates from the war with China in 1894–95. The direct expenditures on account of the war aggregated 200,000,000

[1] The amounts include the payments made in connexion with what may be called the disestablishment of the Church. There were 29,805 endowed temples and shrines throughout the empire, and their estates aggregated 354,481 acres, together with 1¾ million bushels of rice (representing 2,500,000 *yen*). The government resumed possession of all these lands and revenues at a total cost to the state of a little less than 2,500,000 *yen*, paid out in pensions spread over a period of fourteen years. The measure sounds like wholesale confiscation. But some extenuation is found in the fact that the temples and shrines held their lands and revenues under titles which, being derived from the feudal chiefs, depended for their validity on the maintenance of feudalism.

[2] This sum represents interest-bearing bonds issued in exchange for fiat notes, with the idea of reducing the volume of the latter. It was a tentative measure, and proved of no value.

yen, of which 135,000,000 *yen* were added to the national debt, the remainder being defrayed with accumulations of surplus revenue, with a part of the indemnity received from China, and with voluntary contributions from patriotic subjects. As the immediate sequel of the war, the government elaborated a large programme of armaments and public works. The expenditure for these unproductive purposes, as well as for coast fortifications, dockyards, and so on, came to 314,000,000 *yen*, and the total of the productive expenditures included in the programme was 190,000,000 *yen*—namely, 120 millions for railways, telegraphs and telephones; 20 millions for riparian improvements; 20 millions in aid of industrial and agricultural banks and so forth—the whole programme thus involving an outlay of 504,000,000 *yen*. To meet this large figure, the Chinese indemnity, surpluses of annual revenue and other assets, furnished 300 millions; and it was decided that the remaining 204 millions should be obtained by domestic loans, the programme to be carried completely into operation—with trifling exceptions—by the year 1905. In practice, however, it was found impossible to obtain money at home without paying a high rate of interest. The government, therefore, had recourse to the London market in 1899, raising a loan of £10,000,000 at 4%, and selling the £100 bonds at 90. In 1902, it was not expected that Japan would need any further immediate recourse to foreign borrowing. According to her financiers' forecast at that time, her national indebtedness would reach its maximum, namely, 575,000,000 *yen*, in the year 1903, and would thenceforward diminish steadily. All Japan's domestic loans were by that time placed on a uniform basis. They carried 5% interest, ran for a period of 5 years without redemption, and were then to be redeemed within 50 years at latest. The treasury had power to expedite the operation of redemption according to financial convenience, but the sum expended on amortization each year must receive the previous consent of the diet. Within the limit of that sum redemption was effected either by purchasing the stock of the loans in the open market or by drawing lots to determine the bonds to be paid off. During the first two periods (1867 to 1897) of the Meiji era, owing to the processes of conversion, consolidation, &c., and to the various requirements of the state's progress, twenty-two different kinds of national bonds were issued; they aggregated 673,215,500 *yen*; 269,042,198 *yen* of that total had been paid off at the close of 1897, and the remainder was to be redeemed by 1946, according to these programmes.

But at this point the empire became involved in war with Russia, and the enormous resulting outlays caused a signal change in the financial situation. Before peace was restored in the autumn of 1905, Japan had been obliged to borrow 405,000,000 *yen* at home and 1,054,000,000 abroad, so that she found herself in 1908 with a total debt of 2,276,000,000 *yen*, of which aggregate her domestic indebtedness stood for 1,110,000,000 and her foreign borrowings amounted to 1,166,000,000. This meant that her debt had grown from 561,000,000 *yen* in 1904 to 2,276,000,000 *yen*[1] in 1908; or from 11·3 *yen* to 43·8 *yen* per head of the population. Further, out of the grand total, the sum actually spent on account of war and armaments represented 1,357,000,000 *yen*. The debt carried interest varying from 4 to 5%.

It will be observed that the country's indebtedness grew by 1,700,000,000 *yen*, in round numbers, owing to the war with Russia. This added obligation the government resolved to discharge within the space of 30 years, for which purpose the diet was asked to approve the establishment of a national debt consolidation fund, which should be kept distinct from the general accounts of revenue and expenditure, and specially applied to payment of interest and redemption of principal. The amount of this fund was never to fall below 110,000,000 *yen* annually. Immediately after the war, the diet approved a cabinet proposal for the nationalization of 17 private railways, at a cost of 500,000,000 *yen*, and this brought the state's debts to 2,776,000,000 *yen* in all. The people becoming impatient of this large burden, a scheme was finally adopted in 1908 for appropriating a sum of at least 50,000,000 *yen* annually to the purpose of redemption.

Local Finance.—Between 1878 and 1888 a system of local autonomy in matters of finance was fully established. Under this system the total expenditures of the various corporations in the last year of each quinquennial period commencing from the fiscal year 1889-1890 were as follow:—

Year.	Total Expenditure (millions of *yen*).
1889–1890	22
1893–1894	52
1898–1899	97
1903–1904[2]	158
1907–1908	167

In the same years the total indebtedness of the corporations was:—

Year.	Debts (millions of *yen*).
1890.	¾
1894.	10
1899.	32
1904.	65
1907.	89[3]

The chief purposes to which the proceeds of these loans were applied are as follow:—

	Millions of *yen*.
Education	5
Sanitation	12
Industries	13
Public works	52

Local corporations are not competent to incur unrestricted indebtedness. The endorsement of the local assembly must be secured; redemption must commence within 3 years after the date of issue and be completed within 30 years; and, except in the case of very small loans, the sanction of the minister of home affairs must be obtained.

Wealth of Japan.—With reference to the wealth of Japan, there is no official census. So far as can be estimated from statistics for the year 1904–1905, the wealth of Japan proper, excluding Formosa, Sakhalin and some rights in Manchuria, amounts to about 19,896,000,000 *yen*, the items of which are as follow:—

	Yen (10 *yen* = £1).
Lands	12,301,000,000
Buildings	2,331,000,000
Furniture and fittings	1,080,000,000
Live stock	109,000,000
Railways, telegraphs and telephones	707,000,000
Shipping	376,000,000
Merchandise	873,000,000
Specie and bullion	310,000,000
Miscellaneous	1,809,000,000
Grand total	19,896,000,000

Education.—There is no room to doubt that the literature and learning of China and Korea were transported to Japan in very ancient times, but tradition is the sole authority for current statements that in the 3rd century a Korean immigrant was appointed historiographer to the Imperial court of Japan and another learned man from the same country introduced the Japanese to the treasures of Chinese literature. About the end of the 6th century the Japanese court began to send civilians and religionists direct to China, there to study Confucianism and Buddhism, and among these travellers there were some who passed as much as 25 or 30 years beyond the sea. The knowledge acquired by these students was crystallized into a body of laws and ordinances based on the administrative and legal systems of the Sui dynasty in China, and in the middle of the 7th century the first Japanese school seems to have been established by the emperor Tenchi, followed some 50 years later by the first university. Nara was the site of the latter, and the subjects of study were ethics, law, history and mathematics.

Early Education.

Not until 794, the date of the transfer of the capital to Kiōto, however, is there any evidence of educational organization on a considerable scale. A university was then opened in the capital, with affiliated colleges; and local schools were built and endowed by noble families, to whose scions admittance was restricted, but for general education one institution only appears to have been provided. In this Kiōto university the curriculum included the Chinese classics, calligraphy, history, law, etiquette, arithmetic and composition; while in the affiliated colleges special subjects were taught, as medicine, herbalism, acupuncture, shampooing, divination, the almanac and languages. Admission was limited to youths of high social grade; the students aggregated some 400, from 13 to 16 years of age; the faculty included professors and teachers, who were known by the same titles (*hakase* and *shi*) as those applied to their successors to-day; and the government supplied food and clothing as well as books. The family schools numbered five, and their patrons were the Wage, the Fujiwara, the Tachibana (one school each) and the Minamoto (two). At the one institution—opened in 828—where youths in general might receive instruction, the course

[1] In this is included a sum of 110,000,000 *yen* distributed in the form of loan-bonds among the officers and men of the army and navy by way of reward for their services during the war of 1904–5.

[2] When war broke out in 1904 the local administrative districts took steps to reduce their outlays, so that whereas the expenditures totalled 158,000,000 *yen* in 1903–1904, they fell to 122,000,000 and 126,000,000 in 1904–1905 and 1905–1906 respectively. Thereafter however, they expanded once more.

[3] This includes 22½ millions of loans raised abroad.

embraced only calligraphy and the precepts of Buddhism and Confucianism.

The above retrospect suggests that Japan, in those early days, borrowed her educational system and its subjects of study entirely from China. But closer scrutiny shows that the national factor was carefully preserved. The ethics of administration required a combination of two elements, *wakon*, or the soul of Japan, and *kwansai*, or the ability of China; so that, while adopting from Confucianism the doctrine of filial piety, the Japanese grafted on it a spirit of unswerving loyalty and patriotism; and while accepting Buddha's teaching as to three states of existence, they supplemented it by a belief that in the life beyond the grave the duty of guarding his country would devolve on every man. Great academic importance attached to proficiency in literary composition, which demanded close study of the ideographic script, endlessly perplexing in form and infinitely delicate in sense. To be able to compose and indite graceful couplets constituted a passport to high office as well as to the favour of great ladies, for women vied with men in this accomplishment. The early years of the 11th century saw, grouped about the empress Aki, a galaxy of female authors whose writings are still accounted their country's classics—Murasaki no Shikibu, Akazome Emon, Izumi Shikibu, Ise Taiyu and several lesser lights. To the first two Japan owes the *Genji monogatari* and the *Eiga monogatari*, respectively, and from the Imperial court of those remote ages she inherited admirable models of painting, calligraphy, poetry, music, song and dance. But it is to be observed that all this refinement was limited virtually to the noble families residing in Kiōto, and that the first object of education in that era was to fit men for office and for society.

Combination of Native and Foreign Element.

Meanwhile, beyond the precincts of the capital there were rapidly growing to maturity numerous powerful military magnates who despised every form of learning that did not contribute to martial excellence. An illiterate era ensued which reached its climax with the establishment of feudalism at the close of the 12th century. It is recorded that, about that time, only one man out of a force of five thousand could decipher an Imperial mandate addressed to them. Kamakura, then the seat of feudal government, was at first distinguished for absence of all intellectual training, but subsequently the course of political events brought thither from Kiōto a number of court nobles whose erudition and refinement acted as a potent leaven. Buddhism, too, had been from the outset a strong educating influence. Under its auspices the first great public library was established (1270) at the temple Shōmyo-ji in Kanazawa. It is said to have contained practically all the Chinese and Japanese books then existing, and they were open for perusal by every class of reader. To Buddhist priests, also, Japan owed during many years all the machinery she possessed for popular education. They organized schools at the temples scattered about in almost every part of the empire, and at these *tera-koya*, as they were called, lessons in ethics, calligraphy, reading and etiquette were given to the sons of samurai and even to youths of the mercantile and manufacturing classes.

Education in the Middle Ages.

When, at the beginning of the 17th century, administrative supremacy fell into the hands of the Tokugawa, the illustrious founder of that dynasty of shōguns, Iyeyasu, showed himself an earnest promoter of erudition. He employed a number of priests to make copies of Chinese and Japanese books; he patronized men of learning and he endowed schools. It does not appear to have occurred to him, however, that the spread of knowledge was hampered by a restriction which, emanating originally from the Imperial court in Kiōto, forbade any one outside the ranks of the Buddhist priesthood to become a public teacher. To his fifth successor Tsunayoshi (1680–1709) was reserved the honour of abolishing this veto. Tsunayoshi, whatever his faults, was profoundly attached to literature. By his command a pocket edition of the Chinese classics was prepared, and the example he himself set in reading and expounding rare books to audiences of feudatories and their vassals produced something like a mania for erudition, so that feudal chiefs competed in engaging teachers and founding schools. The eighth shōgun, Yoshimunē (1716–1749), was an even more enlightened ruler. He caused a geography to be compiled and an astronomical observatory to be constructed; he revoked the veto on the study of foreign books; he conceived and carried out the idea of imparting moral education through the medium of calligraphy by preparing ethical primers whose precepts were embodied in the head-lines of copy-books, and he encouraged private schools. Iyenari (1787–1838), the eleventh shōgun, and his immediate successor, Iyeyoshi (1838–1853), patronized learning no less ardently, and it was under the auspices of the latter that Japan acquired her five classics, the primers of *True Words*, of *Great Learning*, of *Lesser Learning*, of *Female Ethics* and of *Women's Filial Piety*.

Education in the pre-Meiji Era.

Thus it may be said that the system of education progressed steadily throughout the Tokugawa era. From the days of Tsunayoshi the number of fief schools steadily increased, and as students were admitted free of all charges, a duty of grateful fealty as well as the impulse of interfief competition drew thither the sons of all samurai. Ultimately the number of such schools rose to over 240, and being supported entirely at the expense of the feudal chiefs, they did no little honour to the spirit of the era. From 7 to 15 years of age lads attended as day scholars, being thereafter admitted as boarders, and twice a year examinations were held in the presence of high officials of the fief. There were also several private schools where the curriculum consisted chiefly of moral philosophy, and there were many temple schools, where ethics, calligraphy, arithmetic, etiquette and, sometimes, commercial matters were taught. A prominent feature of the system was the bond of reverential affection uniting teacher and student. Before entering school a boy was conducted by his father or elder brother to the home of his future teacher, and there the visitors, kneeling before the teacher, pledged themselves to obey him in all things and to submit unquestioningly to any discipline he might impose. Thus the teacher came to be regarded as a parent, and the veneration paid to him was embodied in a precept: "Let not a pupil tread within three feet of his teacher's shadow." In the case of the temple schools the priestly instructor had full cognisance of each student's domestic circumstances and was guided by that knowledge in shaping the course of instruction. The universally underlying principle was, "serve the country and be diligent in your respective avocations." Sons of samurai were trained in military arts, and on attaining proficiency many of them travelled about the country, inuring their bodies to every kind of hardship and challenging all experts of local fame.

Unfortunately, however, the policy of national seclusion prevented for a long time all access to the stores of European knowledge. Not until the beginning of the 18th century did any authorized account of the great world of the West pass into the hands of the people. A celebrated scholar (Arai Hakuseki) then compiled two works—*Saiyō kibun* (*Record of Occidental Hearsay*), and *Sairan igen* (*Renderings of Foreign Languages*)—which embodied much information, obtained from Dutch sources, about Europe, its conditions and its customs. But of course the light thus furnished had very restricted influence. It was not extinguished, however. Thenceforth men's interest centred more and more on the astronomical, geographical and medical sciences of the West, though such subjects were not included in academical studies until the renewal of foreign intercourse in modern times. Then (1857), almost immediately, the nation turned to Western learning, as it had turned to Chinese thirteen centuries earlier. The Tokugawa government established in Yedo an institution called *Bansho-shirabe-dokoro* (place for studying foreign books), where Occidental languages were learned and Occidental works translated. Simultaneously a school for acquiring foreign medical art (*Seiyo igaku-sho*) was opened, and, a little later (1862), the *Kaisei-jo* (place of liberal culture), a college for studying European sciences, was added to the list of new institutions. Thus the eve of the Restoration saw the

Japanese people already appreciative of the stores of learning rendered accessible to them by contact with the Occident.

Commercial education was comparatively neglected in the schools. Sons of merchants occasionally attended the *tera-koya*, but the instruction they received there had seldom any bearing upon the conduct of trade. Mercantile knowledge had to be acquired by a system of apprenticeship. A boy of 9 or 10 was apprenticed for a period of 8 or 9 years to a merchant, who undertook to support him and teach him a trade. Generally this young apprentice could not even read or write. He passed through all the stages of shop menial, errand boy, petty clerk, salesman and senior clerk, and in the evenings he received instruction from a teacher, who used for textbooks the manual of letter-writing (*Shosoku orai*) and the manual of commerce (*Shōbai orai*). The latter contained much useful information, and a youth thoroughly versed in its contents was competent to discharge responsible duties. When an apprentice, having attained the position of senior clerk, had given proof of practical ability, he was often assisted by his master to start business independently, but under the same firm-name, for which purpose a sum of capital was given to him or a section of his master's customers were assigned.

Commercial Education in Tokugawa Times.

When the government of the Restoration came into power, the emperor solemnly announced that the administration should be conducted on the principle of employing men of capacity wherever they could be found. This amounted to a declaration that in choosing officials scholastic acquirements would thenceforth take precedence of the claims of birth, and thus unprecedented importance was seen to attach to education. But so long as the feudal system survived, even in part, no general scheme of education could be thoroughly enforced, and thus it was not until the conversion of the fiefs into prefectures in 1871 that the government saw itself in a position to take drastic steps. A commission of investigation was sent to Europe and America, and on its return a very elaborate and extensive plan was drawn up in accordance with French models, which the commissioners had found conspicuously complete and symmetrical. This plan subsequently underwent great modifications. It will be sufficient to say that in consideration of the free education hitherto provided by the feudatories in their various fiefs, the government of the restoration resolved not only that the state should henceforth shoulder the main part of this burden, but also that the benefits of the system should be extended equally to all classes of the population, and that the attendance at primary schools should be compulsory. At the outset the sum to be paid by the treasury was fixed at 2,000,000 *yen*, that having been approximately the expenditure incurred by the feudatories. But the financial arrangements suffered many changes from time to time, and finally, in 1877, the cost of maintaining the schools became a charge on the local taxes, the central treasury granting only sums in aid.

Education in Modern Japan.

Every child, on attaining the age of six, must attend a common elementary school, where, during a six-years' course, instruction is given in morals, reading, arithmetic, the rudiments of technical work, gymnastics and poetry. Year by year the attendance at these schools has increased. Thus, whereas in the year 1900, only 81·67% of the school-age children of both sexes received the prescribed elementary instruction, the figure in 1905 was 94·93%. The desire for instruction used to be keener among boys than among girls, as was natural in view of the difference of inducement; but ultimately this discrepancy disappeared almost completely. Thus, whereas the percentage of girls attending school was 75·90 in 1900, it rose to 91·46 in 1905, and the corresponding figures for boys were 90·55 and 97·10 respectively. The tuition fee paid at a common elementary school in the rural districts must not exceed 5s. yearly, and in the urban districts, 10s.; but in practice it is much smaller, for these elementary schools form part of the communal system, and such portion of their expenses as is not covered by tuition fees, income from school property and miscellaneous sources, must be defrayed out of the proceeds of local taxation. In 1909 there were 18,160 common elementary schools, and also 9105 schools classed as elementary but having sections where, subsequently to the completion of the regular curriculum, a special supplementary course of study might be pursued in agriculture, commerce or industry (needle-work in the case of girls). The time devoted to these special courses is two, three or four years, according to the degree of proficiency contemplated, and the maximum fees are 15d. per month in urban districts and one-half of that amount in rural districts.

There are also 294 kindergartens, with an attendance of 26,000 infants, whose parents pay 3d. per month on the average for each child. In general the kindergartens are connected with elementary schools or with normal schools.

If a child, after graduation at a common elementary school, desires to extend its education, it passes into a common middle school, where training is given for practical pursuits or for admission to higher educational institutions. The ordinary curriculum at a common middle school includes moral philosophy, English language, history, geography, mathematics, natural history, natural philosophy, chemistry, drawing and the Japanese language. Five years are required to graduate, and from the fourth year the student may take up a special technical course as well as the main course; or, in accordance with local requirements, technical subjects may be taught conjointly with the regular curriculum throughout the whole time. The law provides that there must be at least one common middle school in each prefecture. The actual number in 1909 was 216.

Great inducements attract attendance at a common middle school. Not only does the graduation certificate carry considerable weight as a general qualification, but it also entitles a young man to volunteer for one year's service with the colours, thus escaping one of the two years he would have to serve as an ordinary conscript.

The graduate of a common middle school can claim admittance, without examination, to a high school, where he spends three years preparing to pass to a university, or four years studying a special subject, as law, engineering or medicine. By following the course in a high school, a youth obtains exemption from conscription until the age of 28, when one year as a volunteer will free him from all service with the colours. A high-school certificate of graduation entitles its holder to enter a university without examination, and qualifies him for all public posts.

For girls also high schools are provided, the object being to give a general education of higher standard. Candidates for admission must be over 12 years of age, and must have completed the second-year course of a higher elementary school. The regular course of study requires 4 years, and supplementary courses as well as special art courses may be taken.

In addition to the schools already enumerated, which may be said to constitute the machinery of general education, there are special schools, generally private, and technical schools (including a few private), where instruction is given in medicine and surgery, agriculture, commerce, mechanics, applied chemistry, navigation, electrical engineering, art (pictorial and applied), veterinary science, sericulture and various other branches of industry. There are also apprentices' schools, classed under the heading of elementary, where a course of not less than six months, and not more than four years, may be taken in dyeing and weaving, embroidery, the making of artificial flowers, tobacco manufacture, sericulture, reeling silk, pottery, lacquer, woodwork, metal-work or brewing. There are also schools—nearly all supported by private enterprise—for the blind and the dumb.

Normal schools are maintained for the purpose of training teachers, a class of persons not plentiful in Japan, doubtless because of an exceptionally low scale of emoluments, the yearly pay not exceeding £60 and often falling as low as £15.

There are two Imperial universities, one in Tōkyō and one in Kiōto. In 1909 the former had about 220 professors and instructors and 2880 students. Its colleges number six: law, medicine, engineering, literature, science and agriculture. It has a university hall where post-graduate courses are studied, and it publishes a quarterly journal giving accounts of scientific researches, which indicate not only large erudition, but also original talent. The university of Kiōto is a comparatively new institution and has not given any signs of great vitality. In 1909 its colleges numbered four: law, medicine, literature and science; its faculty consisted of about 60 professors with 70 assistants, and its students aggregated about 1100.

Except in the cases specially indicated, all the figures given above are independent of private educational institutions. The system pursued by the state does not tend to encourage private education, for unless a private school brings its curriculum into exact accord with that prescribed for public institutions of corresponding grade, its students are denied the valuable privilege of partial exemption from conscription, as well as other advantages attaching to state recognition. Thus the quality of the instruction being nominally the same, the rate of fees must also be similar, and no margin offers to tempt private enterprise.

Public education in Japan is strictly secular: no religious teaching of any kind is permitted in the schools. There are about 100 libraries. Progress is marked in this branch, the rate of growth having been from 43 to 100 in the five-year period ended 1905. The largest library is the Imperial, in Tōkyō. It had about half a million volumes in 1909, and the daily average of visitors was about 430.

Apart from the universities, the public educational institutions in Japan involve an annual expenditure of 3½ millions sterling, out of which total a little more than half a million is met by students' fees; 2¾ millions are paid by the communes, and the remainder is

defrayed from various sources, the central government contributing only some £28,000. It is estimated that public school property—in land, buildings, books, furniture, &c., aggregates 11 millions sterling.

VII.—Religion

The primitive religion of Japan is known by the name of Shintō, which signifies "the divine way," but the Japanese maintain that this term is of comparatively modern application. The term Shintō being obviously of Chinese origin, cannot have been used in Japan before she became acquainted with the Chinese language. Now Buddhism did not reach Japan until the 6th century, and a knowledge of the Chinese language had preceded it by only a hundred years. It is therefore reasonable to conclude that the primitive religion of Japan had no name, and that it did not begin to be called Shintō until Buddhism had entered the field. The two creeds remained distinct, though not implacably antagonistic, until the beginning of the 9th century, when they were welded together into a system of doctrine to which the name *Ryōbu-Shintō* (dual Shintō) was given. In this new creed the Shintō deities were regarded as avatars of Buddhist divinities, and thus it may be said that Shintō was absorbed into Buddhism. Probably that would have been the fate of the indigenous creed in any circumstances, for a religion without a theory as to a future state and without any code of moral duties could scarcely hope to survive contact with a faith so well equipped as Buddhism in these respects. But Shintō, though absorbed, was not obliterated. Its beliefs survived; its shrines survived; its festivals survived, and something of its rites survived also.

Shintō.

Shintō, indeed, may be said to be entwined about the roots of Japan's national existence. Its scripture—as the *Kojiki* must be considered—resembles the Bible in that both begin with the cosmogony. But it represents the gods as peopling the newly created earth with their own offspring instead of with human beings expressly made for the purpose. The actual work of creation was done by a male deity, Izanagi, and a female deity, Izanami. From the right eye of the former was born Amaterasu, who became goddess of the sun; from his left eye, the god of the moon; and from his nose, a species of Lucifer. The grandson of the sun goddess was the first sovereign of Japan, and his descendants have ruled the land in unbroken succession ever since, the 121st being on the throne in 1909. Thus it is to Amaterasu (the heaven-illuminating goddess) that the Japanese pay reverence above all other deities, and it is to her shrine at Ise that pilgrims chiefly flock.

The story of creation, as related in the *Kojiki*, is obviously based on a belief that force is indestructible, and that every exercise of it is productive of some permanent result. Thus by the motions of the creative spirit there spring into existence all the elements that go to make up the universe, and these, being of divine origin, are worshipped and propitiated. Their number becomes immense when we add the deified ghosts of ancestors who were descended from the gods and whose names are associated with great deeds. These ancestors are often regarded as the tutelary deities of districts, where they receive special homage and where shrines are erected to them. The method of worship consists in making offerings and in the recital of rituals (*norito*). Twenty-seven of these rituals were reduced to writing and embodied in a work called *Engishiki* (927). Couched in antique language, these liturgies are designed for the dedication of shrines, for propitiating evil, for entreating blessings on the harvest, for purification, for obtaining household security, for bespeaking protection during a journey, and so forth. Nowhere is any reference found to a future state of reward or punishment, to deliverance from evil, to assistance in the path of virtue. One ceremonial only is designed to avert the consequences of sin or crime; namely, the rite of purification, which, by washing with water and by the sacrifice of valuables, removes the pollution resulting from all wrong-doing. Originally performed on behalf of individuals, this *ō-barai* ultimately came to be a semi-annual ceremony for sweeping away the sins of all the people.

Shintō is thus a mixture of ancestor-worship and of nature-worship without any explicit code of morals. It regards human beings as virtuous by nature; assumes that each man's conscience is his best guide; and while believing in a continued existence beyond the grave, entertains no theory as to its pleasures or pains. Those that pass away become disembodied spirits, inhabiting the world of darkness (*yomi-no-yo*) and possessing power to bring sorrow or joy into the lives of their survivors, on which account they are worshipped and propitiated. Purity and simplicity being essential characteristics of the cult, its shrines are built of white wood, absolutely without decorative features of any kind, and fashioned as were the original huts of the first Japanese settlers. There are no graven images—a fact attributed by some critics to ignorance of the glyptic art on the part of the original worshippers—but there is an emblem of the deity, which generally takes the form of a sword, a mirror or a so-called jewel, these being the insignia handed by the sun goddess to her grandson, the first ruler of Japan. This emblem is not exposed to public view: it is enveloped in silk and brocade and enclosed in a box at the back of the shrine. The mirror sometimes prominent is a Buddhist innovation and has nothing to do with the true emblem of the creed.

From the 9th century, when Buddhism absorbed Shintō, the two grew together so intimately that their differentiation seemed hopeless. But in the middle of the 17th century a strong revival of the indigenous faith was effected by the efforts of a group of illustrious scholars and politicians, at whose head stood Mabuchi, Motoori and Hirata. These men applied themselves with great diligence and acumen to reproduce the pure Shintō of the *Kojiki* and to restore it to its old place in the nation's reverence, their political purpose being to educate a spirit of revolt against the feudal system which deprived the emperor of administrative power. The principles thus revived became the basis of the restoration of 1867; Shintō rites and Shintō rituals were re-adopted, and Buddhism fell for a season into comparative disfavour, Shintō being regarded as the national religion. But Buddhism had twined its roots too deeply around the heart of the people to be thus easily torn up. It gradually recovered its old place, though not its old magnificence, for its disestablishment at the hands of the Meiji government robbed it of a large part of its revenues.

Buddhism entered China at the beginning of the Christian era, but not until the 4th century did it obtain any strong footing. Thence, two centuries later (522), it reached Japan through Korea. The reception extended to it was not encouraging at first. Its images and its brilliant appurtenances might well deter a nation which had never seen an idol nor ever worshipped in a decorated temple. But the ethical teachings and the positive doctrines of the foreign faith presented an attractive contrast to the colourless Shintō. After a struggle, not without bloodshed, Buddhism won its way. It owed much to the active patronage of Shōtoku taishi, prince-regent during the reign of the empress Suiko (593–621). At his command many new temples were built; the country was divided into dioceses under Buddhist prelates; priests were encouraged to teach the arts of road-making and bridge-building, and students were sent to China to investigate the mysteries of the faith at its supposed fountain-head. Between the middle of the 7th century and that of the 8th, six sects were introduced from China, all imperfect and all based on the teachings of the Hinayana system. Up to this time the propagandists of the creed had been chiefly Chinese and Korean teachers. But from the 8th century onwards, when Kiōto became the permanent capital of the empire, Japanese priests of lofty intelligence and profound piety began to repair to China and bring thence modified forms of the doctrines current there. It was thus that Dengyō daishi (*c.* 800) became the founder of the Tendai (heavenly tranquillity) sect and Kōbō daishi (774–834) the apostle of the Shingon (true word). Other sects followed, until the country possessed six principal sects in all with thirty-seven sub-sects. It must be remembered that Buddhism offers an almost limitless field for eclecticism. There is not in the world any literary production

Buddhism.

of such magnitude as the Chinese scriptures of the Mahayana. "The canon is seven hundred times the amount of the New Testament. Hsüan Tsang's translation of the *Prajna paramita* is twenty-five times as large as the whole Christian Bible."

It is natural that out of such a mass of doctrine different systems should be elaborated. The Buddhism that came to Japan prior to the days of Dengyō daishi was that of the Vaipulya school, which seems to have been accepted in its entirety. But the Tendai doctrines, introduced by Dengyō, Iikaku and other fellow-thinkers, though founded mainly on the *Saddharma pundarika*, were subjected to the process of eclecticism which all foreign institutions undergo at Japanese hands. Dengyō studied it in the monastery of Tientai which "had been founded towards the close of the 6th century of our era on a lofty range of mountains in the province of Chehkiang by the celebrated preacher Chikai" (Lloyd, "Developments of Japanese Buddhism," *Transactions of the Asiatic Society of Japan*, vol. xxii.), and carrying it to Japan he fitted its disciplinary and meditative methods to the foundations of the sects already existing there.

This eclecticism was even more marked in the case of the Shingon (true word) doctrines, taught by Dengyō's illustrious contemporary, Kōbō daishi, who was regarded as the incarnation of Vairocana. He led his countrymen, by a path almost wholly his own, from the comparatively low platform of Hinayana Buddhism, whose sole aim is individual salvation, to the Mahayana doctrine, which teaches its devotee to strive after perfect enlightenment, not for his own sake alone, but also that he may help his fellows and intercede for them. Then followed the Jōdo (Pure Land) sect, introduced in 1153 by a priest, Senku, who is remembered by later generations as Hōnen shōnin. He taught salvation by faith ritualistically expressed. The virtue that saves comes, not from imitation of and conformity to the person and character of the saviour Amida, but from blind trust in his efforts and ceaseless repetition of pious formulae. It is really a religion of despair rather than of hope, and in that respect it reflects the profound sympathy awakened in the bosom of its teacher by the sorrows and sufferings of the troublous times in which he lived.

A favourite pupil of Hōnen shōnin was Shinran (1173–1262). He founded the Jōdo Shinshū (true sect of jōdo), commonly called simply Shinshū and sometimes Monto, which subsequently became the most influential of Japanese sects, with its splendid monasteries, the two Hongwana-ji in Kiōto. The differences between the doctrines of this sect and those of its predecessors were that the former "divested itself of all metaphysics"; knew nothing of a philosophy of religion, dispensed with a multiplicity of acts of devotion and the keeping of many commandments; did not impose any vows of celibacy or any renunciation of the world, and simply made faith in Amida the all in all. In modern days the Shinshū sect has been the most progressive of all Buddhist sects and has freely sent forth its promising priests to study in Europe and America. Its devotees make no use of charms or spells, which are common among the followers of other sects.

Anterior by a few years to that introduction of the Shinshū was the Zen sect, which has three main divisions, the Rinzai (1168), the Sōtō (1223) and the Obaku (1650). This is essentially a contemplative sect. Truth is reached by pure contemplation, and knowledge can be transmitted from heart to heart without the use of words. In that simple form the doctrine was accepted by the Rinzai believers. But the founders of the Sōtō branch—Shōyo taishi and Butsuji zenshi—added scholarship and research to contemplation, and taught that the "highest wisdom and the most perfect enlightenment are attained when all the elements of phenomenal existence are recognized as empty, vain and unreal." This creed played an important part in the development of Bushidō, and its priests have always been distinguished for erudition and indifference to worldly possessions.

Last but not least important among Japanese sects of Buddhism is the Nichiren or Hokke, called after its founder, Nichiren (1222–1282). It was based on the *Saddharma pundarika*, and it taught that there was only one true Buddha—the moon in the heavens—the other Buddhas being like the moon reflected in the waters, transient, shadowy reflections of the Buddha of truth. It is this being who is the source of all phenomenal existence, and in whom all phenomenal existence has its being. The imperfect Buddhism teaches a chain of cause and effect; true Buddhism teaches that the first link in this chain of cause and effect is the Buddha of original enlightenment. When this point has been reached true wisdom has at length been attained. Thus the monotheistic faith of Christianity was virtually reached in one God in whom all creatures "live, move and have their being." It will readily be conceived that these varied doctrines caused dissension and strife among the sects professing them. Sectarian controversies and squabbles were nearly as prominent among Japanese Buddhists as they were among European Christians, but to the credit of Buddhism it has to be recorded that the stake and the rack never found a place among its instruments of self-assertion. On the other hand, during the wars that devastated Japan from the 12th to the end of the 16th century, many of the monasteries became military camps, and the monks, wearing armour and wielding glaives, fought in secular as well as religious causes.

Christianity in Modern Japan.

The story of the first Christian missionaries to Japan is told elsewhere (see § VIII. FOREIGN INTERCOURSE). Their work suffered an interruption for more than 200 years until, in 1858, almost simultaneously with the conclusion of the treaties, a small band of Catholic fathers entered Japan from the Riūkiū islands, where they had carried on their ministrations since 1846. They found that, in the neighbourhood of Nagasaki, there were some small communities where Christian worship was still carried on. It would seem that these communities had not been subjected to any severe official scrutiny. But the arrival of the fathers revived the old question, and the native Christians, or such of them as refused to apostatize, were removed from their homes and sent into banishment. This was the last example of religious intolerance in Japan. At the instance of the foreign representatives in Tōkyō the exiles were set at liberty in 1873, and from that time complete freedom of conscience existed in fact, though it was not declared by law until the promulgation of the constitution in 1889. In 1905 there were 60,000 Roman Catholic converts in Japan forming 360 congregations, with 130 missionaries and 215 teachers, including 145 nuns. These were all European. They were assisted by 32 Japanese priests, 52 Japanese nuns, 280 male catechists and 265 female catechists and nurses. Three seminaries for native priests existed, together with 58 schools and orphanages and two lepers' homes. The whole was presided over by an archbishop and three bishops.

The Anglican Church was established in Japan in 1859 by two American clergymen who settled in Nagasaki, and now, in conjunction with the Episcopal Churches of America and Canada, it has missions collectively designated Nihon Sei-Kōkai. There are 6 bishops—2 American and 4 English—with about 60 foreign and 50 Japanese priests and deacons, besides many foreign lay workers of both sexes and Japanese catechists and school teachers. The converts number 11,000. The Protestant missions include Presbyterian (Nihon Kirisuto Kyokai), Congregational (Kumi-ai), Methodist, Baptist and the Salvation Army (Kyusei-gun). The pioneer Protestant mission was founded in 1859 by representatives of the American Presbyterian and Dutch Reformed Churches. To this mission belongs the credit of having published, in 1880, the first complete Japanese version of the New Testament, followed by the Old Testament in 1887. The Presbyterians, representing 7 religious societies, have over a hundred missionaries; 12,400 converts; a number of boarding schools for boys and girls and day schools. The Congregational churches are associated exclusively with the mission of the American board of commissioners for foreign missions. They have about 11,400 converts, and the largest Christian educational institution in Japan, namely, the Dōshisha in Kiōto. The Methodists represent 6 American societies and 1 Canadian. They have 130 missionaries and 10,000 converts; boarding schools, day schools, and the most important Christian college in Tōkyō, namely, the Awoyama Gaku-in. The Baptists represent 4 American societies; have 60 missionaries, a theological seminary, an academy for boys, boarding schools for girls, day schools and 3500 converts. The Salvation Army, which did not enter Japan until 1895, has organized 15 corps, and publishes ten thousand copies of a fortnightly magazine, the *War Cry* (*Toki no Koe*). Finally, the Society of Friends, the American and London Religious Tract Societies and the Young Men's Christian Association have a number of missions. It will be seen from the above that the missionaries in Japan, in the space of half a century (1858 to 1908), had won 110,000 converts, in round numbers. To these must be added the Orthodox Russian Church, which has a fine cathedral in Tōkyō, a staff of about 40 Japanese priests and deacons and 27,000 converts, the whole presided over by a bishop. Thus the total number of converts

becomes 137,000. In spite of the numerous sects represented in Japan there has been virtually no sectarian strife, and it may be said of the Japanese converts that they concern themselves scarcely at all about the subtleties of dogma which divide European Christianity. Their tendency is to consider only the practical aspects of the faith as a moral and ethical guide. They are disposed, also, to adapt the creed to their own requirements just as they adapted Buddhism, and this is a disposition which promises to grow.

VIII.—Foreign Intercourse

Foreign Intercourse in Early and Medieval Times.—There can be no doubt that commerce was carried on by Japan with China and Korea earlier that the 8th century of the Christian era. It would appear that from the very outset over-sea trade was regarded as a government monopoly. Foreigners were allowed to travel freely in the interior of the country provided that they submitted their baggage for official inspection and made no purchases of weapons of war, but all imported goods were bought in the first place by official appraisers who subsequently sold them to the people at arbitrarily fixed prices. Greater importance attached to the trade with China under the Ashikaga shōguns (14th, 15th and 16th centuries), who were in constant need of funds to defray the cost of interminable military operations caused by civil disturbances. In this distress they turned to the neighbouring empire as a source from which money might be obtained. This idea seems to have been suggested to the shōgun Takauji by a Buddhist priest, when he undertook the construction of the temple Tenryū-ji. Two ships laden with goods were fitted out, and it was decided that the enterprise should be repeated annually. Within a few years after this development of commercial relations between the two empires, an interruption occurred owing partly to the overthrow of the Yuen Mongols by the Chinese Ming, and partly to the activity of Japanese pirates and adventurers who raided the coasts of China. The shōgun Yoshimitsu (1368–1394), however, succeeded in restoring commercial intercourse, though in order to effect his object he consented that goods sent from Japan should bear the character of tribute and that he himself should receive investiture at the hands of the Chinese emperor's ambassador. The Nanking government granted a certain number of commercial passports, and these were given by the shōgun to Ouchi, feudal chief of Cho-shu, which had long been the principal port for trade with the neighbouring empire. Tribute goods formed only a small fraction of a vessel's cargo: the bulk consisted of articles which were delivered into the government's stores in China, payment being received in copper cash. It was from this transaction that the shōgun derived a considerable part of his profits, for the articles did not cost him anything originally, being either presents from the great temples and provincial governors or compulsory contributions from the house of Ouchi. As for the gifts by the Chinese government and the goods shipped in China, they were arbitrarily distributed among the noble families in Japan at prices fixed by the shōgun's assessor. Thus, so far as the shōgun was concerned, these enterprises could not fail to be lucrative. They also brought large profits to the Ouchi family, for, in the absence of competition, the products and manufactures of each country found ready sale in the markets of the other. The articles found most suitable in China were swords, fans, screens, lacquer wares, copper and agate, and the goods brought back to Japan were brocade and other silk fabrics, ceramic productions, jade and fragrant woods. The Chinese seem to have had a just appreciation of the wonderful swords of Japan. At first they were willing to pay the equivalent of 12 guineas for a pair of blades, but by degrees, as the Japanese began to increase the supply, the price fell, and at the beginning of the 16th century all the diplomacy of the Japanese envoys was needed to obtain good figures for the large and constantly growing quantity of goods that they took over by way of supplement to the tribute. Buddhist priests generally enjoyed the distinction of being selected as envoys, for experience showed that their subtle reasoning invariably overcame the economical scruples of the Chinese authorities and secured a fine profit for their master, the shōgun. In the middle of the 16th century these tribute-bearing missions came to an end with the ruin of the Ouchi family and the overthrow of the Ashikaga shōguns, and they were never renewed.

With Kōrea.

Japan's medieval commerce with Korea was less ceremonious than that with China. No passports had to be obtained from the Korean government. A trader was sufficiently equipped when he carried a permit from the So family, which held the island of Tsushima in fief. Fifty vessels were allowed to pass yearly from ports in Japan to the three Japanese settlements in Korea. Little is recorded about the nature of this trade, but it was rudely interrupted by the Japanese settlers, who, offended at some arbitrary procedure on the part of the local Korean authorities, took up arms (A.D. 1510) and at first signally routed the Koreans. An army from Seoul turned the tables, and the Japanese were compelled to abandon the three settlements. Subsequently the shōgun's government—which had not been concerned in the struggle—approached Korea with amicable proposals, and it was agreed that the ringleaders of the raiders should be decapitated and their heads sent to Seoul, Japan's compliance with this condition affording, perhaps, a measure of the value she attached to neighbourly friendship. Thenceforth the number of vessels was limited to 25 annually and the settlements were abolished. Some years later, the Japanese again resorted to violent acts of self-assertion, and on this occasion, although the offenders were arrested by order of the shōgun Yoshiharu, and handed over to Korea for punishment, the Seoul court persisted in declining to restore the system of settlements or to allow the trade to be resumed on its former basis. Fifty years afterwards the taikō's armies invaded Korea, overrunning it for seven years, and leaving, when they retired in 1598, a country so impoverished that it no longer offered any attraction to commercial enterprise from beyond the sea.

With Occidental Nations.

The Portuguese discovered Japan by accident in 1542 or 1543—the exact date is uncertain. On a voyage to Macao from Siam, a junk carrying three Portuguese was blown from her course and fetched Tanegashima, a small island lying south of the province of Satsuma. The Japanese, always hospitable and inquisitive, welcomed the newcomers and showed special curiosity about the arquebuses carried by the Portuguese, fire-arms being then a novelty in Japan and all weapons of war being in great request. Conversation was impossible, of course, but, by tracing ideographs upon the sand, a Chinese member of the crew succeeded in explaining the cause of the junk's arrival. She was then piloted to a more commodious harbour, and the Portuguese sold two arquebuses to the local feudatory, who immediately ordered his armourer to manufacture similar weapons. Very soon the news of the discovery reached all the Portuguese settlements in the East, and at least seven expeditions were fitted out during the next few years to exploit this new market. Their objective points were all in the island of Kiūshiū—the principal stage where the drama—ultimately converted into a tragedy—of Christian propagandism and European commercial intercourse was acted in the interval between 1542 and 1637.

Arrival of the Jesuits.

It does not appear that the Jesuits at Macao, Goa or other centres of Portuguese influence in the East took immediate advantage of the discovery of Japan. The pioneer propagandist was Francis Xavier, who landed at Kagoshima on the 15th of August 1549. During the interval of six (or seven) years that separated this event from the drifting of the junk to Tanegashima, the Portuguese had traded freely in the ports of Kiūshiū, had visited Kiōto, and had reported the Japanese capital to be a city of 96,000 houses, therefore larger than Lisbon. Xavier would certainly have gone to Japan even though he had not been specially encouraged, for the reports of his countrymen depicted the Japanese as "very desirous of being instructed," and he longed to find a field more promising than that inhabited by "all these Indian nations, barbarous, vicious and without inclination to virtue." There were, however, two special determinants. One was a request addressed by a feudatory, supposed to have been the chief of the

Bungo fief, to the viceroy of the Indies at Goa; the other, an appeal made in person by a Japanese named Yajiro, whom the fathers spoke of as Anjiro, and who subsequently attained celebrity under his baptismal name, Paul of the holy faith. No credible reason is historically assigned for the action of the Japanese feudatory. Probably his curiosity had been excited by accounts which the Portuguese traders gave of the noble devotion of their country's missionaries, and being entirely without bigotry, as nearly all Japanese were at that epoch, he issued the invitation partly out of curiosity and partly from a sincere desire for progress. Anjiro's case was very different. Labouring under stress of repentant zeal, and fearful that his evil acts might entail murderous consequences, he sought an asylum abroad, and was taken away in 1548 by a Portuguese vessel whose master advised him to repair to Malacca for the purpose of confessing to Xavier. This might well have seemed to the Jesuits a providential dispensation, for Anjiro, already able to speak Portuguese, soon mastered it sufficiently to interpret for Xavier and his fellow-missionaries (without which aid they must have remained long helpless in the face of the immense difficulty of the Japanese language), and to this linguistic skill he added extraordinary gifts of intelligence and memory. Xavier, with two Portuguese companions and Anjiro, were excellently received by the feudal chiefs of Satsuma and obtained permission to preach their doctrine in any part of the fief. This permit is not to be construed as an evidence of official sympathy with the foreign creed. Commercial considerations alone were in question. A Japanese feudal chief in that era had sedulously to foster every source of wealth or strength, and as the newly opened trade with the outer world seemed full of golden promise, each feudatory was not less anxious to secure a monopoly of it in the 16th century than the Ashikaga shōguns had been in the 15th. The Satsuma daimyō was led to believe that the presence of the Jesuits in Kagoshima would certainly prelude the advent of trading vessels. But within a few months one of the expected merchantmen sailed to Hirado without touching at Kagoshima, and her example was followed by two others in the following year, so that the Satsuma chief saw himself flouted for the sake of a petty rival, Matsudaira of Hirado. This fact could not fail to provoke his resentment. But there was another influence at work. Buddhism has always been a tolerant religion, eclectic rather than exclusive. Xavier, however, had all the bigoted intolerance of his time. The Buddhist priests in Kagoshima received him with courtesy and listened respectfully to the doctrines he expounded through the mouth of Anjiro. Xavier rejoined with a display of aggressive intolerance which shocked and alienated the Buddhists. They represented to the Satsuma chief that peace and good order were inconsistent with such a display of militant propagandism, and he, already profoundly chagrined by his commercial disappointment, issued in 1550 an edict making it a capital offence for any of his vassals to embrace Christianity. Xavier, or, more correctly speaking, Anjiro, had won 150 converts, who remained without molestation, but Xavier himself took ship for Hirado. There he was received with salvoes of artillery by the Portuguese merchantmen lying in the harbour and with marks of profound respect by the Portuguese traders, a display which induced the local chief to issue orders that courteous attention should be paid to the teaching of the foreign missionaries. In ten days a hundred baptisms took place; another significant index of the mood of the Japanese in the early era of Occidental intercourse: the men in authority always showed a complaisant attitude towards Christianity where trade could be fostered by so doing, and wherever the men in authority showed such an attitude, considerable numbers of the lower orders embraced the foreign faith. Thus, in considering the commercial history of the era, the element of religion constantly thrusts itself into the foreground.

First Visit of Europeans to Kiōto.

Xavier next resolved to visit Kiōto. The first town of importance he reached on the way was Yamaguchi, capital of the Chōshū fief, situated on the northern shore of the Shimonoseki Strait. There the feudal chief, Ouchi, though sufficiently courteous and inquisitive, showed no special cordiality towards humble missionaries unconnected with commerce, and the work of proselytizing made no progress, so that Xavier and his companion, Fernandez, pushed on to Kiōto. The time was mid-winter; the two fathers suffered terrible privations during their journey of two months on foot, and on reaching Kiōto they found a city which had been almost wholly reduced to ruins by internecine war. Necessarily they failed to obtain audience of either emperor or shōgun, at that time the most inaccessible potentates in the world, the Chinese "son of heaven" excepted, and nothing remained but street preaching, a strange resource, seeing that Xavier, constitutionally a bad linguist, had only a most rudimentary acquaintance with the profoundly difficult tongue in which he attempted to expound the mysteries of a novel creed. A fortnight sufficed to convince him that Kiōto was unfruitful soil. He therefore returned to Yamaguchi. But he had now learned a lesson. He saw that propagandism without scrip or staff and without the countenance of those sitting in the seats of power would be futile in Japan. So he obtained from Hirado his canonicals, together with a clock and other novel products of European skill, which, as well as credentials from the viceroy of India, the governor of Malacca and the bishop of Goa, he presented to the Chōshū chief. His prayer for permission to preach Christianity was now readily granted, and Ouchi issued a proclamation announcing his approval of the introduction of the new religion and according perfect liberty to embrace it. Xavier and Fernandez now made many converts. They also gained the valuable knowledge that the road to success in Japan lay in associating themselves with over-sea commerce and its directors, and in thus winning the co-operation of the feudal chiefs.

Christian Propagandists.

Nearly ten years had now elapsed since the first Portuguese landed in Kagoshima, and during that time trade had gone on steadily and prosperously. No attempt was made to find markets in the main island: the Portuguese confined themselves to Kiūshiū for two reasons: one, that having no knowledge of the coasts, they hesitated to risk their ships and their lives in unsurveyed waters; the other, that whereas the main island, almost from end to end, was seething with internecine war, Kiūshiū remained beyond the pale of disturbance and enjoyed comparative tranquillity. At the time of Xavier's second sojourn in Yamaguchi, a Portuguese ship happened to be visiting Bungo, and at its master's suggestion the great missionary proceeded thither, with the intention of returning temporarily to the Indies. At Bungo there was then ruling Otomo, second in power to only the Satsuma chief among the feudatories of Kiūshiū. By him the Jesuit father was received with all honour. Xavier did not now neglect the lesson he had learned in Yamaguchi. He repaired to the Bungo chieftain's court, escorted by nearly the whole of the Portuguese crew, gorgeously bedizened, carrying their arms and with banners flying. Otomo, a young and ambitious ruler, was keenly anxious to attract foreign traders with their rich cargoes and puissant weapons of war. Witnessing the reverence paid to Xavier by the Portuguese traders, he appreciated the importance of gaining the goodwill of the Jesuits, and accordingly not only granted them full freedom to teach and preach, but also enjoined upon his younger brother, who, in the sequel of a sudden rebellion, had succeeded to the lordship of Yamaguchi, the advisability of extending protection to Torres and Fernandez, then sojourning there. After some four months' stay in Bungo, Xavier set sail for Goa in February 1552. Death overtook him in the last month of the same year.

Xavier's departure from Japan marked the conclusion of the first epoch of Christian propagandism. His sojourn in Japan extended to 27 months. In that time he and his coadjutors won about 760 converts. In Satsuma more than a year's labour produced 150 believers. There Xavier had the assistance of Anjiro to expound his doctrines. No language lends itself with greater difficulty than Japanese to the discussion of theological questions. The terms necessary for such a purpose are not current among laymen, and only by special

study, which, it need scarcely be said, must be preluded by an accurate acquaintance with the tongue itself, can a man hope to become duly equipped for the task of exposition and dissertation. It is open to grave doubt whether any foreigner has ever attained the requisite proficiency. Leaving Anjiro in Kagoshima to care for the converts made there, Xavier pushed on to Hirado, where he baptized a hundred Japanese in a few days. Now we have it on the authority of Xavier himself that in this Hirado campaign "none of us knew Japanese." How then did they proceed? "By reciting a semi-Japanese volume" (a translation made by Anjiro of a treatise from Xavier's pen) "and by delivering sermons, we brought several over to the Christian cult." Sermons preached in Portuguese or Latin to a Japanese audience on the island of Hirado in the year 1550 can scarcely have attracted intelligent interest. On his first visit to Yamaguchi, Xavier's means of access to the understanding of his hearers was confined to the rudimentary knowledge of Japanese which Fernandez had been able to acquire in 14 months, a period of study which, in modern times, with all the aids now procurable, would not suffice to carry a student beyond the margin of the colloquial. No converts were won. The people of Yamaguchi probably admired the splendid faith and devotion of these over-sea philosophers, but as for their doctrine, it was unintelligible. In Kiōto the same experience was repeated, with an addition of much physical hardship. But when the Jesuits returned to Yamaguchi in the early autumn of 1551, they baptized 500 persons, including several members of the military class. Still Fernandez with his broken Japanese was the only medium for communicating the profound doctrines of Christianity. It must be concluded that the teachings of the missionaries produced much less effect than the attitude of the local chieftain.

Only two missionaries, Torres and Fernandez, remained in Japan after the departure of Xavier, but they were soon joined by three others. These newcomers landed at Kagoshima and found that, in spite of the official veto against the adoption of Christianity, the feudal chief had lost nothing of his desire to foster foreign trade. Two years later, all the Jesuits in Japan were assembled in Bungo. Their only church stood there; and they had also built two hospitals. Local disturbances had compelled them to withdraw from Yamaguchi, not, however, before their violent disputes with the Buddhist priests in that town had induced the feudatory to proscribe the foreign religion, as had previously been done in Kagoshima. From Funai, the chief town of Bungo, the Jesuits began in 1579 to send yearly reports to their Generals in Rome. These reports, known as the *Annual Letters*, comprise some of the most valuable information available about the conditions then existing in Japan. They describe a state of abject poverty among the lower orders; poverty so cruel that the destruction of children by their famishing parents was an everyday occurrence, and in some instances choice had to be made between cannibalism and starvation. Such suffering becomes easily intelligible when the fact is recalled that Japan had been racked by civil war during more than 200 years, each feudal chief fighting for his own hand, to save or to extend his territorial possessions. From these *Annual Letters* it is possible also to gather a tolerably clear idea of the course of events during the years immediately subsequent to Xavier's departure. There was no break in the continuity of the newly inaugurated foreign trade. Portuguese ships visited Hirado as well as Bungo, and in those days their masters and crews not only attended scrupulously to their religious duties, but also showed such profound respect for the missionaries that the Japanese received constant object lessons in the influence wielded over the traders by the Jesuits. Thirty years later, this orderly and reverential demeanour was exchanged for riotous excesses such as had already made the Portuguese sailor a by-word in China. But in the early days of intercourse with Japan the crews of the merchant vessels seem to have preached Christianity by their exemplary conduct. Just as Xavier had been induced to visit Bungo by the anxiety of a ship-captain for Christian ministrations, so in 1557 two of the fathers repaired to Hirado in obedience to the solicitations of Portuguese sailors. There the fathers, under the guidance of Vilela, sent brothers to parade the streets ringing bells and chaunting litanies; they organized bands of boys for the same purpose; they caused the converts, and even children, to flagellate themselves at a model of Mount Calvary, and they worked miracles, healing the sick by contact with scourges or with a booklet in which Xavier had written litanies and prayers. It may well be imagined that such doings attracted surprised attention in Japan. They were supplemented by even more striking practices. For a sub-feudatory of the Hirado chief, having been converted, showed his zeal by destroying Buddhist temples and throwing down the idols, thus inaugurating a campaign of violence destined to mark the progress of Christianity throughout the greater part of its history in Japan. There followed the overthrowing of a cross in the Christian cemetery, the burning of a temple in the town of Hirado, and a street riot, the sequel being that the Jesuit fathers were compelled to return once more to Bungo. It is essential to follow all these events, for not otherwise can a clear understanding be reached as to the aspects under which Christianity presented itself originally to the Japanese. The Portuguese traders, reverent as was their demeanour towards Christianity, did not allow their commerce to be interrupted by vicissitudes of propagandism. They still repaired to Hirado, and rumours of the wealth-begetting effects of their presence having reached the neighbouring fief of Omura, its chief, Sumitada, made overtures to the Jesuits in Bungo, offering a port free from all dues for ten years, a large tract of land, a residence for the missionaries and other privileges. The Jesuits hastened to take advantage of this proposal, and no sooner did the news reach Hirado than the feudatory of that island repented of having expelled the fathers and invited them to return. But while they hesitated, a Portuguese vessel arrived at Hirado, and the feudal chief declared publicly that no need existed to conciliate the missionaries, since trade went on without them. When this became known in Bungo, Torres hastened to Hirado, was received with extraordinary honours by the crew of the vessel, and at his instance she left the port, her master declaring that "he could not remain in a country where they maltreated those who professed the same religion as himself." Hirado remained a closed port for some years, but ultimately the advent of three merchantmen, which intimated their determination not to put in unless the anti-Christian ban was removed, induced the feudal chief to receive the Jesuits once more. This incident was paralleled a few years later in the island of Amakusa, where a petty feudatory, in order to attract foreign trade, as the missionaries themselves frankly explain, embraced Christianity and ordered all his vassals to follow his example; but when no Portuguese ship appeared, he apostatized, required his subjects to revert to Buddhism and made the missionaries withdraw. In fact, the competition for the patronage of Portuguese traders was so keen that the Hirado feudatory attempted to burn several of their vessels because they frequented the territorial waters of his neighbour and rival, Sumitada. The latter became a most stalwart Christian when his wish was gratified. He set himself to eradicate idolatry throughout his fief with the strong arm, and his fierce intolerance provoked results which ended in the destruction of the Christian town at the newly opened free port. Sumitada, however, quickly reasserted his authority, and five years later (1567), he took a step which had far-reaching consequences, namely, the building of a church at Nagasaki, in order that Portuguese commerce might have a centre and the Christians an assured asylum. Nagasaki was then a little fishing village. In five years it grew to be a town of thirty thousand inhabitants, and Sumitada became one of the richest of the Kiūshiū feudatories. When in 1573 successful conflicts with the neighbouring fiefs brought him an access of territory, he declared that he owed these victories to the influence of the Christian God, and shortly afterwards he publicly proclaimed banishment for all who would not accept the foreign faith. There were then no Jesuits by his side, but immediately two

Second Period of Christian Propagandism.

hastened to join him, and "these, accompanied by a strong guard, but yet not without danger of their lives, went round causing the churches of the Gentiles, with their idols, to be thrown to the ground, while three Japanese Christians went preaching the law of God everywhere. Three of us who were in the neighbouring kingdoms all withdrew therefrom to work in this abundant harvest, and in the space of seven months twenty thousand persons were baptized, including the bonzes of about sixty monasteries, except a few who quitted the State." In Bungo, however, where the Jesuits were originally so well received, it is doubtful whether Christian propagandism would not have ended in failure but for an event which occurred in 1576, namely, the conversion of the chieftain's son, a youth of some 16 years. Two years later Otomo himself came over to the Christian faith. He rendered inestimable aid, not merely within his own fief, but also by the influence he exercised on others. His intervention, supported by recourse to arms, obtained for the Jesuits a footing on the island of Amakusa, where one of the feudatories gave his vassals the choice of conversion or exile, and announced to the Buddhist priests that unless they accepted Christianity their property would be confiscated and they themselves banished. Nearly the whole population of the fief did violence to their conscience for the sake of their homes. Christianity was then becoming established in Kiūshiū by methods similar to those of Islam and the inquisition. Another notable illustration is furnished by the story of the Arima fief, adjoining that of Sumitada (Omura), where such resolute means had been adopted to force Christianity upon the vassals. Moreover, the heads of the two fiefs were brothers. Accordingly, at the time of Sumitada's very dramatic conversion, the Jesuits were invited to Arima and encouraged to form settlements at the ports of Kuchinotsu and Shimabara, which thenceforth began to be frequented by Portuguese merchantmen. The fief naturally became involved in the turmoil resulting from Sumitada's iconoclastic methods of propagandism; but, in 1576, the then ruling feudatory, influenced largely by the object lesson of Sumitada's prosperity and puissance, which that chieftain openly ascribed to the tutelary aid of the Christian deity, accepted baptism and became the "Prince Andrew" of missionary records. It is written in those records that "the first thing Prince Andrew did after his baptism was to convert the chief temple of his capital into a church, its revenues being assigned for the maintenance of the building and the support of the missionaries. He then took measures to have the same thing done in the other towns of his fief, and he seconded the preachers of the gospel so well in everything else that he could flatter himself that he soon would not have one single idolater in his states." Thus in the two years that separated his baptism from his death, twenty thousand converts were won in Arima. But his successor was an enemy of the alien creed. He ordered the Jesuits to quit his dominions, required the converts to return to their ancestral faith, and caused "the holy places to be destroyed and the crosses to be thrown down." Nearly one-half of the converts apostatized under this pressure, but others had recourse to a device of proved potency. They threatened to leave Kuchinotsu *en masse*, and as that would have involved the loss of foreign trade, the hostile edict was materially modified. To this same weapon the Christians owed a still more signal victory. For just at that time the great ship from Macao, now an annual visitor, arrived in Japanese waters carrying the visitor-general, Valegnani. She put into Kuchinotsu, and her presence, with its suggested eventualities, gave such satisfaction that the feudatory offered to accept baptism and to sanction its acceptance by his vassals. This did not satisfy Valegnani, a man of profound political sagacity. He saw that the fief was menaced by serious dangers at the hands of its neighbours, and seizing the psychological moment of its extreme peril, he used the secular arm so adroitly that the fief's chance of survival seemed to be limited to the unreserved adoption of Christianity. Thus, in 1580, the chieftain and his wife were baptized; "all the city was made Christian; they burned their idols and destroyed 40 temples, reserving some materials to build churches."

Christian propagandism had now made substantial progress. The *Annual Letter* of 1582 recorded that at the close of 1581, thirty-two years after the landing of Xavier in Japan, there were about 150,000 converts, of whom some 125,000 were in Kiūshiū and the remainder in Yamaguchi, Kiōto and the neighbourhood of the latter city. The Jesuits in the empire then numbered 75, but down to the year 1563 there had never been more than 9, and down to 1577, not more than 18. The harvest was certainly great in proportion to the number of sowers. But it was a harvest mainly of artificial growth; forced by the despotic insistence of feudal chiefs who possessed the power of life and death over their vassals, and were influenced by a desire to attract foreign trade. To the Buddhist priests this movement of Christian propagandism had brought an experience hitherto unknown to them, persecution on account of creed. They had suffered for interfering in politics, but the fierce cruelty of the Christian fanatic now became known for the first time to men themselves conspicuous for tolerance of heresy and receptivity of instruction. They had had no previous experience of humanity in the garb of an Otomo of Bungo, who, in the words of Crasset, "went to the chase of the bonzes as to that of wild beasts, and made it his singular pleasure to exterminate them from his states."

First Japanese Embassy to Europe.

In 1582 the first Japanese envoys sailed from Nagasaki for Europe. The embassy consisted of four youths, the oldest not more than 16, representing the fiefs of Arima, Omura and Bungo. They visited Lisbon, Madrid and Rome, and in all these cities they were received with displays of magnificence such as 16th century Europe delighted to make. That, indeed, had been the motive of Valegnani in organizing the mission: he desired to let the Japanese see with their own eyes how great were the riches and might of Western states.

Second Visit of Jesuits to Kiōto.

In the above statistics of converts at the close of 1581 mention is made of Christians in Kiōto, though we have already seen that the visit by Xavier and Fernandez to that city was wholly barren of results. A second visit, however, made by Vilela in 1559, proved more successful. He carried letters of recommendation from the Bungo chieftain, and the proximate cause of his journey was an invitation from a Buddhist priest in the celebrated monastery of Hiei-zan, who sought information about Christianity. This was before the razing of temples and the overthrow of idols had commenced in Kiūshiū. On arrival at Hiei-zan, Vilela found that the Buddhist prior who had invited him was dead and that only a portion of the old man's authority had descended to his successor. Nevertheless the Jesuit obtained an opportunity to expound his doctrines to a party of bonzes at the monastery. Subsequently, through the good offices of a priest, described as "one of the most respected men in the city," and with the assistance of the Bungo feudatory's letter, Vilela enjoyed the rare honour of being received by the shōgun in Kiōto, who treated him with all consideration and assigned a house for his residence. It may be imagined that, owing such a debt of gratitude to Buddhist priests, Vilela would have behaved towards them and their creed with courtesy. But the Jesuit fathers were proof against all influences calculated to impair their stern sense of duty. Speaking through the mouth of a Japanese convert, Vilela attacked the bonzes in unmeasured terms and denounced their faith. Soon the bonzes, on their side, were seeking the destruction of these uncompromising assailants with insistence inferior only to that which the Jesuits themselves would have shown in similar circumstances. Against these perils Vilela was protected by the goodwill of the shōgun, who had already issued a decree threatening with death any one who injured the missionaries or obstructed their work. In spite of all difficulties and dangers these wonderful missionaries, whose courage, zeal and devotion are beyond all eulogy, toiled on resolutely and even recklessly, and such success attended their efforts that by 1564 many converts had been won and churches had been established in five walled towns within a distance of 50 miles from Kiōto. Among the converts were two Buddhist priests, notoriously

hostile at the outset, who had been nominated as official commissioners to investigate and report upon the doctrine of Christianity. The first conversion *en masse* was due to pressure from above. A petty feudatory, Takayama, whose fief lay at Takatsuki in the neighbourhood of the capital, challenged Vilela to a public controversy, the result of which was that the Japanese acknowledged himself vanquished, embraced Christianity and invited his vassals as well as his family to follow his example. This man's son—Takayama Yūsho—proved one of the stanchest supporters of Christianity in all Japan, and has been immortalized by the Jesuits under the name of Don Justo Ucondono. Incidentally this event furnishes an index to the character of the Japanese samurai: he accepted the consequences of defeat as frankly as he dared it. In the same year (1564) the feudatory of Sawa, a brother of Takayama, became a Christian and imposed the faith on all his vassals, just as Sumitada and other feudal chiefs had done in Kiūshiū. But the Kiōto record differs from that of Kiūshiū in one important respect—the former is free from any intrusion of commercial motives.

Nobunaga and the Jesuits.

Kiōto was at that time the scene of sanguinary tumults, which culminated in the murder of the shōgun (1565), and led to the issue of a decree by the emperor proscribing Christianity. In Japanese medieval history this is one of the only two instances of Imperial interference with Christian propagandism. There is evidence that the edict was obtained at the instance of one of the shōgun's assassins and certain Buddhist priests. The Jesuits—their number had been increased to three—were obliged to take refuge in Sakai, now little more than a suburb of Osaka, but at that time a great and wealthy mart, and the only town in Japan which did not acknowledge the sway of any feudal chief. Three years later they were summoned thence to be presented to Oda Nobunaga, one of the greatest captains Japan has ever produced. In the very year of Xavier's landing at Kagoshima, Nobunaga had succeeded to his father's fief, a comparatively petty estate in the province of Owari. In 1568 he was seated in Kiōto, a maker of shōguns and acknowledged ruler of 30 among the 66 provinces of Japan. Had Nobunaga, wielding such immense power, adopted a hostile attitude towards Christianity, the fires lit by the Jesuits in Japan must soon have been extinguished. Nobunaga, however, to great breadth and liberality of view added strong animosity towards Buddhist priests. Many of the great monasteries had become armed camps, their inmates skilled equally in field-attacks and in the defence of ramparts. One sect (the Nichiren), which was specially affected by the samurai, had lent powerful aid to the murderers of the shōgun three years before Nobunaga's victories carried him to Kiōto, and the armed monasteries constituted *imperia in imperio* which assorted ill with his ambition of complete supremacy. He therefore welcomed Christianity for the sake of its opposition to Buddhism, and when Takayama conducted Froez from Sakai to Nobunaga's presence, the reception accorded to the Jesuit was of the most cordial character. Throughout the fourteen years of life that remained to him, Nobunaga continued to be the constant friend of the missionaries in particular and of foreigners visiting Japan in general. He stood between the Jesuits and the Throne when, in reply to an appeal from the Buddhist priests, the emperor, for the second time, issued an anti-Christian decree (1568); he granted a site for a church and residence at Azuchi on Lake Biwa, where his new fortress stood; he addressed to various powerful feudatories letters signifying a desire for the spread of Christianity; he frequently made handsome presents to the fathers, and whenever they visited him he showed a degree of accessibility and graciousness very foreign to his usually haughty and imperious demeanour. The Jesuits themselves said of him: "This man seems to have been chosen by God to open and prepare the way for our faith." Nevertheless they do not appear to have entertained much hope at any time of converting Nobunaga. They must have understood that their doctrines had not made any profound impression on a man who could treat them as this potentate did in 1579, when he plainly showed that political exigencies might at any moment induce him to sacrifice them.[1] His last act, too, proved that sacrilege was of no account in his eyes, for he took steps to have himself apotheosized at Azuchi with the utmost pomp and circumstance. Still nothing can obscure the benefits he heaped upon the propagandists of Christianity.

Hideyoshi and the Christians.

The terrible tumult of domestic war through which Japan passed in the 15th and 16th centuries brought to her service three of the greatest men ever produced in Occident or Orient. They were Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Iyeyasu. Hideyoshi, as Nobunaga's lieutenant, contributed largely to the building of the latter's fortunes, and, succeeding him in 1582, brought the whole 66 provinces of the empire under his own administrative sway. For the Jesuits now the absorbing question was, what attitude Hideyoshi would assume towards their propagandism. His power was virtually limitless. With a word he could have overthrown the whole edifice created by them at the cost of so much splendid effort and noble devotion. They were very quickly reassured. In this matter Hideyoshi walked in Nobunaga's footsteps. He not only accorded a friendly audience to Father Organtino, who waited on him as representative of the Jesuits, but also he went in person to assign to the company a site for a church and a residence in Osaka, where there was presently to rise the most massive fortress ever built in the East. At that time many Christian converts were serving in high positions, and in 1584 the Jesuits placed it on record that "Hideyoshi was not only not opposed to the things of God, but he even showed that he made much account of them and preferred them to all the sects of the bonzes. . . . He is entrusting to Christians his treasures, his secrets and his fortresses of most importance, and shows himself well pleased that the sons of the great lords about him should adopt our customs and our law." Two years later in Osaka he received with every mark of cordiality and favour a Jesuit mission which had come from Nagasaki seeking audience, and on that occasion his visitor recorded that he spoke of an intention of christianizing one half of Japan. Nor did Hideyoshi confine himself to words. He actually signed a patent licensing the missionaries to preach throughout all Japan, and exempting not only their houses and churches from the billeting of soldiers but also the priests themselves from local burdens. This was in 1586, on the eve of Hideyoshi's greatest military enterprise, the invasion of Kiūshiū and its complete reduction. He carried that difficult campaign to completion by the middle of 1587, and throughout its course he maintained a uniformly friendly demeanour towards the Jesuits. But suddenly, when on the return journey he reached Hakata in the north of the island, his policy underwent a radical metamorphosis. Five questions were by his order propounded to the vice-provincial of the Jesuits: "Why and by what authority he and his fellow-propagandists had constrained Japanese subjects to become Christians? Why they had induced their disciples and their sectaries to overthrow temples? Why they persecuted the bonzes? Why they and other Portuguese ate animals useful to men, such as oxen and cows? Why the vice-provincial allowed merchants of his nation to buy Japanese to make slaves of them in the Indies?" To these queries Coelho, the vice-provincial, made answer that the missionaries had never themselves resorted, or incited, to violence in their propagandism or persecuted bonzes; that if their eating of beef were considered inadvisable, they would give up the practice; and that they were powerless to prevent or restrain the outrages perpetrated by their countrymen. Hideyoshi read the vice-provincial's reply and, without comment, sent him word to retire to Hirado, assemble all his followers there, and quit the country within six months. On the next day (July 25, 1587) the following edict was published:—

[1] The problem was to induce the co-operation of a feudatory whose castle served for frontier guard to the fief of a powerful chief, his suzerain. The feudatory was a Christian. Nobunaga seized the Jesuits in Kiōto, and threatened to suppress their religion altogether unless they persuaded the feudatory to abandon the cause of his suzerain.

"Having learned from our faithful councillors that foreign priests have come into our estates, where they preach a law contrary to that of Japan, and that they even had the audacity to destroy temples dedicated to our Kami and Hotoke; although the outrage merits the most extreme punishment, wishing nevertheless to show them mercy, we order them under pain of death to quit Japan within twenty days. During that space no harm or hurt will be done to them. But at the expiration of that term, we order that if any of them be found in our states, they should be seized and punished as the greatest criminals. As for the Portuguese merchants, we permit them to enter our ports, there to continue their accustomed trade, and to remain in our states provided our affairs need this. But we forbid them to bring any foreign priests into the country, under the penalty of the confiscation of their ships and goods."

How are we to account for this apparently rapid change of mood on the part of Hideyoshi? Some historians insist that from the very outset he conceived the resolve of suppressing Christianity and expelling its propagandists, but that he concealed his design pending the subjugation of Kiūshiū, lest, by premature action, he might weaken his hand for that enterprise. This hypothesis rests mainly on conjecture. Its formulators found it easier to believe in a hidden purpose than to attribute to a statesman so shrewd and far-seeing a sudden change of mind. A more reasonable theory is that, shortly before leaving Osaka for Kiūshiū, Hideyoshi began to entertain doubts as to the expediency of tolerating Christian propagandism, and that his doubts were signally strengthened by direct observation of the state of affairs in Kiūshiū. While still in Osaka, he one day remarked publicly that "he feared much that all the virtue of the European priests served only to conceal pernicious designs against the empire." There had been no demolishing of temples or overthrowing of images at Christian instance in the metropolitan provinces. In Kiūshiū, however, very different conditions prevailed. There Christianity may be said to have been preached at the point of the sword. Temples and images had been destroyed wholesale; vassals in thousands had been compelled to embrace the foreign faith; and the missionaries themselves had come to be treated as demi-gods whose nod was worth conciliating at any cost of self-abasement. Brought into direct contact with these evidences of the growth of a new power, temporal as well as spiritual, Hideyoshi may well have reached the conclusion that a choice had to be finally made between his own supremacy and that of the alien creed, if not between the independence of Japan and the yoke of the great Christian states of Europe.

Sequel of the Edict of Banishment.

Hideyoshi gauged the character of the medieval Christians with sufficient accuracy to know that for the sake of their faith they would at any time defy the laws of the island. His estimate received immediate verification, for when the Jesuits, numbering 120, assembled at Hirado and received his order to embark at once they decided that only those should sail whose services were needed in China. The others remained and went about their duties as usual, under the protection of the converted feudatories. Hideyoshi, however, saw reason to wink at this disregard of his authority. At first he showed uncompromising resolution. All the churches in Kiōto, Osaka and Sakai were demolished, while troops were sent to raze the Christian places of worship in Kiūshiū and seize the port of Nagasaki. These troops were munificently dissuaded from their purpose by the Christian feudatories. But Hideyoshi did not protest, and in 1588 he allowed himself to be convinced by a Portuguese envoy that in the absence of missionaries foreign trade must cease, since without the intervention of the fathers peace and good order could not be maintained among the merchants. Rather than suffer the trade to be interrupted Hideyoshi agreed to the coming of priests, and thenceforth, during some years, Christianity not only continued to flourish and grow in Kiūshiū but also found a favourable field of operations in Kiōto itself. Care was taken that Hideyoshi's attention should not be attracted by any salient evidences of what he had called a "diabolical religion," and thus for a time all went well. There is evidence that, like the feudal chiefs in Kiūshiū, Hideyoshi set great store by foreign trade and would even have sacrificed to its maintenance and expansion something of the aversion he had conceived for Christianity. He did indeed make one very large concession. For on being assured that Portuguese traders could not frequent Japan unless they found Christian priests there to minister to them, he consented to sanction the presence of a limited number of Jesuits. The statistics of 1595 show how Christianity fared under even this partial tolerance, for there were then 137 Jesuits in Japan with 300,000 converts, among whom were 17 feudal chiefs, to say nothing of many men of lesser though still considerable note, and even not a few bonzes.

Hideyoshi's Final Attitude towards Christianity.

For ten years after his unlooked-for order of expulsion, Hideyoshi preserved a tolerant mien. But in 1597 his forbearance gave place to a mood of uncompromising severity. The reasons of this second change are very clear, though diverse accounts have been transmitted. Up to 1593 the Portuguese had possessed a monopoly of religious propagandism and over-sea commerce in Japan. The privilege was secured to them by agreement between Spain and Portugal and by a papal bull. But the Spaniards in Manila had long looked with somewhat jealous eyes on this Jesuit reservation, and when news of the disaster of 1587 reached the Philippines, the Dominicans and Franciscans residing there were fired with zeal to enter an arena where the crown of martyrdom seemed to be the least reward within reach. The papal bull, however, demanded obedience, and to overcome that difficulty a ruse was necessary: the governor of Manila agreed to send a party of Franciscans as ambassadors to Hideyoshi. In that guise the friars, being neither traders nor propagandists, considered that they did not violate either the treaty or the bull. It was a technical subterfuge very unworthy of the object contemplated, and the friars supplemented it by swearing to Hideyoshi that the Philippines would submit to his sway. Thus they obtained permission to visit Kiōto, Osaka and Fushimi, but with the explicit proviso that they must not preach. Very soon they had built a church in Kiōto, consecrated it with the utmost pomp, and were preaching sermons and chaunting litanies there in flagrant defiance of Hideyoshi's veto. Presently their number received an access of three friars who came bearing gifts from the governor at Manila, and now they not only established a convent in Osaka, but also seized a Jesuit church in Nagasaki and converted the circumspect worship hitherto conducted there by the fathers into services of the most public character. Officially checked in Nagasaki, they charged the Jesuits in Kiōto with having intrigued to impede them, and they further vaunted the courageous openness of their own ministrations as compared with the clandestine timidity of the methods which wise prudence had induced the Jesuits to adopt. Retribution would have followed quickly had not Hideyoshi's attention been engrossed by an attempt to invade China through Korea. At this stage, however, a memorable incident occurred. Driven out of her course by a storm, a great and richly laden Spanish galleon, bound for Acapulco from Manila, drifted to the coast of Tosa province, and running—or being purposely run—on a sand-bank as she was being towed into port by Japanese boats, broke her back. She carried goods to the value of some 600,000 crowns, and certain officials urged Hideyoshi to confiscate her as derelict, conveying to him at the same time a detailed account of the doings of the Franciscans and their open flouting of his orders. Hideyoshi, much incensed, commanded the arrest of the Franciscans and despatched officers to Tosa to confiscate the "San Felipe." The pilot of the galleon sought to intimidate these officers by showing them on a map of the world the vast extent of Spain's dominions, and being asked how one country had acquired such extended sway, replied: "Our kings begin by sending into the countries they wish to conquer missionaries who induce the people to embrace our religion, and when they have made considerable progress, troops are sent who combine with the new Christians, and then our kings have not much trouble in accomplishing the rest."

On learning of this speech Hideyoshi was overcome with fury. He condemned the Franciscans to have their noses and ears cut off, to be promenaded through Kiōto, Osaka and Sakai, and to be crucified at Nagasaki. "I have ordered these foreigners to be treated thus, because they have come from the Philippines to Japan, calling themselves ambassadors, although they were not so; because they have remained here far too long without my permission; because, in defiance of my prohibition, they have built churches, preached their religion and caused disorders." Twenty-six suffered under this sentence—six Franciscans, three Japanese Jesuits and seventeen native Christians, chiefly domestic servants of the Franciscans.[1] They met their fate with noble fortitude. Hideyoshi further issued a special injunction against the adoption of Christianity by a feudal chief, and took steps to give practical effect to his expulsion edict of 1587. The governor of Nagasaki received instructions to send away all the Jesuits, permitting only two or three to remain for the service of the Portuguese merchants. But the Jesuits were not the kind of men who, to escape personal peril, turn their back upon an unaccomplished work of grace. There were 125 of them in Japan at that time. In October 1597 a junk sailed out of Nagasaki harbour, her decks crowded with seeming Jesuits. In reality she carried 11 of the company, the apparent Jesuits being disguised sailors. It is not to be supposed that such a manœuvre could be hidden from the local authorities. They winked at it, until rumour became insistent that Hideyoshi was about to visit Kiūshiū in person, and all Japanese in administrative posts knew how Hideyoshi visited disobedience and how hopeless was any attempt to deceive him. Therefore, early in 1598, really drastic steps were taken. Churches to the number of 137 were demolished in Kiūshiū, seminaries and residences fell, and the governor of Nagasaki assembled there all the fathers of the company for deportation to Macao by the great ship in the following year. But while they waited, Hideyoshi died. It is not on record that the Jesuits openly declared his removal from the earth to have been a special dispensation in their favour. But they pronounced him an execrable tyrant and consigned his "soul to hell for all eternity." Yet no impartial reader of history can pretend to think that a 16th-century Jesuit general in Hideyoshi's place would have shown towards an alien creed and its propagandists even a small measure of the tolerance exercised by the Japanese statesman towards Christianity and the Jesuits.

The First Execution of Christians.

Hideyoshi's death occurred in 1598. Two years later, his authority as administrative ruler of all Japan had passed into the hands of Iyeyasu, the Tokugawa chief, and thirty-nine years later the Tokugawa potentates had not only exterminated Christianity in Japan but had also condemned their country to a period of international isolation which continued unbroken until 1853, an interval of 214 years. It has been shown that even when they were most incensed against Christianity, Japanese administrators sought to foster and preserve foreign trade. Why then did they close the country's doors to the outside world and suspend a commerce once so much esteemed? To answer that question some retrospect is needed. Certain historians allege that from the outset Iyeyasu shared Hideyoshi's misgivings about the real designs of Christian potentates and Christian propagandists. But that verdict is not supported by facts. The first occasion of the Tokugawa chief's recorded contact with a Christian propagandist was less than three months after Hideyoshi's death. There was then led into his presence a Franciscan, by name Jerome de Jesus, originally a member of the fictitious embassy from Manila. This man's conduct constitutes an example of the invincible zeal and courage inspiring a Christian priest in those days. Barely escaping the doom of crucifixion which overtook his companions, he had been deported from Japan to Manila at a time when death seemed to be the certain penalty of remaining. But no sooner had he been landed at Manila than he took passage in a Chinese junk, and, returning to Nagasaki, made his way secretly from the far south of Japan to the province of Kii. There arrested, he was brought into the presence of Iyeyasu, and his own record of what ensued is given in a letter subsequently sent to Manila:—

Foreign Policy of the Tokugawa Rulers.

"When the Prince saw me he asked how I had managed to escape the previous persecution. I answered him that at that date God had delivered me in order that I might go to Manila and bring back new colleagues from there—preachers of the divine law—and that I had returned from Manila to encourage the Christians, cherishing the desire to die on the cross in order to go to enjoy eternal glory like my former colleagues. On hearing these words the Emperor began to smile, whether in his quality of a pagan of the sect of Shaka, which teaches that there is no future life, or whether from the thought that I was frightened at having to be put to death. Then, looking at me kindly, he said, 'Be no longer afraid and no longer conceal yourself, and no longer change your habit, for I wish you well; and as for the Christians who every year pass within sight of the Kwantō where my domains are, when they go to Mexico with their ships, I have a keen desire for them to visit the harbours of this island, to refresh themselves there, and to take what they wish, to trade with my vassals and to teach them how to develop silver mines; and that my intentions may be accomplished before my death, I wish you to indicate to me the means to take to realize them.' I answered that it was necessary that Spanish pilots should take the soundings of his harbours, so that ships might not be lost in future as the 'San Felipe' had been, and that he should solicit this service from the governor of the Philippines. The Prince approved of my advice, and accordingly he has sent a Japanese gentleman, a native of Sakai, the bearer of this message. . . . It is essential to oppose no obstacle to the complete liberty offered by the Emperor to the Spaniards and to our holy order, for the preaching of the holy gospel. . . . The same Prince (who is about to visit the Kwantō) invites me to accompany him to make choice of a house, and to visit the harbour which he promises to open to us; his desires in this respect are keener than I can express."

The above version of the Tokugawa chief's mood is confirmed by events, for not only did he allow the contumelious Franciscan to build a church—the first—in Yedo and to celebrate Mass there, but also he sent three embassies to the Philippines, proposing reciprocal freedom of commerce, offering to open ports in the Kwantō and asking for competent naval architects. He never obtained the architects, and though the trade came, its volume was small in comparison with the abundance of friars that accompanied it. There is just a possibility that Iyeyasu saw in these Spanish monks an instrument of counteracting the influence of the Jesuits, for he must have known that the Franciscans opened their mission in Yedo by "declaiming with violence against the fathers of the company of Jesus." In short, the Spanish monks assumed towards the Jesuits in Japan the same intolerant and abusive tone that the Jesuits themselves had previously assumed towards Buddhism.

At that time there appeared upon the scene another factor destined greatly to complicate events. It was a Dutch merchant ship, the "Liefde." Until the Netherlands revolted from Spain, the Dutch had been the principal distributors of all goods arriving at Lisbon from the Far East; but in 1594 Philip II. closed the port of Lisbon to these rebels, and the Dutch met the situation by turning their prows to the Orient to invade the sources of Portuguese commerce. One of the first expeditions despatched for that purpose set out in 1598, and of the five vessels composing it one only was ever heard of again. This was the "Liefde." She reached Japan during the spring of 1600, with only four-and-twenty alive out of her original crew of 110. Towed into the harbour at Funai, the "Liefde" was visited by Jesuits, who, on discovering her nationality, denounced her to the local authorities as a pirate and endeavoured to incense the Japanese against them. The "Liefde" had on board in the capacity of "pilot major" an Englishman, Will Adams of Gillingham in Kent, whom Iyeyasu summoned to Osaka, where there commenced between the rough British sailor and the Tokugawa chief a curiously friendly intercourse which was not interrupted until the death of Adams twenty years later. The Englishman became master ship-builder to the Yedo government; was employed as diplomatic agent when other traders from his own country

[1] The mutilation was confined to the lobe of one ear. Crucifixion, according to the Japanese method, consisted in tying to a cross and piercing the heart with two sharp spears driven from either side. Death was always instantaneous.

and from Holland arrived in Japan, received in perpetual gift a substantial estate, and from first to last possessed the implicit confidence of the shōgun. Iyeyasu quickly discerned the man's honesty, perceived that whatever benefits foreign commerce might confer would be increased by encouraging competition among the foreigners, and realized that English and Dutch trade presented the wholesome feature of complete dissociation from religious propagandism. On the other hand, he showed no intolerance to either Spaniards or Portuguese. He issued (1601) two official patents sanctioning the residence of the fathers in Kiōto, Osaka and Nagasaki; he employed Father Rodriguez as interpreter to the court at Yedo; and in 1603 he gave munificent succour to the Jesuits who were reduced to dire straits owing to the capture of the great ship from Macao by the Dutch and the consequent loss of several years' supplies for the mission in Japan.

It is thus seen that each of the great trio of Japan's 16th-century statesmen—Nobunaga, Hideyoshi and Iyeyasu—adopted at the outset a most tolerant demeanour towards Christianity. The reasons of Hideyoshi's change of mood have been set forth. We have now to examine the reasons that produced a similar metamorphosis in the case of Iyeyasu. Two causes present themselves immediately. The first is that, while tolerating Christianity, Iyeyasu did not approve of it as a creed; the second, that he himself, whether from state policy or genuine piety, strongly encouraged Buddhism. Proof of the former proposition is found in an order issued by him in 1602 to insure the safety of foreign merchantmen entering Japanese ports: it concluded with the reservation, "but we rigorously forbid them" (foreigners coming in such ships) "to promulgate their faith." Proof of the latter is furnished by the facts that he invariably carried about with him a miniature Buddhist image which he regarded as his tutelary deity, and that he fostered the creed of Shaka as zealously as Oda Nobunaga had suppressed it. There is much difficulty in tracing the exact sequence of events which gradually educated a strong antipathy to the Christian faith in the mind of the Tokugawa chief. He must have been influenced in some degree by the views of his great predecessor, Hideyoshi. But he did not accept those views implicitly. At the end of the 16th century he sent a trusted emissary to Europe for the purpose of directly observing the conditions in the home of Christianity, and this man, the better to achieve his aim, embraced the foreign faith, and studied it from within as well as from without. The story that he had to tell on his return could not fail to shock the ruler of a country where freedom of conscience had existed from time immemorial. It was a story of the inquisition and of the stake; of unlimited aggression in the name of the cross; of the pope's overlordship which entitled him to confiscate the realm of heretical sovereigns; of religious wars and of wellnigh incredible fanaticism. Iyeyasu must have received an evil impression while he listened to his emissary's statements. Under his own eyes, too, were abundant evidences of the spirit of strife that Christian dogma engendered in those times. From the moment when the Franciscans and Dominicans arrived in Japan, a fierce quarrel began between them and the Jesuits; a quarrel which even community of suffering could not compose. Not less repellent was an attempt on the part of the Spaniards to dictate to Iyeyasu the expulsion of all Hollanders from Japan, and on the part of the Jesuits to dictate the expulsion of the Spaniards. The former proposal, couched almost in the form of a demand, was twice formulated, and accompanied on the second occasion by a scarcely less insulting offer, namely, that Spanish men-of-war would be sent to Japan to burn all Dutch ships found in the ports of the empire. If in the face of proposals so contumelious of his sovereign authority Iyeyasu preserved a calm and dignified mien, merely replying that his country was open to all comers, and that, if other nations had quarrels among themselves, they must not take Japan for battle-ground, it is nevertheless unimaginable that he did not strongly resent such interference with his own independent foreign policy, and that he did not interpret it as foreshadowing a disturbance of the realm's peace by sectarian quarrels among Christians. These experiences, predisposing Iyeyasu to dislike Christianity as a creed and to distrust it as a political influence, were soon supplemented by incidents of an immediately determinative character. The first was an act of fraud and forgery committed in the interests of a Christian feudatory by a trusted official, himself a Christian. Thereupon Iyeyasu, conceiving it unsafe that Christians should fill offices at his court, dismissed all those so employed, banished them from Yedo and forbade any feudal chief to harbour them. The second incident was an attempted survey of the coast of Japan by a Spanish mariner and a Franciscan friar. Permission to take this step had been obtained by an envoy from New Mexico, but no deep consideration of reasons seems to have preluded the permission on Japan's side, and when the mariner (Sebastian) and the friar (Sotelo) hastened to carry out the project, Iyeyasu asked Will Adams to explain this display of industry. The Englishman replied that such a proceeding would be regarded in Europe as an act of hostility, especially on the part of the Spaniards or Portuguese, whose aggressions were notorious. He added, in reply to further questions, that "the Roman priesthood had been expelled from many parts of Germany, from Sweden, Norway, Denmark, Holland and England, and that although his own country preserved the pure form of the Christian faith from which Spain and Portugal had deviated, yet neither English nor Dutch considered that that fact afforded them any reason to war with, or to annex, States which were not Christian solely for the reason that they were non-Christian." Iyeyasu reposed entire confidence in Adams. Hearing the Englishman's testimony, he is said to have exclaimed, "If the sovereigns of Europe do not tolerate these priests, I do them no wrong if I refuse to tolerate them." Japanese historians add that Iyeyasu discovered a conspiracy on the part of some Japanese Christians to overthrow his government by the aid of foreign troops. It was not a widely ramified plot, but it lent additional importance to the fact that the sympathy of the fathers and their converts was plainly with the only magnate in the empire who continued to dispute the Tokugawa supremacy, Hideyori, the son of Hideyoshi. Nevertheless Iyeyasu shrank from proceeding to extremities in the case of any foreign priest, and this attitude he maintained until his death (1616). Possibly he might have been not less tolerant towards native Christians also had not the Tokugawa authority been openly defied by a Franciscan father—the Sotelo mentioned above—in Yedo itself. Then (1613) the first execution of Japanese converts took place, though the monk himself was released after a short incarceration. At that time, as is still the case even in these more enlightened days, insignificant differences of custom sometimes induced serious misconceptions. A Christian who had violated the secular law was crucified in Nagasaki. Many of his fellow-believers kneeled around his cross and prayed for the peace of his soul. A party of converts were afterwards burned to death in the same place for refusing to apostatize, and their Christian friends crowded to carry off portions of their bodies as holy relics. When these things were reported to Iyeyasu, he said, "Without doubt that must be a diabolic faith which persuades people not only to worship criminals condemned to death for their crimes, but also to honour those who have been burned or cut in pieces by the order of their lord" (feudal chief).

Suppression of Christianity.

The fateful edict ordering that all foreign priests should be collected in Nagasaki preparatory to removal from Japan, that all churches should be demolished, and that the converts should be compelled to abjure Christianity, was issued on the 27th of January 1614. There were then in Japan 122 Jesuits, 14 Franciscans, 9 Dominicans, 4 Augustins and 7 secular priests. Had these men obeyed the orders of the Japanese authorities by leaving the country finally, not one foreigner would have suffered for his faith in Japan, except the 6 Franciscans executed at Nagasaki by order of Hideyoshi in 1597. But suffering and death counted for nothing with the missionaries as against the possibility of winning or keeping even one convert. Forty-seven of them evaded the

edict, some by concealing themselves at the time of its issue, the rest by leaving their ships when the latter had passed out of sight of the shore of Japan, and returning by boats to the scene of their former labours. Moreover, in a few months, those that had actually crossed the sea re-crossed it in various disguises, and soon the Japanese government had to consider whether it would suffer its authority to be thus flouted or resort to extreme measures.

During two years immediately following the issue of the anti-Christian decree, the attention of the Tokugawa chief and indeed of all Japan was concentrated on the closing episode of the great struggle which assured to Iyeyasu final supremacy as administrative ruler of the empire. That episode was a terrible battle under the walls of Osaka castle between the adherents of the Tokugawa and the supporters of Hideyori. In this struggle fresh fuel was added to the fire of anti-Christian resentment, for many Christian converts threw in their lot with Hideyori, and in one part of the field the Tokugawa troops found themselves fighting against a foe whose banners were emblazoned with the cross and with images of the Saviour and St James, the patron saint of Spain. But the Christians had protectors. Many of the feudatories showed themselves strongly averse from inflicting the extreme penalty on men and women whose adoption of an alien religion had been partly forced by the feudatories themselves. As for the people at large, their liberal spirit is attested by the fact that five fathers who were in Osaka castle at the time of its capture made their way to distant refuges without encountering any risk of betrayal. During these events the death of Iyeyasu took place (June 1, 1616), and pending the dedication of his mausoleum the anti-Christian crusade was virtually suspended.

In September 1616 a new anti-Christian edict was promulgated by Hidetada, son and successor of Iyeyasu. It pronounced sentence of exile against all Christian priests, including even those whose presence had been sanctioned for ministering to the Portuguese merchants: it forbade the Japanese, under the penalty of being burned alive and of having all their property confiscated, to have any connexion with the ministers of religion or to give them hospitality. It was forbidden to any prince or lord to keep Christians in his service or even on his estates, and the edict was promulgated with more than usual solemnity, though its enforcement was deferred until the next year on account of the obsequies of Iyeyasu. This edict of 1616 differed from that issued by Iyeyasu in 1614, since the latter did not prescribe the death penalty for converts refusing to apostatize. But both agreed in indicating expulsion as the sole manner of dealing with the foreign priests. As for the shōgun and his advisers, it is reasonable to assume that they did not anticipate much necessity for recourse to violence. They must have known that a great majority of the converts had joined the Christian church at the instance or by the command of their local rulers, and nothing can have seemed less likely than that a creed thus lightly embraced would be adhered to in defiance of torture and death. It is moreover morally certain that had the foreign propagandists obeyed the Government's edict and left the country, not one would have been put to death. They suffered because they defied the laws of the land. Some fifty missionaries happened to be in Nagasaki when Hidetada's edict was issued. A number of these were apprehended and deported, but several of them returned almost immediately. This happened under the jurisdiction of Omura, who had been specially charged with the duty of sending away the *bateren* (*padres*). He appears to have concluded that a striking example must be furnished, and he therefore ordered the seizure and decapitation of two fathers, De l' Assumpcion and Machado. The result completely falsified his calculations, and presaged the cruel struggle now destined to begin.

The bodies, placed in different coffins, were interred in the same grave. Guards were placed over it, but the concourse was immense. The sick were carried to the sepulchre to be restored to health. The Christians found new strength in this martyrdom; the pagans themselves were full of admiration for it. Numerous conversions and numerous returns of apostates took place everywhere.

In the midst of all this, Navarette, the vice-provincial of the Dominicans, and Ayala, the vice-provincial of the Augustins, came out of their retreat, and in full priestly garb started upon an open propaganda. The two fanatics—for so even Charlevoix considers them to have been—were secretly conveyed to the island Takashima and there decapitated, while their coffins were weighted with big stones and sunk in the sea. Even more directly defiant was the attitude of the next martyred priest, an old Franciscan monk, Juan de Santa Martha. He had for three years suffered all the horrors of a medieval Japanese prison, when it was proposed to release him and deport him to New Spain. His answer was that, if released, he would stay in Japan and preach there. He laid his head on the block in August 1618. But from that time until 1622 no other foreign missionary suffered capital punishment in Japan, though many of them arrived in the country and continued their propagandism there. During that interval, also, there occurred another incident eminently calculated to fix upon the Christians still deeper suspicion of political designs. In a Portuguese ship captured by the Dutch a letter was found instigating the Japanese converts to revolt, and promising that, when the number of these disaffected Christians was sufficient, men-of-war would be sent to aid them. Not the least potent of the influences operating against the Christians was that pamphlets were written by apostates attributing the zeal of the foreign propagandists solely to political motives. Yet another indictment of Spanish and Portuguese propagandists was contained in a despatch addressed to Hidetada in 1620 by the admiral in command of the British and Dutch fleet then cruising in Far-Eastern waters. In that document the friars were flatly accused of treacherous practices, and the Japanese ruler was warned against the aggressive designs of Philip of Spain. In the face of all this evidence the Japanese ceased to hesitate, and a time of terror ensued for the fathers and their converts. The measures adopted towards the missionaries gradually increased in severity. In 1617 the first two fathers put to death (De l' Assumpcion and Machado) were beheaded, "not by the common executioner, but by one of the first officers of the prince." Subsequently Navarette and Ayala were decapitated by the executioner. Then, in 1618, Juan de Santa Martha was executed like a common criminal, his body being dismembered and his head exposed. Finally, in 1622, Zuñiga and Flores were burnt alive. The same year was marked by the "great martyrdom" at Nagasaki when 9 foreign priests went to the stake with 19 Japanese converts. The shōgun seems to have been now labouring under vivid fear of a foreign invasion. An emissary sent by him to Europe had returned on the eve of the "great martyrdom" after seven years abroad, and had made a report more than ever unfavourable to Christianity. Therefore Hidetada deemed it necessary to refuse audience to a Philippine embassy in 1624 and to deport all Spaniards from Japan. Further, it was decreed that no Japanese Christian should thenceforth be suffered to go abroad for commerce, and that though non-Christians or men who had apostatized might travel freely, they must not visit the Philippines. Thus ended all intercourse between Japan and Spain. It had continued for 32 years and had engendered a widespread conviction that Christianity was an instrument of Spanish aggression.

Iyemitsu, son of Hidetada, now ruled in Yedo, though Hidetada himself remained the power behind the throne. The year (1623) of the former's accession to power had been marked by the re-issue of anti-Christian decrees, and by the martyrdom of some 500 Christians within the Tokugawa domains, whither the tide of persecution now flowed for the first time. Thenceforth the campaign was continuous. The men most active and most relentless in carrying on the persecution were Mizuno and Takenaka, governors of Nagasaki, and Matsukura, feudatory of Shimabara. By the latter were invented the punishment of throwing converts into the solfataras at Unzen and the torture of the *fosse*, which consisted in suspension by the feet, head downwards, in a pit until blood oozed from the mouth, nose and ears. Many endured this latter torture for days, until death

came to their relief, but a few—notably the Jesuit provincial Ferreyra—apostatized. Matsukura and Takenaka were so strongly obsessed by the Spanish menace that they contemplated the conquest of the Philippines in order to deprive the Spaniards of a Far-Eastern base. But timid counsels then prevailed in Yedo, where the spirit of a Nobunaga, a Hideyoshi or an Iyeyasu no longer presided. Of course the measures of repression grew in severity as the fortitude of the Christians became more obdurate. It is not possible to state the exact number of victims. Some historians say that, down to 1635, no fewer than 280,000 were punished, but that figure is probably exaggerated, for the most trustworthy records indicate that the converts never aggregated more than 300,000, and many of these, if not a great majority, having accepted the foreign faith very lightly, doubtless discarded it readily under menace of destruction. Every opportunity was given for apostatizing and for escaping death. Immunity could be secured by pointing out a fellow-convert, and when it is observed that among the seven or eight feudatories who embraced Christianity only two or three died in that faith, we must conclude that not a few cases of recanting occurred among the commoners. Remarkable fortitude, however, is said to have been displayed. If the converts were intrepid their teachers showed no less courage. Again and again the latter defied the Japanese authorities by coming to the country or returning thither after having been deported. Ignoring the orders of the governors of Macao and Manila and even of the king of Spain himself, they arrived, year after year, to be certainly apprehended and sent to the stake after brief periods of propagandism. In 1626 they actually baptized over 3000 converts. Large rewards were paid to anyone denouncing a propagandist, and as for the people, they had to trample upon a picture of Christ in order to prove that they were not Christians.

Meanwhile the feuds between the Dutch, the Spaniards and the Portuguese never ceased. In 1636, the Dutch found on a captured Portuguese vessel a report of the governor of Macao describing a two days' festival which had been held there in honour of Vieyra, the vice-provincial whose martyrdom had just taken place in Japan. This report the Dutch handed to the Japanese authorities "in order that his majesty may see more clearly what great honour the Portuguese pay to those he has forbidden his realm as traitors to the state and to his crown." Probably the accusation added little to the resentment and distrust already harboured by the Japanese against the Portuguese. At all events the Yedo government took no step distinctly hostile to Portuguese laymen until 1637, when an edict was issued forbidding any foreigners to travel in the empire, lest Portuguese with passports bearing Dutch names might enter it. This was the beginning of the end. In the last month of 1637 a rebellion broke out, commonly called the "Christian revolt of Shimabara," which sealed the fate of Japan's foreign intercourse for over 200 years.

The promontory of Shimabara and the island of Amakusa enclose the gulf of Nagasaki on the west. Among all the fiefs in Japan, Shimabara and Amakusa had been the two most thoroughly christianized in the early years of Jesuit propagandism. Hence in later days they were naturally the scene of the severest persecutions. Still the people would probably have suffered in silence had they not been taxed beyond all endurance to supply funds for an extravagant chief who employed savage methods of extortion. Japanese annals, however, relegate the taxation grievance to an altogether secondary place, and attribute the revolt solely to the instigation of five samurai who led a roving life to avoid persecution for their adherence to Christianity. Whichever version be correct, it is certain that the outbreak ultimately attracted all the Christians from the surrounding regions, and was regarded by the authorities as in effect a Christian rising. The Amakusa insurgents passed over to Shimabara, and on the 27th of January 1638 the whole body—numbering, according to some authorities, 20,000 fighting men with 17,000 women and children; according to others, little more than one-half of these figures—took possession of the dilapidated castle of Hara, which stood on a plateau with three sides descending perpendicularly to the sea, a hundred feet beneath, and with a swamp on its fourth front. There the insurgents, who fought under flags with red crosses and whose battle cries were "Jesus," "Maria" and "St Iago," successfully maintained themselves against the repeated assaults of strong forces until the 12th of April, when, their ammunition and their provisions alike exhausted, they were overwhelmed and put to the sword, with the exception of 105 prisoners. During the siege the Dutch were enabled to furnish a vivid proof of enmity to the Christianity of the Spaniards and the Portuguese. For the guns in possession of the besiegers being too light to accomplish anything, Koeckebacker, the factor at Hirado, was invited to send ships carrying heavier metal. He replied with the "de Ryp" of 20 guns, which threw 426 shot into the castle in 15 days. Probably the great bulk of the remaining Japanese Christians perished at the massacre of Hara. Thenceforth there were few martyrs.[1]

The Shimabara Revolt.

It has been clearly shown that Nobunaga, Hideyoshi and Iyeyasu were all in favour of foreign intercourse and trade, and that the Tokugawa chief, even more than his predecessor Hideyoshi, made strenuous efforts to differentiate between Christianity and commerce, so that the latter might not be involved in the former's fate. In fact the three objects which Iyeyasu desired most earnestly to compass were the development of foreign commerce, the acquisition of a mercantile marine and the exploitation of Japan's mines. He offered the Spaniards, Portuguese, English and Dutch a site for a settlement in Yedo, and had they accepted the offer the country might never have been closed. In his time Japan was virtually a free-trade country. Importers had not to pay any duties. It was expected, however, that they should make presents to the feudatory into whose port they carried their goods, and these presents were often very valuable. Naturally the Tokugawa chief desired to attract such a source of wealth to his own domains. He sent more than one envoy to Manila to urge the opening of commerce direct with the regions about Yedo, and to ask the Spaniards for competent naval architects. Perhaps the truest exposition of his attitude is given in a law enacted in 1602:—

Foreign Trade in the 17th Century.

"If any foreign vessel by stress of weather is obliged to touch at any principality or to put into any harbour of Japan, we order that, whoever these foreigners may be, absolutely nothing whatever that belongs to them or that they may have brought in their ship, shall be taken from them. Likewise we rigorously prohibit the use of any violence in the purchase or the sale of any of the commodities brought by their ship, and if it is not convenient for the merchants of the ship to remain in the port they have entered, they may pass to any other port that may suit them, and therein buy and sell in full freedom. Likewise we order in a general manner that foreigners may freely reside in any part of Japan they choose, but we rigorously forbid them to promulgate their faith."

It was in that mood that he granted (1605) a licence to the Dutch to trade in Japan, his expectation doubtless being that the ships which they promised to send every year would make their dépôt at Uraga or in some other place near Yedo. But things were ordered differently. The first Hollanders that set foot in Japan were the survivors of the wrecked "Liefde." Thrown into prison for a time, they were approached by emissaries from the feudatory of Hirado, who engaged some of them to teach the art of casting guns and the science of gunnery to his vassals, and when two of them were allowed to leave Japan, he furnished them with the means of doing so, at the same time making promises which invested Hirado with attractions as a port of trade, though it was then and always remained an insignificant fishing village. The Dutch possessed precisely the qualifications suited to the situation then existing in Japan: they had commercial potentialities without any religious associations. Fully appreciating that fact, the shrewd feudatory of Hirado laid himself out to entice the Dutchmen to his fief, and he succeeded. Shortly afterwards, an incident occurred which clearly betrayed the strength of the Tokugawa chief's desire to

[1] See *A History of Christianity in Japan* (1910), by Otis Cary.

exploit Japan's mines. The governor-general of the Philippines (Don Rodrigo Vivero y Velasco), his ship being cast away on the Japanese coast on a voyage to Acapulco, was received by Iyeyasu, and in response to the latter's request for fifty miners, the Spaniard formulated terms to which Iyeyasu actually agreed: that half the produce of the mines should go to the miners; that the other half should be divided between Iyeyasu and the king of Spain; that the latter might send commissioners to Japan to look after his mining interests, and that these commissioners might be accompanied by priests who would be entitled to have public churches for holding services. This was in 1609, when the Tokugawa chief had again and again imposed the strictest veto on Christian propagandism. There can be little doubt that he understood the concession made to Don Rodrigo in the sense of Hideyoshi's mandate to the Jesuits in Nagasaki, namely, that a sufficient number might remain to minister to the Portuguese traders frequenting the port. Iyeyasu had confidence in himself and in his countrymen. He knew that emergencies could be dealt with when they arose and he sacrificed nothing to timidity. But his courageous policy died with him and the miners did not come. Neither did the Spaniards ever devote any successful efforts to establishing trade with Japan. Their vessels paid fitful visits to Uraga, but the Portuguese continued to monopolize the commerce.

In 1611 a Dutch merchantman (the "Brach") reached Hirado with a cargo of pepper, cloth, ivory, silk and lead. She carried two envoys, Spex and Segerszoon, and in the very face of a Spanish embassy which had just arrived from Manila expressly for the purpose of "settling the matter regarding the Hollanders," the Dutchmen obtained a liberal patent from Iyeyasu. Twelve years previously, the merchants of London, stimulated generally by the success of the Dutch in trade with the East, and specially by the fact that "these Hollanders had raised the price of pepper against us from 3 shillings per pound to 6 shillings and 8 shillings," organized the East India Company which immediately began to send ships eastward. Of course the news that the Dutch were about to establish a trading station in Japan reached London speedily, and the East India Company lost no time in ordering one of their vessels, the "Clove," under Captain Saris, to proceed to the Far-Eastern islands. She carried a quantity of pepper, and on the voyage she endeavoured to procure some spices at the Moluccas. But the Dutch would not suffer any poaching on their valuable monopoly. The "Clove" entered Hirado on the 11th of June 1613. Saris seems to have been a man self-opinionated, of shallow judgment and suspicious. Though strongly urged by Will Adams to make Uraga the seat of the new trade, though convinced of the excellence of the harbour there, and though instructed as to the great advantage of proximity to the shōgun's capital, he appears to have conceived some distrust of Adams, for he chose Hirado. From Iyeyasu Captain Saris received a most liberal charter, which plainly displayed the mood of the Tokugawa shōgun towards foreign trade:—

Opening of Dutch and English Trade.

1. The ship that has now come for the first time from England over the sea to Japan may carry on trade of all kinds without hindrance. With regard to future visits (of English ships) permission will be given in regard to all matters.
2. With regard to the cargoes of ships, requisition will be made by list according to the requirements of the shōgunate.
3. English ships are free to visit any port in Japan. If disabled by storms they may put into any harbour.
4. Ground in Yedo in the place which they may desire shall be given to the English, and they may erect houses and reside and trade there. They shall be at liberty to return to their country whenever they wish to do so, and to dispose as they like of the houses they have erected.
5. If an Englishman dies in Japan of disease, or any other cause, his effects shall be handed over without fail.
6. Forced sales of cargo, and violence, shall not take place.
7. If one of the English should commit an offence, he should be sentenced by the English General according to the gravity of his offence. (Translated by Professor Riess.)

The terms of the 4th article show that the shōgun expected the English to make Yedo their headquarters. Had Saris done so, he would have been free from all competition, would have had an immense market at his very doors, would have economized the expense of numerous overland journeys to the Tokugawa court, and would have saved the payment of many "considerations." The result of his mistaken choice and subsequent bad management was that, ten years later (1623), the English factory at Hirado had to be closed, having incurred a total loss of about £2000. In condonation of this failure it must be noted that a few months after the death of Iyeyasu, the charter he had granted to Saris underwent serious modification. The original document threw open to the English every port in Japan; the revised document limited them to Hirado. But this restriction may be indirectly traced to the blunder of not accepting a settlement in Yedo and a port at Uraga. For the Tokugawa's foreign policy was largely swayed by an apprehension lest the Kiūshiū feudatories, over whom the authority of Yedo had never been fully established, might, by the presence of foreign traders, come into possession of such a fleet and such an armament as would ultimately enable them to wrest the administration of the empire from Tokugawa hands. Hence the precaution of confining the English and the Dutch to Hirado, the fief of a *daimyō* too petty to become formidable, and to Nagasaki which was an imperial city.[1] But evidently an English factory in Yedo and English ships at Uraga would have strengthened the Tokugawa ruler's hand instead of supplying engines of war to his political foes. It must also be noted that the question of locality had another injurious outcome. It exposed the English—and the Dutch also—to crippling competition at the hands of a company of rich Osaka monopolists, who, as representing an Imperial city and therefore being pledged to the Tokugawa interests, enjoyed Yedo's favour and took full advantage of it. These shrewd traders not only drew a ring round Hirado, but also sent vessels on their own account to Cochin China, Siam, Tonkin, Cambodia and other places, where they obtained many of the staples in which the English and the Dutch dealt. Still the closure of the English factory at Hirado was purely voluntary. From first to last there had been no serious friction between the English and the Japanese. The company's houses and godowns were not sold. These as well as the charter were left in the hands of the daimyō of Hirado, who promised to restore them should the English re-open business in Japan. The company did think of doing so on more than one occasion, but no practical step was taken until the year 1673, when a merchantman, aptly named the "Return," was sent to seek permission. The Japanese, after mature reflection, made answer that as the king of England was married to a Portuguese princess, British subjects could not be permitted to visit Japan. That this reply was suggested by the Dutch is very probable; that it truly reflected the feeling of the Japanese government towards Roman Catholics is certain.

The Spaniards were expelled from Japan in 1624, the Portuguese in 1638. Two years before the latter event, the Yedo government took a signally retrogressive step. They ordained that no Japanese vessel should go abroad; that no Japanese subject should leave the country, and that, if detected attempting to do so, he should be put to death, the vessel that carried him and her crew being seized "to await our pleasure"; that any Japanese resident abroad should be executed if he returned; that the children and descendants of Spaniards together with those who had adopted such children should not be allowed to remain on pain of death; and that no ship of ocean-going dimensions should be built in Japan. Thus not only were the very children of the Christian propagandists driven completely from the land, but the Japanese people also were sentenced to imprisonment within the limits of their islands, and the country was deprived of all hope of acquiring a mercantile marine. The descendants of the Spaniards, banished by the edict, were taken to Macao in two Portuguese galleons. They numbered 287 and the property

The Last Days of the Portuguese in Japan.

[1] The Imperial cities were Yedo, Kiōto, Osaka and Nagasaki. To this last the English were subsequently admitted. They were also invited to Kagoshima by the Shimazu chieftain, and, had not their experience at Hirado proved so deterrent, they might have established a factory at Kagoshima.

they carried with them aggregated 6,697,500 florins. But if the Portuguese derived any gratification from this sweeping out of their much-abused rivals, the feeling was destined to be short-lived. Already they were subjected to humiliating restrictions.

"From 1623 the galleons and their cargoes were liable to be burnt and their crews executed if any foreign priest was found on board of them. An official of the Japanese government was stationed in Macao for the purpose of inspecting all intending passengers, and of preventing any one that looked at all suspicious from proceeding to Japan. A complete list and personal description of every one on board was drawn up by this officer, a copy of it was handed to the captain and by him it had to be delivered to the authorities who met him at Nagasaki before he was allowed to anchor. If in the subsequent inspection any discrepancy between the list and the persons actually carried by the vessel appeared, it would prove very awkward for the captain. Then in the inspection of the vessel letters were opened, trunks and boxes ransacked, and all crosses, rosaries or objects of religion of any kind had to be thrown overboard. In 1635 Portuguese were forbidden to employ Japanese to carry their umbrellas or their shoes, and only their chief men were allowed to bear arms, while they had to hire fresh servants every year. It was in the following year (1636) that the artificial islet of Deshima was constructed for their special reception, or rather imprisonment. It lay in front of the former Portuguese factory, with which it was connected by a bridge, and henceforth the Portuguese were to be allowed to cross this bridge only twice a year—at their arrival and at their departure. Furthermore, all their cargoes had to be sold at a fixed price during their fifty days' stay to a ring of licensed merchants from the imperial towns."[1]

The imposition of such irksome conditions did not deter the Portuguese, who continued to send merchandise-laden galleons to Nagasaki. But in 1638 the bolt fell. The Shimabara rebellion was directly responsible. Probably the fact of a revolt of Christian converts, in such numbers and fighting with such resolution, would alone have sufficed to induce the weak government in Yedo to get rid of the Portuguese altogether. But the Portuguese were suspected of having instigated the Shimabara insurrection, and the Japanese authorities believed that they had proof of the fact. Hence, in 1638, an edict was issued proclaiming that as, in defiance of the government's order, the Portuguese had continued to bring missionaries to Japan; as they had supplied these missionaries with provisions and other necessaries, and as they had fomented the Shimabara rebellion, thenceforth any Portuguese ship coming to Japan should be burned, together with her cargo, and every one on board of her should be executed. Ample time was allowed before enforcing this edict. Not only were the Portuguese ships then at Nagasaki permitted to close up their commercial transactions and leave the port, but also in the following year when two galleons arrived from Macao, they were merely sent away with a copy of the edict and a stern warning. But the Portuguese could not easily become reconciled to abandon a commerce from which they had derived splendid profits prior to the intrusion of the Spaniards, the Dutch and the English, and from which they might now hope further gains, since, although the Dutch continued to be formidable rivals, the Spaniards had been excluded, the English had withdrawn, and the Japanese, by the suicidal policy of their own rulers, were no longer able to send ships to China. Therefore they took a step which resulted in one of the saddest episodes of the whole story. Four aged men, the most respected citizens of Macao, were despatched (1640) to Nagasaki as ambassadors in a ship carrying no cargo but only rich presents. They bore a petition declaring that for a long time no missionaries had entered Japan from Macao, that the Portuguese had not been in any way connected with the Shimabara revolt, and that interruption of trade would injure Japan as much as Portugal. These envoys arrived at Nagasaki on the 1st of July 1640, and 24 days sufficed to bring from Yedo, whither their petition had been sent, peremptory orders for their execution as well as executioners to carry out the orders. There was no possibility of resistance. The Japanese had removed the ship's rudder, sails, guns and ammunition, and had placed the envoys, their suite and the crews under guard in Deshima. On the 2nd of August they were all summoned to the governor's hall of audience, where, after their protest had been heard that ambassadors should be under the protection of international law, the sentence written in Yedo 13 days previously was read to them. The following morning the Portuguese were offered their lives if they would apostatize. Every one rejected the offer, and being then led out to the martyrs' mount, the heads of the envoys and of 57 of their companions fell. Thirteen were saved to carry the news to Macao. These thirteen, after witnessing the burning of the galleon, were conducted to the governor's residence who gave them this message:—

"Do not fail to inform the inhabitants of Macao that the Japanese wish to receive from them neither gold nor silver, nor any kind of presents or merchandise; in a word, absolutely nothing which comes from them. You are witnesses that I have caused even the clothes of those who were executed yesterday to be burned. Let them do the same with respect to us if they find occasion to do so; we consent to it without difficulty. Let them think no more of us, just as if we were no longer in the world."

Finally the thirteen were taken to the martyrs' mount where, set up above the heads of the victims, a tablet recounted the story of the embassy and the reasons for the execution, and concluded with the words:—

"So long as the sun warms the earth, let no Christian be so bold as to come to Japan, and let all know that if King Philip himself, or even the very God of the Christians, or the great Shaka contravene this prohibition, they shall pay for it with their heads."

Had the ministers of the shōgun in Yedo desired to make clear to future ages that to Christianity alone was due the expulsion of Spaniards and Portuguese from Japan and her adoption of the policy of seclusion they could not have placed on record more conclusive testimony. Macao received the news with rejoicing in that its "earthly ambassadors had been made ambassadors of heaven," but it did not abandon all hope of overcoming Japan's obduracy. When Portugal recovered her independence in 1640, the people of Macao requested Lisbon to send an ambassador to Japan, and on the 16th of July 1647 Don Gonzalo de Siqueira arrived in Nagasaki with two vessels. He carried a letter from King John IV., setting forth the severance of all connexion between Portugal and Spain, which countries were now actually at war, and urging that commercial relations should be re-established. The Portuguese, having refused to give up their rudders and arms, soon found themselves menaced by a force of fifty thousand samurai, and were glad to put out of port quietly on the 4th of September. This was the last episode in the medieval history of Portugal's intercourse with Japan.

The Dutch at Deshima.

When (1609) the Dutch contemplated forming a settlement in Japan, Iyeyasu gave them a written promise that "no man should do them any wrong and that he would maintain and defend them as his own subjects." Moreover, the charter granted to them contained a clause providing that, into whatever ports their ships put, they were not to be molested or hindered in any way, but, "on the contrary, must be shown all manner of help, favour and assistance." They might then have chosen any port in Japan for their headquarters, but they had the misfortune to choose Hirado. For many years they had no cause to regret the choice. Their exclusive possession of the Spice Islands and their own enterprise and command of capital gave them the leading place in Japan's over-sea trade. Even when things had changed greatly for the worse and when the English closed their books with a large loss, it is on record that the Dutch were reaping a profit of 76% annually. Their doings at Hirado were not of a purely commercial character. The Anglo-Dutch "fleet of defence" made that port its basis of operations against the Spaniards and the Portuguese. It brought its prizes into Hirado, the profits to be equally divided between the fleet and the factories, Dutch and English, which arrangement involved a sum of a hundred thousand pounds in 1622. But after the death of Iyeyasu there grew up at the Tokugawa court a party which advocated the expulsion of all foreigners on the ground that, though some professed a different form of Christianity from that of the Castilians and Portuguese, it was nevertheless one and the same creed. This policy was not definitely adopted,

[1] *A History of Japan* (Murdoch and Yamagata).

but it made itself felt in a discourteous reception accorded to the commandant of Fort Zelandia when he visited Tōkyō in 1627. He attempted to retaliate upon the Japanese vessels which put into Zelandia in the following year, but the Japanese managed to seize his person, exact reparation for loss of time and obtain five hostages whom they carried to prison in Japan. The Japanese government of that time was wholly intolerant of any injury done to its subjects by foreigners. When news of the Zelandia affair reached Yedo, orders were immediately issued for the sequestration of certain Dutch vessels and for the suspension of the Hirado factory, which veto was not removed for four years. Commercial arrangements, also, became less favourable. The Dutch, instead of selling their silk—which generally formed the principal staple of import—in the open market, were required to send it to the Osaka gild of licensed merchants at Nagasaki, by which means, Nagasaki and Osaka being Imperial cities, the Yedo government derived advantage from the transaction. An attempt to evade this onerous system provoked a very stern rebuke from Yedo, and shortly afterwards all Japanese subjects were forbidden to act as servants to the Dutch outside the latter's dwellings. The co-operation of the Hollanders in bombarding the castle of Hara during the Shimabara rebellion (1638) gave them some claim on the shōgun's government, but in the same year the Dutch received an imperious warning that the severest penalties would be inflicted if their ships carried priests or any religious objects or books. So profound was the dislike of everything relating to Christianity that the Dutch nearly caused the ruin of their factory and probably their own destruction by inscribing on some newly erected warehouses the date according to the Christian era. The factory happened to be then presided over by Caron, a man of extraordinary penetration. Without a moment's hesitation he set 400 men to pull down the warehouses, thus depriving the Japanese of all pretext for recourse to violence. He was compelled, however, to promise that there should be no observance of the Sabbath hereafter and that time should no longer be reckoned by the Christian era. In a few months, further evidence of Yedo's ill will was furnished. An edict appeared ordering the Dutch to dispose of all their imports during the year of their arrival, without any option of carrying them away should prices be low. They were thus placed at the mercy of the Osaka gild. Further, they were forbidden to slaughter cattle or carry arms, and altogether it seemed as though the situation was to be rendered impossible for them. An envoy despatched from Batavia to remonstrate could not obtain audience of the shōgun, and though he presented, by way of remonstrance, the charter originally granted by Iyeyasu, the reply he received was:—

"His Majesty charges us to inform you that it is of but slight importance to the Empire of Japan whether foreigners come or do not come to trade. But in consideration of the charter granted to them by Iyeyasu, he is pleased to allow the Hollanders to continue their operations, and to leave them their commercial and other privileges, on the condition that they evacuate Hirado and establish themselves with their vessels in the port of Nagasaki."

The Dutch did not at first regard this as a calamity. During their residence of 31 years at Hirado they had enjoyed full freedom, had been on excellent terms with the feudatory and his samurai, and had prospered in their business. But the pettiness of the place and the inconvenience of the anchorage having always been recognized, transfer to Nagasaki promised a splendid harbour and much larger custom. Bitter, therefore, was their disappointment when they found that they were to be imprisoned in Deshima, a quadrangular island whose longest face did not measure 300 yds., and that, so far from living in the town of Nagasaki, they would not be allowed even to enter it. Siebold writes:—

"A guard at the gate prevented all communications with the city of Nagasaki; no Dutchman without weighty reasons and without the permission of the governor might pass the gate; no Japanese (unless public women) might live in a Dutchman's house. As if this were not enough, even within Deshima itself our state prisoners were keenly watched. No Japanese might speak with them in his own language unless in the presence of a witness (a government spy) or visit them in their houses. The creatures of the governor had the warehouses under key and the Dutch traders ceased to be masters of their property."

There were worse indignities to be endured. No Dutchman might be buried in Japanese soil: the dead had to be committed to the deep. Every Dutch ship, her rudder, guns and ammunition removed and her sails sealed, was subjected to the strictest search. No religious service could be held. No one was suffered to pass from one Dutch ship to another without the governor's permit. Sometimes the officers and men were wantonly cudgelled by petty Japanese officials. They led, in short, a life of extreme abasement. Some relaxation of this extreme severity was afterwards obtained, but at no time of their sojourn in Deshima, a period of 217 years, were the Dutch relieved from irksome and humiliating restraints. Eleven years after their removal thither, the expediency of consulting the national honour by finally abandoning an enterprise so derogatory was gravely discussed, but hopes of improvement supplementing natural reluctance to surrender a monopoly which still brought large gains, induced them to persevere. At that time this Nagasaki over-sea trade was considerable. From 7 to 10 Dutch ships used to enter the port annually, carrying cargo valued at some 80,000 lb of silver, the chief staples of import being silk and piece-goods, and the government levying 5% by way of customs dues. But this did not represent the whole of the charges imposed. A rent of 459 lb of silver had to be paid each year for the little island of Deshima and the houses standing on it; and, further, every spring, the Hollanders were required to send to Yedo a mission bearing for the shōgun, the heir-apparent and the court officials presents representing an aggregate value of about 550 lb of silver. They found their account, nevertheless, in buying gold and copper—especially the latter—for exportation, until the Japanese authorities, becoming alarmed at the great quantity of copper thus carried away, adopted the policy of limiting the number of vessels, as well as their inward and outward cargoes, so that, in 1790, only one ship might enter annually, nor could she carry away more than 350 tons of copper. On the other hand, the formal visits of the captain of the factory to Yedo were reduced to one every fifth year, and the value of the presents carried by him was cut down to one half.

Well-informed historians have contended that, by thus segregating herself from contact with the West, Japan's direct losses were small. Certainly it is true that she could not have learned much from European nations in the 17th century. They had little to teach her in the way of religious tolerance; in the way of international morality; in the way of social amenities and etiquette; in the way of artistic conception and execution; or in the way of that notable shibboleth of modern civilization, the open door and equal opportunities. Yet when all this is admitted, there remains the vital fact that Japan was thus shut off from the atmosphere of competition, and that for nearly two centuries and a half she never had an opportunity of warming her intelligence at the fire of international rivalry or deriving inspiration from an exchange of ideas. She stood comparatively still while the world went on, and the interval between her and the leading peoples of the Occident in matters of material civilization had become very wide before she awoke to a sense of its existence. The sequel of this page of her history has been faithfully summarized by a modern writer:—

Loss to Japan by adopting the Policy of Exclusion.

"A more complete metamorphosis of a nation's policy could scarcely be conceived. In 1541 we find the Japanese celebrated, or notorious, throughout the whole of the Far East for exploits abroad; we find them known as the 'kings of the sea'; we find them welcoming foreigners with cordiality and opposing no obstacles to foreign commerce or even to the propagandism of foreign creeds; we find them so quick to recognize the benefits of foreign trade and so apt to pursue them that, in the space of a few years, they establish commercial relations with no less than twenty over-sea markets; we find them authorizing the Portuguese, the Dutch and the English to trade at every port in the empire; we find, in short, all the elements requisite for a career of commercial enterprise, ocean-going adventure and industrial liberality. In 1641 everything is reversed. Trade is interdicted to all Western peoples except the Dutch, and

they are confined to a little island 200 yards in length by 80 in width; the least symptom of predilection for any alien creed exposes a Japanese subject to be punished with awful rigour; any attempt to leave the limits of the realm involves decapitation; not a ship large enough to pass beyond the shadow of the coast may be built. However unwelcome the admission, it is apparent that for all these changes Christian propagandism was responsible. The policy of seclusion adopted by Japan in the early part of the 17th century and resolutely pursued until the middle of the 19th, was anti-Christian, not anti-foreign. The fact cannot be too clearly recognized. It is the chief lesson taught by the events outlined above. Throughout the whole of that period of isolation, Occidentals were not known to the Japanese by any of the terms now in common use, as *gwaikoku-jin*, *seiyō-jin*, or *i-jin*, which embody the simple meanings 'foreigner,' 'Westerner' or 'alien': they were popularly called *bateren* (*padres*). Thus completely had foreign intercourse and Christian propagandism become identified in the eyes of the people. And when it is remembered that foreign intercourse, associated with Christianity, had come to be synonymous in Japanese ears with foreign aggression, with the subversal of the mikado's ancient dynasty, and with the loss of the independence of the 'country of the gods,' there is no difficulty in understanding the attitude of the nation's mind towards this question."

Foreign Intercourse in Modern Times.—From the middle of the 17th century to the beginning of the 19th, Japan succeeded in rigorously enforcing her policy of seclusion. But in the concluding days of this epoch two influences began to disturb her self-sufficiency. One was the gradual infiltration of light from the outer world through the narrow window of the Dutch prison at Deshima; the other, frequent apparitions of Russian vessels on her northern coasts. The former was a slow process. It materialized first in the study of anatomy by a little group of youths who had acquired accidental knowledge of the radical difference between Dutch and Japanese conceptions as to the structure of the human body. The work of these students reads like a page of romance. Without any appreciable knowledge of the Dutch language, they set themselves to decipher a Dutch medical book, obtained at enormous cost, and from this small beginning they passed to a vague but firm conviction that their country had fallen far behind the material and intellectual progress of the Occident. They laboured in secret, for the study of foreign books was then a criminal offence; yet the patriotism of one of their number outweighed his prudence, and he boldly published a brochure advocating the construction of a navy and predicting a descent by the Russians on the northern borders of the empire. Before this prescient man had lain five months in prison, his foresight was verified by events. The Russians simulated at the outset a desire to establish commercial relations by peaceful means. Had the Japanese been better acquainted with the history of nations, they would have known how to interpret the idea of a Russian quest for commercial connexions in the Far East a hundred years ago. But they dealt with the question on its superficial merits, and, after imposing on the tsar's envoys a wearisome delay of several months at Nagasaki, addressed to them a peremptory refusal together with an order to leave that port forthwith. Incensed by such treatment, and by the subsequent imprisonment of a number of their fellow countrymen who had landed on the island of Etorofu in the Kuriles, the Russians resorted to armed reprisals. The Japanese settlements in Sakhalin and Etorofu were raided and burned, other places were menaced and several Japanese vessels were destroyed. The lesson sank deep into the minds of the Yedo officials. They withdrew their veto against the study of foreign books, and they arrived in part at the reluctant conclusion that to offer armed opposition to the coming of foreign ships was a task somewhat beyond Japan's capacity. Japan ceased, however, to attract European attention amid the absorbing interest of the Napoleonic era, and the shōgun's government, misinterpreting this respite, reverted to their old policy of stalwart resistance to foreign intercourse.

Dutch and Russian influence.

Meanwhile another power was beginning to establish close contact with Japan. The whaling industry in Russian waters off the coast of Alaska and in the seas of China and Japan had attracted large investments of American capital and was pursued yearly by thousands of American citizens. In one season 86 of these whaling vessels passed within easy sight of Japan's northern island, Yezo, so that the aspect of foreign ships became quite familiar. From time to time American schooners were cast away on Japan's shores. Generally the survivors were treated with tolerable consideration and ultimately sent to Deshima for shipment to Batavia. Japanese sailors, too, driven out of their route by hurricanes and caught in the stream of the "Black Current," were occasionally carried to the Aleutian Islands, to Oregon or California, and in several instances these shipwrecked mariners were taken back to Japan with all kindness by American vessels. On such an errand of mercy the "Morrison" entered Yedo Bay in 1837, proceeding thence to Kagoshima, only to be driven away by cannon shot; and on such an errand the "Manhattan" in 1845 lay for four days at Uraga while her master (Mercater Cooper) collected books and charts. It would seem that his experience induced the Washington government to attempt the opening of Japan. A ninety-gun ship and a sloop were sent on the errand. They anchored off Uraga (July 1846) and Commodore Biddle made due application for trade. But he received a positive refusal, and having been instructed by his government to abstain from any act calculated to excite hostility or distrust, he quietly weighed anchor and sailed away.

American Enterprise.

In this same year (1846) a French ship touched at the Riukiu (Luchu) archipelago and sought to persuade the islanders that their only security against British aggression was to place themselves under the protection of France. In fact Great Britain was now beginning to interest herself in south China, and more than one warning reached Yedo from Deshima that English war-ships might at any moment visit Japanese waters. The Dutch have been much blamed for thus attempting to prejudice Japan against the Occident, but if the dictates of commercial rivalry, as it was then practised, do not constitute an ample explanation, it should be remembered that England and Holland had recently been enemies, and that the last British vessel,[1] seen at Nagasaki had gone there hoping to capture the annual Dutch trading-ship from Batavia. Deshima's warnings, however, remained unfulfilled, though they doubtless contributed to Japan's feeling of uneasiness. Then, in 1847, the king of Holland himself intervened. He sent to Yedo various books, together with a map of the world and a despatch advising Japan to abandon her policy of isolation. Within a few months (1849) of the receipt of his Dutch majesty's recommendation, an American brig, the "Preble," under Commander J. Glynn, anchored in Nagasaki harbour and threatened to bombard the town unless immediate delivery were made of 18 seamen who, having been wrecked in northern waters, were held by the Japanese preparatory to shipment for Batavia. In 1849 another despatch reached Yedo from the king of Holland announcing that an American fleet might be expected in Japanese waters a year later, and that, unless Japan agreed to enter into friendly commercial relations, war must ensue. Appended to this despatch was an approximate draft of the treaty which would be presented for signature, together with a copy of a memorandum addressed by the Washington government to European nations, justifying the contemplated expedition on the ground that it would inure to the advantage of Japan as well as to that of the Occident.

Great Britain reappears upon the scene.

In 1853, Commodore Perry, with a squadron of four ships-of-war and 560 men, entered Uraga Bay. So formidable a foreign force had not been seen in Japanese waters since the coming of the Mongol Armada. A panic ensued among the people—the same people who, in the days of Hideyoshi or Iyeyasu, would have gone out to encounter these ships with assured confidence of victory. The contrast did not stop there. The shōgun, whose ancestors had administered the country's affairs with absolutely autocratic authority, now summoned a council of the feudatories to consider the situation; and the Imperial court in Kiōto, which never appealed for heaven's aid except in a national emergency such as had never been witnessed since the creation of the shōgunate, now directed that at the seven principal shrines and at all the great temples special

Commodore Perry.

[1] H.M.S. "Phaeton," which entered that port in 1808.

prayers should be offered for the safety of the land and for the destruction of the aliens. Thus the appearance of the American squadron awoke in the cause of the country as a whole a spirit of patriotism hitherto confined to feudal interests. The shōgun does not seem to have had any thought of invoking that spirit: his part in raising it was involuntary and his ministers behaved with perplexed vacillation. The infirmity of the Yedo Administration's purpose presented such a strong contrast to the single-minded resolution of the Imperial court that the prestige of the one was largely impaired and that of the other correspondingly enhanced. Perry, however, was without authority to support his proposals by any recourse to violence. The United States government had relied solely on the moral effect of his display of force, and his countrymen had supplied him with a large collection of the products of peaceful progress, from sewing machines to miniature railways. He did not unduly press for a treaty, but after lying at anchor off Uraga during a period of ten days and after transmitting the president's letter to the sovereign of Japan, he steamed away on the 17th of July, announcing his return in the ensuing spring. The conduct of the Japanese subsequently to his departure showed how fully and rapidly they had acquired the conviction that the appliances of their old civilization were powerless to resist the resources of the new. Orders were issued rescinding the long-enforced veto against the construction of sea-going ships; the feudal chiefs were invited to build and arm large vessels; the Dutch were commissioned to furnish a ship of war and to procure from Europe all the best works on modern military science; every one who had acquired any expert knowledge through the medium of Deshima was taken into official favour; forts were built; cannon were cast and troops were drilled. But from all this effort there resulted only fresh evidence of the country's inability to defy foreign insistence, and on the 2nd of December 1853, instructions were issued that if the Americans returned, they were to be dealt with peacefully. The sight of Perry's steam-propelled ships, their powerful guns and all the specimens they carried of western wonders, had practically broken down the barriers of Japan's isolation without any need of treaties or conventions. Perry returned in the following February, and after an interchange of courtesies and formalities extending over six weeks, obtained a treaty pledging Japan to accord kind treatment to shipwrecked sailors; to permit foreign vessels to obtain stores and provisions within her territory, and to allow American ships to anchor in the ports at Shimoda and Hakodate. On this second occasion Perry had 10 ships with crews numbering two thousand, and when he landed to sign the treaty, he was escorted by a guard of honour mustering 500 strong in 27 boats. Much has been written about his judicious display of force and his sagacious tact in dealing with the Japanese, but it may be doubted whether the consequences of his exploit have not invested its methods with extravagant lustre. Standing on the threshold of modern Japan's wonderful career, his figure shines by the reflected light of its surroundings.

Russia, Holland and England speedily secured for themselves treaties similar to that concluded by Commodore Perry in 1854.

First Treaty of Commerce.

But Japan's doors still remained closed to foreign commerce, and it was reserved for another citizen of the great republic to open them. This was Townsend Harris (1803–1878), the first U.S. consul-general in Japan. Arriving in August 1856, he concluded, in June of the following year, a treaty securing to American citizens the privilege of permanent residence at Shimoda and Hakodate, the opening of Nagasaki, the right of consular jurisdiction and certain minor concessions. Still, however, permission for commercial intercourse was withheld, and Harris, convinced that this great goal could not be reached unless he made his way to Yedo and conferred direct with the shōgun's ministers, pressed persistently for leave to do so. Ten months elapsed before he succeeded, and such a display of reluctance on the Japanese side was very unfavourably criticized in the years immediately subsequent. Ignorance of the country's domestic politics inspired the critics. The Yedo administration, already weakened by the growth of a strong public sentiment in favour of abolishing the dual system of government—that of the mikado in Kiōto and that of the shōgun in Yedo—had been still further discredited by its own timid policy as compared with the stalwart mien of the throne towards the question of foreign intercourse. Openly to sanction commercial relations at such a time would have been little short of reckless. The Perry convention and the first Harris convention could be construed, and were purposely construed, as mere acts of benevolence towards strangers; but a commercial treaty would not have lent itself to any such construction, and naturally the shōgun's ministers hesitated to agree to an apparently suicidal step. Harris carried his point, however. He was received by the shōgun in Yedo in November 1857, and on the 29th of July 1858 a treaty was signed in Yedo, engaging that Yokohama should be opened on the 4th of July 1859 and that commerce between the United States and Japan should thereafter be freely carried on there. This treaty was actually concluded by the shōgun's Ministers in defiance of their failure to obtain the sanction of the sovereign in Kiōto. Foreign historians have found much to say about Japanese duplicity in concealing the subordinate position occupied by the Yedo administration towards the Kiōto court. Such condemnation is not consistent with fuller knowledge. The Yedo authorities had power to solve all problems of foreign intercourse without reference to Kiōto. Iyeyasu had not seen any occasion to seek imperial assent when he granted unrestricted liberty of trade to the representatives of the East India Company, nor had Iyemitsu asked for Kiōto's sanction when he issued his decree for the expulsion of all foreigners. If, in the 19th century, Yedo shrank from a responsibility which it had unhesitatingly assumed in the 17th, the cause was to be found, not in the shōgun's simulation of autonomy, but in his desire to associate the throne with a policy which, while recognizing it to be unavoidable, he distrusted his own ability to make the nation accept. But his ministers had promised Harris that the treaty should be signed, and they kept their word, at a risk of which the United States' consul-general had no conception. Throughout these negotiations Harris spared no pains to create in the minds of the Japanese an intelligent conviction that the world could no longer be kept at arm's length, and though it is extremely problematical whether he would have succeeded had not the Japanese themselves already arrived at that very conviction, his patient and lucid expositions coupled with a winning personality undoubtedly produced much impression. He was largely assisted, too, by recent events in China, where the Peihō forts had been captured and the Chinese forced to sign a treaty at Tientsin. Harris warned the Japanese that the British fleet might be expected at any moment in Yedo Bay, and that the best way to avert irksome demands at the hands of the English was to establish a comparatively moderate precedent by yielding to America's proposals.

This treaty could not be represented, as previous conventions had been, in the light of a purely benevolent concession. It definitely provided for the trade and residence of foreign merchants, and thus finally terminated Japan's traditional isolation. Moreover, it had been concluded in defiance of the Throne's refusal to sanction anything of the kind. Much excitement resulted. The nation ranged itself into three parties. One comprised the advocates of free intercourse and progressive liberality; another, while insisting that only the most limited privileges should be accorded to aliens, was of two minds as to the advisability of offering armed resistance at once or temporizing so as to gain time for preparation; the third advocated uncompromising seclusion. Once again the shōgun convoked a meeting of the feudal barons, hoping to secure their co-operation. But with hardly an exception they pronounced against yielding. Thus the shōgunate saw itself compelled to adopt a resolutely liberal policy: it issued a decree in that sense, and thenceforth the administrative court at Yedo and the Imperial court in Kiōto stood in unequivocal opposition to each other, the Conservatives ranging themselves on the side of the latter, the Liberals on that of the former. It was a situation full of perplexity to outsiders, and the foreign

Effects of the Treaty.

representatives misinterpreted it. They imagined that the shōgun's ministers sought only to evade their treaty obligations and to render the situation intolerable for foreign residents, whereas in truth the situation threatened to become intolerable for the shōgunate itself. Nevertheless the Yedo officials cannot be entirely acquitted of duplicity. Under pressure of the necessity of self-preservation they effected with Kiōto a compromise which assigned to foreign intercourse a temporary character. The threatened political crisis was thus averted, but the enemies of the dual system of government gained strength daily. One of their devices was to assassinate foreigners in the hope of embroiling the shōgunate with Western powers and thus either forcing its hand or precipitating its downfall. It is not wonderful, perhaps, that foreigners were deceived, especially as they approached the solution of Japanese problems with all the Occidental's habitual suspicion of everything Oriental. Thus when the Yedo government, cognisant that serious dangers menaced the Yokohama settlement, took precautions to guard it, the foreign ministers convinced themselves that a deliberate piece of chicanery was being practised at their expense; that statecraft rather than truth had dictated the representations made to them by the Japanese authorities; and that the alarm of the latter was simulated for the purpose of finding a pretext to curtail the liberty enjoyed by foreigners. Therefore a suggestion that the inmates of the legations should show themselves as little as possible in the streets of the capital, where at any moment a desperado might cut them down, was treated almost as an insult. Then the Japanese authorities saw no recourse except to attach an armed escort to the person of every foreigner when he moved about the city. But even this precaution, which certainly was not adopted out of mere caprice or with any sinister design, excited fresh suspicions. The British representative, in reporting the event to his government, said that the Japanese had taken the opportunity to graft upon the establishment of spies, watchmen and police-officers at the several legations, a mounted escort to accompany the members whenever they moved about.

Just at this time (1861) the Yedo statesmen, in order to reconcile the divergent views of the two courts, negotiated a marriage between the emperor's sister and the shōgun. But in order to bring the union about, they had to placate the Kiōto Conservatives by a promise to expel foreigners from the country within ten years. When this became known, it strengthened the hands of the reactionaries, and furnished a new weapon to Yedo's enemies, who interpreted the marriage as the beginning of a plot to dethrone the mikado. Murderous attacks upon foreigners became more frequent. Two of these assaults had momentous consequences. Three British subjects attempted to force their way through the *cortège* of the Satsuma feudal chief on the highway between Yokohama and Yedo. One of them was killed and the other two wounded. This outrage was not inspired by the "barbarian-expelling" sentiment: to any Japanese subject violating the rules of etiquette as these Englishmen had violated them, the same fate would have been meted out. Nevertheless, as the Satsuma daimyō refused to surrender his implicated vassals, and as the shōgun's arm was not long enough to reach the most powerful feudatory in Japan, the British government sent a squadron to bombard his capital, Kagoshima. It was not a brilliant exploit in any sense, but its results were invaluable; for the operations of the British ships finally convinced the Satsuma men of their impotence in the face of Western armaments, and converted them into advocates of liberal progress. Three months previously to this bombardment of Kagoshima another puissant feudatory had thrown down the gauntlet. The Chōshū chief, whose batteries commanded the entrance to the inland sea at Shimonoseki, opened fire upon ships flying the flags of the United States, of France and of Holland. In thus acting he obeyed an edict obtained by the extremists from the mikado without the knowledge of the shōgun, which edict fixed the 11th of May 1863 as the date for practically inaugurating the foreigners-expulsion policy.

Attacks upon Foreigners and their Consequences.

Again the shōgun's administrative competence proved inadequate to exact reparation, and a squadron, composed chiefly of British men-of-war, proceeding to Shimonoseki, demolished Chōshū's forts, destroyed his ships and scattered his samurai. In the face of the Kagoshima bombardment and the Shimonoseki expedition, no Japanese subject could retain any faith in his country's ability to oppose Occidentals by force. Thus the year 1863 was memorable in Japan's history. It saw the "barbarian-expelling" agitation deprived of the emperor's sanction; it saw the two principal clans, Satsuma and Chōshū, convinced of their country's impotence to defy the Occident; it saw the nation almost fully roused to the disintegrating and weakening effects of the feudal system; and it saw the traditional antipathy to foreigners beginning to be exchanged for a desire to study their civilization and to adopt its best features.

The treaty concluded between the shōgun's government and the United States in 1858 was of course followed by similar compacts with the principal European powers. From the outset these states agreed to co-operate for the assertion of their conventional privileges, and they naturally took Great Britain for leader, though such a relation was never openly announced. The treaties, however, continued during several years to lack imperial ratification, and, as time went by, that defect obtruded itself more and more upon the attention of their foreign signatories. The year 1865 saw British interests entrusted to the charge of Sir Harry Parkes, a man of keen insight, indomitable courage and somewhat peremptory methods, learned during a long period of service in China. It happened that the post of Japanese secretary at the British legation in Yedo was then held by a remarkably gifted young Englishman, who, in a comparatively brief interval, had acquired a good working knowledge of the Japanese language, and it happened also that the British legation in Yedo was already—as it has always been ever since—the best equipped institution of its class in Japan. Aided by these facilities and by the researches of Mr Satow (afterwards Sir Ernest Satow) Parkes arrived at the conclusions that the Yedo government was tottering to its fall; that the resumption of administrative authority by the Kiōto court would make for the interests not only of the West but also of Japan; and that the ratification of the treaties by the mikado would elucidate the situation for foreigners while being, at the same time, essential to the validity of the documents. Two other objects also presented themselves, namely, that the import duties fixed by the conventions should be reduced from 15 to 5% *ad valorem*, and that the ports of Hiōgō and Osaka should be opened at once, instead of at the expiration of two years as originally fixed. It was not proposed that these concessions should be entirely gratuitous. When the four-power flotilla destroyed the Shimonoseki batteries and sank the vessels lying there, a fine of three million dollars (some £750,000) had been imposed upon the daimyō of Chōshū by way of ransom for his capital, which lay at the mercy of the invaders. The daimyō of Chōshū, however, was in open rebellion against the shōgun, and as the latter could not collect the debt from the recalcitrant clansmen, while the four powers insisted on being paid by some one, the Yedo treasury was finally compelled to shoulder the obligation. Two out of the three millions were still due, and Parkes conceived the idea of remitting this debt in exchange for the ratification of the treaties, the reduction of the customs tariff from 15 to 5% *ad valorem* and the immediate opening of Hiōgō and Osaka. He took with him to the place of negotiation (Hiōgō) a fleet of British, French and Dutch war-ships, for, while announcing peaceful intentions, he had accustomed himself to think that a display of force should occupy the foreground in all negotiations with Oriental states. This *coup* may be said to have sealed the fate of the shōgunate. For here again was produced in a highly aggravated form the drama which had so greatly startled the nation eight years previously. Perry had come with his war-ships to the portals of Yedo, and now a foreign fleet, twice as strong as Perry's, had anchored at the vestibule of the Imperial city itself. No rational Japanese

Ratification of the Treaties.

could suppose that this parade of force was for purely peaceful purposes, or that rejection of the amicable bargain proposed by Great Britain's representative would be followed by the quiet withdrawal of the menacing fleet, whose terrible potentialities had been demonstrated at Kagoshima and Shimonoseki. The seclusionists, whose voices had been nearly silenced, raised them in renewed denunciation of the shōgun's incompetence to guarantee the sacred city of Kiōto against such trespasses, and the emperor, brought once more under the influence of the anti-foreign party, inflicted a heavy disgrace on the shōgun by dismissing and punishing the officials to whom the latter had entrusted the conduct of negotiations at Hiōgō. Such procedure on the part of the throne amounted to withdrawing the administrative commission held by the Tokugawa family since the days of Iyeyasu. The shōgun resigned. But his adversaries not being yet ready to replace him, he was induced to resume office, with, however, fatally damaged prestige. As for the three-power squadron, it steamed away successful. Parkes had come prepared to write off the indemnity in exchange for three concessions. He obtained two of the concessions without remitting a dollar of the debt.

The shōgun did not long survive the humiliation thus inflicted on him. He died in the following year (1866), and was succeeded by Keiki, destined to be the last of the Tokugawa rulers. Nine years previously this same Keiki had been put forward by the seclusionists as candidate for the shōgunate. Yet no sooner did he attain that distinction in 1866 than he remodelled the army on French lines, engaged English officers to organize a navy, sent his brother to the Paris Exhibition, and altered many of the forms and ceremonies of his court so as to bring them into accord with Occidental fashions. The contrast between the politics he represented when a candidate for office in 1857 and the practice he adopted on succeeding to power in 1866 furnished an apt illustration of the change that had come over the spirit of the time. The most bigoted of the exclusionists were now beginning to abandon all idea of expelling foreigners and to think mainly of acquiring the best elements of their civilization. The Japanese are slow to reach a decision but very quick to act upon it when reached. From 1866 onwards the new spirit rapidly permeated the whole nation; progress became the aim of all classes, and the country entered upon a career of intelligent assimilation which, in forty years, won for Japan a universally accorded place in the ranks of the great Occidental powers.

Final Adoption of Western Civilization.

After the abolition of the shōgunate and the resumption of administrative functions by the Throne, one of the first acts of the newly organized government was to invite the foreign representatives to Kiōto, where they had audience of the mikado. Subsequently a decree was issued, announcing the emperor's resolve to establish amicable relations with foreign countries, and "declaring that any Japanese subject thereafter guilty of violent behaviour towards a foreigner would not only act in opposition to the Imperial command, but would also be guilty of impairing the dignity and good faith of the nation in the eyes of the powers with which his majesty had pledged himself to maintain friendship." From that time the relations between Japan and foreign states grew yearly more amicable; the nation adopted the products of Western civilization with notable thoroughness, and the provisions of the treaties were carefully observed. Those treaties, however, presented one feature which very soon became exceedingly irksome to Japan. They exempted foreigners residing within her borders from the operation of her criminal laws, and secured to them the privilege of being arraigned solely before tribunals of their own nationality. That system had always been considered necessary where the subjects of Christian states visited or sojourned in non-Christian countries, and, for the purpose of giving effect to it, consular courts were established. This necessitated the confinement of foreign residents to settlements in the neighbourhood of the consular courts, since it would have been imprudent to allow foreigners to have free access to districts remote from the only tribunals competent to control them. The Japanese raised no objection to the embodiment of this system in the treaties. They recognized its necessity and even its expediency, for if, on the one hand, it infringed their country's sovereign rights, on the other, it prevented complications which must have ensued had they been entrusted with jurisdiction which they were not prepared to discharge satisfactorily. But the consular courts were not free from defects. A few of the powers organized competent tribunals presided over by judicial experts, but a majority of the treaty states, not having sufficiently large interests at stake, were content to delegate consular duties to merchants, not only deficient in legal training, but also themselves engaged in the very commercial transactions upon which they might at any moment be required to adjudicate in a magisterial capacity. In any circumstances the dual functions of consul and judge could not be discharged without anomaly by the same official, for he was obliged to act as advocate in the preliminary stages of complications about which, in his position as judge, he might ultimately have to deliver an impartial verdict. In practice, however, the system worked with tolerable smoothness, and might have remained long in force had not the patriotism of the Japanese rebelled bitterly against the implication that their country was unfit to exercise one of the fundamental attributes of every sovereign state, judicial autonomy. From the very outset they spared no effort to qualify for the recovery of this attribute. Revision of the country's laws and re-organization of its law courts would necessarily have been an essential feature of the general reforms suggested by contact with the Occident, but the question of consular jurisdiction certainly constituted a special incentive. Expert assistance was obtained from France and Germany; the best features of European jurisprudence were adapted to the conditions and usages of Japan; the law courts were remodelled, and steps were taken to educate a competent judiciary. In criminal law the example of France was chiefly followed; in commercial law that of Germany; and in civil law that of the Occident generally, with due regard to the customs of the country. The jury system was not adopted, collegiate courts being regarded as more conducive to justice, and the order of procedure went from tribunals of first instance to appeal courts and finally to the court of cassation. Schools of law were quickly opened, and a well-equipped bar soon came into existence. Twelve years after the inception of these great works, Japan made formal application for revision of the treaties on the basis of abolishing consular jurisdiction. She had asked for revision in 1871, sending to Europe and America an important embassy to raise the question. But at that time the conditions originally calling for consular jurisdiction had not undergone any change such as would have justified its abolition, and the Japanese government, though very anxious to recover tariff autonomy as well as judicial, shrank from separating the two questions, lest by prematurely solving one the solution of the other might be unduly deferred. Thus the embassy failed, and though the problem attracted great academical interest from the first, it did not re-enter the field of practical politics until 1883. The negotiations were long protracted. Never previously had an Oriental state received at the hands of the Occident recognition such as that now demanded by Japan, and the West naturally felt deep reluctance to try a wholly novel experiment. The United States had set a generous example by concluding a new treaty (1878) on the lines desired by Japan. But its operation was conditional on a similar act of compliance by the other treaty powers. Ill-informed European publicists ridiculed the Washington statesmen's attitude on this occasion, claiming that what had been given with one hand was taken back with the other. The truth is that the conditional provision was inserted at the request of Japan herself, who appreciated her own unpreparedness for the concession. From 1883, however, she was ready to accept full responsibility, and she therefore asked that all foreigners within her borders should thenceforth be subject to her laws and judiciable by her law-courts, supplementing her

Japan's Claim for Judicial Autonomy.

application by promising that its favourable reception should be followed by the complete opening of the country and the removal of all restrictions hitherto imposed on foreign trade, travel and residence in her realm. "From the first it had been the habit of Occidental peoples to upbraid Japan on account of the barriers opposed by her to full and free foreign intercourse, and she was now able to claim that these barriers were no longer maintained by her desire, but that they existed because of a system which theoretically proclaimed her unfitness for free association with Western nations, and practically made it impossible for her to throw open her territories completely for the ingress of foreigners." She had a strong case, but on the side of the European powers extreme reluctance was manifested to try the unprecedented experiment of placing their people under the jurisdiction of an Oriental country. Still greater was the reluctance of those upon whom the experiment would be tried. Foreigners residing in Japan naturally clung to consular jurisdiction as a privilege of inestimable value. They saw, indeed, that such a system could not be permanently imposed on a country where the conditions justifying it had nominally disappeared. But they saw, also, that the legal and judicial reforms effected by Japan had been crowded into an extraordinarily brief period, and that, as tyros experimenting with alien systems, the Japanese might be betrayed into many errors.

The negotiations lasted for eleven years. They were begun in 1883 and a solution was not reached until 1894. Finally European governments conceded the justice of Japan's case, and it was agreed that from July 1899 Japanese tribunals should assume jurisdiction over every person, of whatever nationality, within the confines of Japan, and the whole country should be thrown open to foreigners, all limitations upon trade, travel and residence being removed. Great Britain took the lead in thus releasing Japan from the fetters of the old system. The initiative came from her with special grace, for the system and all its irksome consequences had been originally imposed on Japan by a combination of powers with Great Britain in the van. As a matter of historical sequence the United States dictated the terms of the first treaty providing for consular jurisdiction. But from a very early period the Washington government showed its willingness to remove all limitations of Japan's sovereignty, whereas Europe, headed by Great Britain, whose preponderating interests entitled her to lead, resolutely refused to make any substantial concession. In Japanese eyes, therefore, British conservatism seemed to be the one serious obstacle, and since the British residents in the settlements far outnumbered all other nationalities, and since they alone had newspaper organs to ventilate their grievances—it was certainly fortunate for the popularity of her people in the Far East that Great Britain saw her way finally to set a liberal example. Nearly five years were required to bring the other Occidental powers into line with Great Britain and America. It should be stated, however, that neither reluctance to make the necessary concessions nor want of sympathy with Japan caused the delay. The explanation is, first, that each set of negotiators sought to improve either the terms or the terminology of the treaties already concluded, and, secondly, that the tariff arrangements for the different countries required elaborate discussion.

Recognition by the Powers.

Until the last of the revised treaties was ratified, voices of protest against revision continued to be vehemently raised by a large section of the foreign community in the settlements. Some were honestly apprehensive as to the issue of the experiment. Others were swayed by racial prejudice. A few had fallen into an insuperable habit of grumbling, or found their account in advocating conservatism under pretence of championing foreign interests; and all were naturally reluctant to forfeit the immunity from taxation hitherto enjoyed. It seemed as though the inauguration of the new system would find the foreign community in a mood which must greatly diminish the chances of a happy result, for where a captious and aggrieved disposition exists, opportunities to discover causes of complaint cannot be wanting. But at the eleventh hour this unfavourable demeanour underwent a marked change. So soon as it became evident that the old system was hopelessly doomed, the sound common sense of the European and American business man asserted itself. The foreign residents let it be seen that they intended to bow cheerfully to the inevitable, and that no obstacles would be willingly placed by them in the path of Japanese jurisdiction. The Japanese, on their side, took some promising steps. An Imperial rescript declared in unequivocal terms that it was the sovereign's policy and desire to abolish all distinctions between natives and foreigners, and that by fully carrying out the friendly purpose of the treaties his people would best consult his wishes, maintain the character of the nation, and promote its prestige. The premier and other ministers of state issued instructions to the effect that the responsibility now devolved on the government, and the duty on the people, of enabling foreigners to reside confidently and contentedly in every part of the country. Even the chief Buddhist prelates addressed to the priests and parishioners in their dioceses injunctions pointing out that, freedom of conscience being now guaranteed by the constitution, men professing alien creeds must be treated as courteously as the followers of Buddhism, and must enjoy the same rights and privileges.

Reception given to the Revised Treaties.

Thus the great change was effected in circumstances of happy augury. Its results were successful on the whole. Foreigners residing in Japan now enjoy immunity of domicile, personal and religious liberty, freedom from official interference, and security of life and property as fully as though they were living in their own countries, and they have gradually learned to look with greatly increased respect upon Japanese law and its administrators.

Next to the revision of the treaties and to the result of the great wars waged by Japan since the resumption of foreign intercourse, the most memorable incident in her modern career was the conclusion, first, of an *entente*, and, secondly, of an offensive and defensive alliance with Great Britain in January 1902 and September 1905, respectively. The *entente* set out by disavowing on the part of each of the contracting parties any aggressive tendency in either China or Korea, the independence of which two countries was explicitly recognized; and went on to declare that Great Britain in China and Japan in China and Korea might take indispensable means to safeguard their interests; while, if such measures involved one of the signatories in war with a third power, the other signatory would not only remain neutral but would also endeavour to prevent other powers from joining in hostilities against its ally, and would come to the assistance of the latter in the event of its being faced by two or more powers. The *entente* further recognized that Japan possessed, in a peculiar degree, political, commercial and industrial interests in Korea. This agreement, equally novel for each of the contracting parties, evidently tended to the benefit of Japan more than to that of Great Britain, inasmuch as the interests in question were vital from the former power's point of view but merely local from the latter's. The inequality was corrected by an offensive and defensive alliance in 1905. For the scope of the agreement was then extended to India and eastern Asia generally, and while the signatories pledged themselves, on the one hand, to preserve the common interests of all powers in China by insuring her integrity and independence as well as the principle of equal opportunities for the commerce and industry of all nations within her borders, they agreed, on the other, to maintain their own territorial rights in eastern Asia and India, and to come to each other's armed assistance in the event of those rights being assailed by any other power or powers. These agreements have, of course, a close relation to the events which accompanied or immediately preceded them, but they also present a vivid and radical contrast between a country which, less than half a century previously, had struggled vehemently to remain secluded from the world, and a country which now allied itself with one of the most liberal and progressive nations for the purposes of a policy

Anglo-Japanese Alliance.

extending over the whole of eastern Asia and India. This contrast was accentuated two years later (1907) when France and Russia concluded *ententes* with Japan, recognizing the independence and integrity of the Chinese Empire, as well as the principle of equal opportunity for all nations in that country, and engaging to support each other for assuring peace and security there. Japan thus became a world power in the most unequivocal sense.

Japan's Foreign Wars and Complications.—The earliest foreign war conducted by Japan is said to have taken place at the beginning of the 3rd century, when the empress Jingō led an army to the conquest of Korea. But as the event is supposed to have happened more than 500 years before the first Japanese record was written, its traditional details cannot be seriously discussed. There is, however, no room to doubt that from time to time in early ages Japanese troops were seen in Korea, though they made no permanent impression on the country. It was reserved for Hideyoshi, the taikō, to make the Korean peninsula the scene of a great over-sea campaign. Hideyoshi, the Napoleon of Japan, having brought the whole empire under his sway as the sequel of many years of incomparable generalship and statecraft, conceived the project of subjugating China. By some historians his motive has been described as a desire to find employment for the immense mob of armed men whom four centuries of almost continuous fighting had called into existence in Japan: he felt that domestic peace could not be permanently restored unless these restless spirits were occupied abroad. But although that object may have reinforced his purpose, his ambition aimed at nothing less than the conquest of China, and he regarded Korea merely as a stepping-stone to that aim. Had Korea consented to be put to such a use, she need not have fought or suffered. The Koreans, however, counted China invincible. They considered that Japan would be shattered by the first contact with the great empire, and therefore although, in the 13th century, they had given the use of their harbours to the Mongol invaders of Japan, they flatly refused in the 16th to allow their territory to be used for a Japanese invasion of China. On the 24th of May 1592 the wave of invasion rolled against Korea's southern coast. Hideyoshi had chosen Nagoya in the province of Hizen as the home-base of his operations. There the sea separating Japan from the Korean peninsula narrows to a strait divided into two channels of almost equal width by the island of Tsushima. To reach this island from the Japanese side was an easy and safe task, but in the 56-mile channel that separated Tsushima from the peninsula an invading flotilla had to run the risk of attack by Korean warships. At Nagoya Hideyoshi assembled an army of over 300,000 men, of whom some 70,000 constituted the first fighting line, 87,000 the second, and the remainder formed a reserve to be subsequently drawn on as occasion demanded. The question of transport presented some difficulty, but it was solved by the simple expedient of ordering every feudatory to furnish two ships for each 100,000 *koku* of his fief's revenue. These were not fighting vessels but mere transports. As for the plan of campaign, it was precisely in accord with modern principles of strategy, and bore witness to the daring genius of Hideyoshi. The van, consisting of three army corps and mustering in all 51,000 men, was to cross rapidly to Fusan, on the south coast of the peninsula, and immediately commence a movement northward towards the capital, Seoul, one corps moving by the eastern coast-road, one by the central route, and one by the western coast-line. Thereafter the other four corps, which formed the first fighting line, together with the corps under the direct orders of the commander-in-chief, Ukida Hideiye, were to cross, for the purpose of effectually subduing the regions through which the van had passed; and, finally, the two remaining corps of the second line were to be transported by sea up the west coast of the peninsula, to form a junction with the van which, by that time, should be preparing to pass into China over the northern boundary of Korea, namely, the Yalu River. For the landing place of these reinforcements the town of Phyong-yang was adopted, being easily accessible by the Taidong River from the coast. In later ages Japanese armies were destined to move twice over these same regions, once to the invasion of China, once to the attack of Russia, and they adopted almost the same strategical plan as that mapped out by Hideyoshi in the year 1592. The forecast was that the Koreans would offer their chief resistance, first, at the capital, Seoul; next at Phyong-yang, and finally at the Yalu, as the approaches to all these places offered positions capable of being utilized to great advantage for defensive purposes.

War with Korea.

On the 24th of May 1592 the first army corps, under the command of Konishi Yukinaga, crossed unmolested to the peninsula; next day the castle of Fusan was carried by storm, which same fate befell, on the 27th, another and stronger fortress lying 3 miles inland and garrisoned by 20,000 picked soldiers. The invaders were irresistible. From the landing-place at Fusan to the gates of Seoul the distance is 267 miles. Konishi's corps covered that interval in 19 days, storming two forts, carrying two positions and fighting one pitched battle *en route*. On the 12th of June the Korean capital was in Japanese hands, and by the 16th four army corps had assembled there, while four others had effected a landing at Fusan. After a rest of 15 days the northward advance was resumed, and July 15th saw Phyong-yang in Japanese possession. The distance of 130 miles from Seoul to the Taidong had been traversed in 18 days, 10 having been occupied in forcing the passage of a river which, if held with moderate resolution and skill, should have stopped the Japanese altogether. At this point, however, the invasion suffered a check owing to a cause which in modern times has received much attention, though in Hideyoshi's days it had been little considered; the Japanese lost the command of the sea.

Landing in Korea and Advance of the Invaders.

The Japanese idea of sea-fighting in those times was to use open boats propelled chiefly by oars. They closed as quickly as possible with the enemy, and then fell on with the trenchant swords which they used so skilfully. Now during the 15th century and part of the 16th the Chinese had been so harassed by Japanese piratical raids that their inventive genius, quickened by suffering, suggested a device for coping with these formidable adversaries. Once allow the Japanese swordsman to come to close quarters and he carried all before him. To keep him at a distance, then, was the great desideratum, and the Chinese compassed this in maritime warfare by completely covering their boats with roofs of solid timber, so that those within were protected against missiles, while loop-holes and ports enabled them to pour bullets and arrows on a foe. The Koreans learned this device from the Chinese and were the first to employ it in actual warfare. Their own history alleges that they improved upon the Chinese model by nailing sheet iron over the roofs and sides of the "turtle-shell" craft and studding the whole surface with *chevaux de frise*, but Japanese annals indicate that in the great majority of cases solid timber alone was used. It seems strange that the Japanese should have been without any clear perception of the immense fighting superiority possessed by such protected war-vessels over small open boats. But certainly they were either ignorant or indifferent. The fleet which they provided to hold the command of Korean waters did not include one vessel of any magnitude: it consisted simply of some hundreds of row-boats manned by 7000 men. Hideyoshi himself was perhaps not without misgivings. Six years previously he had endeavoured to obtain two war-galleons from the Portuguese, and had he succeeded, the history of the Far East might have been radically different. Evidently, however, he committed a blunder which his countrymen in modern times have conspicuously avoided; he drew the sword without having fully investigated his adversary's resources. Just about the time when the van of the Japanese army was entering Seoul, the Korean admiral, Yi Sun-sin, at the head of a fleet of 80 vessels, attacked the Japanese squadron which lay at anchor near the entrance to Fusan harbour, set 26 of the vessels on fire and dispersed the rest. Four other engagements ensued in rapid succession. The last and most important took place shortly after the Japanese troops had seized Phyong-yang. It

Fighting at Sea.

resulted in the sinking of over 70 Japanese vessels, transports and fighting ships combined, which formed the main part of a flotilla carrying reinforcements by sea to the van of the invading army. This despatch of troops and supplies by water had been a leading feature of Hideyoshi's plan of campaign, and the destruction of the flotilla to which the duty was entrusted may be said to have sealed the fate of the war by isolating the army in Korea from its home base. It is true that Konishi Yukinaga, who commanded the first division, would have continued his northward march from Phyong-yang without delay. He argued that China was wholly unprepared, and that the best hope of ultimate victory lay in not giving her time to collect her forces. But the commander-in-chief, Ukida Hideiye, refused to endorse this plan. He took the view that since the Korean provinces were still offering desperate resistance, supplies could not be drawn from them, neither could the troops engaged in subjugating them be freed for service at the front. Therefore it was essential to await the consummation of the second phase of Hideyoshi's plan, namely, the despatch of reinforcements and munitions by water to Phyong-yang. The reader has seen how that second phase fared. The Japanese commander at Phyong-yang never received any accession of strength. His force suffered constant diminution from casualties, and the question of commissariat became daily more difficult. It is further plain to any reader of history—and Japanese historians themselves admit the fact—that no wise effort was made to conciliate the Korean people. They were treated so harshly that even the humble peasant took up arms, and thus the peninsula, instead of serving as a basis of supplies, had to be garrisoned perpetually by a strong army.

Chinese Intervention.

The Koreans, having suffered for their loyalty to China, naturally looked to her for succour. Again and again appeals were made to Peking, and at length a force of 5000 men, which had been mobilized in the Liaotung peninsula, crossed the Yalu and moved south to Phyong-yang, where the Japanese van had been lying idle for over two months. This was early in October 1592. Memorable as the first encounter between Japanese and Chinese, the incident also illustrated China's supreme confidence in her own ineffable superiority. The whole of the Korean forces had been driven northward throughout the entire length of the peninsula by the Japanese armies, yet Peking considered that 5000 Chinese "braves" would suffice to roll back this tide of invasion. Three thousand of the Chinese were killed and the remainder fled pell-mell across the Yalu. China now began to be seriously alarmed. She collected an army variously estimated at from 51,000 to 200,000 men, and marching it across Manchuria in the dead of winter, hurled it against Phyong-yang during the first week of February 1593. The Japanese garrison did not exceed 20,000, nearly one-half of its original number having been detached to hold a line of forts which guarded the communications with Seoul. Moreover, the Chinese, though their swords were much inferior to the Japanese weapon, possessed great superiority in artillery and cavalry, as well as in the fact that their troopers wore iron mail which defied the keenest blade. Thus, after a severe fight, the Japanese had to evacuate Phyong-yang and fall back upon Seoul. But this one victory alone stands to China's credit. In all subsequent encounters of any magnitude her army suffered heavy defeats, losing on one occasion some 10,000 men, on another 4000, and on a third 39,000. But the presence of her forces and the determined resistance offered by the Koreans effectually saved China from invasion. Indeed, after the evacuation of Seoul, on the 9th of May 1593, Hideyoshi abandoned all idea of carrying the war into Chinese territory, and devoted his attention to obtaining honourable terms of peace, the Japanese troops meanwhile holding a line of forts along the southern coast of Korea. He died before that end had been accomplished. Had he lived a few days longer, he would have learned of a crushing defeat inflicted on the Chinese forces (at Sŏ-chhŏn, October 30, 1598), when the Satsuma men under Shimazu Yoshihiro took 38,700 Chinese heads and sent the noses and ears to Japan, where they now lie buried under a tumulus (*mimizuka*, ear-mound) near the temple of Daibutsu in Kiōto. Thereafter the statesmen to whom the regent on his death-bed had entrusted the duty of terminating the struggle and recalling the troops, intimated to the enemy that the evacuation of the peninsula might be obtained if a Korean prince repaired to Japan as envoy, and if some tiger-skins and *ginseng* were sent to Kiōto in token of amity. So ended one of the greatest over-sea campaigns recorded in history. It had lasted 6½ years, had seen 200,000 Japanese troops at one time on Korean soil, and had cost something like a quarter of a million lives.

Contrast between Foreign Relations in Medieval and Modern Times.

From the recall of the Korea expedition in 1598 to the resumption of intercourse with the Occident in modern times, Japan enjoyed uninterrupted peace with foreign nations. Thereafter she had to engage in four wars. It is a striking contrast. During the first eleven centuries of her historical existence she was involved in only one contest abroad; during the next half century she fought four times beyond the sea and was confronted by many complications. Whatever material or moral advantages her association with the West conferred on her, it did not bring peace.

The "Maria Luz" Complication.

The first menacing foreign complication with which the Japanese government of the Meiji era had to deal was connected with the traffic in Chinese labour, an abuse not yet wholly eradicated. In 1872, a Peruvian ship, the "Maria Luz," put into port at Yokohama, carrying 200 contract labourers. One of the unfortunate men succeeded in reaching the shore and made a piteous appeal to the Japanese authorities, who at once seized the vessel and released her freight of slaves, for they were little better. The Japanese had not always been so particular. In the days of early foreign intercourse, before England's attitude towards slavery had established a new code of ethics, Portuguese ships had been permitted to carry away from Hirado, as they did from Macao, cargoes of men and women, doomed to a life of enforced toil if they survived the horrors of the voyage. But modern Japan followed the tenets of modern morality in such matters. Of course the Peruvian government protested, and for a time relations were strained almost to the point of rupture; but it was finally agreed that the question should be submitted to the arbitration of the tsar, who decided in Japan's favour. Japan's attitude in this affair elicited applause, not merely from the point of view of humanity, but also because of the confidence she showed in Occidental justice.

The Sakhalin Complication.

Another complication which occupied the attention of the Tōkyō government from the beginning of the Meiji era was in truth a legacy from the days of feudalism. In those days the island of Yezo, as well as Sakhalin on its north-west and the Kurile group on its north, could scarcely be said to be in effective Japanese occupation. It is true that the feudal chief of Matsumae (now Fuku-yama), the remains of whose castle may still be seen on the coast at the southern extremity of the island of Yezo, exercised nominal jurisdiction; but his functions did not greatly exceed the levying of taxes on the aboriginal inhabitants of Yezo, the Kuriles and southern Sakhalin. Thus from the beginning of the 18th century Russian fishermen began to settle in the Kuriles and Russian ships menaced Sakhalin. There can be no doubt that the first explorers of Sakhalin were Japanese. As early as 1620, some vassals of the feudal chief of Matsumae visited the place and passed a winter there. It was then supposed to be a peninsula forming part of the Asiatic mainland, but in 1806 a daring Japanese traveller, by name Mamiya Rinzo, made his way to Manchuria, voyaged up and down the Amur, and, crossing to Sakhalin, discovered that a narrow strait separated it from the mainland. There still prevails in the minds of many Occidentals a belief that the discovery of Sakhalin's insular character was reserved for Captain Nevelskoy, a Russian, who visited the place in 1849, but in Japan the fact had then been known for 43 years. Muravief, the great Russian empire-builder in East Asia, under whose orders Nevelskoy acted, quickly appreciated the necessity of acquiring Sakhalin, which commands the estuary of the Amur.

After the conclusion of the treaty of Aigun (1857) he visited Japan with a squadron, and required that the strait of La Pérouse, which separates Sakhalin from Yezo, should be regarded as the frontier between Russia and Japan. This would have given the whole of Sakhalin to Russia. Japan refused, and Muravief immediately resorted to the policy he had already pursued with signal success in the Usuri region: he sent emigrants to settle in Sakhalin. Twice the shōgunate attempted to frustrate this process of gradual absorption by proposing a division of the island along the 50th parallel of north latitude, and finally, in 1872, the Meiji government offered to purchase the Russian portion for 2,000,000 dollars (then equivalent to about £400,000). St Petersburg, having by that time discovered the comparative worthlessness of the island as a wealth-earning possession, showed some signs of acquiescence, and possibly an agreement might have been reached had not a leading Japanese statesman—afterwards Count Kuroda—opposed the bargain as disadvantageous to Japan. Finally St Petersburg's perseverance won the day. In 1875 Japan agreed to recognize Russia's title to the whole island on condition that Russia similarly recognized Japan's title to the Kuriles. It was a singular compact. Russia purchased a Japanese property and paid for it with a part of Japan's belongings. These details form a curious preface to the fact that Sakhalin was destined, 30 years later, to be the scene of a Japanese invasion, in the sequel of which it was divided along the 50th parallel as the shōgun's administration had originally proposed.

Military Expedition to Formosa.

The first of Japan's four conflicts was an expedition to Formosa in 1874. Insignificant from a military point of view, this affair derives vicarious interest from its effect upon the relations between China and Japan, and upon the question of the ownership of the Riūkiū islands. These islands, which lie at a little distance south of Japan, had for centuries been regarded as an apanage of the Satsuma fief. The language and customs of their inhabitants showed unmistakable traces of relationship to the Japanese, and the possibility of the islands being included among the dominions of China had probably never occurred to any Japanese statesman. When therefore, in 1873, the crew of a wrecked Riūkiūan junk were barbarously treated by the inhabitants of northern Formosa, the Japanese government unhesitatingly assumed the responsibility of seeking redress for their outrage. Formosa being a part of the Chinese Empire, complaint was duly preferred in Peking. But the Chinese authorities showed such resolute indifference to Japan's representations that the latter finally took the law into her own hands, and sent a small force to punish the Formosan murderers, who, of course, were found quite unable to offer any serious resistance. The Chinese government, now recognizing the fact that its territories had been invaded, lodged a protest which, but for the intervention of the British minister in Peking, might have involved the two empires in war. The final terms of arrangement were that, in consideration of Japan withdrawing her troops from Formosa, China should indemnify her to the extent of the expenses of the expedition. In sending this expedition to Formosa the government sought to placate the Satsuma samurai, who were beginning to show much opposition to certain features of the administrative reforms just inaugurated, and who claimed special interest in the affairs of the Riūkiū islands.

The Riūkiū Complication.

Had Japan needed any confirmation of her belief that the Riūkiū islands belonged to her, the incidents and settlement of the Formosan complication would have constituted conclusive evidence. Thus in 1876 she did not hesitate to extend her newly organized system of prefectural government to Riūkiū, which thenceforth became the Okinawa prefecture, the former ruler of the islands being pensioned, according to the system followed in the case of the feudal chiefs in Japan proper. China at once entered an objection. She claimed that Riūkiū had always been a tributary of her empire, and she was doubtless perfectly sincere in the contention. But China's interpretation of tribute did not seem reducible to a working theory. So long as her own advantage could be promoted, she regarded as a token of vassalage the presents periodically carried to her court from neighbouring states. So soon, however, as there arose any question of discharging a suzerain's duties, she classed these offerings as insignificant interchanges of neighbourly courtesy. It was true that Riūkiū had followed the custom of despatching gift-bearing envoys to China from time to time, just as Japan herself had done, though with less regularity. But it was also true that Riūkiū had been subdued by Satsuma without China stretching out a hand to help her; that for two centuries the islands had been included in the Satsuma fief, and that China, in the sequel to the Formosan affair, had made a practical acknowledgment of Japan's superior title to protect the islanders. Each empire positively asserted its claims; but whereas Japan put hers into practice, China confined herself to remonstrances. Things remained in that state until 1880, when General Grant, visiting the East, suggested the advisability of a compromise. A conference met in Peking, and the plenipotentiaries agreed that the islands should be divided, Japan taking the northern group, China the southern. But on the eve of signature the Chinese plenipotentiary drew back, pleading that he had no authority to conclude an agreement without previously referring it to certain other dignitaries. Japan, sensible that she had been flouted, retired from the discussion and retained the islands, China's share in them being reduced to a grievance.

The Korean Complication.

From the 16th century, when the Korean peninsula was overrun by Japanese troops, its rulers made a habit of sending a present-bearing embassy to Japan to felicitate the accession of each shōgun. But after the fall of the Tokugawa shōgunate, the Korean court desisted from this custom, declared a determination to have no further relations with a country embracing Western civilization, and refused even to receive a Japanese embassy. This conduct caused deep umbrage in Japan. Several prominent politicians cast their votes for war, and undoubtedly the sword would have been drawn had not the leading statesmen felt that a struggle with Korea, involving probably a rupture with China, must fatally check the progress of the administrative reforms then (1873) in their infancy. Two years later, however, the Koreans crowned their defiance by firing on the boats of a Japanese war-vessel engaged in the operation of coast-surveying. No choice now remained except to despatch an armed expedition against the truculent kingdom. But Japan did not want to fight. In this matter she showed herself an apt pupil of Occidental methods such as had been practised against herself in former years. She assembled an imposing force of war-ships and transports, but instead of proceeding to extremities, she employed the squadron —which was by no means so strong as it seemed—to intimidate Korea into signing a treaty of amity and commerce, and opening three ports to foreign trade (1876). That was the beginning of Korea's friendly relations with the outer world, and Japan naturally took credit for the fact that, thus early in her new career, she had become an instrument for extending the principle of universal intercourse opposed so strenuously by herself in the past.

War with China.

From time immemorial China's policy towards the petty states on her frontiers had been to utilize them as buffers for softening the shock of foreign contact, while contriving, at the same time, that her relations with them should involve no inconvenient responsibilities for herself. The aggressive impulses of the outside world were to be checked by an unproclaimed understanding that the territories of these states partook of the inviolability of China, while the states, on their side, must never expect their suzerain to bear the consequences of their acts. This arrangement, depending largely on sentiment and prestige, retained its validity in the atmosphere of Oriental seclusion, but quickly failed to endure the test of modern Occidental practicality. Tongking, Annam, Siam and Burma were withdrawn, one by one, from the fiction of dependence on China and independence towards all other countries. But with regard to Korea, China proved more tenacious. The

possession of the peninsula by a foreign power would have threatened the maritime route to the Chinese capital and given easy access to Manchuria, the cradle of the dynasty which ruled China. Therefore Peking statesmen endeavoured to preserve the old-time relations with the little kingdom. But they could never persuade themselves to modify the indirect methods sanctioned by tradition. Instead of boldly declaring Korea a dependency of China, they sought to keep up the romance of ultimate dependency and intermediate sovereignty. Thus in 1876 Korea was suffered to conclude with Japan a treaty of which the first article declared her "an independent state enjoying the same rights as Japan," and subsequently to make with the United States (1882), Great Britain (1883) and other powers, treaties in which her independence was constructively admitted. China, however, did not intend that Korea should exercise the independence thus conventionally recognized. A Chinese resident was placed in Seoul, and a system of steady though covert interference in Korea's affairs was inaugurated. The chief sufferer from these anomalous conditions was Japan. In all her dealings with Korea, in all complications that arose out of her comparatively large trade with the peninsula, in all questions connected with her numerous settlers there, she found herself negotiating with a dependency of China, and with officials who took their orders from the Chinese representative. China had long entertained a rooted apprehension of Japanese aggression in Korea—an apprehension not unwarranted by history—and that distrust tinged all the influence exerted by her agents there. On many occasions Japan was made sensible of the discrimination thus exercised against her. Little by little the consciousness roused her indignation, and although no single instance constituted a ground for strong international protest, the Japanese people gradually acquired a sense of being perpetually baffled, thwarted and humiliated by China's interference in Korean affairs. For thirty years China had treated Japan as a contemptible deserter from the Oriental standard, and had regarded her progressive efforts with openly disdainful aversion; while Japan, on her side, had chafed more and more to furnish some striking evidence of the wisdom of her preference for Western civilization. Even more serious were the consequences of Chinese interference from the point of view of Korean administration. The rulers of the country lost all sense of national responsibility, and gave unrestrained sway to selfish ambition. The functions of the judiciary and of the executive alike came to be discharged by bribery only. Family interests predominated over those of the state. Taxes were imposed in proportion to the greed of local officials. No thought whatever was taken for the welfare of the people or for the development of the country's resources. Personal responsibility was unknown among officials. To be a member of the Min family, to which the queen belonged, was to possess a passport to office and an indemnity against the consequences of abuse of power. From time to time the advocates of progress or the victims of oppression rose in arms. They effected nothing except to recall to the world's recollection the miserable condition into which Korea had fallen. Chinese military aid was always furnished readily for the suppression of these risings, and thus the Min family learned to base its tenure of power on ability to conciliate China and on readiness to obey Chinese dictation, while the people at large fell into the apathetic condition of men who possess neither security of property nor national ambition.

As a matter of state policy the Korean problem caused much anxiety to Japan. Her own security being deeply concerned in preserving Korea from the grasp of a Western power, she could not suffer the little kingdom to drift into a condition of such administrative incompetence and national debility that a strong aggressor might find at any moment a pretext for interference. On two occasions (1882 and 1884) when China's armed intervention was employed in the interests of the Min to suppress movements of reform, the partisans of the victors, regarding Japan as the fountain of progressive tendencies, destroyed her legation in Seoul and compelled its inmates to fly from the city. Japan behaved with forbearance at these crises, but in the consequent negotiations she acquired conventional titles that touched the core of China's alleged suzerainty. In 1882 her right to maintain troops in Seoul for the protection of her legation was admitted; in 1885 she concluded with China a convention by which each power pledged itself not to send troops to Korea without notifying the other.

The Rupture with China.

In the spring of 1894 a serious insurrection broke out in Korea, and the Min family appealed for China's aid. On the 6th of July 2500 Chinese troops embarked at Tientsin and were transported to the peninsula, where they went into camp at Ya-shan (Asan), on the south-west coast, notice of the measure being given by the Chinese government to the Japanese representative at Peking, according to treaty. During the interval immediately preceding these events, Japan had been rendered acutely sensible of China's arbitrary and unfriendly interference in Korea. Twice the efforts of the Japanese government to obtain redress for unlawful and ruinous commercial prohibitions had been thwarted by the Chinese representative in Seoul; and an ultimatum addressed from Tōkyō to the Korean government had elicited from the viceroy Li in Tientsin a thinly veiled threat of Chinese armed opposition. Still more provocative of national indignation was China's procedure with regard to the murder of Kim Ok-kyun, the leader of progress in Korea, who had been for some years a refugee in Japan. Inveigled from Japan to China by a fellow-countryman sent from Seoul to assassinate him, Kim was shot in a Japanese hotel in Shanghai; and China, instead of punishing the murderer, conveyed him in a war-ship of her own to Korea to be publicly honoured. When, therefore, the Korean insurrection of 1894 induced the Min family again to solicit China's armed intervention, the Tōkyō government concluded that, in the interests of Japan's security and of civilization in the Orient, steps must be taken to put an end to the misrule which offered incessant invitations to foreign aggression, and checked Korea's capacity to maintain its own independence. Japan did not claim for herself any rights or interests in the peninsula superior to those possessed there by China. But there was not the remotest probability that China, whose face had been contemptuously set against all the progressive measures adopted by Japan during the preceding twenty-five years, would join in forcing upon a neighbouring kingdom the very reforms she herself despised, were her co-operation invited through ordinary diplomatic channels only. It was necessary to contrive a situation which would not only furnish clear proof of Japan's resolution, but also enable her to pursue her programme independently of Chinese endorsement, should the latter be finally unobtainable. She therefore met China's notice of a despatch of troops with a corresponding notice of her own, and the month of July 1894 found a Chinese force assembled at Asan and a Japanese force occupying positions in the neighbourhood of Seoul. China's motive for sending troops was nominally to quell the Tonghak insurrection, but really to re-affirm her own domination in the peninsula. Japan's motive was to secure such a position as would enable her to insist upon the radically curative treatment of Korea's malady. Up to this point the two empires were strictly within their conventional rights. Each was entitled by treaty to send troops to Korea, provided that notice was given to the other. But China, in giving notice, described Korea as her "tributary state," thus thrusting into the forefront of the discussion a contention which Japan, from conciliatory motives, would have kept out of sight. Once formally advanced, however, the claim had to be challenged. In the treaty of amity and commerce concluded in 1876 between Japan and Korea, the two high contracting parties were explicitly declared to possess the same national status. Japan could not agree that a power which for nearly two decades she had acknowledged and treated as her equal should be openly classed as a tributary of China. She protested, but the Chinese statesmen took no notice of her protest. They continued to apply the disputed appellation to Korea, and they further asserted their assumption of sovereignty in the peninsula by seeking to set limits to the number of troops sent by Japan, as well as to the sphere of their employment. Japan then proposed that

the two empires should unite their efforts for the suppression of disturbances in Korea, and for the subsequent improvement of that kingdom's administration, the latter purpose to be pursued by the despatch of a joint commission of investigation. But China refused everything. Ready at all times to interfere by force of arms between the Korean people and the dominant political faction, she declined to interfere in any way for the promotion of reform. She even expressed supercilious surprise that Japan, while asserting Korea's independence, should suggest the idea of peremptorily reforming its administration. In short, for Chinese purposes the Peking statesmen openly declared Korea a tributary state; but for Japanese purposes they insisted that it must be held independent. They believed that their island neighbour aimed at the absorption of Korea into the Japanese empire. Viewed in the light of that suspicion, China's attitude became comprehensible, but her procedure was inconsistent, illogical and unpractical. The Tōkyō cabinet now declared its resolve not to withdraw the Japanese troops without "some understanding that would guarantee the future peace, order, and good government of Korea," and since China still declined to come to such an understanding, Japan undertook the work of reform single-handed.

Outbreak of Hostilities.

The Chinese representative in Seoul threw his whole weight into the scale against the success of these reforms. But the determining cause of rupture was in itself a belligerent operation. China's troops had been sent originally for the purpose of quelling the Tonghak rebellion. But the rebellion having died of inanition before the landing of the troops, their services were not required. Nevertheless China kept them in Korea, her declared reason for doing so being the presence of a Japanese military force. Throughout the subsequent negotiations the Chinese forces lay in an entrenched camp at Asan, while the Japanese occupied Seoul. An attempt on China's part to send reinforcements could be construed only as an unequivocal declaration of resolve to oppose Japan's proceedings by force of arms. Nevertheless China not only despatched troops by sea to strengthen the camp at Asan, but also sent an army overland across Korea's northern frontier. At this stage an act of war occurred. Three Chinese men-of-war, convoying a transport with 1200 men encountered and fired on three Japanese cruisers. One of the Chinese ships was taken; another was so shattered that she had to be beached and abandoned; the third escaped in a dilapidated condition; and the transport, refusing to surrender, was sunk. This happened on the 25th of July 1894, and an open declaration of war was made by each empire six days later.

Remote Origin of the Conflict.

From the moment when Japan applied herself to break away from Oriental traditions, and to remove from her limbs the fetters of Eastern conservatism, it was inevitable that a widening gulf should gradually grow between herself and China. The war of 1894 was really a contest between Japanese progress and Chinese stagnation. To secure Korean immunity from foreign—especially Russian—aggression was of capital importance to both empires. Japan believed that such security could be attained by introducing into Korea the civilization which had contributed so signally to the development of her own strength and resources. China thought that she could guarantee it without any departure from old-fashioned methods, and by the same process of capricious protection which had failed so signally in the cases of Annam, Tongking, Burma and Siam. The issue really at stake was whether Japan should be suffered to act as the Eastern propagandist of Western progress, or whether her efforts in that cause should be held in check by Chinese conservatism.

Events of the War.

The war itself was a succession of triumphs for Japan. Four days after the first naval encounter she sent from Seoul a column of troops who routed the Chinese entrenched at Asan. Many of the fugitives effected their escape to Phyong-yang, a town on the Taidong River, offering excellent facilities for defence, and historically interesting as the place where a Japanese army of invasion had its first encounter with Chinese troops in 1592. There the Chinese assembled a force of 17,000 men, and made leisurely preparations for a decisive contest. Forty days elapsed before the Japanese columns converged upon Phyong-yang, and that interval was utilized by the Chinese to throw up parapets, mount Krupp guns and otherwise strengthen their position. Moreover, they were armed with repeating rifles, whereas the Japanese had only single-loaders, and the ground offered little cover for an attacking force. In such circumstances, the advantages possessed by the defence ought to have been wellnigh insuperable; yet a day's fighting sufficed to carry all the positions, the assailants' casualties amounting to less than 700 and the defenders losing 6000 in killed and wounded. This brilliant victory was the prelude to an equally conspicuous success at sea. For on the 17th of September, the very day after the battle at Phyong-yang, a great naval fight took place near the mouth of the Yalu River, which forms the northern boundary of Korea. Fourteen Chinese warships and six torpedo-boats were returning to home ports after convoying a fleet of transports to the Yalu, when they encountered eleven Japanese men-of-war cruising in the Yellow Sea. Hitherto the Chinese had sedulously avoided a contest at sea. Their fleet included two armoured battleships of over 7000 tons displacement, whereas the biggest vessels on the Japanese side were belted cruisers of only 4000 tons. In the hands of an admiral appreciating the value of sea power, China's naval force would certainly have been led against Japan's maritime communications, for a successful blow struck there must have put an end to the Korean campaign. The Chinese, however, failed to read history. They employed their war-vessels as convoys only, and, when not using them for that purpose, hid them in port. Everything goes to show that they would have avoided the battle off the Yalu had choice been possible, though when forced to fight they fought bravely. Four of their ships were sunk, and the remainder escaped to Wei-hai-wei, the vigour of the Japanese pursuit being greatly impaired by the presence of torpedo-boats in the retreating squadron.

The Yalu victory opened the over-sea route to China. Japan could now strike at Talien, Port Arthur, and Wei-hai-wei, naval stations on the Liaotung and Shantung peninsulas, where powerful permanent fortifications, built after plans prepared by European experts and armed with the best modern weapons, were regarded as almost impregnable. They fell before the assaults of the Japanese troops as easily as the comparatively rude fortifications at Phyong-yang had fallen. The only resistance of a stubborn character was made by the Chinese fleet at Wei-hai-wei; but after the whole squadron of torpedo-craft had been destroyed or captured as they attempted to escape, and after three of the largest vessels had been sunk at their moorings by Japanese torpedoes, and one by gun-fire, the remaining ships surrendered, and their brave commander, Admiral Ting, committed suicide. This ended the war. It had lasted seven and a half months, during which time Japan put into the field five columns, aggregating about 120,000 of all arms. One of these columns marched northward from Seoul, won the battle of Phyong-yang, advanced to the Yalu, forced its way into Manchuria, and moved towards Mukden by Feng-hwang, fighting several minor engagements, and conducting the greater part of its operations amid deep snow in midwinter. The second column diverged westwards from the Yalu, and, marching through southern Manchuria, reached Hai-cheng, whence it advanced to the capture of Niuchwang and Ying-tse-kow. The third landed on the Liaotung peninsula, and, turning southwards, carried Talien and Port Arthur by assault. The fourth moved up the Liaotung peninsula, and, having seized Kaiping, advanced against Ying-tse-kow, where it joined hands with the second column. The fifth crossed from Port Arthur to Wei-hai-wei, and captured the latter. In all these operations the total Japanese casualties were 1005 killed and 4922 wounded—figures which sufficiently indicate the inefficiency of the Chinese fighting. The deaths from disease totalled 16,866, and the total monetary expenditure was £20,000,000 sterling.

The Chinese government sent Li Hung-chang, viceroy of Pechili and senior grand secretary of state, and Li Ching-fong, to discuss terms of peace with Japan, the latter being represented by Marquis (afterwards Prince) Itō and Count Mutsu, prime minister and minister for foreign affairs, respectively. A treaty was signed at Shimonoseki on the 17th of April 1895, and subsequently ratified by the sovereigns of the two empires. It declared the absolute independence of Korea; ceded to Japan the part of Manchuria lying south of a line drawn from the mouth of the river Anping to the mouth of the Liao, through Feng-hwang, Hai-cheng and Ying-tse-kow, as well as the islands of Formosa and the Pescadores; pledged China to pay an indemnity of 200,000,000 taels; provided for the occupation of Wei-hai-wei by Japan pending payment of the indemnity; secured some additional commercial privileges, such as the opening of four new places to foreign trade and the right of foreigners to engage in manufacturing enterprises in China, and provided for the conclusion of a treaty of commerce and amity between the two empires, based on the lines of China's treaties with Occidental powers.

Conclusion of Peace.

No sooner was this agreement ratified than Russia, Germany and France presented a joint note to the Tōkyō government, recommending that the territories ceded to Japan on the mainland of China should not be permanently occupied, as such a proceeding would be detrimental to peace. The recommendation was couched in the usual terms of diplomatic courtesy, but everything indicated that its signatories were prepared to enforce their advice by an appeal to arms. Japan found herself compelled to comply. Exhausted by the Chinese campaign, which had drained her treasury, consumed her supplies of warlike material, and kept her squadrons constantly at sea for eight months, she had no residue of strength to oppose such a coalition. Her resolve was quickly taken. The day that saw the publication of the ratified treaty saw also the issue of an Imperial rescript in which the mikado, avowing his unalterable devotion to the cause of peace, and recognizing that the counsel offered by the European states was prompted by the same sentiment, "yielded to the dictates of magnanimity, and accepted the advice of the three Powers." The Japanese people were shocked by this incident. They could understand the motives influencing Russia and France, for it was evidently natural that the former should desire to exclude warlike and progressive people like the Japanese from territories contiguous to her borders, and it was also natural that France should remain true to her alliance with Russia. But Germany, wholly uninterested in the ownership of Manchuria, and by profession a warm friend of Japan, seemed to have joined in robbing the latter of the fruits of her victory simply for the sake of establishing some shadowy title to Russia's goodwill. It was not known until a later period that the German emperor entertained profound apprehensions about the "yellow peril," an irruption of Oriental hordes into the Occident, and held it a sacred duty to prevent Japan from gaining a position which might enable her to construct an immense military machine out of the countless millions of China.

Foreign Interference.

Japan's third expedition over-sea in the Meiji era had its origin in causes which belong to the history of China (*q.v.*). In the second half of 1900 an anti-foreign and anti-dynastic rebellion, breaking out in Shantung, spread to the metropolitan province of Pechili, and resulted in a situation of extreme peril for the foreign communities of Tientsin and Peking. It was impossible for any European power, or for the United States, to organize sufficiently prompt measures of relief. Thus the eyes of the world turned to Japan, whose proximity to the scene of disturbance rendered intervention comparatively easy for her. But Japan hesitated. Knowing now with what suspicion and distrust the development of her resources and the growth of her military strength were regarded by some European peoples, and aware that she had been admitted to the comity of Western nations on sufferance, she shrank, on the one hand, from seeming to grasp at an opportunity for armed display, and, on the other, from the solecism of obtrusiveness in the society of strangers. Not until Europe and America made it quite plain that they needed and desired her aid did she send a division (21,000) men to Pechili. Her troops played a fine part in the subsequent expedition for the relief of Peking, which had to be approached in midsummer under very trying conditions. Fighting side by side with European and American soldiers, and under the eyes of competent military critics, the Japanese acquitted themselves in such a manner as to establish a high military reputation. Further, after the relief of Peking they withdrew a moiety of their forces, and that step, as well as their unequivocal co-operation with Western powers in the subsequent negotiations, helped to show the injustice of the suspicions with which they had been regarded.

Chinese Crisis of 1900.

From the time (1895) when Russia, with the co-operation of Germany and France, dictated to Japan a cardinal alteration of the Shimonoseki treaty, Japanese statesmen seem to have concluded that their country must one day cross swords with the great northern power. Not a few European and American publicists shared that view. But the vast majority, arguing that the little Eastern empire would never invite annihilation by such an encounter, believed that sufficient forbearance to avert serious trouble would always be forthcoming on Japan's side. Yet when the geographical and historical situation was carefully considered, little hope of an ultimately peaceful settlement presented itself.

War with Russia.

Japan along its western shore, Korea along its southern and eastern, and Russia along the eastern coast of its maritime province, are washed by the Sea of Japan. The communications between the sea and the Pacific Ocean are practically two only. One is on the north-east, namely, Tsugaru Strait; the other is on the south, namely, the channel between the extremity of the Korean peninsula and the Japanese island of the nine provinces. Tsugaru Strait is entirely under Japan's control. It is between her main island and her island of Yezo, and in case of need she can close it with mines. The channel between the southern extremity of Korea and Japan has a width of 102 m. and would therefore be a fine open sea-way were it free from islands. But almost mid-way in this channel lie the twin islands of Tsushima, and the space of 56 m. that separates them from Japan is narrowed by another island, Iki. Tsushima and Iki belong to the Japanese empire. The former has some exceptionally good harbours, constituting a naval base from which the channel on either side could easily be sealed. Thus the avenues from the Pacific Ocean to the Sea of Japan are controlled by the Japanese empire. In other words, access to the Pacific from Korea's eastern and southern coasts and access to the Pacific from Russia's maritime province depend upon Japan's goodwill. So far as Korea was concerned this question mattered little, it being her fate to depend upon the goodwill of Japan in affairs of much greater importance. But with Russia the case was different. Vladivostok, which until recent times was her principal port in the Far East, lies at the southern extremity of the maritime province; that is to say, on the north-western shore of the Japan Sea. It was therefore necessary for Russia that freedom of passage by the Tsushima channel should be secured, and to secure it one of two things was essential, namely, either that she herself should possess a fortified port on the Korean side, or that Japan should be bound neither to acquire such a port nor to impose any restriction upon the navigation of the strait. To put the matter briefly, Russia must either acquire a strong foothold for herself in southern Korea, or contrive that Japan should not acquire one. There was here a strong inducement for Russian aggression in Korea.

Russia's eastward movement through Asia has been strikingly illustrative of her strong craving for free access to southern seas and of the impediments she had experienced in gratifying that wish. An irresistible impulse had driven her oceanward. Checked again and again in her attempts to reach the Mediterranean, she set out on a five-thousand-miles march of conquest right across the vast Asiatic continent towards the Pacific. Eastward of Lake Baikal she found her line of least resistance along the Amur, and when, owing to the restless perseverance

of Muravief, she reached the mouth of that great river, the acquisition of Nikolayevsk for a naval basis was her immediate reward. But Nikolayevsk could not possibly satisfy her. Situated in an inhospitable region far away from all the main routes of the world's commerce, it offered itself only as a stepping-stone to further acquisitions. To push southward from this new port became an immediate object to Russia. There lay an obstacle in the way, however; the long strip of sea-coast from the mouth of the Amur to the Korean frontier—an area then called the Usuri region because the Usuri forms its western boundary—belonged to China, and she, having conceded much to Russia in the matter of the Amur, showed no disposition to make further concessions in the matter of the Usuri. In the presence of menaces, however, she agreed that the region should be regarded as common property pending a convenient opportunity for clear delimitation. That opportunity came very soon. Seizing the moment (1860) when China had been beaten to her knees by England and France, Russia secured final cession of the Usuri region, which now became the maritime province of Siberia. Then Russia shifted her naval base on the Pacific from Nikolayevsk to Vladivostok. She gained ten degrees in a southerly direction.

From the mouth of the Amur, where Nikolayevsk is situated, to the southern shore of Korea there rests on the coast of eastern Asia an arch of islands having at its northern point Sakhalin and at its southern Tsushima, the keystone of the arch being the main island of Japan. This arch embraces the Sea of Japan and is washed on its convex side by the Pacific Ocean. Immediately after the transfer of Russia's naval base from Nikolayevsk to Vladivostok, an attempt was made to obtain possession of the southern point of the arch, namely, Tsushima. A Russian man-of-war proceeded thither and quietly began to establish a settlement, which would soon have constituted a title of ownership had not Great Britain interfered. The Russians saw that Vladivostok, acquired at the cost of so much toil, would be comparatively useless unless from the sea on whose shore it was situated an avenue to the Pacific could be opened, and they therefore tried to obtain command of the Tsushima channel. Immediately after reaching the mouth of the Amur the same instinct had led them to begin the colonization of Sakhalin. The axis of this long narrow island is inclined at a very acute angle to the Usuri region, which its northern extremity almost touches, while its southern is separated from Yezo by the strait of La Pérouse. But in Sakhalin the Russians found Japanese subjects. In fact the island was a part of the Japanese empire. Resorting, however, to the Usuri fiction of joint occupation, they succeeded by 1875 in transferring the whole of Sakhalin to Russia's dominion. Further encroachments upon Japanese territory could not be lightly essayed, and the Russians held their hands. They had been trebly checked: checked in trying to push southward along the coast of the mainland; checked in trying to secure an avenue from Vladivostok to the Pacific; and checked in their search for an ice-free port, which definition Vladivostok did not fulfil. Enterprise in the direction of Korea seemed to be the only hope of saving the maritime results of the great Trans-Asian march.

Was Korea within safe range of such enterprises? Everything seemed to answer in the affirmative. Korea had all the qualifications desired by an aggressor. Her people were unprogressive, her resources undeveloped, her self-defensive capacities insignificant, her government corrupt. But she was a tributary of China, and China had begun to show some tenacity in protecting the integrity of her buffer states. Besides, Japan was understood to have pretensions with regard to Korea. On the whole, therefore, the problem of carrying to full fruition the work of Muravief and his lieutenants demanded strength greater than Russia could exercise without some line of communications supplementing the Amur waterway and the long ocean route. Therefore she set about the construction of a railway across Asia.

The Amur being the boundary of Russia's east Asian territory, this railway had to be carried along its northern bank where many engineering and economic obstacles presented themselves. Besides, the river, from an early stage in its course, makes a huge semicircular sweep northward, and a railway following its bank to Vladivostok must make the same détour. If, on the contrary, the road could be carried over the diameter of the semicircle, it would be a straight and therefore shorter line, technically easier and economically better. The diameter, however, passed through Chinese territory, and an excuse for extorting China's permission was not in sight. Russia therefore proceeded to build each end of the road, deferring the construction of the Amur section for the moment. She had not waited long when, in 1894, war broke out between China and Japan, and the latter, completely victorious, demanded as the price of peace the southern littoral of Manchuria from the Korean boundary to the Liaotung peninsula at the entrance to the Gulf of Pechili. This was a crisis in Russia's career. She saw that her maritime extension could never get nearer to the Pacific than Vladivostok were this claim of Japan's established. For the proposed arrangement would place the littoral of Manchuria in Japan's direct occupation and the littoral of Korea in her constructive control, since not only had she fought to rescue Korea from Chinese suzerainty, but also her object in demanding a slice of the Manchurian coast-line was to protect Korea against aggression from the north; that is to say, against aggression from Russia. Muravief's enterprise had carried his country first to the mouth of the Amur and thence southward along the coast to Vladivostok and to Possiet Bay at the north-eastern extremity of Korea. But it had not given to Russia free access to the Pacific, and now she was menaced with a perpetual barrier to that access, since the whole remaining coast of east Asia as far as the Gulf of Pechili was about to pass into Japan's possession or under her domination.

Then Russia took an extraordinary step. She persuaded Germany and France to force Japan out of Manchuria. It is not to be supposed that she frankly exposed her own aggressive designs and asked for assistance to prosecute them. Neither is it to be supposed that France and Germany were so curiously deficient in perspicacity as to overlook those designs. At all events these three great powers served on Japan a notice to quit, and Japan, exhausted by her struggle with China, had no choice but to obey.

The notice was accompanied by an *exposé* of reasons. Its signatories said that Japan's tenure of the Manchurian littoral would menace the security of the Chinese capital, would render the independence of Korea illusory, and would constitute an obstacle to the peace of the Orient.

By way of saving the situation in some slight degree Japan sought from China a guarantee that no portion of Manchuria should thereafter be leased or ceded to a foreign state. But France warned Japan that to press such a demand would offend Russia, and Russia declared that, for her part, she had no intention of trespassing in Manchuria. Japan, had she been in a position to insist on the guarantee, would also have been in a position to disobey the mandate of the three powers. Unable to do either the one or the other, she quietly stepped out of Manchuria, and proceeded to double her army and treble her navy.

As a reward for the assistance nominally rendered to China in this matter, Russia obtained permission in Peking to divert her Trans-Asian railway from the huge bend of the Amur to the straight line through Manchuria. Neither Germany nor France received any immediate recompense. Three years later, by way of indemnity for the murder of two missionaries by a mob, Germany seized a portion of the province of Shantung. Immediately, on the principle that two wrongs make a right, Russia obtained a lease of the Liaotung peninsula, from which she had driven Japan in 1895. This act she followed by extorting from China permission to construct a branch of the Trans-Asian railway through Manchuria from north to south.

Russia's maritime aspirations had now assumed a radically altered phase. Instead of pushing southward from Vladivostok and Possiet Bay along the coast of Korea, she had suddenly

leaped the Korean peninsula and found access to the Pacific in Liaotung. Nothing was wanting to establish her as practical mistress of Manchuria except a plausible excuse for garrisoning the place. Such an excuse was furnished by the Boxer rising in 1900. Its conclusion saw her in military occupation of the whole region, and she might easily have made her occupation permanent by prolonging it until peace and order should have been fully restored. But here she fell into an error of judgment. Imagining that the Chinese could be persuaded or intimidated to any concession, she proposed a convention virtually recognizing her title to Manchuria.

Japan watched all these things with profound anxiety. If there were any reality in the dangers which Russia, Germany and France had declared to be incidental to Japanese occupation of a part of Manchuria, the same dangers must be doubly incidental to Russian occupation of the whole of Manchuria—the security of the Chinese capital would be threatened, and an obstacle would be created to the permanent peace of the East. The independence of Korea was an object of supreme solicitude to Japan. Historically she held towards the little state a relation closely resembling that of suzerain, and though of her ancient conquests nothing remained except a settlement at Fusan on the southern coast, her national sentiment would have been deeply wounded by any foreign aggression in the peninsula. It was to establish Korean independence that she waged war with China in 1894; and her annexation of the Manchurian littoral adjacent to the Korean frontier, after the war, was designed to secure that independence, not to menace it as the triple alliance professed to think. But if Russia came into possession of all Manchuria, her subsequent absorption of Korea would be almost inevitable. For the consideration set forth above as to Vladivostok's maritime avenues would then acquire absolute cogency. Manchuria is larger than France and the United Kingdom lumped together. The addition of such an immense area to Russia's east Asiatic dominions, together with its littoral on the Gulf of Pechili and the Yellow Sea, would necessitate a corresponding expansion of her naval forces in the Far East. With the one exception of Port Arthur, however, the Manchurian coast does not offer any convenient naval base. It is only in the splendid harbours of southern Korea that such bases can be found. Moreover, there would be an even stronger motive impelling Russia towards Korea. Neither the Usuri region nor the Manchurian littoral possesses so much as one port qualified to satisfy her perennial longing for free access to the ocean in a temperate zone. Without Korea, then, Russia's east Asian expansion, though it added huge blocks of territory to her dominions, would have been commercially incomplete and strategically defective.

If it be asked why, apart from history and national sentiment, Japan should object to a Russian Korea, the answer is, first, because there would thus be planted almost within cannon-shot of her shores a power of enormous strength and insatiable ambition; secondly, because, whatever voice in Manchuria's destiny Russia derived from her railway, the same voice in Korea's destiny was possessed by Japan as the sole owner of railways in the peninsula; thirdly, that whereas Russia had an altogether insignificant share in the foreign commerce of Korea and scarcely ten bona-fide settlers, Japan did the greater part of the over-sea trade and had tens of thousands of settlers; fourthly, that if Russia's dominions stretched uninterruptedly from the Sea of Okhotsk to the Gulf of Pechili, her ultimate absorption of north China would be as certain as sunrise; and fifthly, that such domination and such absorption would involve the practical closure of all that immense region to Japanese commerce and industry as well as to the commerce and industry of every Western nation except Russia. This last proposition did not rest solely on the fact that to oppose artificial barriers to free competition is Russia's sole hope of utilizing to her own benefit any commercial opportunities brought within her reach. It rested also on the fact that Russia had objected to foreign settlements at the marts recently opened by treaty with China to American and Japanese subjects. Without settlements, trade at those marts would be impossible, and thus Russia had constructively announced that there should be no trade but Russian, if she could prevent it.

Against such dangers Japan would have been justified in adopting any measure of self-protection. She had foreseen them for six years, and had been strengthening herself to avert them. But she wanted peace. She wanted to develop her material resources and to accumulate some measure of wealth, without which she must remain insignificant among the nations. Two pacific devices offered, and she adopted them both. Russia, instead of trusting time to consolidate her tenure of Manchuria, had made the mistake of pragmatically importuning China for a conventional title. If then Peking could be strengthened to resist this demand, some arrangement of a distinctly terminable nature might be made. The United States, Great Britain and Japan, joining hands for that purpose, did succeed in so far stiffening China's backbone that her show of resolution finally induced Russia to sign a treaty pledging herself to withdraw her troops from Manchuria in three instalments, each step of evacuation to be accomplished by a fixed date. That was one of the pacific devices. The other suggested itself in connexion with the new commercial treaties which China had promised to negotiate in the sequel of the Boxer troubles. In these documents clauses provided for the opening of three places in Manchuria to foreign trade. It seemed a reasonable hope that, having secured commercial access to Manchuria by covenant with its sovereign, China, the powers would not allow Russia arbitrarily to restrict their privileges. It seemed also a reasonable hope that Russia, having solemnly promised to evacuate Manchuria at fixed dates, would fulfil her engagement.

The latter hope was signally disappointed. When the time came for evacuation, Russia behaved as though no promise had ever been given. She proposed wholly new conditions, which would have strengthened her grasp of Manchuria instead of loosening it. China being powerless to offer any practical protest, and Japan's interests ranking next in order of importance, the Tōkyō government approached Russia direct. They did not ask for anything that could hurt her pride or injure her position. Appreciating fully the economical status she had acquired in Manchuria by large outlays of capital, they offered to recognize that status, provided that Russia would extend similar recognition to Japan's status in Korea, would promise, in common with Japan, to respect the sovereignty and the territorial integrity of China and Korea, and would be a party to a mutual engagement that all nations should have equal industrial and commercial opportunities in Manchuria and the Korean peninsula. In a word, they invited Russia to subscribe the policy enunciated by the United States and Great Britain, the policy of the open door and of the integrity of the Chinese and Korean empires.

Thus commenced a negotiation which lasted five and a half months. Japan gradually reduced her demands to a minimum. Russia never made the smallest appreciable concession. She refused to listen to Japan for one moment about Manchuria. Eight years previously Japan had been in military possession of Manchuria, and Russia with the assistance of Germany and France had expelled her for reasons which concerned Japan incomparably more than they concerned any of the three powers—the security of the Chinese capital, the independence of Korea, the peace of the East. Now, Russia had the splendid assurance to declare by implication that none of these things concerned Japan at all. The utmost she would admit was Japan's partial right to be heard about Korea. And at the same time she herself commenced in northern Korea a series of aggressions, partly perhaps to show her potentialities, partly by way of counter-irritant. That was not all. Whilst she studiously deferred her answers to Japan's proposals and protracted the negotiations to an extent which was actually contumelious, she hastened to send eastward a big fleet of war-ships and a new army of soldiers. It was impossible for the dullest politician to mistake her purpose. She intended to yield nothing, but to prepare such a parade of force that her obduracy would

command submission. The only alternatives for Japan were war or total and permanent effacement in Asia. She chose war, and in fighting it she fought the battle of free and equal opportunities for all without undue encroachment upon the sovereign rights or territorial integrity of China or Korea, against a military dictatorship, a programme of ruthless territorial aggrandizement and a policy of selfish restrictions.

The details of the great struggle that ensued are given elsewhere (see RUSSO-JAPANESE WAR). After the battle of Mukden the belligerents found themselves in a position which must either prelude another stupendous effort on both sides or be utilized for the purpose of peace negotiations. At this point the president of the United States of America intervened in the interests of humanity, and on the 9th of June 1905 instructed the United States' representative in Tōkyō to urge that the Japanese government should open direct negotiations with Russia, an exactly corresponding note being simultaneously sent to the Russian government through the United States' representative in St Petersburg. Japan's reply was made on the 10th of June. It intimated frank acquiescence, and Russia lost no time in taking a similar step. Nevertheless two months elapsed before the plenipotentiaries of the belligerents met, on the 10th of August, at Portsmouth, New Hampshire, U.S.A. Russia sent M. (afterwards Count) de Witte and Baron Rosen; Japan, Baron (afterwards Count) Komura, who had held the portfolio of foreign affairs throughout the war, and Mr. (afterwards Baron) Takahira. In entering this conference, Japanese statesmen, as was subsequently known, saw clearly that a great part of the credit accruing to them for their successful conduct of the war would be forfeited in the sequel of the negotiations. For the people of Japan had accustomed themselves to expect that Russia would assuredly recoup the expenses incurred by their country in the contest, whereas the cabinet in Tōkyō understood well that to look for payment of indemnity by a great state whose territory had not been invaded effectively nor its existence menaced must be futile. Nevertheless, diplomacy required that this conviction should be concealed, and thus Russia carried to the conference a belief that the financial phase of the discussion would be crucial, while, at the same time, the Japanese nation reckoned fully on an indemnity of 150 millions sterling. Baron Komura's mandate was, however, that the only radically essential terms were those formulated by Japan prior to the war. She must insist on securing the ends for which she had fought, since she believed them to be indispensable to the peace of the Far East, but she would not demand anything more. The Japanese plenipotentiary, therefore, judged it wise to marshal his terms in the order of their importance, leaving his Russian colleague to imagine, as he probably would, that the converse method had been adopted, and that everything preliminary to the questions of finance and territory was of minor consequence. The negotiations, commencing on the 10th of August, were not concluded until the 5th of September, when a treaty of peace was signed. There had been a moment when the onlooking world believed that unless Russia agreed to ransom the island of Sakhalin by paying to Japan a sum of 120 millions sterling, the conference would be broken off; nor did such an exchange seem unreasonable, for were Russia expelled from the northern part of Sakhalin, which commands the estuary of the Amur River, her position in Siberia would have been compromised. But the statesmen who directed Japan's affairs were not disposed to make any display of earth-hunger. The southern half of Sakhalin had originally belonged to Japan and had passed into Russia's possession by an arrangement which the Japanese nation strongly resented. To recover that portion of the island seemed, therefore, a legitimate ambition. Japan did not contemplate any larger demand, nor did she seriously insist on an indemnity. Therefore the negotiations were never in real danger of failure. The treaty of Portsmouth recognized Japan's "paramount political, military and economic interests" in Korea; provided for the simultaneous evacuation of Manchuria by the contracting parties; transferred to Japan the lease of the Liaotung peninsula held by Russia from China together with the Russian railways south of Kwang-Cheng-tsze and all collateral mining or other privileges; ceded to Japan the southern half of Sakhalin, the 50th parallel of latitude to be the boundary between the two parts; secured fishing rights for Japanese subjects along the coasts of the seas of Japan, Okhotsk and Bering; laid down that the expenses incurred by the Japanese for the maintenance of the Russian prisoners during the war should be reimbursed by Russia, less the outlays made by the latter on account of Japanese prisoners—by which arrangement Japan obtained a payment of some 4 millions sterling—and provided that the contracting parties, while withdrawing their military forces from Manchuria, might maintain guards to protect their respective railways, the number of such guards not to exceed 15 per kilometre of line. There were other important restrictions: first, the contracting parties were to abstain from taking, on the Russo-Korean frontier, any military measures which might menace the security of Russian or Korean territory; secondly, the two powers pledged themselves not to exploit the Manchurian railways for strategic purposes; and thirdly, they promised not to build on Sakhalin or its adjacent islands any fortifications or other similar military works, or to take any military measures which might impede the free navigation of the straits of La Pérouse and the Gulf of Tartary. The above provisions concerned the two contracting parties only. But China's interests also were considered. Thus it was agreed to "restore entirely and completely to her exclusive administration" all portions of Manchuria then in the occupation, or under the control, of Japanese or Russian troops, except the leased territory; that her consent must be obtained for the transfer to Japan of the leases and concessions held by the Russians in Manchuria; that the Russian government would disavow the possession of "any territorial advantages or preferential or exclusive concessions in impairment of Chinese sovereignty or inconsistent with the principle of equal opportunity in Manchuria"; and that Japan and Russia "engaged reciprocally not to obstruct any general measures common to all countries which China might take for the development of the commerce and industry of Manchuria." This distinction between the special interests of the contracting parties and the interests of China herself as well as of foreign nations generally is essential to clear understanding of a situation which subsequently attracted much attention. From the time of the opium war (1857) to the Boxer rising (1900) each of the great Western powers struggled for its own hand in China, and each sought to gain for itself exclusive concessions and privileges with comparatively little regard for the interests of others, and with no regard whatever for China's sovereign rights. The fruits of this period were: permanently ceded territories (Hong-Kong and Macao); leases temporarily establishing foreign sovereignty in various districts (Kiaochow, Wei-hai-wei and Kwang-chow); railway and mining concessions; and the establishment of settlements at open ports where foreign jurisdiction was supreme. But when, in 1900, the Boxer rising forced all the powers into a common camp, they awoke to full appreciation of a principle which had been growing current for the past two or three years, namely, that concerted action on the lines of maintaining China's integrity and securing to all alike equality of opportunity and a similarly open door, was the only feasible method of preventing the partition of the Chinese Empire and averting a clash of rival interests which might have disastrous results. This, of course, did not mean that there was to be any abandonment of special privileges already acquired or any surrender of existing concessions. The arrangement was not to be retrospective in any sense. Vested interests were to be strictly guarded until the lapse of the periods for which they had been granted, or until the maturity of China's competence to be really autonomous. A curious situation was thus created. International professions of respect for China's sovereignty, for the integrity of her empire and for the enforcement of the open door and equal opportunity,

The Results of the War.

coexisted with legacies from an entirely different past. Russia endorsed this new policy, but not unnaturally declined to abate any of the advantages previously enjoyed by her in Manchuria. Those advantages were very substantial. They included a twenty-five years' lease—with provision for renewal—of the Liaotung peninsula, within which area of 1220 sq. m. Chinese troops might not penetrate, whereas Russia would not only exercise full administrative authority, but also take military and naval action of any kind; they included the creation of a neutral territory in the immediate north of the former and still more extensive, which should remain under Chinese administration, but where neither Chinese nor Russian troops might enter, nor might China, without Russia's consent, cede land, open trading marts or grant concessions to any third nationality; and they included the right to build some 1600 m. of railway (which China would have the opportunity of purchasing at cost price in the year 1938 and would be entitled to receive gratis in 1982), as well as the right to hold extensive zones on either side of the railway, to administer these zones in the fullest sense, and to work all mines lying along the lines. Under the Portsmouth treaty these advantages were transferred to Japan by Russia, the railway, however, being divided so that only the portion (521½ m.) to the south of Kwang-Cheng-tsze fell to Japan's share, while the portion (1077 m.) to the north of that place remained in Russia's hands. China's consent to the above transfers and assignments was obtained in a treaty signed at Peking on the 22nd of December 1905. Thus Japan came to hold in Manchuria a position somewhat contradictory. On the one hand, she figured as the champion of the Chinese Empire's integrity and as an exponent of the new principle of equal opportunity and the open door. On the other, she appeared as the legatee of many privileges more or less inconsistent with that principle. But, at the same time, nearly all the great powers of Europe were similarly circumstanced. In their cases also the same incongruity was observable between the newly professed policy and the aftermath of the old practice. It was scarcely to be expected that Japan alone should make a large sacrifice on the altar of a theory to which no other state thought of yielding any retrospective obedience whatever. She did, indeed, furnish a clear proof of deference to the open-door doctrine, for instead of reserving the railway zones to her own exclusive use, as she was fully entitled to do, she sought and obtained from China a pledge to open to foreign trade 16 places within those zones. For the rest, however, the inconsistency between the past and the present, though existing throughout the whole of China, was nowhere so conspicuous as in the three eastern provinces (Manchuria); not because there was any real difference of degree, but because Manchuria had been the scene of the greatest war of modern times; because that war had been fought by Japan in the cause of the new policy, and because the principles of the equally open door and of China's integrity had been the main bases of the Portsmouth treaty, of the Anglo-Japanese alliance, and of the subsequently concluded *ententes* with France and Russia. In short, the world's eyes were fixed on Manchuria and diverted from China proper, so that every act of Japan was subjected to an exceptionally rigorous scrutiny, and the nations behaved as though they expected her to live up to a standard of almost ideal altitude. China's mood, too, greatly complicated the situation. She had the choice between two moderate and natural courses: either to wait quietly until the various concessions granted by her to foreign powers in the evil past should lapse by maturity, or to qualify herself by earnest reforms and industrious development for their earlier recovery. Nominally she adopted the latter course, but in reality she fell into a mood of much impatience. Under the name of a "rights-recovery campaign" her people began to protest vehemently against the continuance of any conditions which impaired her sovereignty, and as this temper coloured her attitude towards the various questions which inevitably grew out of the situation in Manchuria, her relations with Japan became somewhat strained in the early part of 1909.

Japan in Korea after the War with Russia.

Having waged two wars on account of Korea, Japan emerged from the second conflict with the conviction that the policy of maintaining the independence of Korea must be modified, and that since the identity of Korean and Japanese, interests in the Far East and the paramount character of Japanese interests in Korea would not permit Japan to leave Korea to the care of any third power, she must assume the charge herself. Europe and America also recognized that view of the situation, and consented to withdraw their legations from Seoul, thus leaving the control of Korean foreign affairs entirely in the hands of Japan, who further undertook to assume military direction in the event of aggression from without or disturbance from within. But in the matter of internal administration she continued to limit herself to advisory supervision. Thus, though a Japanese resident-general in Seoul, with subordinate residents throughout the provinces, assumed the functions hitherto discharged by foreign representatives and consuls, the Korean government was merely asked to employ Japanese experts in the position of counsellors, the right to accept or reject their counsels being left to their employers. Once again, however, the futility of looking for any real reforms under this optional system was demonstrated. Japan sent her most renowned statesman, Prince Ito, to discharge the duties of resident-general; but even he, in spite of profound patience and tact, found that some less optional methods must be resorted to. Hence on the 24th of July 1907 a new agreement was signed, by which the resident-general acquired initiative as well as consultative competence to enact and enforce laws and ordinances, to appoint and remove Korean officials, and to place capable Japanese subjects in the ranks of the administration. That this constituted a heavy blow to Korea's independence could not be gainsaid. That it was inevitable seemed to be equally obvious. For there existed in Korea nearly all the worst abuses of medieval systems. The administration of justice depended solely on favour or interest. The police contributed by corruption and incompetence to the insecurity of life and property. The troops were a body of useless mercenaries. Offices being allotted by sale, thousands of incapables thronged the ranks of the executive. The emperor's court was crowded by diviners and plotters of all kinds, male and female. The finances of the throne and those of the state were hopelessly confused. There was nothing like an organized judiciary. A witness was in many cases considered *particeps criminis*; torture was commonly employed to obtain evidence, and defendants in civil cases were placed under arrest. Imprisonment meant death or permanent disablement for a man of small means. Flogging so severe as to cripple, if not to kill, was a common punishment; every major offence from robbery upward was capital, and female criminals were frequently executed by administering shockingly painful poisons. The currency was in a state of the utmost confusion. Extreme corruption and extortion were practised in connexion with taxation. Finally, while nothing showed that the average Korean lacked the elementary virtue of patriotism, there had been repeated proofs that the safety and independence of the empire counted for little in the estimates of political intriguers. Japan must either step out of Korea altogether or effect drastic reforms there. She necessarily chose the latter alternative, and the things which she accomplished between the beginning of 1906 and the close of 1908 may be briefly described as the elaboration of a proper system of taxation; the organization of a staff to administer annual budgets; the re-assessment of taxable property; the floating of public loans for productive enterprises; the reform of the currency; the establishment of banks of various kinds, including agricultural and commercial; the creation of associations for putting bank-notes into circulation; the introduction of a warehousing system to supply capital to farmers; the lighting and buoying of the coasts; the provision of posts, telegraphs, roads and railways; the erection of public buildings; the starting of various industrial enterprises (such as printing, brick-making, forestry and coal-mining); the laying out of model farms; the beginning of cotton cultivation; the

building and equipping of an industrial training school; the inauguration of sanitary works; the opening of hospitals and medical schools; the organization of an excellent educational system; the construction of waterworks in several towns; the complete remodelling of the central government; the differentiation of the court and the executive, as well as of the administration and the judiciary; the formation of an efficient body of police; the organization of law courts with a majority of Japanese jurists on the bench; the enactment of a new penal code; drastic reforms in the taxation system. In the summer of 1907 the resident-general advised the Throne to disband the standing army as an unserviceable and expensive force. The measure was doubtless desirable, but the docility of the troops had been overrated. Some of them resisted vehemently, and many became the nucleus of an insurrection which lasted in a desultory manner for nearly two years; cost the lives of 21,000 insurgents and 1300 Japanese; and entailed upon Japan an outlay of nearly a million sterling. Altogether Japan was 15 millions sterling out of pocket on Korea's account by the end of 1909. She had also lost the veteran statesman Prince Ito, who was assassinated at Harbin by a Korean fanatic on the 26th of October 1909. Finally an end was put to an anomalous situation by the annexation of Korea to Japan on the 29th of August 1910. (See further KOREA.)

IX.—DOMESTIC HISTORY

Cosmography.—Japanese annals represent the first inhabitant of earth as a direct descendant of the gods. Two books describe the events of the "Divine age." One, compiled in 712, is called the *Kojiki* (*Records of Ancient Matters*); the other, compiled in 720, is called the *Nihongi* (*Chronicles of Japan*). Both describe the processes of creation, but the author of the *Chronicles* drew largely upon Chinese traditions, whereas the compilers of the *Records* appear to have limited themselves to materials which they believed to be native. The *Records*, therefore, have always been regarded as the more trustworthy guide to pure Japanese conceptions. They deal with the creation of Japan only, other countries having been apparently judged unworthy of attention. At the beginning of all things a primordial trinity is represented as existing on the "plain of high heaven." Thereafter, during an indefinite time and by an indefinite process, other deities come into existence, their titles indicating a vague connexion with constructive and fertilizing forces. They are not immortal: it is explicitly stated that they ultimately pass away, and the idea of the cosmographers seems to be that each deity marks a gradual approach to human methods of procreation. Meanwhile the earth is "young and, like floating oil, drifts about after the manner of a jelly-fish." At last there are born two deities, the creator and the creatress, and these receive the mandate of all the heavenly beings to "make, consolidate and give birth to the drifting land." For use in that work a jewelled spear is given to them, and, standing upon the bridge that connects heaven and earth, they thrust downwards with the weapon, stir the brine below and draw up the spear, when from its point fall drops which, accumulating, form the first dry land. Upon this land the two deities descend, and, by ordinary processes, beget the islands of Japan as well as numerous gods representing the forces of nature. But in giving birth to the god of fire the creatress(Izanami) perishes, and the creator (Izanagi) makes his way to the under-world in search of her—an obvious parallel to the tales of Ishtar and Orpheus. With difficulty he returns to earth, and, as he washes himself from the pollution of Hades, there are born from the turbid water a number of evil deities succeeded by a number of good, just as in the Babylonian cosmogony the primordial ocean, Tiamat, brings forth simultaneously gods and imps. Finally, as Izanagi washes his left eye the Goddess of the Sun comes into existence; as he washes his right, the God of the Moon; and as he washes his nose, the God of Force. To these three he assigns, respectively, the dominion of the sun, the dominion of the moon, and the dominion of the ocean. But the god of force (Sosanoo), like Lucifer, rebels against this decree, creates a commotion in heaven, and after having been the cause of the temporary seclusion of the sun goddess and the consequent wrapping of the world in darkness, kills the goddess of food and is permanently banished from heaven by the host of deities. He descends to Izumo on the west of the main island of Japan, and there saves a maiden from an eight-headed serpent. Sosanoo himself passes to the under-world and becomes the deity of Hades, but he invests one of his descendants with the sovereignty of Japan, and the title is established after many curious adventures. To the sun goddess also, whose feud with her fierce brother survives the latter's banishment from heaven, the idea of making her grandson ruler of Japan presents itself. She despatches three embassies to impose her will upon the descendants of Sosanoo, and finally her grandson descends, not, however, in Izumo, where the demi-gods of Sosanoo's race hold sway, but in Hiūga in the southern island of Kiūshiū. This grandson of Amaterasu (the goddess of the sun) is called Ninigi, whose great-grandson figures in Japanese history as the first human sovereign of the country, known during life as Kamu-Yamato-Iware-Biko, and given the name of Jimmu tennō (Jimmu, son of heaven) fourteen centuries after his death. Japanese annalists attribute the accession of Jimmu to the year 660 B.C. Why that date was chosen must remain a matter of conjecture. The *Records of Ancient Matters* has no chronology, but the more pretentious writers of the *Chronicles of Japan*, doubtless in imitation of their Chinese models, considered it necessary to assign a year, a month, and even a day for each event of importance. There is abundant reason, however, to question the accuracy of all Japanese chronology prior to the 5th century. The first date corroborated by external evidence is 461, and Aston, who has made a special study of the subject, concludes that the year 500 may be taken as the time when the chronology of the *Chronicles* begins to be trustworthy. Many Japanese, however, are firm believers in the *Chronicles*, and when assigning the year of the empire they invariably take 660 B.C. for starting-point, so that 1909 of the Gregorian calendar becomes for them 2569.

Prehistoric Period.—Thus, if the most rigid estimate be accepted, the space of 1160 years, from 660 B.C. to A.D. 500, may be called the prehistoric period. During that long interval the annals include 24 sovereigns, the first 17 of whom lived for over a hundred years on the average. It seems reasonable to conclude that the so-called assignment of the sovereignty of Japan to Sosanoo's descendants and the establishment of their kingdom in Izumo represent an invasion of Mongolian immigrants coming from the direction of the Korean peninsula—indeed one of the *Nihongi's* versions of the event actually indicates Korea as the point of departure—and that the subsequent descent of Ninigi on Mount Takachiho in Hiūga indicates the advent of a body of Malayan settlers from the south sea. Jimmu, according to the *Chronicles*, set out from Hiūga in 667 B.C. and was not crowned at his new palace in Yamato until 660. This campaign of seven years is described in some detail, but no satisfactory information is given as to the nature of the craft in which the invader and his troops voyaged, or as to the number of men under his command. The weapons said to have been carried were bows, spears and swords. A supernatural element is imported into the narrative in the form of the three-legged crow of the sun, which Amaterasu sends down to act as guide and messenger for her descendants. Jimmu died at his palace of Kashiwa-bara in 585 B.C., his age being 127 according to the *Chronicles*, and 137 according to the *Records*. He was buried in a kind of tomb called *misasagi*, which seems to have been in use in Japan for some centuries before the Christian era—"a highly specialized form of tumulus, consisting of two mounds, one having a circular, the other a triangular base, which merged into each other, the whole being surrounded by a moat, or sometimes by two concentric moats with a narrow strip of land between. In some, perhaps in most, cases the misasagi contains a large vault of great unhewn stones without mortar. The walls of this vault converge gradually towards the top, which is roofed in by enormous slabs of stone weighing

many tons each. The entrance is by means of a gallery roofed with similar stones." Several of these ancient sepulchral mounds have been examined during recent years, and their contents have furnished information of much antiquarian interest, though there is a complete absence of inscriptions. The reigns of the eight sovereigns who succeeded Jimmu were absolutely uneventful. Nothing is set down except the genealogy of each ruler, the place of his residence and his burial, his age and the date of his death. It was then the custom—and it remained so until the 8th century of the Christian era—to change the capital on the accession of each emperor; a habit which effectually prevented the growth of any great metropolis. The reign of the 10th emperor, Sūjin, lasted from 98 to 30 B.C. During his era the land was troubled by pestilence and the people broke out in rebellion; calamities which were supposed to be caused by the spirit of the ancient ruler of Izumo to avenge a want of consideration shown to his descendants by their supplanters. Divination—by a Chinese process—and visions revealed the source of trouble; rites of worship were performed in honour of the ancient ruler, his descendant being entrusted with the duty, and the pestilence ceased. We now hear for the first time of vigorous measures to quell the aboriginal savages, doubtless the Ainu. Four generals are sent out against them in different directions. But the expedition is interrupted by an armed attempt on the part of the emperor's half-brother, who, utilizing the opportunity of the troops' absence from Yamato, marches from Yamashiro at the head of a powerful army to win the crown for himself. In connexion with these incidents, curious evidence is furnished of the place then assigned to woman by the writers of the *Chronicles*. It is a girl who warns one of the emperor's generals of the plot; it is the sovereign's aunt who interprets the warning; and it is Ata, the wife of the rebellious prince, who leads the left wing of his army. Four other noteworthy facts are recorded of this reign: the taking of a census; the imposition of a tax on animals' skins and game to be paid by men, and on textile fabrics by women; the building of boats for coastwise transport, and the digging of dikes and reservoirs for agricultural purposes. All these things rest solely on the testimony of annalists writing eight centuries later than the era they discuss and compiling their narrative mostly from tradition. Careful investigations have been made to ascertain whether the histories of China and Korea corroborate or contradict those of Japan. Without entering into detailed evidence, the inference may be at once stated that the dates given in Japanese early history are just 120 years too remote; an error very likely to occur when using the sexagenary cycle, which constituted the first method of reckoning time in Japan. But although this correction suffices to reconcile some contradictory features of Far-Eastern history, it does not constitute any explanation of the incredible longevity assigned by the *Chronicles* to several Japanese sovereigns, and the conclusion is that when a consecutive record of reigns came to be compiled in the 8th century, many lacunae were found which had to be filled up from the imagination of the compilers. With this parenthesis we may pass rapidly over the events of the next two centuries (29 B.C. to A.D. 200). They are remarkable for vigorous measures to subdue the aboriginal Ainu, who in the southern island of Kiūshiū are called Kuma-so (the names of two tribes) and sometimes earth-spiders (*i.e.* cave-dwellers), while in the north-eastern regions of the main island they are designated Yemishi. Expeditions are led against them in both regions by Prince Yamato-dake, a hero revered by all succeeding generations of Japanese as the type of valour and loyalty. Dying from the effects of hardship and exposure, but declaring with his last breath that loss of life was as nothing compared with the sorrow of seeing his father's face no more, his spirit ascends to heaven as a white bird, and when his son, Chūai, comes to the throne, he causes cranes to be placed in the moat surrounding his palace in memory of his illustrious sire.

The sovereign had partly ceased to follow the example of Jimmu, who led his armies in person. The emperors did not, however, pass a sedentary life. They frequently made progresses throughout their dominions, and on these occasions a not uncommon incident was the addition of some local beauty to the Imperial harem. This licence had a far-reaching effect, since to provide for the sovereign's numerous offspring—the emperor Keikō (71–130) had 80 children—no better way offered than to make grants of land, and thus were laid the foundations of a territorial nobility destined profoundly to influence the course of Japanese history. Woman continues to figure conspicuously in the story. The image of the sun goddess, enshrined in Ise (5 B.C.), is entrusted to the keeping of a princess, as are the mirror, sword and jewel inherited from the sun goddess; a woman (Tachibana) accompanies Prince Yamato-dake in his campaign against the Yemishi, and sacrifices her life to quell a tempest at sea; Saho, consort of Suinin, is the heroine of a most tragic tale in which the conflict between filial piety and conjugal loyalty leads to her self-destruction; and a woman is found ruling over a large district in Kiūshiū when the Emperor Keikō is engaged in his campaign against the aborigines. The reign of Suinin saw the beginning of an art destined to assume extraordinary importance in Japan—the art of wrestling—and the first champion, Nomi no Sukune, is honoured for having suggested that clay figures should take the place of the human sacrifices hitherto offered at the sepulture of Imperial personages. The irrigation works commenced in the time of Sūjin were zealously continued under his two immediate successors, Suinin and Keikō. More than 800 ponds and channels are described as having been constructed under the former's rule. We find evidence also that the sway of the throne had been by this time widely extended, for in 125 a governor-general of 15 provinces is nominated, and two years later, governors (*miyakko*) are appointed in every province and mayors (*inaki*) in every village. The number or names of these local divisions are not given, but it is explained that mountains and rivers were taken as boundaries of provinces, the limits of towns and villages being marked by roads running respectively east and west, north and south.

Invasion of Korea.

An incident is now reached which the Japanese count a landmark in their history, though foreign critics are disposed to regard it as apocryphal. It is the invasion of Korea by a Japanese army under the command of the empress Jingo, in 200. The emperor Chūai, having proceeded to Kiūshiū for the purpose of conducting a campaign against the Kuma-so, is there joined by the empress, who, at the inspiration of a deity, seeks to divert the Imperial arms against Korea. But the emperor refuses to believe in the existence of any such country, and heaven punishes his incredulity with death at the hands of the Kuma-so, according to one account; from the effects of disease, according to another. The calamity is concealed; the Kuma-so are subdued, and the empress, having collected a fleet and raised an army, crosses to the state of Silla (in Korea), where, at the spectacle of her overwhelming strength, the Korean monarch submits without fighting, and swears that until the sun rises in the west, until rivers run towards their sources, and until pebbles ascend to the sky and become stars, he will do homage and send tribute to Japan. His example is followed by the kings of the two other states constituting the Korean peninsula, and the warlike empress returns triumphant. Many supernatural elements embellish the tale, but the features which chiefly discredit it are that it abounds in anachronisms, and that the event, despite its signal importance, is not mentioned in either Chinese or Korean history. It is certain that China then possessed in Korea territory administered by Chinese governors. She must therefore have had cognisance of such an invasion, had it occurred. Moreover, Korean history mentions twenty-five raids made by the Japanese against Silla during the first five centuries of the Christian era, but not one of them can be indentified with Jingo's alleged expedition. There can be no doubt that the early Japanese were an aggressive, enterprising people, and that their nearest over-sea neighbour suffered much from their activity. Nor can there be any reasonable doubt that the Jingo tale contains a large germ of truth, and is at least an echo of the relations that existed between Japan and Korea in the 3rd and 4th centuries. The records of the 69 years comprising

Jingo's reign are in the main an account of intercourse, sometimes peaceful, sometimes stormy, between the neighbouring countries. Only one other episode occupies a prominent place: it is an attempt on the part of Jingo's step-brothers to oppose her return to Yamato and to prevent the accession of her son to the throne. It should be noted here that all such names as Jimmu, Sūjin, Chūai, &c., are posthumous, and were invented in the reign of Kwammu (782–806), the fashion being taken from China and the names themselves being purely Chinese translations of the qualities assigned to the respective monarchs. Thus Jimmu signifies "divine valour"; Sūjin, "deity-honouring"; and Chūai, "sad middle son." The names of these rulers during life were wholly different from their posthumous appellations.

Chinese history, which is incomparably older and more precise than Korean, is by no means silent about Japan. Long notices occur in the later Han and Wei records (25 to 265). The Japanese are spoken of as dwarfs (*Wa*), and their islands, frequently called the queen country, are said to be mountainous, with soil suitable for growing grain, hemp, and the silk-worm mulberry. The climate is so mild that vegetables can be grown in winter and summer; there are neither oxen, horses, tigers, nor leopards; the people understand the art of weaving; the men tattoo their faces and bodies in patterns indicating differences of rank; male attire consists of a single piece of cloth; females wear a gown passed over the head, and tie their hair in a bow; soldiers are armed with spears and shields, and also with bows, from which they discharge arrows tipped with bone or iron; the sovereign resides in Yamato; there are stockaded forts and houses; food is taken with the fingers but is served on bamboo trays and wooden trenchers; foot-gear is not worn; when men of the lower classes meet a man of rank, they leave the road and retire to the grass, squatting or kneeling with both hands on the ground when they address him; intoxicating liquor is much used; the people are long-lived, many reaching the age of 100; women are more numerous than men; there is no theft, and litigation is infrequent; the women are faithful and not jealous; all men of high rank have four or five wives, others two or three; wives and children of law-breakers are confiscated, and for grave crimes the offender's family is extirpated; divination is practised by burning bones; mourning lasts for some ten days and the rites are performed by a "mourning-keeper"; after a funeral the whole family perform ablutions; fishing is much practised, and the fishermen are skilled divers; there are distinctions of rank and some are vassals to others; each province has a market where goods are exchanged; the country is divided into more than 100 provinces, and among its products are white pearls, green jade and cinnabar. These annals go on to say that between 147 and 190 civil war prevailed for several years, and order was finally restored by a female sovereign, who is described as having been old and unmarried; much addicted to magic arts; attended by a thousand females; dwelling in a palace with lofty pavilions surrounded by a stockade and guarded by soldiers; but leading such a secluded life that few saw her face except one man who served her meals and acted as a medium of communication. There can be little question that this queen was the empress Jingo who, according to Japanese annals, came to the throne in the year A.D. 200, and whose every public act had its inception or promotion in some alleged divine interposition. In one point, however, the Chinese historians are certainly incorrect. They represent tattooing as universal in ancient Japan, whereas it was confined to criminals, in whose case it played the part that branding does elsewhere. Centuries later, in feudal days, the habit came to be practised by men of the lower orders whose avocations involved baring the body, but it never acquired vogue among educated people. In other respects these ancient Chinese annals must be credited with remarkable accuracy in their description of Japan and the Japanese. Their account may be advantageously compared with Professor Chamberlain's analysis of the manners and customs of the early Japanese, in the preface to his translation of the *Kojiki*.

Earliest Notices in Chinese History.

"The Japanese of the mythical period, as pictured in the legends preserved by the compiler of the *Records of Ancient Matters*, were a race who had long emerged from the savage stage and had attained to a high level of barbaric skill. The Stone Age was forgotten by them—or nearly so—and the evidence points to their never having passed through a genuine Bronze Age, though the knowledge of bronze was at a later period introduced from the neighbouring continent. They used iron for manufacturing spears, swords and knives of various shapes, and likewise for the more peaceful purpose of making hooks wherewith to angle or to fasten the doors of their huts. Their other warlike and hunting implements (besides traps and gins, which appear to have been used equally for catching beasts and birds and for destroying human enemies) were bows and arrows, spears and elbow-pads—the latter seemingly of skin, while special allusion is made to the fact that the arrows were feathered. Perhaps clubs should be added to the list. Of the bows and arrows, swords and knives, there is perpetual mention, but nowhere do we hear of the tools with which they were manufactured, and there is the same remarkable silence regarding such widely spread domestic implements as the saw and the axe. We hear, however, of the pestle and mortar, of the fire-drill, of the wedge, of the sickle, and of the shuttle used in weaving. Navigation seems to have been in a very elementary state. Indeed the art of sailing was but little practised in Japan even so late as the middle of the 10th century of our era, subsequent to the general diffusion of Chinese civilization, though rowing and punting are often mentioned by the early poets. To what we should call towns or villages very little reference is made anywhere in the *Records* or in that part of the *Chronicles* which contain the account of the so-called Divine Age. But from what we learn incidentally it would seem that the scanty population was chiefly distributed in small hamlets and isolated dwellings along the coast and up the course of the larger streams. Of house-building there is frequent mention. Fences were in use. Rugs of skins and rush-matting were occasionally brought in to sit on, and we even hear once or twice of silk rugs being used for the same purpose by the noble and wealthy. The habits of personal cleanliness which so pleasantly distinguish the modern Japanese from their neighbours, in continental Asia, though less fully developed than at present would seem to have existed in the germ in early times, as we read more than once of bathing in rivers, and are told of bathing women being specially attached to the person of a certain Imperial infant. Lustrations, too, formed part of the religious practices of the race. Latrines are mentioned several times. They would appear to have been situated away from the houses and to have been generally placed over a running stream, whence doubtless the name for latrine in the archaic dialect—*kawaya* (river-house). A peculiar sort of dwelling-place which the two old histories bring prominently under our notice is the so-called parturition house—a one-roomed hut without windows, which a woman was expected to build and retire into for the purpose of being delivered unseen. Castles are not distinctly spoken of until a time which coincides, according to the received chronology, with the first century B.C. We then first meet with the curious term rice-castle, whose precise signification is a matter of dispute among the native commentators, but which, on comparison with Chinese descriptions of the early Japanese, should probably be understood to mean a kind of palisade serving the purpose of a redoubt, behind which the warriors could ensconce themselves. The food of the early Japanese consisted of fish and of the flesh of the wild creatures which fell by the hunter's arrow or were taken in the trapper's snare. Rice is the only cereal of which there is such mention made as to place it beyond a doubt that its cultivation dates back to time immemorial. Beans, millet and barley are indeed named once, together with silkworms, in the account of the Divine Age. But the passage has every aspect of an interpolation in the legend, perhaps not dating back long before the time of the eighth-century compiler. A few unimportant vegetables and fruits, of most of which there is but a single mention, are found. The intoxicating liquor called *sake* was known in Japan during the mythical period, and so were chopsticks for eating food with. Cooking pots and cups and dishes—the latter both of earthenware and of leaves of trees—are also mentioned; but of the use of fire for warming purposes we hear nothing. Tables are named several times, but never in connexion with food: they would seem to have been used exclusively for the purpose of presenting offerings on, and were probably quite small and low—in fact, rather trays than tables, according to European ideas. In the use of clothing and the specialization of garments the early Japanese had reached a high level. We read in the most ancient legends of upper garments, skirts, trowsers, girdles, veils and hats, while both sexes adorned themselves with necklaces, bracelets and head ornaments of stones considered precious—in this respect offering a striking contrast to their descendants in modern times, of whose attire jewelry forms no part. The material of their clothes was hempen cloth and paper—mulberry bark, coloured by being rubbed with madder, and probably with woad and other tinctorial plants. All the garments, so far as we may judge, were woven, sewing being nowhere mentioned. From the great place which the chase occupied in daily life, we are led to suppose that skins also were used to make garments of. There is in the *Records* at least one passage which favours this supposition,

and the *Chronicles* in one place mention the straw rain-coat and broad-brimmed hat, which still form the Japanese peasant's effectual protection against the inclemencies of the weather. The tendrils of creeping plants served the purposes of strings, and bound the warrior's sword round his waist. Combs are mentioned, and it is evident that much attention was devoted to the dressing of the hair. The men seem to have bound up their hair in two bunches, one on each side of the head, while the young boys tied theirs in a top-knot, the unmarried girls let their locks hang down over their necks, and the married women dressed theirs after a fashion which apparently combined the two last-named methods. There is no mention in any of the old books of cutting the hair or beard except in token of disgrace; neither do we gather that the sexes, but for the matter of the head-dress, were distinguished by a diversity of apparel and ornamentation. With regard to the precious stones mentioned above as having been used as ornaments for the head, neck and arms, we know from the specimens which have rewarded the labours of archaeological research in Japan that agate, crystal, glass, jade, serpentine and steatite were the most used materials, and carved and pierced cylindrical shapes the commonest forms. The horse—which was ridden, but not driven—the barn-door fowl and the cormorant used for fishing, are the only domesticated creatures mentioned in the earlier traditions, with the doubtful exception of the silkworm. In the later portions of the *Records* and *Chronicles* dogs and cattle are alluded to, but sheep, swine and even cats were apparently not yet introduced."

As the prehistoric era draws to its end the above analyses of Japanese civilization have to be modified. Thus, towards the close of the 3rd century, ship-building made great progress, and instead of the small boats hitherto in use, a vessel 100 ft. long was constructed. Notable above all is the fact that Japan's turbulent relations with Korea were replaced by friendly intercourse, so that she began to receive from her neighbour instruction in the art of writing. The date assigned by the *Chronicles* for this important event is A.D. 285, but it has been proved almost conclusively that Japanese annals relating to this period are in error to the extent of 120 years. Hence the introduction of calligraphy must be placed in 405. Chinese history shows that between 57 and 247 Japan sent four embassies to the courts of the Han and the Wei, and this intercourse cannot have failed to disclose the ideograph. But the knowledge appears to have been confined to a few interpreters, and not until the year 405 were steps taken to extend it, with the aid of a learned Korean, Wang-in. Korea herself began to study Chinese learning only a few years before she undertook to impart it to Japan. We now find a numerous colony of Koreans passing to Japan and settling there; a large number are also carried over as prisoners of war, and the Japanese obtain seamstresses from both of their continental neighbours. One fact, related with much precision, shows that the refinements of life were in an advanced condition: an ice-house is described, and we read that from 374 (? 494) it became the fashion to store ice in this manner for use in the hot months by placing it in water or *sake*. The emperor, Nintoku, to whose time this innovation is attributed, is one of the romantic figures of Japanese history. He commenced his career by refusing to accept the sovereignty from his younger brother, who pressed him earnestly to do so on the ground that the proper order of succession had been disturbed by their father's partiality—though the rights attaching to primogeniture did not receive imperative recognition in early Japan. After three years of this mutual self-effacement, during which the throne remained vacant, the younger brother committed suicide, and Nintoku reluctantly became sovereign. He chose Naniwa (the modern Osaka) for his capital, but he would not take the farmers from their work to finish the building of a palace, and subsequently, inferring from the absence of smoke over the houses of the people that the country was impoverished, he remitted all taxes and suspended forced labour for a term of three years, during which his palace fell into a state of ruin and he himself fared in the coarsest manner. Digging canals, damming rivers, constructing roads and bridges, and establishing granaries occupied his attention when love did not distract it. But in affairs of the heart he was most unhappy. He figures as the sole wearer of the Japanese crown who was defied by his consort; for when he took a concubine in despite of the empress, her jealousy was so bitter that, refusing to be placated by any of his majesty's verses or other overtures, she left the palace altogether; and when he sought to introduce another beauty into the inner chamber, his own half-brother, who carried his proposals, won the girl for himself. One other fact deserves to be remembered in connexion with Nintoku's reign: Ki-no-tsuno, representative of a great family which had filled the highest administrative and military posts under several sovereigns, is mentioned as "the first to commit to writing in detail the productions of the soil in each locality." This was in 353 (probably 473). We shall err little if we date the commencement of Japanese written annals from this time, though no compilation earlier than the *Kojiki* has survived.

Early Historical Period.—With the emperor Richū, who came to the throne A.D. 400, the historical period may be said to commence; for though the chronology of the records is still questionable, the facts are generally accepted as credible. Conspicuous loyalty towards the sovereign was not an attribute of the Japanese Imperial family in early times. Attempts to usurp the throne were not uncommon, though there are very few instances of such essays on the part of a subject. Love or lust played no insignificant part in the drama, and a common method of placating an irate sovereign was to present a beautiful damsel for his delectation. The veto of consanguinity did not receive very strict respect in these matters. Children of the same father might intermarry, but not those of the same mother; a canon which becomes explicable on observing that as wives usually lived apart from their husbands and had the sole custody of their offspring, two or more families often remained to the end unconscious of the fact that they had a common sire. There was a remarkable tendency to organize the nation into groups of persons following the same pursuit or charged with the same functions. A group thus composed was called *be*. The heads of the great families had titles—as *omi*, *muraji*, *miakko*, *wake*, &c.—and affairs of state were administered by the most renowned of these nobles, wholly subject to the sovereign's ultimate will. The provincial districts were ruled by scions of the Imperial family, who appear to have been, on the whole, entirely subservient to the Throne. There were no tribunals of justice: the ordeal of boiling water or heated metal was the sole test of guilt or innocence, apart, of course, from confession, which was often exacted under menace of torture. A celebrated instance of the ordeal of boiling water is recorded in 415, when this device was employed to correct the genealogies of families suspected of falsely claiming descent from emperors or divine beings. The test proved efficacious, for men conscious of forgery refused to undergo the ordeal. Deprivation of rank was the lightest form of punishment; death the commonest, and occasionally the whole family of an offender became serfs of the house against which the offence had been committed or which had been instrumental in disclosing a crime. There are, however, frequent examples of wrong-doing expiated by the voluntary surrender of lands or other property. We find several instances of that extreme type of loyalty which became habitual in later ages—suicide in preference to surviving a deceased lord. On the whole the successive sovereigns of these early times appear to have ruled with clemency and consideration for the people's welfare. But there were two notable exceptions—Yuriaku (457–479) and Muretsu (499–506). The former slew men ruthlessly in fits of passion or resentment, and the latter was the Nero of Japanese history, a man who loved to witness the agony of his fellows and knew no sentiment of mercy or remorse. Yet even Yuriaku did not fail to promote industrial pursuits. Skilled artisans were obtained from Korea, and it is related that, in 462, this monarch induced the empress and the ladies of the palace to plant mulberry trees with their own hands in order to encourage sericulture. Throughout the 5th and 6th centuries many instances are recorded of the acquisition of landed estates by the Throne, and their occasional bestowal upon princes or Imperial consorts, such gifts being frequently accompanied by the assignment of bodies of agriculturists who seem to have accepted the position of serfs. Meanwhile Chinese civilization was gradually becoming known, either by direct contact or through Korea. Several immigrations of Chinese

or Korean settlers are on record. No less than 7053 householders of Chinese subjects came, through Korea, in 540, and one of their number received high rank together with the post of director of the Imperial treasury. From these facts, and from a national register showing the derivation of all the principal families in Japan, it is clearly established that a considerable strain of Chinese and Korean blood runs in the veins of many Japanese subjects.

The most signal and far-reaching event of this epoch was the importation of the Buddhist creed, which took place in 552. *Introduction of Buddhism.* A Korean monarch acted as propagandist, sending a special envoy with a bronze image of the Buddha and with several volumes of the Sutras. Unfortunately the coming of the foreign faith happened to synchronize with an epidemic of plague, and conservatives at the Imperial court were easily able to attribute this visitation to resentment on the part of the ancestral deities against the invasion of Japan by an alien creed. Thus the spread of Buddhism was checked; but only for a time. Thirty-five years after the coming of the Sutras, the first temple was erected to enshrine a wooden image of the Buddha 16 ft. high. It has often been alleged that the question between the imported and the indigenous cults had to be decided by the sword. The statement is misleading. That the final adoption of Buddhism resulted from a war is true, but its adoption or rejection did not constitute the motive of the combat. A contest for the succession to the throne at the opening of Sujun's reign (588–592) found the partisans of the Indian faith ranged on one side, its opponents on the other, and in a moment of stress the leaders of the former, Soma and Prince Umayado, vowed to erect Buddhist temples should victory rest on their arms. From that time the future of Buddhism was assured. In 588 Korea sent Buddhist relics, Buddhist priests, Buddhist ascetics, architects of Buddhist temples, and casters of Buddhist images. She had already sent men learned in divination, in medicine, and in the calendar. The building of temples began to be fashionable in the closing years of the 6th century, as did also abdication of the world by people of both sexes; and a census taken in 623, during the reign of the empress Suiko (583–628), showed that there were then 46 temples, 816 priests and 569 nuns in the empire. This rapid growth of the alien faith was due mainly to two causes: first, that the empress Suiko, being of the Soga family, naturally favoured a creed which had found its earliest Japanese patron in the great statesman and general, Soga no Umako; secondly, that one of the most illustrious scholars and philosophers ever possessed by Japan, Prince Shōtoku, devoted all his energies to fostering Buddhism.

The adoption of Buddhism meant to the Japanese much more than the acquisition of a practical religion with a code of clearly defined morality in place of the amorphous and jejune cult of Shintō. It meant the introduction of Chinese civilization. Priests and scholars crossed in numbers from China, and men passed over from Japan to study the Sutras at what was then regarded as the fountain-head of Buddhism. There was also a constant stream of immigrants from China and Korea, and the result may be gathered from the fact that a census taken of the Japanese nobility in 814 indicated 382 Korean and Chinese families against only 796 of pure Japanese origin. The records show that in costume and customs a signal advance was made towards refinement. Hair-ornaments of gold or silver chiselled in the form of flowers; caps of sarcenet in twelve special tints, each indicating a different grade; garments of brocade and embroidery with figured thin silks of various colours—all these were worn on ceremonial occasions; the art of painting was introduced; a recorder's office was established; perfumes were largely employed; court picnics to gather medicinal herbs were instituted, princes and princesses attending in brilliant raiment; Chinese music and dancing were introduced; cross bows and catapults were added to the weapons of war; domestic architecture made signal strides in obedience to the examples of Buddhist sacred edifices, which, from the first, showed magnificence of dimension and decoration hitherto unconceived in Japan; the arts of metal-casting and sculpture underwent great improvement; Prince Shōtoku compiled a code, commonly spoken of as the first written laws of Japan, but in reality a collection of maxims evincing a moral spirit of the highest type. In some respects, however, there was no improvement. The succession to the throne still tended to provoke disputes among the Imperial princes; the sword constituted the principal weapon of punishment, and torture the chief judicial device. Now, too, for the first time, a noble family is found seeking to usurp the Imperial authority. The head of the Soga house, Umako, having compassed the murder of the emperor Sujun and placed on the throne his own niece (Suiko), swept away all opposition to the latter's successor, Jomei, and controlled the administration of state affairs throughout two reigns. In all this he was strongly seconded by his son, Iruka, who even surpassed him in contumelious assumption of power and parade of dignity. Iruka was slain in the presence of the empress Kōgyoku by Prince Naka with the assistance of the minister of the interior, Kamako, and it is not surprising to find the empress (Kōgyoku) abdicating immediately afterwards in favour of Kamako's protégé, Prince Karu, who is known in history as Kōtoku. This Kamako, planner and leader of the conspiracy which overthrew the Soga, is remembered by posterity under the name of Kamatari and as the founder of the most illustrious of Japan's noble houses, the Fujiwara. At this time (645), a habit which afterwards contributed materially to the effacement of the Throne's practical authority was inaugurated. Prince Furubito, pressed by his brother, Prince Karu, to assume the sceptre in accordance with his right of primogeniture, made his refusal peremptory by abandoning the world and taking the tonsure. This retirement to a monastery was afterwards dictated to several sovereigns by ministers who found that an active occupant of the throne impeded their own exercise of administrative autocracy. Furubito's recourse to the tonsure proved, however, to be merely a cloak for ambitious designs. Before a year had passed he conspired to usurp the throne and was put to death with his children, his consorts strangling themselves. Suicide to escape the disgrace of defeat had now become a common practice. Another prominent feature of this epoch was the prevalence of superstition. The smallest incidents—the growing of two lotus flowers on one stem; a popular ballad; the reputed song of a sleeping monkey; the condition of the water in a pond; rain without clouds—all these and cognate trifles were regarded as omens; wizards and witches deluded the common people; a strange form of caterpillar was worshipped as the god of the everlasting world, and the peasants impoverished themselves by making sacrifices to it.

An interesting epoch is now reached, the first legislative era of early Japanese history. It commenced with the reign of the emperor Kōtoku (645), of whom the *Chronicles* say that he "honoured the religion of Buddha and despised Shintō"; that "he was of gentle disposition; loved men of learning; made no distinction of noble and mean, and continually dispensed beneficent edicts." The customs calling most loudly for reform in his time were abuse of the system of forced labour; corrupt administration of justice; spoliation of the peasant class; assumption of spurious titles to justify oppression; indiscriminate distribution of the families of slaves and serfs; diversion of taxes to the pockets of collectors; formation of great estates, and a general lack of administrative centralization. The first step of reform consisted in ordering the governors of provinces to prepare registers showing the numbers of freemen and serfs within their jurisdiction as well as the area of cultivated land. It was further ordained that the advantages of irrigation should be shared equally with the common people; that no local governor might try and decide criminal cases while in his province; that any one convicted of accepting bribes should be liable to a fine of double the amount as well as to other punishment; that in the Imperial court a box should be placed for receiving petitions and a bell hung to be sounded in the event of delay in answering them or unfairness in dealing with them; that all absorption of land into great estates should cease; that barriers, outposts, guards and post-horses should be

First Legislative Epoch.

provided; that high officials should be dowered with hereditary estates by way of emolument, the largest of such grants being 3000 homesteads; that men of unblemished character and proved capacity should be appointed aldermen for adjudicating criminal matters; that there should be chosen as clerks for governors and vice-governors of provinces men of solid competence "skilled in writing and arithmetic"; that the land should be parcelled out in fixed proportions to every adult unit of the population with right of tenure for a term of six years; that forced labour should be commuted for taxes of silk and cloth; and that for fiscal and administrative purposes households should be organized in groups of five, each group under an elder, and ten groups forming a township, which, again, should be governed by an elder. Incidentally to these reforms many of the evil customs of the time are exposed. Thus provincial governors when they visited the capital were accustomed to travel with great retinues who appear to have constituted a charge on the regions through which they passed. The law now limited the number of a chief governor's attendants to nine, and forbade him to use official houses or to fare at public cost unless journeying on public business. Again, men who had acquired some local distinction, though they did not belong to noble families, took advantage of the absence of historical records or official registers, and, representing themselves as descendants of magnates to whom the charge of public granaries had been entrusted, succeeded in usurping valuable privileges. The office of provincial governor had in many cases become hereditary, and not only were governors largely independent of Imperial control, but also, since every free man carried arms, there had grown up about these officials a population relying largely on the law of force. Kōtoku's reforms sought to institute a system of temporary governors, and directed that all arms and armour should be stored in arsenals built in waste places, except in the case of provinces adjoining lands where unsubdued aborigines (Yemishi) dwelt. Punishments were drastic, and in the case of a man convicted of treason, all his children were executed with him, his wives and consorts committing suicide. From a much earlier age suicide had been freely resorted to as the most honourable exit from pending disgrace, but as yet the samurai's method of disembowelment was not employed, strangulation or cutting the throat being the regular practice. Torture was freely employed and men often died under it. Signal abuses prevailed in regions beyond the immediate range of the central government's observation. It has been shown that from early days the numerous scions of the Imperial family had generally been provided for by grants of provincial estates. Gradually the descendants of these men, and the representatives of great families who held hereditary rank, extended their domains unscrupulously, employing forced labour to reclaim lands, which they let to the peasants, not hesitating to appropriate large slices of public property, and remitting to the central treasury only such fractions of the taxes as they found convenient. So prevalent had the exaction of forced labour become that country-folk, repairing to the capital to seek redress of grievances, were often compelled to remain there for the purpose of carrying out some work in which dignitaries of state were interested. The removal of the capital to a new site on each change of sovereign involved a vast quantity of unproductive toil. It is recorded that in 656, when the empress Saimei occupied the throne, a canal was dug which required the work of 30,000 men and a wall was built which had employed 70,000 men before its completion. The construction of tombs for grandees was another heavy drain on the people's labour. Some of these sepulchres attained enormous dimensions—that of the emperor Ojin (270–310) measures 2312 yds. round the outer moat and is some 60 ft. high; the emperor Nintoku's (313–399) is still larger, and there is a tumulus in Kawachi on the flank of which a good-sized village has been built. Kōtoku's laws provided that the tomb of a prince should not be so large as to require the work of more than 1000 men for seven days, and that the grave of a petty official must be completed by 50 men in one day. Moreover, it was forbidden to bury with the body gold, silver, copper, iron, jewelled shirts, jade armour or silk brocade. It appears that the custom of suicide or sacrifice at the tomb of grandees still survived, and that people sometimes cut off their hair or stabbed their thighs preparatory to declaiming a threnody. All these practices were vetoed. Abuses had grown up even in connexion with the Shintō rite of purgation. This rite required not only the reading of rituals but also the offering of food and fruits. For the sake of these edibles the rite was often harshly enforced, especially in connexion with pollution from contact with corpses; and thus it fell out that when of two brothers, returning from a scene of forced labour, one lay down upon the road and died, the other, dreading the cost of compulsory purgation, refused to take up the body. Many other evil customs came into existence in connexion with this rite, and all were dealt with in the new laws. Not the least important of the reforms then introduced was the organization of the ministry after the model of the Tang dynasty of China. Eight departments of state were created, and several of them received names which are similarly used to this day. Not only the institutions of China were borrowed but also her official costumes. During Kōtoku's reign 19 grades of head-gear were instituted, and in the time of Tenchi (668–671) the number was increased to 26, with corresponding robes. Throughout this era intercourse was frequent with China, and the spread of Buddhism continued steadily. The empress Saimei (655–661), who succeeded Kōtoku, was an earnest patron of the faith. By her command several public expositions of the Sutras were given, and the building of temples went on in many districts, estates being liberally granted for the maintenance of these places of worship.

The Fujiwara Era.—In the *Chronicles of Japan* the year 672 is treated as a kind of interregnum. It was in truth a year of something like anarchy, a great part of it being occupied by a conflict of unparalleled magnitude between Prince Ōtomo (called in history Emperor Kōbun) and Prince Ōama, who emerged victorious and is historically entitled Temmu(673–686). The four centuries that followed are conveniently designated the Fujiwara era, because throughout that long interval affairs of state were controlled by the Fujiwara family, whose daughters were given as consorts to successive sovereigns and whose sons filled all the high administrative posts. It has been related above that Kamako, chief of the Shintō officials, inspired the assassination of the Soga chief, Iruka, and thus defeated the latter's designs upon the throne in the days of the empress Kōgyoku. Kamako, better known to subsequent generations as Kamatari, was thenceforth regarded with unlimited favour by successive sovereigns, and just before his death in 670, the family name of Fujiwara was bestowed on him by the emperor Tenchi. Kamatari himself deserved all the honour he received, but his descendants abused the high trust reposed in them, reduced the sovereign to a mere puppet, and exercised Imperial authority without openly usurping it. Much of this was due to the adoption of Chinese administrative systems, a process which may be said to have commenced during the reign of Kōtoku (645–654) and to have continued almost uninterruptedly until the 11th century. Under these systems the emperor ceased directly to exercise supreme civil or military power: he became merely the source of authority, not its wielder, the civil functions being delegated to a bureaucracy and the military to a soldier class. Possibly had the custom held of transferring the capital to a new site on each change of sovereign, and had the growth of luxurious habits been thus checked, the comparatively simple life of early times might have held the throne and the people in closer contact. But from the beginning of the 8th century a strong tendency to avoid these costly migrations developed itself. In 709 the court took up its residence at Nara, remaining there until 784; ten years after the latter date Kiōto became the permanent metropolis. The capital at Nara—established during the reign of the empress Gemmyō (708–715)—was built on the plan of the Chinese metropolis. It had nine gates and nine avenues, the palace being situated in the northern section and approached by a broad, straight avenue, which divided the city into two perfectly equal halves, all the other streets running parallel to this main

avenue or at right angles to it. Seven sovereigns reigned at Heijō (castle of peace), as Nara is historically called, and, during this period of 75 years, seven of the grandest temples ever seen in Japan were erected; a multitude of idols were cast, among them a colossal bronze Daibutsu 53½ ft. high; large temple-bells were founded, and all the best artists and artisans of the era devoted their services to these works. This religious mania reached its acme in the reign of the emperor Shōmu (724–748), a man equally superstitious and addicted to display. In Temmu's time the custom had been introduced of compelling large numbers of persons to enter the Buddhist priesthood with the object of propitiating heaven's aid to heal the illness of an illustrious personage. In Shōmu's day every natural calamity or abnormal phenomenon was regarded as calling for religious services on a large scale, and the great expense involved in all these buildings and ceremonials, supplemented by lavish outlays on court pageants, was severely felt by the nation. The condition of the agricultural class, who were the chief tax-payers, was further aggravated by the operation of the emperor Kōtoku's land system, which rendered tenure so uncertain as to deter improvements. Therefore, in the Nara epoch, the principle of private ownership of land began to be recognized. Attention was also paid to road-making, bridge-building, river control and house construction, a special feature of this last being the use of tiles for roofing purposes in place of the shingles or thatch hitherto employed. In all these steps of progress Buddhist priests took an active part. Costumes were now governed by purely Chinese fashions. This change had been gradually introduced from the time of Kōtoku's legislative measures—generally called the Taikwa reforms after the name of the era (645–650) of their adoption—and was rendered more thorough by supplementary enactments in the period 701–703 while Mommu occupied the throne. Ladies seem by this time to have abandoned the strings of beads worn in early eras round the neck, wrists and ankles. They used ornaments of gold, silver or jade in their hair, but in other respects their habiliments closely resembled those of men, and to make the difference still less conspicuous they straddled their horses when riding. Attempts were made to facilitate travel by establishing stores of grain along the principal highways, but as yet there were no hostelries, and if a wayfarer did not find shelter in the house of a friend, he had to bivouac as best he could. Such a state of affairs in the provinces offered a marked contrast to the luxurious indulgence which had now begun to prevail in the capital. There festivals of various kinds, dancing, verse-composing, flower picnics, archery, polo, football—of a very refined nature—hawking, hunting and gambling absorbed the attention of the aristocracy. Nothing disturbed the serenity of the epoch except a revolt of the northern Yemishi, which was temporarily subdued by a Fujiwara general, for the Fujiwara had not yet laid aside the martial habits of their ancestors. In 794 the Imperial capital was transferred from Nara to Kiōto by order of the emperor Kwammu, one of the greatest of Japanese sovereigns. Education, the organization of the civil service, riparian works, irrigation improvements, the separation of religion from politics, the abolition of sinecure offices, devices for encouraging and assisting agriculture, all received attention from him. But a twenty-two years' campaign against the northern Yemishi; the building of numerous temples; the indulgence of such a passionate love of the chase that he organized 140 hunting excursions during his reign of 25 years; profuse extravagance on the part of the aristocracy in Kiōto and the exactions of provincial nobles, conspired to sink the working classes into greater depths of hardship than ever. Farmers had to borrow money and seed-rice from local officials or Buddhist temples, hypothecating their land as security; thus the temples and the nobles extended their already great estates, whilst the agricultural population gradually fell into a position of practical serfdom.

Rise of the Fujiwara.

Meanwhile the Fujiwara family were steadily developing their influence in Kiōto. Their methods were simple but thoroughly effective. "By progressive exercises of arbitrariness they gradually contrived that the choice of a consort for the sovereign should be legally limited to a daughter of their family, five branches of which were specially designated to that honour through all ages. When a son was born to an emperor, the Fujiwara took the child into one of their palaces, and on his accession to the throne, the particular Fujiwara noble that happened to be his maternal grandfather became regent of the empire. This office of regent, created towards the close of the 9th century, was part of the scheme; for the Fujiwara did not allow the purple to be worn by a sovereign after he had attained his majority, or, if they suffered him to wield the sceptre during a few years of manhood, they compelled him to abdicate so soon as any independent aspirations began to impair his docility; and since for the purposes of administration in these constantly recurring minorities an office more powerful than that of prime minister (dajō daijin) was needed, they created that of regent (kwambaku), making it hereditary in their own family. In fact the history of Japan from the 9th to the 19th century may be described as the history of four families, the Fujiwara, the Taira, the Minamoto and the Tokugawa. The Fujiwara governed through the emperor; the Taira, the Minamoto and the Tokugawa governed in spite of the emperor. The Fujiwara based their power on matrimonial alliances with the Throne; the Taira, the Minamoto and the Tokugawa based theirs on the possession of armed strength which the throne had no competence to control. There another broad line of cleavage is seen. Throughout the Fujiwara era the centre of political gravity remained always in the court. Throughout the era of the Taira, the Minamoto and the Tokugawa the centre of political gravity was transferred to a point outside the court, the headquarters of a military feudalism." The process of transfer was of course gradual. It commenced with the granting of large tracts of tax-free lands to noblemen who had wrested them from the aborigines (Yemishi) or had reclaimed them by means of serf-labour. These tracts lay for the most part in the northern and eastern parts of the main island, at such a distance from the capital that the writ of the central government did not run there; and since such lands could be rented at rates considerably less than the tax levied on farms belonging to the state, the peasants by degrees abandoned the latter and settled on the former, with the result that the revenues of the Throne steadily diminished, while those of the provincial magnates correspondingly increased. Moreover, in the 7th century, at the time of the adoption of Chinese models of administration and organization, the court began to rely for military protection on the services of guards temporarily drafted from the provincial troops, and, during the protracted struggle against the Yemishi in the north and east in the 8th century, the fact that the power of the sword lay with the provinces began to be noted.

The Taira and the Minamoto.

Kiōto remained the source of authority. But with the growth of luxury and effeminacy in the capital the Fujiwara became more and more averse from the hardships of campaigning, and in the 9th and 10th centuries, respectively, the Taira and the Minamoto[1] families came into prominence as military leaders, the field of the Taira operations being the south and west, that of the Minamoto the north and east. Had the court reserved to itself and munificently exercised the privilege of rewarding these services, it might still have retained power and wealth. But by a niggardly and contemptuous policy on the part of Kiōto not only were the Minamoto leaders estranged but also they assumed the right of recompensing their followers with tax-free estates, an example which the Taira leaders quickly followed. By the early years of the 12th century these estates had attracted the great majority of the farming class, whereas the public land was left wild and uncultivated. In a word, the court and the Fujiwara found themselves without revenue, while the coffers of the Taira and the Minamoto were full: the power of the purse and the power of the sword had passed effectually to the two military families. Prominent features of the moral condition of the capital at this era (12th century) were superstition, refinement and effeminacy. A belief was widely held that calamity

[1] The Taira and the Minamoto both traced their descent from imperial princes; the Tokugawa were a branch of the Minamoto.

could not be averted or success insured without recourse to Buddhist priests. Thus, during a reign of only 13 years at the close of the 11th century, the emperor Shirakawa caused 5420 religious pictures to be painted, ordered the casting of 127 statues of Buddha, each 11 ft. high, of 3150 life-sized images and of 2930 smaller idols, and constructed 21 large temples as well as 446,630 religious edifices of various kinds. Side by side with this faith in the supernatural, sexual immorality prevailed widely, never accompanied, however, by immodesty. Literary proficiency ranked as the be-all and end-all of existence. "A man estimated the conjugal qualities of a young lady by her skill in finding scholarly similes and by her perception of the cadence of words. If a woman was so fortunate as to acquire a reputation for learning, she possessed a certificate of universal virtue and amiability." All the pastimes of the Nara epoch were pursued with increased fervour and elaboration in the Heian (Kiōto) era. The building of fine dwelling-houses and the laying out of landscape gardens took place on a considerable scale, though in these respects the ideals of later ages were not yet reached. As to costume, the close-fitting, business-like and comparatively simple dress of the 8th century was exchanged for a much more elaborate style. During the Nara epoch the many-hued hats of China had been abandoned for a sober headgear of silk gauze covered with black lacquer, but in the Heian era this was replaced by an imposing structure glistening with jewels: the sleeves of the tunic grew so long that they hung to the knees when a man's arms were crossed, and the trowsers were made so full and baggy that they resembled a divided skirt. From this era may be said to have commenced the manufacture of the tasteful and gorgeous textile fabrics for which Japan afterwards became famous. "A fop's ideal was to wear several suits, one above the other, disposing them so that their various colours showed in harmoniously contrasting lines at the folds on the bosom and at the edges of the long sleeves. A successful costume created a sensation in court circles. Its wearer became the hero of the hour, and under the pernicious influence of such ambition men began even to powder their faces and rouge their cheeks like women. As for the fair sex, their costume reached the acme of unpracticality and extravagance in this epoch. Long flowing hair was essential, and what with developing the volume and multiplying the number of her robes, and wearing above her trowsers a many-plied train, a grand lady of the time always seemed to be struggling to emerge from a cataract of habiliments." It was fortunate for Japan that circumstances favoured the growth of a military class in this age of her career, for had the conditions existing in Kiōto during the Heian epoch spread throughout the whole country, the penalty never escaped by a demoralized nation must have overtaken her. But by the middle of the 12th century the pernicious influence of the Fujiwara had paled before that of the Taira and the Minamoto, and a question of succession to the throne marshalled the latter two families in opposite camps, thus inaugurating an era of civil war which held the country in the throes of almost continuous battle for 450 years, placed it under the administration of a military feudalism, and educated a nation of warriors. At first the Minamoto were vanquished and driven from the capital, Kiyomori, the Taira chief, being left complete master of the situation. He established his headquarters at Rokuharu, in Kiōto, appropriated the revenues of 30 out of the 66 provinces forming the empire, and filled all the high offices of state with his own relatives or connexions. But he made no radical change in the administrative system, preferring to follow the example of the Fujiwara by keeping the throne in the hands of minors. And he committed the blunder of sparing the lives of two youthful sons of his defeated rival, the Minamoto chief. They were Yoritomo and Yoshitsunē; the latter the greatest strategist Japan ever produced, with perhaps one exception; the former, one of her three greatest statesmen, the founder of military feudalism. By these two men the Taira were so completely overthrown that they never raised their heads again, a sea-fight at Dan-no-ura (1155) giving them the *coup de grâce*. Their supremacy had lasted 22 years.

The Feudal Era.—Yoritomo, acting largely under the advice of an astute counsellor, Oye no Hiromoto, established his seat of power at Kamakura, 300 m. from Kiōto. He saw that, effectively to utilize the strength of the military class, propinquity to the military centres in the provinces was essential. At Kamakura he organized an administrative body similar in mechanism to that of the metropolitan government but studiously differentiated in the matter of nomenclature. As to the country at large, he brought it effectually under the sway of Kamakura by placing the provinces under the direct control of military governors, chosen and appointed by himself. No attempt was made, however, to interfere in any way with the polity in Kiōto: it was left intact, and the nobles about the Throne—*kuge* (courtly houses), as they came to be called in contradistinction to the *buke* (military houses)—were placated by renewal of their property titles. The Buddhist priests, also, who had been treated most harshly during the Taira tenure of power, found their fortunes restored under Kamakura's sway. Subsequently Yoritomo obtained for himself the title of *sei-itai-shōgun* (barbarian-subduing generalissimo), and just as the office of regent (kwambaku) had long been hereditary in the Fujiwara family, so the office of shōgun became thenceforth hereditary in that of the Minamoto. These changes were radical. They signified a complete shifting of the centre of power. During eighteen centuries from the time of Jimmu's invasion—as Japanese historians reckon—the country had been ruled from the south; now the north became supreme, and for a civilian administration a purely military was substituted. But there was no contumely towards the court in Kiōto. Kamakura made a show of seeking Imperial sanction for every one of its acts, and the whole of the military administration was carried on in the name of the emperor by a shōgun who called himself the Imperial deputy. In this respect things changed materially after the death of Yoritomo (1198). Kamakura then became the scene of a drama analogous to that acted in Kiōto from the 10th century.

Rule of the Hōjō.

The Hōjō family, to which belonged Masa, Yoritomo's consort, assumed towards the Kamakura shōgun an attitude similar to that previously assumed by the Fujiwara family towards the emperor in Kiōto. A child, who on state occasions was carried to the council chamber in Masa's arms, served as the nominal repository of the shōgun's power, the functions of administration being discharged in reality by the Hōjō family, whose successive heads took the name of *shikken* (constable). At first care was taken to have the shōgun's office filled by a near relative of Yoritomo; but after the death of that great statesman's two sons and his nephew, the puppet shōguns were taken from the ranks of the Fujiwara or of the Imperial princes, and were deposed so soon as they attempted to assert themselves. What this meant becomes apparent when we note that in the interval of 83 years between 1220 and 1308, there were six shōguns whose ages at the time of appointment ranged from 3 to 16. Whether, if events had not forced their hands, the Hōjō constables would have maintained towards the Throne the reverent demeanour adopted by Yoritomo must remain a matter of conjecture. What actually happened was that the ex-emperor, Go-Toba, made an ill-judged attempt (1221) to break the power of Kamakura. He issued a call to arms which was responded to by some thousands of cenobites and as many soldiers of Taira extraction. In the brief struggle that ensued the Imperial partisans were wholly shattered, and the direct consequences were the dethronement and exile of the reigning emperor, the banishment of his predecessor together with two princes of the blood, and the compulsory adoption of the tonsure by Go-Toba; while the indirect consequence was that the succession to the throne and the tenure of Imperial power fell under the dictation of the Hōjō as they had formerly fallen under the direction of the Fujiwara. Yoshitoki, then head of the Hōjō family, installed his brother, Tokifusa, as military governor of Kiōto, and confiscating about 3000 estates, the property of those who had espoused the Imperial cause, distributed these lands among the adherents of his own family, thus

greatly strengthening the basis of the feudal system. "It fared with the Hōjō as it had fared with all the great families that preceded them: their own misrule ultimately wrought their ruin. Their first eight representatives were talented and upright administrators. They took justice, simplicity and truth for guiding principles; they despised luxury and pomp; they never aspired to high official rank; they were content with two provinces for estates, and they sternly repelled the effeminate, depraved customs of Kiōto." Thus the greater part of the 13th century was, on the whole, a golden era for Japan, and the lower orders learned to welcome feudalism. Nevertheless no century furnished more conspicuous illustrations of the peculiarly Japanese system of vicarious government. Children occupied the position of shōgun in Kamakura under authority emanating from children on the throne in Kiōto; and members of the Hōjō family as shikken administered affairs at the mandate of the child shōguns. Through all three stages in the dignities of mikado, shōgun and shikken, the strictly regulated principle of heredity was maintained, according to which no Hōjō shikken could ever become shōgun; no Minamoto or Fujiwara could occupy the throne. At the beginning of the 14th century, however, several causes combined to shake the supremacy of the Hōjō. Under the sway of the ninth shikken (Takatoki), the austere simplicity of life and earnest discharge of executive duties which had distinguished the early chiefs of the family were exchanged for luxury, debauchery and perfunctory government. Thus the management of fiscal affairs fell into the hands of Takasuke, a man of usurious instincts. It had been the wise custom of the Hōjō constables to store grain in seasons of plenty, and distribute it at low prices in times of dearth. There occurred at this epoch a succession of bad harvests, but instead of opening the state granaries with benevolent liberality, Takasuke sold their contents at the highest obtainable rates; and, by way of contrast to the prevailing indigence, the people saw the constable in Kamakura affecting the pomp and extravagance of a sovereign waited upon by 37 mistresses, supporting a band of 2000 dancers, and keeping a pack of 5000 fighting dogs. The throne happened to be then occupied (1319–1338) by an emperor, Go-Daigo, who had reached full maturity before his accession, and was correspondingly averse from acting the puppet part assigned to the sovereigns of his time. Female influence contributed to his impatience. One of his concubines bore a son for whom he sought to obtain nomination as prince imperial, in defiance of an arrangement made by the Hōjō that the succession should pass alternately to the senior and junior branches of the Imperial family. Kamakura refused to entertain Go-Daigo's project, and thenceforth the child's mother importuned her sovereign and lover to overthrow the Hōjō. The *entourage* of the throne in Kiōto at this time was a counterpart of former eras. The Fujiwara, indeed, wielded nothing of their ancient influence. They had been divided by the Hōjō into five branches, each endowed with an equal right to the office of regent, and their strength was thus dissipated in struggling among themselves for the possession of the prize. But what the Fujiwara had done in their days of greatness, what the Taira had done during their brief tenure of power, the Saionji were now doing, namely, aspiring to furnish prime ministers and empresses from their own family solely. They had already given consorts to five emperors in succession, and jealous rivals were watching keenly to attack this clan which threatened to usurp the place long held by the most illustrious family in the land. A petty incident disturbed this state of very tender equilibrium before the plan of the Hōjō's enemies had fully matured, and the emperor presently found himself an exile on the island of Oki. But there now appeared upon the scene three men of great prowess: Kusunoki Masashige, Nitta Yoshisada and Ashikaga Takauji. The first espoused from the outset the cause of the Throne and, though commanding only a small force, held the Hōjō troops in check. The last two were both of Minamoto descent. Their common ancestor was Minamoto Yoshiiye, whose exploits against the northern Yemishi in the second half of the 11th century had so impressed his countrymen that they gave him the title of Hachiman Tarō (first-born of the god of war). Both men took the field originally in the cause of the Hōjō, but at heart they desired to be avenged upon the latter for disloyalty to the Minamoto. Nitta Yoshisada marched suddenly against Kamakura, carried it by storm and committed the city to the flames. Ashikaga Takauji occupied Kiōto, and with the suicide of Takatoki the Hōjō fell finally from rule after 115 years of supremacy (1219–1334). The emperor now returned from exile, and his son, Prince Moriyoshi, having been appointed to the office of shōgun at Kamakura, the restoration of the administrative power to the Throne seemed an accomplished fact.

The Ashikaga Shōguns.

Go-Daigo, however, was not in any sense a wise sovereign. The extermination of the Hōjō placed wide estates at his disposal, but instead of rewarding those who had deserved well of him, he used a great part of them to enrich his favourites, the companions of his dissipation. Ashikaga Takauji sought just such an opportunity. The following year (1335) saw him proclaiming himself shōgun at Kamakura, and after a complicated pageant of incidents, the emperor Go-Daigo was obliged once more to fly from Kiōto. He carried the regalia with him, refused to submit to Takauji, and declined to recognize his usurped title of shōgun. The Ashikaga chief solved the situation by deposing Go-Daigo and placing upon the throne another scion of the imperial family who is known in history as Kōmyō (1336–1348), and who, of course, confirmed Takauji in the office of shōgun. Thus commenced the Ashikaga line of shōguns, and thus commenced also a fifty-six-year period of divided sovereignty, the emperor Go-Daigo and his descendants reigning in Yoshino as the southern court (*nanchō*), and the emperor Kōmyō and his descendants reigning in Kiōto as the northern court (*hokuchō*). It was by the efforts of the shōgun Yoshimitsu, one of the greatest of the Ashikaga potentates, that this quarrel was finally composed, but during its progress the country had fallen into a deplorable condition. "The constitutional powers had become completely disorganized, especially in regions at a distance from the chief towns. The peasant was impoverished, his spirit broken, his hope of better things completely gone. He dreamed away his miserable existence and left the fields untilled. Bands of robbers followed the armies through the interior of the country, and increased the feeling of lawlessness and insecurity. The coast population, especially that of the island of Kiūshiū, had given itself up in a great measure to piracy. Even on the shores of Korea and China these enterprising Japanese corsairs made their appearance." The shōgun Yoshimitsu checked piracy, and there ensued between Japan and China a renewal of cordial intercourse which, upon the part of the shōgun, developed phases plainly suggesting an admission of Chinese suzerainty.

For a brief moment during the sway of Yoshimitsu the country had rest from internecine war, but immediately after his death (1394) the struggle began afresh. Many of the great territorial lords had now grown too puissant to concern themselves about either mikado or shōgun. Each fought for his own hand, thinking only of extending his sway and his territories. By the middle of the 16th century Kiōto was in ruins, and little vitality remained in any trade or industry except those that ministered to the wants of the warrior. Again in the case of the Ashikaga shōguns the political tendency to exercise power vicariously was shown, as it had been shown in the case of the mikados in Kiōto and in the case of the Minamoto in Kamakura. What the regents had been to the emperors and the constables to the Minamoto shōguns, that the wardens (*kwanryō*) were to the Ashikaga shōguns. Therefore, for possession of this office of kwanryō vehement conflicts were waged, and at one time five rival shōguns were used as figure-heads by contending factions. Yoshimitsu had apportioned an ample allowance for the support of the Imperial court, but in the continuous warfare following his death the estates charged with the duty of paying this allowance ceased to return any revenue; the court nobles had to seek shelter and sustenance with one or other of the feudal chiefs in the provinces, and the court itself was reduced to such a state of indigence that when the emperor Go-Tsuchi died (1500),

his corpse lay for forty days awaiting burial, no funds being available for purposes of sepulture.

Alone among the vicissitudes of these troublous times the strength and influence of Buddhism grew steadily. The great monasteries were military strongholds as well as places of worship. When the emperor Kwammu chose Kiōto for his capital, he established on the hill of Hiyei-zan, which lay north-east of the city, a magnificent temple to ward off the evil influences supposed to emanate from that quarter. Twenty years later, Kōbō, the most famous of all Japanese Buddhist saints, founded on Koya-san in Yamato a monastery not less important than that of Hiyei-zan. These and many other temples had large tax-free estates, and for the protection of their property they found it expedient to train and arm the cenobites as soldiers. From that to taking active part in the political struggles of the time was but a short step, especially as the great temples often became refuges of sovereigns and princes who, though nominally forsaking the world, retained all their interest, and even continued to take an active part, in its vicissitudes. It is recorded of the emperor Shirakawa (1073–1086) that the three things which he declared his total inability to control were the waters of the river Kamo, the fall of the dice, and the monks of Buddha. His successors might have confessed equal inability. Kiyōmori, the puissant chief of the Taira family, had fruitlessly essayed to defy the Buddhists; Yoritomo, in the hour of his most signal triumph, thought it wise to placate them. Where these representatives of centralized power found themselves impotent, it may well be supposed that the comparatively petty chieftans who fought each for his own hand in the 15th and 16th centuries were incapable of accomplishing anything. In fact, the task of centralizing the administrative power, and thus restoring peace and order to the distracted empire, seemed, at the middle of the 16th century, a task beyond achievement by human capacity.

Nobunaga, Hideyoshi and Iyeyasu.

But if ever events create the men to deal with them, such was the case in the second half of that century. Three of the greatest captains and statesmen in Japanese history appeared upon the stage simultaneously, and moreover worked in union, an event altogether inconsistent with the nature of the age. They were Oda Nobunaga, Hideyoshi (the *taikō*) and Tokugawa Iyeyasu. Nobunaga belonged to the Taira family and was originally ruler of a small fief in the province of Owari. Iyeyasu, a sub-feudatory of Nobunaga's enemy, the powerful daimyō[1] of Mikawa and two other provinces, was a scion of the Minamoto and therefore eligible for the shōgunate. Hideyoshi was a peasant's son, equally lacking in patrons and in personal attractions. No chance seemed more remote than that such men, above all Hideyoshi, could possibly rise to supreme power. On the other hand, one outcome of the commotion with which the country had seethed for more than four centuries was to give special effect to the principle of natural selection. The fittest alone surviving, the qualities that made for fitness came to take precedence of rank or station, and those qualities were prowess in the battle-field and wisdom in the statesman's closet. "Any plebeian that would prove himself a first-class fighting man was willingly received into the armed *comitatus* which every feudal potentate was eager to attach to himself and his flag." It was thus that Hideyoshi was originally enrolled in the ranks of Nobunaga's retainers.

Nobunaga, succeeding to his small fief in Owari in 1542, added to it six whole provinces within 25 years of continuous endeavour. Being finally invited by the emperor to undertake the pacification of the country, and appealed to by Yoshiaki, the last of the Ashikaga chiefs, to secure for him the shōgunate, he marched into Kiōto at the head of a powerful army (1568), and, having accomplished the latter purpose, was preparing to complete the former when he fell under the sword of a traitor. Throughout his brilliant career he had the invaluable assistance of Hideyoshi, who would have attained immortal fame on any stage in any era. Hideyoshi entered Nobunaga's service as a groom and ended by administering the whole empire. When he accompanied Nobunaga to Kiōto in obedience to the invitation of the mikado, Okimachi, order and tranquillity were quickly restored in the capital and its vicinity. But to extend this blessing to the whole country, four powerful daimyōs as well as the militant monks had still to be dealt with. The monks had from the outset sheltered and succoured Nobunaga's enemies, and one great prelate, Kenryō, hierarch of the Monto sect, whose headquarters were at Osaka, was believed to aspire to the throne itself. In 1571 Nobunaga attacked and gave to the flames the celebrated monastery of Hiyei-zan, established nearly eight centuries previously; and in 1580 he would have similarly served the splendid temple Hongwan-ji in Osaka, had not the mikado sought and obtained grace for it. The task then remained of subduing four powerful daimyōs, three in the south and one in the north-east, who continued to follow the bent of their own warlike ambitions without paying the least attention to either sovereign or shōgun. The task was commenced by sending an army under Hideyoshi against Mōri of Chōshū, whose fief lay on the northern shore of the Shimonoseki strait. This proved to be the last enterprise planned by Nobunaga. On a morning in June 1582 one of the corps intended to reinforce Hideyoshi's army marched out of Kameyama under the command of Akechi Mitsuhide, who either harboured a personal grudge against Nobunaga or was swayed by blind ambition. Mitsuhide suddenly changed the route of his troops, led them to Kiōto, and attacked the temple Honnō-ji where Nobunaga was sojourning all unsuspicious of treachery. Rescue and resistance being alike hopeless, the great soldier committed suicide. Thirteen days later, Hideyoshi, having concluded peace with Mōri of Chōshū, fell upon Mitsuhide's forces and shattered them, Mitsuhide himself being killed by a peasant as he fled from the field.

Hideyoshi.

Nobunaga's removal at once made Hideyoshi the most conspicuous figure in the empire, the only man with any claim to dispute that title being Tokugawa Iyeyasu. These two had hitherto worked in concert. But the question of the succession to Nobunaga's estates threw the country once more into tumult. He left two grown-up sons and a baby grandson, whose father, Nobunaga's first-born, had perished in the holocaust at Honnō-ji. Hideyoshi, not unmindful, it may be assumed, of the privileges of a guardian, espoused the cause of the infant, and wrested from Nobunaga's three other great captains a reluctant endorsement of his choice. Nobutaka, third son of Nobunaga, at once drew the sword, which he presently had to turn against his own person; two years later (1584), his elder brother, Nobuo, took the field under the aegis of Tokugawa Iyeyasu. Hideyoshi and Iyeyasu, now pitted against each other for the first time, were found to be of equal prowess, and being too wise to prolong a useless war, they reverted to their old alliance, subsequently confirming it by a family union, the son of Iyeyasu being adopted by Hideyoshi and the latter's daughter being given in marriage to Iyeyasu. Hideyoshi had now been invested by the mikado with the post of regent, and his position in the capital was omnipotent. He organized in Kiōto a magnificent pageant, in which the principal figures were himself, Iyeyasu, Nobuo and twenty-seven daimyōs. The emperor was present. Hideyoshi sat on the right of the throne, and all the nobles did obeisance to the sovereign. Prior to this event Hideyoshi had conducted against the still defiant daimyōs of Kiūshiū, especially Shimazu of Satsuma, the greatest army ever massed by any Japanese general, and had reduced the island of the nine provinces, not by weight of armament only, but also by a signal exercise of the wise clemency which distinguished him from all the statesmen of his era.

The whole of Japan was now under Hideyoshi's sway except the fiefs in the extreme north and those in the region known as the Kwantō, namely, the eight provinces forming the eastern elbow of the main island. Seven of these provinces were virtually under the sway of Hōjō Ujimasa, fourth representative of a family established in 1476 by a brilliant adventurer of Ise, not related in any way to the great but then extinct house of Kamakura Hōjōs. The daimyōs in the north were comparatively powerless to resist Hideyoshi, but to reach them the Kwantō had

[1] Daimyō ("great name") was the title given to a feudal chief.

to be reduced, and not only was its chief, Ujimasa, a formidable foe, but also the topographical features of the district represented fortifications of immense strength. After various unsuccessful overtures, having for their purpose to induce Ujimasa to visit the capital and pay homage to the emperor, Hideyoshi marched from Kiōto in the spring of 1590 at the head of 170,000 men, his colleagues Nobuo and Iyeyasu having under their orders 80,000 more. The campaign ended as did all Hideyoshi's enterprises, except that he treated his vanquished enemies with unusual severity. During the three months spent investing Odawara, the northern daimyōs surrendered, and thus the autumn of 1590 saw Hideyoshi master of Japan from end to end, and saw Tokugawa Iyeyasu established at Yedo as recognized ruler of the eight provinces of the Kwantō. These two facts should be bracketed together, because Japan's emergence from the deep gloom of long-continued civil strife was due not more to the brilliant qualities of Hideyoshi and Iyeyasu individually than to the fortunate synchronism of their careers, so that the one was able to carry the other's work to completion and permanence. The last eight years of Hideyoshi's life—he died in 1598—were chiefly remarkable for his attempt to invade China through Korea, and for his attitude towards Christianity (see § VIII.: Foreign Intercourse).

The Tokugawa Era.—When Hideyoshi died he left a son, Hideyori, then only six years of age, and the problem of this child's future had naturally caused supreme solicitude to the peasant statesman. He finally entrusted the care of the boy and the management of state affairs to five regents, five ministers, and three intermediary councillors. But he placed chief reliance upon Iyeyasu, whom he appointed president of the board of regents. Among the latter was one, Ishida Mitsunari, who to insatiable ambition added an extraordinary faculty for intrigue and great personal magnetism. These qualities he utilized with such success that the dissensions among the daimyōs, which had been temporarily composed by Hideyoshi, broke out again, and the year 1600 saw Japan divided into two camps, one composed of Tokugawa Iyeyasu and his allies, the other of Ishida Mitsunari and his partisans.

The situation of Iyeyasu was eminently perilous. From his position in the east of the country, he found himself menaced by two powerful enemies on the north and on the south, respectively, the former barely contained by a greatly weaker force of his friends, and the latter moving up in seemingly overwhelming strength from Kiōto. He decided to hurl himself upon the southern army without awaiting the result of the conflict in the north. The encounter took place at Sekigahara in the province of Mino on the 21st of October 1600. The army of Iyeyasu had to move to the attack in such a manner that its left flank and its left rear were threatened by divisions of the enemy posted on commanding eminences. But with the leaders of these divisions Iyeyasu had come to an understanding by which they could be trusted to abide so long as victory did not declare against him. Such incidents were naturally common in an era when every man fought for his own hand. The southerners suffered a crushing defeat. The survivors fled pell-mell to Osaka, where in a colossal fortress, built by Hideyoshi, his son, Hideyori, and the latter's mother, Yodo, were sheltered behind ramparts held 80,000 men. Hideyori's cause had been openly put forward by Ishida Mitsunari and his partisans, but Iyeyasu made no immediate attempt to visit the sin upon the head of his deceased benefactor's child. On the contrary, he sent word to the lady Yodo and her little boy that he absolved them of all complicity. The battle of Sekigahara is commonly spoken of as having terminated the civil war which had devastated Japan, with brief intervals, from the latter half of the 12th century to the beginning of the 17th. That is incorrect in view of the fact that Sekigahara was followed by other fighting, especially by the terrible conflict at Osaka in 1615 when Yodo and her son perished. But Sekigahara's importance cannot be over-rated. For had Iyeyasu been finally crushed there, the wave of internecine strife must have rolled again over the empire until providence provided another Hideyoshi and another Iyeyasu to stem it. Sekigahara, therefore, may be truly described as a turning-point in Japan's career and as one of the decisive battles of the world. As for the fact that the Tokugawa leader did not at once proceed to extremities in the case of the boy Hideyori, though the events of the Sekigahara campaign had made it quite plain that such a course would ultimately be inevitable, we have to remember that only two years had elapsed since Hideyoshi was laid in his grave. His memory was still green and the glory of his achievements still enveloped his family. Iyeyasu foresaw that to carry the tragedy to its bitter end at once must have forced into Hideyori's camp many puissant daimyōs whose sense of allegiance would grow less cogent with the lapse of time. When he did lay siege to the Osaka castle in 1615, the power of the Tokugawa was wellnigh shattered against its ramparts; had not the onset been aided by treachery, the stronghold would probably have proved impregnable.

Iyeyasu.

But signal as were the triumphs of the Tokugawa chieftain in the field, what distinguishes him from all his predecessors is the ability he displayed in consolidating his conquests. The immense estates that fell into his hands he parcelled out in such a manner that all important strategical positions were held by daimyōs whose fidelity could be confidently trusted, and every feudatory of doubtful loyalty found his fief within touch of a Tokugawa partisan. This arrangement, supplemented by a system which required all the great daimyōs to have mansions in the shōgun's capital. Yedo, to keep their families there always and to reside there themselves in alternate years, proved so potent a check to disaffection that from 1615, when the castle of Osaka fell, until 1864, when the Chōshū rōnin attacked Kiōto, Japan remained entirely free from civil war.

It is possible to form a clear idea of the ethical and administrative principles by which Iyeyasu and the early Tokugawa chiefs were guided in elaborating the system which gave to Japan an unprecedented era of peace and prosperity. Evidence is furnished not only by the system itself but also by the contents of a document generally called the *Testament of Iyeyasu*, though probably it was not fully compiled until the time of his grandson, Iyemitsu (1623–1650). The great Tokugawa chief, though he munificently patronized Buddhism and though he carried constantly in his bosom a miniature Buddhist image to which he ascribed all his success in the field and his safety in battle, took his ethical code from Confucius. He held that the basis of all legislation and administration should be the five relations of sovereign and subject, parent and child, husband and wife, brother and sister, friend and friend. The family was, in his eyes, the essential foundation of society, to be maintained at all sacrifices. Beyond these broad outlines of moral duty it was not deemed necessary to instruct the people. Therefore out of the hundred chapters forming the *Testament* only 22 contain what can be called legal enactments, while 55 relate to administration and politics; 16 set forth moral maxims and reflections, and the remainder record illustrative episodes in the career of the author. "No distinct line is drawn between law and morals, between the duty of a citizen and the virtues of a member of a family. Substantive law is entirely wanting, just as it was wanting in the so-called constitution of Prince Shōtoku. Custom, as sanctioned by public observance, must be complied with in the civil affairs of life. What required minute exposition was criminal law, the relations of social classes, etiquette, rank, precedence, administration and government.

Society under feudalism had been moulded into three sharply defined groups, namely, first, the Throne and the court nobles (*kuge*); secondly, the military class (*buke* or *samurai*); and thirdly, the common people (*heimin*). These lines of cleavage were emphasized as much as possible by the Tokugawa rulers. The divine origin of the mikado was held to separate him from contact with mundane affairs, and he was therefore strictly secluded in the palace at Kiōto, his main function being to mediate between his heavenly ancestors and his subjects, entrusting to the shōgun and the samurai the duty of transacting all worldly business on behalf

Social distinctions in the Tokugawa Era.

of the state. In obedience to this principle the mikado became a kind of sacrosanct abstraction. No one except his consorts and his chief ministers ever saw his face. In the rare cases when he gave audience to a privileged subject, he sat behind a curtain, and when he went abroad, he rode in a closely shut car drawn by oxen. A revenue of ten thousand *koku* of rice—the equivalent of about as many guineas—was apportioned for his support, and the right was reserved to him of conferring empty titles upon the living and rank upon the dead. His majesty had one wife, the empress (*kōgō*), necessarily taken from one of the five chosen families (*go-sekke*) of the Fujiwara, but he might also have twelve consorts, and if direct issue failed, the succession passed to one of the two princely families of Arisugawa and Fushimi, adoption, however, being possible in the last resort. The *kuge* constituted the court nobility, consisting of 155 families all of whom traced their lineage to ancient mikados; they ranked far above the feudal chiefs, not excepting even the shōgun; filled by right of heredity nearly all the offices at the court, the emoluments attached being, however, a mere pittance; were entirely without the great estates which had belonged to them in ante-feudal times, and lived lives of proud poverty, occupying themselves with the study of literature and the practice of music and art. After the *kuge* and at a long distance below them in theoretical rank came the military families, who, as a class, were called *buke* or *samurai*. They had hereditary revenues, and they filled the administrative posts, these, too, being often hereditary. The third, and by far the most numerous, section of the nation were the commoners (*heimin*). They had no social status; were not allowed to carry swords, and possessed no income except what they could earn with their hands. About 55 in every 1000 units of the nation were samurai, the latter's wives and children being included in this estimate.

Daimyōs.

Under the Hōjō and the Ashikaga shōguns the holders of the great estates changed frequently according to the vicissitudes of those troublesome times, but under the Tokugawa no change took place, and there thus grew up a landed nobility of the most permanent character. Every one of these estates was a feudal kingdom, large or small, with its own usages and its own laws, based on the general principles above indicated and liable to be judged according to those principles by the shōgun's government (*baku-fu*) in Yedo. A daimyō or feudal chief drew from the peasants on his estate the means of subsistence for himself and his retainers. For this purpose the produce of his estate was assessed by the shōgun's officials in *koku* (one *koku* = 180·39 litres, worth about £1), and about one-half of the assessed amount went to the feudatory, the other half to the tillers of the soil. The richest daimyō was Mayeda of Kaga, whose fief was assessed at a little over a million *koku*, his revenue thus being about half a million sterling. Just as an empress had to be taken from one of five families designated to that distinction for all time, so a successor to the shōgunate, failing direct heir, had to be selected from three families (*sanke*), namely, those of the daimyōs of Owari, Kii and Mito, whose first representatives were three sons of Iyeyasu. Out of the total body of 255 daimyōs existing in the year 1862, 141 were specially distinguished as *fudai*, or hereditary vassals of the Tokugawa house, and to 18 of these was strictly limited the perpetual privilege of filling all the high offices in the Yedo administration, while to 4 of them was reserved the special honour of supplying a regent (*go-tairō*) during the minority of the shōgun. Moreover, a *fudai* daimyō was of necessity appointed to the command of the fortress of Nijō in Kiōto as well as of the great castles of Osaka and Fushimi, which Iyeyasu designated the keys of the country. No intermarriage might take place between members of the court nobility and the feudal houses without the consent of Yedo; no daimyō might apply direct to the emperor for an official title, or might put foot within the imperial district of Kiōto without the shōgun's permit, and at all entrances to the region known as the Kwantō there were established guard-houses, where every one, of whatever rank, must submit to be examined, in order to prevent the wives and children of the daimyōs from secretly leaving Yedo for their own provinces. In their journeys to and from Yedo every second year the feudal chiefs had to travel by one of two great highways, the Tōkaidō or the Nakasendō, and as they moved with great retinues, these roads were provided with a number of inns and tea-houses equipped in a sumptuous manner, and having an abundance of female servants. A puissant daimyō's procession often numbered as many as 1000 retainers, and nothing illustrates more forcibly the wide interval that separated the soldier and the plebeian than the fact that at the appearance of the heralds who preceded these progresses all commoners who happened to be abroad had to kneel on the ground with bowed and uncovered heads; all wayside houses had to close the shutters of windows giving on the road, and none might venture to look down from a height on the passing magnate. Any violation of these rules of etiquette exposed the violator to instant death at the hands of the daimyō's retinue. Moreover, the samurai and the heimin lived strictly apart. A feudal chief had a castle which generally occupied a commanding position. It was surrounded by from one to three broad moats, the innermost crowned with a high wall of huge cut stones, its trace arranged so as to give flank defence, which was further provided by pagoda-like towers placed at the salient angles. Inside this wall stood the houses of the high officials on the outskirts of a park surrounding the residence of the daimyō himself, and from the scarps of the moats or in the intervals between them rose houses for the military retainers, barrack-like structures, provided, whenever possible, with small but artistically arranged and carefully tended gardens. All this domain of the military was called *yashiki* in distinction to the *machi* (streets) where the despised commoners had their habitat.

Samurai.

The general body of the samurai received stipends and lived frugally. Their pay was not reckoned in money: it took the form of so many rations of rice delivered from their chief's granaries. A few had landed estates, usually bestowed in recognition of conspicuous merit. They were probably the finest type of hereditary soldiers the world ever produced. Money and all devices for earning it they profoundly despised. The right of wearing a sword was to them the highest conceivable privilege. They counted themselves the guardians of their fiefs' honour and of their country's welfare. At any moment they were prepared cheerfully to sacrifice their lives on the altar of loyalty. Their word, once given, must never be violated. The slightest insult to their honour might not be condoned. Stoicism was a quality which they esteemed next to courage: all outward display of emotion must be suppressed. The sword might never be drawn for a petty cause, but, if once drawn, must never be returned to its scabbard until it had done its duty. Martial exercises occupied much of their attention, but book learning also they esteemed highly. They were profoundly courteous towards each other, profoundly contemptuous towards the commoner, whatever his wealth. Filial piety ranked next to loyalty in their code of ethics. Thus the Confucian maxim, endorsed explicitly in the *Testament of Iyeyasu*, that a man must not live under the same sky with his father's murderer or his brother's slayer, received most literal obedience, and many instances occurred of vendettas pursued in the face of apparently insuperable difficulties and consummated after years of effort. By the standard of modern morality the Japanese samurai would be counted cruel. Holding that death was the natural sequel of defeat and the only certain way of avoiding disgrace, he did not seek quarter himself or think of extending it to an enemy. Yet in his treatment of the latter he loved to display courtesy until the supreme moment when all considerations of mercy were laid aside. It cannot be doubted that the practice of employing torture judicially tended to educate a mood of callousness towards suffering, or that the many idle hours of a military man's life in time of peace encouraged a measure of dissipation. But there does not seem to be any valid ground for concluding that either of these defects was conspicuous in the character of the Japanese samurai. Faithlessness towards women was the greatest fault that can be laid to his door. The

samurai lady claimed no privilege of timidity on account of her sex. She knew how to die in the cause of honour just as readily as her husband, her father or her brother died, and conjugal fidelity did not rank as a virtue in her eyes, being regarded as a simple duty. But her husband held marital faith in small esteem and ranked his wife far below his sword. It has to be remembered that when we speak of a samurai's suicide, there is no question of poison, the bullet, drowning or any comparatively painless manner of exit from the world. The invariable method was to cut open the abdomen (*hara-kiri* or *seppuku*) and afterwards, if strength remained, the sword was turned against the throat. To such endurance had the samurai trained himself that he went through this cruel ordeal without flinching in the smallest degree.

The heimin or commoners were divided into three classes—husbandmen, artisans and traders. The farmer, as the nation lived by his labour, was counted the most respectable among the bread-winners, and a cultivator of his own estate might even carry one sword but never two, that privilege being strictly reserved to a samurai. The artisan, too, received much consideration, as is easily understood when we remember that included in his ranks were artists, sword-smiths, armourers, sculptors of sacred images or sword-furniture, ceramists and lacquerers. Many artisans were in the permanent service of feudal chiefs from whom they received fixed salaries. Tradesmen, however, were regarded with disdain and stood lowest of all in the social organization. Too much despised to be even included in that organization were the *eta* (defiled folks) and the *hinin* (outcasts). The exact origin of these latter pariahs is uncertain, but the ancestors of the eta would seem to have been prisoners of war or the enslaved families of criminals. To such people were assigned the defiling duties of tending tombs, disposing of the bodies of the dead, slaughtering animals or tanning hides. The hinin were mendicants. On them devolved the task of removing and burying the corpses of executed criminals. Living in segregated hamlets, forbidden to marry with heimin, still less with samurai, not allowed to eat, drink or associate with persons above their own class, the eta remained under the ban of ostracism from generation to generation, though many of them contrived to amass much wealth. They were governed by their own headmen, and they had three chiefs, one residing in each of the cities of Yedo, Osaka and Kiōto. All these members of the submerged classes were relieved from proscription and admitted to the ranks of the commoners under the enlightened system of Meiji. The 12th of October 1871 saw their enfranchisement, and at that date the census showed 287,111 eta and 695,689 hinin.

Heimin.

Naturally, as the unbroken peace of the Tokugawa régime became habitual, the mood of the nation underwent a change. The samurai, no longer required to lead the frugal life of camp or barracks, began to live beyond their incomes. "They found difficulty in meeting the pecuniary engagements of everyday existence, so that money acquired new importance in their eyes, and they gradually forfeited the respect which their traditional disinterestedness had won for them in the past." At the same time the abuses of feudalism were thrown into increased salience. A large body of hereditary soldiers become an anomaly when fighting has passed even out of memory. On the other hand, the agricultural and commercial classes acquired new importance. The enormous sums disbursed every year in Yedo, for the maintenance of the great establishments which the feudal chiefs vied with each other in keeping there, enriched the merchants and traders so greatly that their scale of living underwent radical change. Buddhism was a potent influence, but its ethical restraints were weakened by the conduct of its priests, who themselves often yielded to the temptation of the time. The aristocracy adhered to its refined pastimes—performances of the *No*; tea reunions; poem composing; polo; football; equestrian archery; fencing and gambling—but the commoner, being excluded from all this realm and, at the same time, emerging rapidly from his old position of penury and degradation, began to develop luxurious proclivities and to demand corresponding amusements. Thus the theatre came into existence; the dancing girl and the jester found lucrative employment; a popular school of art was founded and quickly carried to perfection; the *lupanar* assumed unprecedented dimensions; rich and costly costumes acquired wide vogue in despite of sumptuary laws enacted from time to time; wrestling became an important institution, and plutocracy asserted itself in the face of caste distinctions.

Decline and Fall of the Shōgunate.

Simultaneously with the change of social conditions thus taking place, history repeated itself at the shōgun's court. The substance of administrative power passed into the hands of a minister, its shadow alone remaining to the shōgun. During only two generations were the successors of Iyeyasu able to resist this traditional tendency. The representative of the third—Iyetsuna (1661–1680)—succumbed to the machinations of an ambitious minister, Sakai Takakiyo, and it may be said that from that time the nominal repository of administrative authority in Yedo was generally a species of magnificent recluse, secluded from contact with the outer world and seeing and hearing only through the eyes and ears of the ladies of his household. In this respect the descendants of the great Tokugawa statesman found themselves reduced to a position precisely analogous to that of the emperor in Kiōto. Sovereign and shōgun were alike mere abstractions so far as the practical work of government was concerned. With the great mass of the feudal chiefs things fared similarly. These men who, in the days of Nobunaga, Hideyoshi and Iyeyasu, had directed the policies of their fiefs and led their armies in the field, were gradually transformed, during the long peace of the Tokugawa era, into voluptuous *fainéants* or, at best, thoughtless dilettanti, willing to abandon the direction of their affairs to seneschals and mayors, who, while on the whole their administration was able and loyal, found their account in contriving and perpetuating the effacement of their chiefs. Thus, in effect, the government of the country, taken out of the hands of the shōgun and the feudatories, fell into those of their vassals. There were exceptions, of course, but so rare as to be merely accidental.

Another important factor has to be noted. It has been shown above that Iyeyasu bestowed upon his three sons the rich fiefs of Owari, Kii (Kishū) and Mito, and that these three families exclusively enjoyed the privilege of furnishing an heir to the shōgun should the latter be without direct issue. Mito ought therefore to have been a most unlikely place for the conception and propagation of principles subversive of the shōgun's administrative autocracy. Nevertheless, in the days of the second of the Mito chiefs at the close of the 17th century, there arose in that province a school of thinkers who, revolting against the ascendancy of Chinese literature and of Buddhism, devoted themselves to compiling a history such as should recall the attention of the nation to its own annals and revive its allegiance to Shintō. It would seem that in patronizing the compilation of this great work the Mito chief was swayed by the spirit of pure patriotism and studentship, and that he discerned nothing of the goal to which the new researches must lead the litterati of his fief. "He and they, for the sake of history and without any thought of politics, undertook a retrospect of their country's annals, and their frank analysis furnished conclusive proof that the emperor was the prime source of administrative authority and that its independent exercise by a shōgun must be regarded as a usurpation. They did not attempt to give practical effect to their discoveries; the era was essentially academical. But this galaxy of scholars projected into the future a light which burned with growing force in each succeeding generation and ultimately burst into a flame which consumed feudalism and the shōgunate," fused the nation into one, and restored the governing authority to the emperor. Of course the Mito men were not alone in this matter: many students subsequently trod in their footsteps and many others sought to stem the tendency; but the net result was fatal to faith in the dual system of government. Possibly had nothing occurred to furnish signal proof of the system's practical defects,

it might have long survived this theoretical disapproval. But the crisis caused by the advent of foreign ships and by the forceful renewal of foreign intercourse in the 19th century afforded convincing evidence of the shōgunate's incapacity to protect the state's supposed interests and to enforce the traditional policy of isolation which the nation had learned to consider essential to the empire's integrity.

Another important factor made for the fall of the shōgunate. That factor was the traditional disaffection of the two great southern fiefs, Satsuma and Chōshū. When Iyeyasu parcelled out the empire, he deemed it the wisest policy to leave these chieftains in full possession of their large estates. But this measure, construed as an evidence of weakness rather than a token of liberality, neither won the allegiance of the big feudatories nor cooled their ambition. Thus no sooner did the nation divide into two camps over the question of renewed foreign intercourse than men of the above clans, in concert with representatives of certain of the old court nobles, placed themselves at the head of a movement animated by two loudly proclaimed purposes: restoration of the administration to the emperor, and expulsion of aliens. This latter aspiration underwent a radical change when the bombardment of the Satsuma capital, Kagoshima, and the destruction of the Chōshū forts and ships at Shimonoseki proved conclusively to the Satsuma and Chōshū clans that Japan in her unequipped and backward condition could not hope to stand for a moment against the Occident in arms. But the unwelcome discovery was accompanied by a conviction that only a thoroughly united nation might aspire to preserve its independence, and thus the abolition of the dual form of government became more than ever an article of public faith. It is unnecessary to recount the successive incidents which conspired to undermine the shōgun's authority, and to destroy the prestige of the Yedo administration. Both had been reduced to vanishing quantities by the year 1866 when Keiki succeeded to the shōgunate.

Keiki, known historically as Yoshinobu, the last of the shōguns, was a man of matured intellect and high capacities. He had been put forward by the anti-foreign Conservatives for the succession to the shōgunate in 1857 when the complications of foreign intercourse were in their first stage of acuteness. But, like many other intelligent Japanese, he had learned, in the interval between 1857 and 1866, that to keep her doors closed was an impossible task for Japan, and very quickly after taking the reins of office he recognized that national union could never be achieved while power was divided between Kiōto and Yedo. At this juncture there was addressed to him by Yōdō, chief of the great Tosa fief, a memorial setting forth the hopelessness of the position in which the Yedo court now found itself, and urging that, in the interests of good government and in order that the nation's united strength might be available to meet the exigencies of its new career, the administration should be restored to the emperor. Keiki received this memorial in Kiōto. He immediately summoned a council of all the feudatories and high officials then in the Imperial city, announced to them his intention to lay down his office, and, the next day, presented his resignation to the sovereign. This happened on the 14th of October 1867. It must be ranked among the signal events of the world's history, for it signified the voluntary surrender of kingly authority wielded uninterruptedly for nearly three centuries. That the shōgun's resignation was tendered in good faith there can be no doubt, and had it been accepted in the same spirit, the great danger it involved might have been consummated without bloodshed or disorder. But the clansmen of Satsuma and Chōshū were distrustful. One of the shōgun's first acts after assuming office had been to obtain from the throne an edict for imposing penalties on Chōshū, and there was a precedent for suspecting that the renunciation of power by the shōgun might merely prelude its resumption on a firmer basis. Therefore steps were taken to induce the emperor, then a youth of fifteen, to issue a secret rescript to Satsuma and Chōshū, denouncing the shōgun as the nation's enemy and enjoining his destruction. At the same time all officials connected with the Tokugawa or suspected of sympathy with them were expelled from office in Kiōto, and the shōgun's troops were deprived of the custody of the palace gates by methods which verged upon the use of armed force. In the face of such provocation Keiki's earnest efforts to restrain the indignation of his vassals and adherents failed. They marched against Kiōto and were defeated, whereupon Keiki left his castle at Osaka and retired to Yedo, where he subsequently made unconditional surrender to the Imperial army. There is little more to be set down on this page of the history. The Yedo court consented to lay aside its dignities and be stripped of its administrative authority, but all the Tokugawa vassals and adherents did not prove equally placable. There was resistance in the northern provinces, where the Aizu feudatory refused to abandon the Tokugawa cause; there was an attempt to set up a rival candidate for the throne in the person of an Imperial prince who presided over the Uyeno Monastery in Yedo; and there was a wild essay on the part of the admiral of the shōgun's fleet to establish a republic in the island of Yezo. But these were mere ripples on the surface of the broad stream which set towards the peaceful overthrow of the dual system of government and ultimately towards the fall of feudalism itself. That this system, the outcome of five centuries of nearly continuous warfare, was swept away in almost as many weeks with little loss of life or destruction of property constitutes, perhaps, the most striking incident, certainly the most momentous, in the history of the Japanese nation.

The Meiji Era.—It must be remembered that when reference is made to the Japanese nation in connexion with these radical changes, only the nobles and the samurai are indicated —in other words, a section of the population representing about one-sixteenth of the whole. The bulk of the people—the agricultural, the industrial and the mercantile classes—remained outside the sphere of politics, not sharing the anti-foreign prejudice, or taking any serious interest in the great questions of the time. Foreigners often noted with surprise the contrast between the fierce antipathy displayed towards them by certain samurai on the one hand, and the genial, hospitable reception given to them by the common people on the other. History teaches that the latter was the natural disposition of the Japanese, the former a mood educated by special experiences. Further, even the comparatively narrow statement that the restoration of the administrative power to the emperor was the work of the nobles and the samurai must be taken with limitations. A majority of the nobles entertained no idea of any necessity for change. They were either held fast in the vice of Tokugawa authority, or paralyzed by the sensuous seductions of the lives provided for them by the machinations of their retainers, who transferred the administrative authority of the fiefs to their own hands, leaving its shadow only to their lords. It was among the retainers that longings for a new order of things were generated. Some of these men were sincere disciples of progress—a small band of students and deep thinkers who, looking through the narrow Dutch window at Deshima, had caught a glimmering perception of the realities that lay beyond the horizon of their country's prejudices. But the influence of such Liberals was comparatively insignificant. Though they showed remarkable moral courage and tenacity of purpose, the age did not furnish any strong object lesson to enforce their propaganda of progress. The factors chiefly making for change were, first, the ambition of the southern clans to oust the Tokugawa, and, secondly, the samurai's loyal instinct, reinforced by the teachings of his country's history, by the revival of the Shintō cult, by the promptings of national enterprise, and by the object-lessons of foreign intercourse.

Character of the Revolution.

But though essentially imperialistic in its prime purposes, the revolution which involved the fall of the shōgunate, and ultimately of feudalism, may be called democratic with regard to the personnel of those who planned and directed it. They were, for the most part, men without either official rank or social standing. That is a point essential

to a clear understanding of the issue. Fifty-five individuals may be said to have planned and carried out the overthrow of the Yedo administration, and only five of them were territorial nobles. Eight, belonging to the court nobility, laboured under the traditional disadvantages of their class, poverty and political insignificance; and the remaining forty-two, the hearts and hands of the movement, may be described as ambitious youths, who sought to make a career for themselves in the first place, and for their country in the second. The average age of the whole did not exceed thirty. There was another element for which any student of Japanese history might have been prepared: the Satsuma samurai aimed originally not merely at overthrowing the Tokugawa but also at obtaining the shōgunate for their own chief. Possibly it would be unjust to say that all the leaders of the great southern clan harboured that idea. But some of them certainly did, and not until they had consented to abandon the project did their union with Chōshū, the other great southern clan, become possible—a union without which the revolution could scarcely have been accomplished. This ambition of the Satsuma clansmen deserves special mention, because it bore remarkable fruit; it may be said to have laid the foundation of constitutional government in Japan. For, in consequence of the distrust engendered by such aspirations, the authors of the Restoration agreed that when the emperor assumed the reins of power, he should solemnly pledge himself to convene a deliberative assembly, to appoint to administrative posts men of intellect and erudition wherever they might be found, and to decide all measures in accordance with public opinion. This promise, referred to frequently in later times as the Imperial oath at the Restoration, came to be accounted the basis of representative institutions, though in reality it was intended solely as a guarantee against the political ascendancy of any one clan.

At the outset the necessity of abolishing feudalism did not present itself clearly to the leaders of the revolution. Their sole idea was the unification of the nation. But when they came to consider closely the practical side of the problem, they understood how far it would lead them. Evidently that one homogeneous system of law should replace the more or less heterogeneous systems operative in the various fiefs was essential, and such a substitution meant that the feudatories must be deprived of their local autonomy and, incidentally, of their control of local finances. That was a stupendous change. Hitherto each feudal chief had collected the revenues of his fief and had employed them at will, subject to the sole condition of maintaining a body of troops proportionate to his income. He had been, and was still, an autocrat within the limits of his territory. On the other hand, the active authors of the revolution were a small band of men mainly without prestige or territorial influence. It was impossible that they should dictate any measure sensibly impairing the local and fiscal autonomy of the feudatories. No power capable of enforcing such a measure existed at the time. All the great political changes in Japan had formerly been preceded by wars culminating in the accession of some strong clan to supreme authority, whereas in this case there had been a displacement without a substitution—the Tokugawa had been overthrown and no new administrators had been set up in their stead. It was, moreover, certain that an attempt on the part of any one clan to constitute itself executor of the sovereign's mandates would have stirred the other clans to vehement resistance. In short, the leaders of the revolution found themselves pledged to a new theory of government without any machinery for carrying it into effect, or any means of abolishing the old practice. An ingenious exit from this curious dilemma was devised by the young reformers. They induced the feudal chiefs of Satsuma, Chōshū, Tosa and Hizen, the four most powerful clans in the south, publicly to surrender their fiefs to the emperor, praying his majesty to reorganize them and to bring them all under the same system of law. In the case of Shimazu, chief of Satsuma, and Yōdō, chief of Tosa, this act must stand to their credit as a noble sacrifice. To them the exercise of power had been a reality and the effort of surrendering it must have been correspondingly costly. But the chiefs of Chōshū and Hizen obeyed the suggestions of their principal vassals with little, if any, sense of the probable cost of obedience. The same remark applies to all the other feudatories, with exceptions so rare as to emphasize the rule. They had long been accustomed to abandon the management of their affairs to their leading clansmen, and they allowed themselves to follow the same guidance at this crisis. Out of more than 250 feudatories, only 17 hesitated to imitate the example of the four southern fiefs.

The Anti-feudal Idea.

An explanation of this remarkable incident has been sought by supposing that the samurai of the various clans, when they advised a course so inconsistent with fidelity to the interests of their feudal chiefs, were influenced by motives of personal ambition, imagining that they themselves might find great opportunities under the new régime. Some hope of that kind may fairly be assumed, and was certainly realized, in the case of the leading samurai of the four southern clans which headed the movement. But it is plain that no such expectations can have been generally entertained. The simplest explanation seems to be the true one: a certain course, indicated by the action of the four southern clans, was conceived to be in accord with the spirit of the Restoration, and not to adopt it would have been to shrink publicly from a sacrifice dictated by the principle of loyalty to the Throne—a principle which had acquired supreme sanctity in the eyes of the men of that era. There might have been some uncertainty about the initial step; but so soon as that was taken by the southern clans their example acquired compelling force. History shows that in political crises the Japanese samurai is generally ready to pay deference to certain canons of almost romantic morality. There was a fever of loyalty and of patriotism in the air of the year 1869. Any one hesitating, for obviously selfish reasons, to adopt a precedent such as that offered by the procedure of the great southern clans, would have seemed to forfeit the right of calling himself a samurai. But although the leaders of this remarkable movement now understood that they must contrive the total abolition of feudalism and build up a new administrative edifice on foundations of constitutional monarchy, they appreciated the necessity of advancing slowly towards a goal which still lay beyond the range of their followers' vision. Thus the first steps taken after the surrender of the fiefs were to appoint the feudatories to the position of governors in the districts over which they had previously ruled; to confirm the samurai in the possession of their incomes and official positions; to put an end to the distinction between court nobles and territorial nobles, and to organize in Kiōto a cabinet consisting of the leaders of the restoration. Each new governor received one-tenth of the income of the fief by way of emoluments; the pay of the officials and the samurai, as well as the administrative expenses of the district, was defrayed from the same source, and the residue, if any, was to pass into the treasury of the central government.

Motives of the Reformers.

The defects of this system from a monarchical point of view soon became evident. It did not give the power of either the purse or the sword to the sovereign. The revenues of the administrative districts continued to be collected and disbursed by the former feudatories, who also retained the control of the troops, the right of appointing and dismissing officials, and almost complete local autonomy. A further radical step had to be taken, and the leaders of reform, seeing nothing better than to continue the method of procedure which had thus far proved so successful, contrived, first, that several of the administrative districts should send in petitions offering to surrender their local autonomy and be brought under the direct rule of the central government; secondly, that a number of samurai should apply for permission to lay aside their swords. While the nation was digesting the principles embodied in these petitions, the government made preparations for further measures of reform. The ex-chief of Satsuma, who showed some umbrage because the services of his clan in promoting the restoration had not been more fully recognized, was induced to take high ministerial office, as were also the ex-chiefs of Chōshū and Tosa. Each of the four

Defects of the First Measures.

great clans had now three representatives in the ministry. These clans were further persuaded to send to Tōkyō—whither the emperor had moved his court—contingents of troops to form the nucleus of a national army. Importance attaches to these details because the principle of clan representation, illustrated in the organization of the cabinet of 1871, continued to be approximately observed for many years in forming ministries, and ultimately became a target for the attacks of party politicians.

Adoption of Radical Measures.

On the 29th of August 1871 an Imperial decree announced the abolition of the system of local autonomy, and the removal of the territorial nobles from the posts of governor. The taxes of the former fiefs were to be paid thenceforth into the central treasury; all officials were to be appointed by the Imperial government, and the feudatories, retaining permanently an income of one-tenth of their original revenues, were to make Tōkyō their place of residence. As for the samurai, they remained for the moment in possession of their hereditary pensions. Radical as these changes seem, the disturbance caused by them was not great, since they left the incomes of the military class untouched. Some of the incomes were for life only, but the majority were hereditary, and all had been granted in consideration of their holders devoting themselves to military service. Four hundred thousand men approximately were in receipt of such emoluments, and the total amount annually taken from the taxpayers for this purpose was about £2,000,000. Plainly the nation would have to be relieved of this burden sooner or later. The samurai were essentially an element of the feudal system, and that they should survive the latter's fall would have been incongruous. On the other hand, suddenly and wholly to deprive these men and their families—a total of some two million persons—of the means of subsistence on which they had hitherto relied with absolute confidence, and in return for which they and their forefathers had rendered faithful service, would have been an act of inhumanity. It may easily be conceived that this problem caused extreme perplexity to the administrators of the new Japan. They left it unsolved for the moment, trusting that time and the loyalty of the samurai themselves would suggest some solution. As for the feudal chiefs, who had now been deprived of all official status and reduced to the position of private gentlemen, without even a patent of nobility to distinguish them from ordinary individuals, they did not find anything specially irksome or regrettable in their altered position. No scrutiny had been made into the contents of their treasuries. They were allowed to retain unquestioned possession of all the accumulated funds of their former fiefs, and they also became public creditors for annual allowances equal to one-tenth of their feudal revenues. They had never previously been so pleasantly circumstanced. It is true that they were entirely stripped of all administrative and military authority; but since their possession of such authority had been in most cases merely nominal, they only felt the change as a relief from responsibility.

Treatment of the Samurai.

By degrees public opinion began to declare itself with regard to the samurai. If they were to be absorbed into the bulk of the people and to lose their fixed revenues, some capital must be placed at their disposal to begin the world again. The samurai themselves showed a noble faculty of resignation. They had been a privileged class, but they had purchased their privileges with their blood and by serving as patterns of all the qualities most prized among Japanese national characteristics. The record of their acts and the recognition of the people entitled them to look for munificent treatment at the hands of the government which they had been the means of setting up. Yet none of these considerations blinded them to the painful fact that the time had passed them by; that no place existed for them in the new polity. Many of them voluntarily stepped down into the company of the peasant or the tradesman, and many others signified their willingness to join the ranks of common bread-winners if some aid was given to equip them for such a career. After two years' consideration the government took action. A decree announced, in 1873, that the treasury was prepared to commute the pensions of the samurai at the rate of six years' purchase for hereditary pensions and four years for life pensions—one-half of the commutation to be paid in cash, and one-half in bonds bearing interest at the rate of 8%. It will be seen that a perpetual pension of £10 would be exchanged for a payment of £30 in cash, together with securities giving an income of £2, 8s.; and that a £10 life pensioner received £20 in cash and securities yielding £1, 12s. annually. It is scarcely credible that the samurai should have accepted such an arrangement. Something, perhaps, must be ascribed to their want of business knowledge, but the general explanation is that they made a large sacrifice in the interests of their country. Nothing in all their career as soldiers became them better than their manner of abandoning it. They were told that they might lay aside their swords, and many of them did so, though from time immemorial they had cherished the sword as the mark of a gentleman, the most precious possession of a warrior, and the one outward evidence that distinguished men of their order from common toilers after gain. They saw themselves deprived of their military employment, were invited to surrender more than one-half of the income it brought, and knew that they were unprepared alike by education and by tradition to earn bread in any calling save that of arms. Yet, at the invitation of a government which they had helped to establish, many of them bowed their heads quietly to this sharp reverse of fortune. It was certainly a striking instance of the fortitude and resignation which the creed of the samurai required him to display in the presence of adversity. As yet, however, the government's measures with regard to the samurai were not compulsory. Men laid aside their swords and commuted their pensions at their own option.

Saigō Takamori.

Meanwhile differences of opinion began to occur among the leaders of progress themselves. Coalitions formed for destructive purposes are often found unable to endure the strain of constructive efforts. Such lack of cohesion might easily have been foreseen in the case of the Japanese reformers. Young men without experience of public affairs, or special education to fit them for responsible posts, found the duty suddenly imposed on them not only of devising administrative and fiscal systems universally applicable to a nation hitherto divided into a congeries of semi-independent principalities, but also of shaping the country's demeanour towards novel problems of foreign intercourse and alien civilization. So long as the heat of their assault upon the shōgunate fused them into a homogeneous party they worked together successfully. But when they had to build a brand-new edifice on the ruins of a still vivid past, it was inevitable that their opinions should vary as to the nature of the materials to be employed. In this divergence of views many of the capital incidents of Japan's modern history had their origin. Of the fifty-five men whose united efforts had compassed the fall of the shōgunate, five stood conspicuous above their colleagues. They were Iwakura and Sanjō, court nobles; Saigō and Okubo, samurai of Satsuma, and Kido, a samurai of Chōshū. In the second rank came many men of great gifts, whose youth alone disqualified them for prominence—Itō, the constructive statesman of the Meiji era, who inspired nearly all the important measures of the time, though he did not openly figure as their originator; Inouye, who never lacked a resource or swerved from the dictates of loyalty; Okuma, a politician of subtle, versatile and vigorous intellect; Itagaki, the Rousseau of his era; and a score of others created by the extraordinary circumstances with which they had to deal. But the five first mentioned were the captains, the rest only lieutenants. Among the five, four were sincere reformers—not free, of course, from selfish motives, but truthfully bent upon promoting the interests of their country before all other aims. The fifth, Saigō Takamori, was a man in whom boundless ambition lay concealed under qualities of the noblest and most enduring type. His absolute freedom from every trace of sordidness gave currency to a belief that his aims were of the simplest; the story of his career satisfied the highest canons of the samurai; his massive physique, commanding presence and sunny aspect impressed and attracted even those who had no

opportunity of admiring his life of self-sacrificing effort or appreciating the remarkable military talent he possessed. In the first part of his career, the elevation of his clan to supreme power seems to have been his sole motive, but subsequently personal ambition appears to have swayed him. To the consummation of either object the preservation of the military class was essential. By the swords of the samurai alone could a new *imperium in imperio* be carved out. On the other hand, Saigō's colleagues in the ministry saw clearly not only that the samurai were an unwarrantable burden on the nation, but also that their continued existence after the fall of feudalism would be a menace to public peace as well as an anomaly. Therefore they took the steps already described, and followed them by a conscription law, making every adult male liable for military service without regard to his social standing. It is easy to conceive how painfully unwelcome this conscription law proved to the samurai. Many of them were not unwilling to commute their pensions, since their creed had always forbidden them to care for money. Many of them were not unwilling to abandon the habit of carrying swords, since the adoption of foreign costume rendered such a custom incongruous and inconvenient. But very few of them could readily consent to step down from their cherished position as the military class, and relinquish their traditional title to bear the whole responsibility and enjoy the whole honour of fighting their country's battles. They had supposed, not unreasonably, that service in the army and navy would be reserved exclusively for them and their sons, whereas now the commonest rustic, mechanic or tradesman would be equally eligible.

While the pain of this blow was still fresh there occurred a trouble with Korea. The little state had behaved with insulting contumely, and when Japan's course came to be debated in Tōkyō, a disruption resulted in the ranks of the reformers. Saigō saw in a foreign war the sole remaining chance of achieving his ambition by lawful means. The government's conscription scheme, yet in its infancy, had not produced even the skeleton of an army. If Korea had to be conquered, the samurai must be employed; and their employment would mean, if not their rehabilitation, at least their organization into a force which, under Saigō's leadership, might dictate a new policy. Other members of the cabinet believed that the nation would be disgraced if it tamely endured Korea's insults. Thus several influential voices swelled the clamour for war. But a peace party offered strenuous opposition. Its members saw the collateral issues of the problem, and declared that the country must not think of taking up arms during a period of radical transition. The final discussion took place in the emperor's presence. The advocates of peace understood the national significance of the issue and perceived that they were debating, not merely whether there should be peace or war, but whether the country should halt or advance on its newly adopted path of progress. They prevailed, and four members of the cabinet, including Saigō, resigned. This rupture was destined to have far-reaching consequences. One of the seceders immediately raised the standard of revolt. Among the devices employed by him to win adherents was an attempt to fan into flame the dying embers of the anti-foreign sentiment. The government easily crushed the insurrection. Another seceder was Itagaki Taisuke. The third and most prominent was Saigō, who seems to have concluded from that moment that he must abandon his aims or achieve them by force. He retired to his native province of Satsuma, and applied his whole resources, his great reputation and the devoted loyalty of a number of able followers to organizing and equipping a strong body of samurai. Matters were facilitated for him by the conservatism of the celebrated Shimazu Saburō, former chief of Satsuma, who, though not opposed to foreign intercourse, had been revolted by the wholesale iconoclasm of the time, and by the indiscriminate rejection of Japanese customs in favour of foreign. He protested vehemently against what seemed to him a slavish abandonment of the nation's individuality, and finding his protest fruitless, he set himself to preserve in his own distant province, where the writ of the Yedo government had never run, the fashions, institutions and customs which his former colleagues in the administration were ruthlessly rejecting. Satsuma thus became a centre of conservative influences, among which Saigō and his constantly augmenting band of samurai found a congenial environment. During four years this breach between the central government and the southern clan grew constantly.

Split among the Reformers.

In the meanwhile (1876) two extreme measures were adopted by the government: a veto on the wearing of swords, and an edict ordering the compulsory commutation of the pensions and allowances received by the nobles and the samurai. Three years previously the discarding of swords had been declared optional, and a scheme of voluntary commutation had been announced. Many had bowed quietly to the spirit of these enactments. But many still retained their swords and drew their pensions as of old, obstructing, in the former respect, the government's projects for the reorganization of society, and imposing, in the latter, an intolerable burden on the resources of the treasury. The government thought that the time had come, and that its own strength sufficed, to substitute compulsion for persuasion. The financial measure—which was contrived so as to affect the smallest pension-holders least injuriously—evoked no complaint. The samurai remained faithful to the creed which forbade them to be concerned about money. But the veto against sword-wearing overtaxed the patience of the extreme Conservatives. It seemed to them that all the most honoured traditions of their country were being ruthlessly sacrificed on the altar of alien innovations. Armed protests ensued. A few score of samurai, equipping themselves with the hauberks and weapons of old times, fell upon the garrison of a castle, killed or wounded some 300, and then, retiring to an adjacent mountain, died by their own hands. Their example found imitators in two other places, and finally the Satsuma samurai rose in arms under Saigō.

Final Abolition of Sword-wearing and Pensions.

This was an insurrection very different in dimensions and motives from the outbreaks that had preceded it. During four years the preparations of the Satsuma men had been unremitting. They were equipped with rifles and cannon; they numbered some 30,000; they were all of the military class, and in addition to high training in western tactics and in the use of modern arms of precision, they knew how to wield that formidable weapon, the Japanese sword, of which their opponents were for the most part ignorant. Ostensibly their object was to restore the samurai to their old supremacy, and to secure for them all the posts in the army, the navy and the administration. But although they doubtless entertained that intention, it was put forward mainly with the hope of winning the co-operation of the military class throughout the empire. The real purpose of the revolt was to secure the governing power for Satsuma. A bitter struggle ensued. Beginning on the 29th of January 1877, it was brought to a close on the 24th of September by the death, voluntary or in battle, of all the rebel leaders. During that period the number of men engaged on the government's side had been 66,000 and the number on the side of the rebels 40,000, out of which total the killed and wounded aggregated 35,000, or 33% of the whole. Had the government's troops been finally defeated, there can be no doubt that the samurai's exclusive title to man and direct the army and navy would have been re-established, and Japan would have found herself permanently saddled with a military class, heavily burdening her finances, seriously impeding her progress towards constitutional government, and perpetuating all the abuses incidental to a policy in which the power of the sword rests entirely in the hands of one section of the people. The nation scarcely appreciated the great issues that were at stake. It found more interest in the struggle as furnishing a conclusive test of the efficiency of the new military system compared with the old. The army sent to quell the insurrection consisted of recruits drawn indiscriminately from every class of the people. Viewed in the light of history, it was an army of commoners, deficient in the fighting instinct, and traditionally

Satsuma Insurrection.

demoralized for all purposes of resistance to the military class. The Satsuma insurgents, on the contrary, represented the flower of the samurai, long trained for this very struggle, and led by men whom the nation regarded as its bravest captains. The result dispelled all doubts about the fighting quality of the people at large.

Steps of Progress.

Concurrently with these events the government diligently endeavoured to equip the country with all the paraphernalia of Occidental civilization. It is easy to understand that the master-minds of the era, who had planned and carried out the Restoration, continued to take the lead in all paths of progress. Their intellectual superiority entitled them to act as guides; they had enjoyed exceptional opportunities of acquiring enlightenment by visits to Europe and America, and the Japanese people had not yet lost the habit of looking to officialdom for every initiative. But the spectacle thus presented to foreign onlookers was not altogether without disquieting suggestions. The government's reforms seemed to outstrip the nation's readiness for them, and the results wore an air of some artificiality and confusion. Englishmen were employed to superintend the building of railways, the erection of telegraphs, the construction of lighthouses and the organization of a navy. To Frenchmen was entrusted the work of recasting the laws and training the army in strategy and tactics. Educational affairs, the organization of a postal service, the improvement of agriculture and the work of colonization were supervised by Americans. The teaching of medical science, the compilation of a commercial code, the elaboration of a system of local government, and ultimately the training of military officers were assigned to Germans. For instruction in sculpture and painting Italians were engaged. Was it possible that so many novelties should be successfully assimilated, or that the nation should adapt itself to systems planned by a motley band of aliens who knew nothing of its character and customs? These questions did not trouble the Japanese nearly so much as they troubled strangers. The truth is that conservatism was not really required to make the great sacrifices suggested by appearances. Among all the innovations of the era the only one that a Japanese could not lay aside at will was the new fashion of dressing the hair. He abandoned the *queue* irrevocably. But for the rest he lived a dual life. During hours of duty he wore a fine uniform, shaped and decorated in foreign style. But so soon as he stepped out of office or off parade, he reverted to his own comfortable and picturesque costume. Handsome houses were built and furnished according to Western models. But each had an annex where alcoves, verandas, matted floors and paper sliding doors continued to do traditional duty. Beefsteaks, beer, "grape-wine," knives and forks came into use on occasion. But rice-bowls and chopsticks held their everyday place as of old. In a word, though the Japanese adopted every convenient and serviceable attribute of foreign civilization, such as railways, steamships, telegraphs, post-offices, banks and machinery of all kinds; though they accepted Occidental sciences, and, to a large extent, Occidental philosophies; though they recognized the superiority of European jurisprudence and set themselves to bring their laws into accord with it, they nevertheless preserved the essentials of their own mode of life and never lost their individuality. A remarkable spirit of liberalism and a fine eclectic instinct were needed for the part they acted, but they did no radical violence to their own traditions, creeds and conventions. There was indeed a certain element of incongruity and even grotesqueness in the nation's doings. Old people cannot fit their feet to new roads without some clumsiness. The Japanese had grown very old in their special paths, and their novel departure was occasionally disfigured by solecisms. The refined taste that guided them unerringly in all the affairs of life as they had been accustomed to live it, seemed to fail them signally when they emerged into an alien atmosphere. They have given their proofs, however. It is now seen that the apparently excessive rapidity of their progress did not overtax their capacities; that they have emerged safely from their destructive era and carried their constructive career within reach of certain success, and that while they have still to develop some of the traits of their new civilization, there is no prospect whatever of its proving ultimately unsuited to them.

Development of Representative Government.

After the Satsuma rebellion, nothing disturbed the even tenor of Japan's domestic politics except an attempt on the part of some of her people to force the growth of parliamentary government. It is evident that the united effort made by the fiefs to overthrow the system of dual government and wrest the administrative power from the shōgun could have only one logical outcome: the combined exercise of the recovered power by those who had been instrumental in recovering it. That was the meaning of the oath taken by the emperor at the Restoration, when the youthful sovereign was made to say that wise counsels should be widely sought, and all things determined by public discussion. But the framers of the oath had the samurai alone in view. Into their consideration the common people—farmers, mechanics, tradesmen—did not enter at all, nor had the common people themselves any idea of advancing a claim to be considered. A voice in the administration would have been to them an embarrassing rather than a pleasing privilege. Thus the first deliberative assembly was composed of nobles and samurai only. A mere debating club without any legislative authority, it was permanently dissolved after two sessions. Possibly the problem of a parliament might have been long postponed after that fiasco, had it not found an ardent advocate in Itagaki Taisuke (afterwards Count Itagaki). A Tosa samurai conspicuous as a leader of the restoration movement, Itagaki was among the advocates of recourse to strong measures against Korea in 1873, and his failure to carry his point, supplemented by a belief that a large section of public opinion would have supported him had there been any machinery for appealing to it, gave fresh impetus to his faith in constitutional government. Resigning office on account of the Korean question, he became the nucleus of agitation in favour of a parliamentary system, and under his banner were enrolled not only discontented samurai but also many of the young men who, returning from direct observation of the working of constitutional systems in Europe or America, and failing to obtain official posts in Japan, attributed their failure to the oligarchical form of their country's polity. Thus in the interval between 1873 and 1877 there were two centres of disturbance in Japan: one in Satsuma, where Saigō figured as leader; the other in Tosa, under Itagaki's guidance. When the Satsuma men appealed to arms in 1877, a widespread apprehension prevailed lest the Tosa politicians should throw in their lot with the insurgents. Such a fear had its origin in failure to understand the object of the one side or to appreciate the sincerity of the other. Saigō and his adherents fought to substitute a Satsuma clique for the oligarchy already in power. Itagaki and his followers struggled for constitutional institutions. The two could not have anything in common. There was consequently no coalition. But the Tosa agitators did not neglect to make capital out of the embarrassment caused by the Satsuma rebellion. While the struggle was at its height, they addressed to the government a memorial, charging the administration with oppressive measures to restrain the voice of public opinion, with usurpation of power to the exclusion of the nation at large, and with levelling downwards instead of upwards, since the samurai had been reduced to the rank of commoners, whereas the commoners should have been educated up to the standard of the samurai. This memorial asked for a representative assembly and talked of popular rights. But since the document admitted that the people were uneducated, it is plain that there cannot have been any serious idea of giving them a share in the administration. In fact, the Tosa Liberals were not really contending for popular representation in the full sense of the term. What they wanted was the creation of some machinery for securing to the samurai at large a voice in the management of state affairs. They chafed against the fact that, whereas the efforts and sacrifices demanded by the Restoration had fallen

equally on the whole military class, the official prizes under the new system were monopolized by a small coterie of men belonging to the four principal clans. It is on record that Itagaki would have been content originally with an assembly consisting half of officials, half of non-official samurai, and not including any popular element whatever.

But the government did not believe that the time had come even for a measure such as the Tosa Liberals advocated. The statesmen in power conceived that the nation must be educated up to constitutional standards, and that the first step should be to provide an official model. Accordingly, in 1874, arrangements were made for periodically convening an assembly of prefectural governors, in order that they might act as channels of communication between the central authorities and the provincial population, and mutually exchange ideas as to the safest and most effective methods of encouraging progress within the limits of their jurisdictions. This was intended to be the embryo of representative institutions. But the governors, being officials appointed by the cabinet, did not bear in any sense the character of popular nominees, nor could it even be said that they reflected the public feeling of the districts they administered, for their habitual and natural tendency was to try, by means of heroic object lessons, to win the people's allegiance to the government's progressive policy, rather than to convince the government of the danger of overstepping the people's capacities.

These conventions of local officials had no legislative power whatever. The foundations of a body for discharging that function were laid in 1875, when a senate (*genro-in*) was organized. It consisted of official nominees, and its duty was to discuss and revise all laws and ordinances prior to their promulgation. It is to be noted, however, that expediency not less than a spirit of progress presided at the creation of the senate. Into its ranks were drafted a number of men for whom no places could be found in the executive, and who, without some official employment, would have been drawn into the current of disaffection. From that point of view the senate soon came to be regarded as a kind of hospital for administrative invalids, but undoubtedly its discharge of quasi-legislative functions proved suggestive, useful and instructive.

The second meeting of the provincial governors had just been prorogued when, in the spring of 1878, the great minister, Okubo Toshimitsu, was assassinated. Okubo, uniformly ready to bear the heaviest burden of responsibility in every political complication, had stood prominently before the nation as Saigō's opponent. He fell under the swords of Saigō's sympathizers. They immediately surrendered themselves to justice, having taken previous care to circulate a statement of motives, which showed that they ranked the government's failure to establish representative institutions as a sin scarcely less heinous than its alleged abuses of power. Well-informed followers of Saigō could never have been sincere believers in representative institutions. These men belonged to a province far removed from the scene of Saigō's desperate struggle. But the broad fact that they had sealed with their life-blood an appeal for a political change indicated the existence of a strong public conviction which would derive further strength from their act. The Japanese are essentially a brave people. Throughout the troublous events that preceded and followed the Restoration, it is not possible to point to one man whose obedience to duty or conviction was visibly weakened by prospects of personal peril. Okubo's assassination did not alarm any of his colleagues; but they understood its suggestiveness, and hastened to give effect to a previously formed resolve.

Assassination of Okubo.

Two months after Okubo's death, an edict announced that elective assemblies should forthwith be established in various prefectures and cities. These assemblies were to consist of members having a high property qualification, elected by voters having one-half of that qualification; the voting to be by signed ballot, and the session to last for one month in the spring of each year. As to their functions, they were to determine the method of levying and spending local taxes, subject to approval by the minister of state for home affairs; to scrutinize the accounts for the previous year, and, if necessary, to present petitions to the central government. Thus the foundations of genuine representative institutions were laid. It is true that legislative power was not vested in the local assemblies, but in all other important respects they discharged parliamentary duties. Their history need not be related at any length. Sometimes they came into violent collision with the governor of the prefecture, and unsightly struggles resulted. The governors were disposed to advocate public works which the people considered extravagant; and further, as years went by, and as political organizations grew stronger, there was found in each assembly a group of men ready to oppose the governor simply because of his official status. But on the whole the system worked well. The local assemblies served as training schools for the future parliament, and their members showed devotion to public duty as well as considerable aptitude for debate.

Local Government.

This was not what Itagaki and his followers wanted. Their purpose was to overthrow the clique of clansmen who, holding the reins of administrative power, monopolized the prizes of officialdom. Towards the consummation of such an aim the local assemblies helped little. Itagaki redoubled his agitation. He organized his fellow-thinkers into an association called *jiyūtō* (Liberals), the first political party in Japan, to whose ranks there very soon gravitated several men who had been in office and resented the loss of it; many that had never been in office and desired to be; and a still greater number who sincerely believed in the principles of political liberty, but had not yet considered the possibility of immediately adapting such principles to Japan's case. It was in the nature of things that an association of this kind, professing such doctrines, should present a picturesque aspect to the public, and that its collisions with the authorities should invite popular sympathy. Nor were collisions infrequent. For the government, arguing that if the nation was not ready for representative institutions, neither was it ready for full freedom of speech or of public meeting, legislated consistently with that theory, and entrusted to the police large powers of conrol over the press and the platform. The exercise of these powers often created situations in which the Liberals were able to pose as victims of official tyranny, so that they grew in popularity and the contagion of political agitation spread.

The Liberal Party.

Three years later (1881) another split occurred in the ranks of the ruling oligarchy. Okuma Shigenobu (afterwards Count Okuma) seceded from the administration, and was followed by a number of able men who had owed their appointments to his patronage, or who, during his tenure of office as minister of finance, had passed under the influence of his powerful personality. If Itagaki be called the Rousseau of Japan, Okuma may be regarded as the Peel. To remarkable financial ability and a lucid, vigorous judgment he added the faculty of placing himself on the crest of any wave which a genuine *aura popularis* had begun to swell. He, too, inscribed on his banner of revolt against the oligarchy the motto "constitutional government," and it might have been expected that his followers would join hands with those of Itagaki, since the avowed political purpose of both was identical. They did nothing of the kind. Okuma organized an independent party, calling themselves Progressists (*shimpotō*), who not only stood aloof from the Liberals but even assumed an attitude hostile to them. This fact is eloquent. It shows that Japan's first political parties were grouped, not about principles, but about person. Hence an inevitable lack of cohesion among their elements and a constant tendency to break up into caves and coteries. These are the characteristics that render the story of political evolution in Japan so perplexing to a foreign student. He looks for differences of platform and finds none. Just as a true Liberal must be a Progressist, and a true Progressist a Liberal, so, though each may cast his profession of faith in a mould of different phrases, the ultimate shape must be the same. The mainsprings of early political agitation in Japan were personal

The Progressist Party.

grievances and a desire to wrest the administrative power from the hands of the statesmen who had held it so long as to overtax the patience of their rivals. He that searches for profound moral or ethical bases will be disappointed. There were no Conservatives. Society was permeated with the spirit of progress. In a comparative sense the epithet " Conservative " might have been applied to the statesmen who proposed to defer parliamentary institutions until the people, as distinguished from the former samurai, had been in some measure prepared for such an innovation. But since these very statesmen were the guiding spirits of the whole Meiji revolution, it was plain that their convictions must be radical, and that, unless they did violence to their record, they must finally lead the country to representative institutions, the logical sequel of their own reforms.

Okubo's assassination had been followed, in 1878, by an edict announcing the establishment of local assemblies. Okuma's secession in 1881 was followed by an edict announcing that a national assembly would be convened in 1891.

Anti-Government Agitation.

The political parties, having now virtually attained their object, might have been expected to desist from further agitation. But they had another task to perform—that of disseminating anti-official prejudices among the future electors. They worked diligently, and they had an undisputed field, for no one was put forward to champion the government's cause. The campaign was not always conducted on lawful lines. There were plots to assassinate ministers; there was an attempt to employ dynamite, and there was a scheme to foment an insurrection in Korea. On the other hand, dispersals of political meetings by order of police inspectors, and suspension or suppression of newspapers by the unchallengeable verdict of a minister for home affairs, were common occurrences. The breach widened steadily. It is true that Okuma rejoined the cabinet for a time in 1887, but he retired again in circumstances that aggravated his party's hostility to officialdom. In short, during the ten years immediately prior to the opening of the first parliament, an anti-government propaganda was incessantly preached from the platform and in the press.

Meanwhile the statesmen in power resolutely pursued their path of progressive reform. They codified the civil and penal laws, remodelling them on Western bases; they brought a vast number of affairs within the scope of minute regulations; they rescued the finances from confusion and restored them to a sound condition; they recast the whole framework of local government; they organized a great national bank, and established a network of subordinate institutions throughout the country; they pushed on the work of railway construction, and successfully enlisted private enterprise in its cause; they steadily extended the postal and telegraphic services; they economized public expenditures so that the state's income always exceeded its outlays; they laid the foundations of a strong mercantile marine; they instituted a system of postal savings-banks; they undertook large schemes of harbour improvement and road-making; they planned and put into operation an extensive programme of riparian improvement; they made civil service appointments depend on competitive examination; they sent numbers of students to Europe and America to complete their studies; and by tactful, persevering diplomacy they gradually introduced a new tone into the empire's relations with foreign powers. Japan's affairs were never better administered.

The Constitution of 1890.

In 1890 the Constitution was promulgated. Imposing ceremonies marked the event. All the nation's notables were summoned to the palace to witness the delivery of the important document by the sovereign to the prime minister; salvos of artillery were fired; the cities were illuminated, and the people kept holiday. Marquis (afterwards Prince) Itō directed the framing of the Constitution. He had visited the Occident for the purpose of investigating the development of parliamentary institutions and studying their practical working. His name is connected with nearly every great work of constructive statesmanship in the history of new Japan, and perhaps the crown of his legislative career was the drafting of the Constitution, to which the Japanese people point proudly as the only charter of the kind voluntarily given by a sovereign to his subjects. In other countries such concessions were always the outcome of long struggles between ruler and ruled. In Japan the emperor freely divested himself of a portion of his prerogatives and transferred them to the people. That view of the case, as may be seen from the story told above, is not untinged with romance; but in a general sense it is true.

Working of the System.

No incident in Japan's modern career seemed more hazardous than this sudden plunge into parliamentary institutions. There had been some preparation. Provincial assemblies had partially familiarized the people with the methods of deliberative bodies. But provincial assemblies were at best petty arenas—places where the making or mending of roads, and the policing and sanitation of villages came up for discussion, and where political parties exercised no legislative function nor found any opportunity to attack the government or to debate problems of national interest. Thus the convening of a diet and the sudden transfer of financial and legislative authority from the throne and its entourage of tried statesmen to the hands of men whose qualifications for public life rested on the verdict of electors, themselves apparently devoid of all light to guide their choice—this sweeping innovation seemed likely to tax severely, if not to overtax completely, the progressive capacities of the nation. What enhanced the interest of the situation was that the oligarchs who held the administrative power had taken no pains to win a following in the political field. Knowing that the opening of the diet would be a veritable letting loose of the dogs of war, an unmuzzling of the agitators whose mouths had hitherto been partly closed by legal restrictions upon free speech, but who would now enjoy complete immunity within the walls of the assembly whatever the nature of their utterances—foreseeing all this, the statesmen of the day nevertheless stood severely aloof from alliances of every kind, and discharged their administrative functions with apparent indifference to the changes that popular representation could not fail to induce. This somewhat inexplicable display of unconcern became partially intelligible when the constitution was promulgated, for it then appeared that the cabinet's tenure of office was to depend solely on the emperor's will; that ministers were to take their mandate from the Throne, not from parliament. This fact was merely an outcome of the theory underlying every part of the Japanese polity. Laws might be redrafted, institutions remodelled, systems recast, but amid all changes and mutations one steady point must be carefully preserved, the Throne. The makers of new Japan understood that so long as the sancity and inviolability of the imperial prerogatives could be preserved, the nation would be held by a strong anchor from drifting into dangerous waters. They laboured under no misapprehension about the inevitable issue of their work in framing the constitution. They knew very well that party cabinets are an essential outcome of representative institutions, and that to some kind of party cabinet Japan must come. But they regarded the Imperial mandate as a conservative safeguard, pending the organization and education of parties competent to form cabinets. Such parties did not yet exist, and until they came into unequivocal existence, the Restoration statesmen, who had so successfully managed the affairs of the nation during a quarter of a century, resolved that the steady point furnished by the throne must not be abandoned.

On the other hand, the agitators found here a new platform. They had obtained a constitution and a diet, but they had not obtained an instrument for pulling down the " clan " administrators, since these stood secure from attack under the aegis of the sovereign's mandate. They dared not raise their voices against the unfettered exercise of the mikado's prerogative. The nation, loyal to the core, would not have suffered such a protest, nor could the agitators themselves have found heart to formulate it. But they could read their own interpretation into the text of the Constitution, and they could demonstrate practically that a cabinet not acknowledging responsibility to the legislature was virtually impotent for law-making purposes.

These are the broad outlines of the contest that began in the first session of the Diet and continued for several years. It is unnecessary to speak of the special points of controversy. Just as the political parties had been formed on the lines of persons, not principles, so the opposition in the Diet was directed against men, not measures. The struggle presented varying aspects at different times, but the fundamental question at issue never changed. Obstruction was the weapon of the political parties. They sought to render legislation and finance impossible for any ministry that refused to take its mandate from the majority in the lower house, and they imparted an air of respectability and even patriotism to their destructive campaign by making "anti-clannism" their war-cry, and industriously fostering the idea that the struggle lay between administration guided by public opinion and administration controlled by a clique of clansmen who separated the throne from the nation. Had not the House of Peers stood stanchly by the government throughout this contest, it is possible that the nation might have suffered severely from the rashness of the political parties.

The Diet and the Government.

There was something melancholy in the spectacle. The Restoration statesmen were the men who had made Modern Japan; the men who had raised her, in the face of immense obstacles, from the position of an insignificant Oriental state to that of a formidable unit in the comity of nations; the men, finally, who had given to her a constitution and representative institutions. Yet these same men were now fiercely attacked by the arms which they had themselves nerved; were held up to public obloquy as self-seeking usurpers, and were declared to be impeding the people's constitutional route to administrative privileges, when in reality they were only holding the breach until the people should be able to march into the citadel with some show of orderly and competent organization. That there was no corruption, no abuse of position, is not to be pretended; but on the whole the conservatism of the clan statesmen had only one object—to provide that the newly constructed representative machine should not be set working until its parts were duly adjusted and brought into proper gear. On both sides the leaders understood the situation accurately. The heads of the parties, while publicly clamouring for parliamentary cabinets, privately confessed that they were not yet prepared to assume administrative responsibilities;[1] and the so-called "clan statesmen," while refusing before the world to accept the Diet's mandates, admitted within official circles that the question was one of time only. The situation did not undergo any marked change until, the country becoming engaged in war with China (1894–95), domestic squabbles were forgotten in the presence of foreign danger. From that time an era of coalition commenced. Both the political parties joined hands to vote funds for the prosecution of the campaign, and one of them, the Liberals, subsequently gave support to a cabinet under the presidency of Marquis Itō, the purpose of the union being to carry through the diet an extensive scheme of enlarged armaments and public works planned in the sequel of the war. The Progressists, however, remained implacable, continuing their opposition to the thing called bureaucracy quite irrespective of its measures.

The next phase (1898) was a fusion of the two parties into one large organization which adopted the name "Constitutional Party" (*kensei-tō*). By this union the chief obstacles to parliamentary cabinets were removed. Not only did the Constitutionalists command a large majority in the lower house, but also they possessed a sufficiency of men who, although lacking ministerial experience, might still advance a reasonable title to be entrusted with portfolios. Immediately the emperor, acting on the advice of Marquis Itō, invited Counts Okuma and Itagaki to form a cabinet. It was essentially a trial. The party politicians were required to demonstrate in practice the justice of the claim they had been so long asserting in theory. They had worked in combination for the destructive purpose of pulling down the so-called "clan statesmen"; they had now to show whether they could work in combination for the constructive purposes of administration. Their heads, Counts Okuma and Itagaki, accepted the Imperial mandate, and the nation watched the result. There was no need to wait long. In less than six months these new links snapped under the tension of old enmities, and the coalition split up once more into its original elements. It had demonstrated that the sweets of power, which the "clan statesmen" had been so vehemently accused of coveting, possessed even greater attractions for their accusers. The issue of the experiment was such a palpable fiasco that it effectually rehabilitated the "clan statesmen," and finally proved, what had indeed been long evident to every close observer, that without the assistance of those statesmen no political party could hold office successfully.

Fusion of the Two Parties.

Thenceforth it became the unique aim of Liberals and Progressists alike to join hands permanently with the men towards whom they had once displayed such implacable hostility. Prince Itō, the leader of the so-called "elder statesmen," received special solicitations, for it was plain that he would bring to any political party an overwhelming access of strength alike in his own person and in the number of friends and disciples certain to follow him. But Prince Itō declined to be absorbed into any existing party, or to adopt the principle of parliamentary cabinets. He would consent to form a new association, but it must consist of men sufficiently disciplined to obey him implicitly, and sufficiently docile to accept their programme from his hand. The Liberals agreed to these terms. They dissolved their party (August 1900) and enrolled themselves in the ranks of a new organization, which did not even call itself a party, its designation being *rikken seiyū-kai* (association of friends of the constitution), and which had for the cardinal plank in its platform a declaration of ministerial irresponsibility to the Diet. A singular page was thus added to the story of Japanese political development; for not merely did the Liberals enlist under the banner of the statesmen whom for twenty years they had fought to overthrow, but they also tacitly consented to erase from their profession of faith its essential article, parliamentary cabinets, and, by resigning that article to the Progressists, created for the first time an opposition with a solid and intelligible platform. Nevertheless the seiyū-kai grew steadily in strength whereas the number of its opponents declined correspondingly. At the general elections in May 1908 the former secured 195 seats, the four sections of the opposition winning only 184. Thus for the first time in Japanese parliamentary history a majority of the lower chamber found themselves marching under the same banner. Moreover, the four sections of the opposition were independently organized and differed nearly as much from one another as they all differed from the seiyū-kai. Their impotence to make head against the solid phalanx of the latter was thus conspicuous, especially during the 1908–1909 session of the Diet. Much talk then began to be heard about the necessity of coalition, and that this talk will materialize eventually cannot be doubted. Reduction of armaments, abolition of taxes specially imposed for belligerent purposes, and the substitution of a strictly constitutional system for the existing bureaucracy—these objects constitute a sufficiently solid platform, and nothing is wanted except that a body of proved administrators should join the opposition in occupying it. There were in 1909 no signs, however, that any such defection from the ranks of officialdom would take place. Deference is paid to public opinions inasmuch as even a seiyū-kai ministry will not remain in office after its popularity has begun to show signs of waning. But no deference is paid to the doctrine of party cabinets. Prince Itō did not continue to lead the seiyū-kai for more than three years. In July 1903 he delegated that function to Marquis Saionji, representative of one of the very oldest families of the court nobility and a personal friend of the emperor, as also was Prince Itō. The Imperial stamp is thus vicariously set upon the principle of

Enrolment of the Clan Statesmen in Political Associations.

[1] Neither the Liberals nor the Progressists had a working majority in the house of representatives, nor could the ranks of either have furnished men qualified to fill all the administrative posts.

political combinations for the better practical conduct of parliamentary business, but that the seiyū-kai, founded by Prince Itō and led by Marquis Saionji, should ever hold office in defiance of the sovereign's mandate is unthinkable. Constitutional institutions in Japan are therefore developing along lines entirely without precedent. The storm and stress of early parliamentary days have given place to comparative calm. During the first twelve sessions of the Diet, extending over 8 years, there were five dissolutions of the lower house. During the next thirteen sessions, extending over 11 years, there were two dissolutions. During the first 8 years of the Diet's existence there were six changes of cabinet; during the next 11 years there were five changes. Another healthy sign was that men of affairs were beginning to realize the importance of parliamentary representation. At first the constituencies were contested almost entirely by professional politicians, barristers and journalists. In 1909 there was a solid body (the *boshin* club) of business men commanding nearly 50 votes in the lower house; and as the upper chamber included 45 representatives of the highest tax-payers, the interests of commerce and industry were intelligently debated. (F. By.)

X.—The Claim of Japan: by a Japanese Statesman[1]

It has been said that it is impossible for an Occidental to understand the Oriental, and vice versa; but, admitting that the mutual understanding of two different races or peoples is a difficult matter, why should Occidentals and Orientals be thus set in opposition? No doubt, different peoples of Europe understand each other better than they do the Asiatic; but can Asiatic peoples understand each other better than they can Europeans or than the Europeans can understand any of them? Do Japanese understand Persians or even Indians better than English or French? It is true perhaps that Japanese can and do understand the Chinese better than Europeans; but that is due not only to centuries of mutual intercourse, but to the wonderful and peculiar fact that they have adopted the old classical Chinese literature as their own, somewhat in the way, but in a much greater degree, in which the European nations have adopted the old Greek and Latin literatures. What is here contended for is that the mutual understanding of two peoples is not so much a matter of race, but of the knowledge of each other's history, traditions, literature, &c.

The Japanese have, they think, suffered much from the misunderstanding of their motives, feelings and ideas; what they want is to be understood fully and to be known for what they really are, be it good or bad. They desire, above all, not to be lumped as Oriental, but to be known and judged on their own account. In the latter half of the 19th century, in fact up to the Chinese War, it irritated Japanese travelling abroad more than anything else to be taken for Chinese. Then, after the Chinese War, the alarm about Japan leading Eastern Asia to make a general attack upon Europe—the so-called Yellow Peril—seemed so ridiculous to the Japanese that the bad effects of such wild talk were not quite appreciated by them. The aim of the Japanese nation, ever since, at the time of the Restoration (1868), they laid aside definitively all ideas of seclusion and entered into the comity of nations, has been that they should rise above the level of the Eastern peoples to an equality with the Western and should be in the foremost rank of the brotherhood of nations; it was not their ambition at all to be the champion of the East against the West, but rather to beat down the barriers between themselves and the West.

The intense pride of the Japanese in their nationality, their patriotism and loyalty, arise from their history, for what other nation can point to an Imperial family of one unbroken lineage reigning over the land for twenty-five centuries? Is it not a glorious tradition for a nation, that its emperor should be descended directly from that grandson of "the great heaven-illuminating goddess," to whom she said, "This land (Japan) is the region over which my descendants shall be the lords. Do thou, my august child, proceed thither and govern it. Go! *The prosperity of thy dynasty shall be coeval with heaven and earth.*" Thus they call their country the land of *kami* (ancient gods of tradition). With this spirit, in the old days when China held the hegemony of the East, and all neighbouring peoples were regarded as its tributaries, Japan alone, largely no doubt on account of its insular position, held itself quite aloof; it set at defiance the power of Kublai and routed utterly the combined Chinese and Korean fleets with vast forces sent by him to conquer Japan, this being the only occasion that Japan was threatened with a foreign invasion.

With this spirit, as soon as they perceived the superiority of the Western civilization, they set to work to introduce it into their country, just as in the 7th and 8th centuries they had adopted and adapted the Chinese civilization. In 1868, the first year of the era of Meiji, the emperor swore solemnly the memorable oath of five articles, setting forth the policy that was to be and has been followed thereafter by the government. These five articles were:—

1. Deliberative assemblies shall be established and all measures of government shall be decided by public opinion.
2. All classes, high and low, shall unite in vigorously carrying out the plan of government.
3. Officials, civil and military, and all common people shall as far as possible be allowed to fulfil their just desires so that there may not be any discontent among them.
4. *Uncivilized customs of former times shall be broken through*, and everything shall be based upon just and equitable principles of heaven and earth (nature).
5. *Knowledge shall be sought for throughout the world*, so that the welfare of the empire may be promoted.

(Translation due to Prof. N. Hozumi of Tōkyō Imp. Univ.)

It is interesting, as showing the continuity of the policy of the empire, to place side by side with these articles the words of the Imperial rescript issued in 1908, which are as follows:—

"We are convinced that with the rapid and unceasing advance of civilization, the East and West, mutually dependent and helping each other, are bound by common interests. It is our sincere wish to continue to enjoy for ever its benefits in common with other powers by entering into closer and closer relations and strengthening our friendship with them. Now in order to be able to move onward along with the constant progress of the world and to share in the blessings of civilization, it is obvious that we must develop our internal resources; our nation, but recently emerged from an exhausting war, must put forth increased activity in every branch of administration. It therefore behoves our people to endeavour with one mind, from the highest to the lowest, to pursue their callings honestly and earnestly, to be industrious and thrifty, to abide in faith and righteousness, to be simple and warm-hearted, to put away ostentation and vanity and strive after the useful and solid, to avoid idleness and indulgence, and to apply themselves incessantly to strenuous and arduous tasks . . ."

The ambition of the Japanese people has been, as already stated, to be recognized as an equal by the Great Powers. With this object in view, they have spared no efforts to introduce what they considered superior in the Western civilization, although it may perhaps be doubted whether in their eagerness they have always been wise. *They have always resented any discrimination against them as an Asiatic people*, not merely protesting against it, knowing that such would not avail much, but making every endeavour to remove reasons or excuses for it. Formerly there were troops stationed to guard several legations; foreign postal service was not entirely in the hands of the Japanese government for a long time; these and other indignities against the sovereignty of the nation were gradually removed by proving that they were not necessary. Then there was the question of the extra-territorial jurisdiction; an embassy was sent to Europe and America as early as 1871 with a view to the revision of treaties in order to do away with this *imperium in imperio*, that being the date originally fixed for the revision; the embassy, however, failed in its object but was not altogether fruitless, for it was then clearly seen that it would be necessary to revise thoroughly the system of laws and entirely to reorganize the law courts before Occidental nations could be induced to forgo

[1] The following expression of the Japanese point of view, by a statesman of the writer's authority and experience, may well supplement the general account of the progress of Japan and its inclusion among the great civilized powers of the world.—(Ed. *E. B.*)

this privilege. These measures were necessary in any case as a consequence of the introduction of the Western methods and ideas, but they were hastened by the fact of their being a necessary preliminary to the revision of treaties. When the new code of laws was brought before the Diet at its first session, and there was a great opposition against it in the House of Peers on account of its many defects and especially of its ignoring many established usages, the chief argument in its favour, or at least one that had a great influence with many who were unacquainted with technical points, was that it was necessary for the revision of treaties and that the defects, if any, could be afterwards amended at leisure. These preparations on the part of the government, however, took a long time, and in the meantime the whole nation, or at least the more intelligent part of it, was chafing impatiently under what was considered a national indignity. The United States, by being the first to agree to its abandonment, although this agreement was rendered nugatory by a conditional clause, added to the stock of goodwill with which the Japanese have always regarded the Americans on account of their attitude towards them. When at last the consummation so long and ardently desired was attained, great was the joy with which it was greeted, for now it was felt that Japan was indeed on terms of equality with Occidental nations. Great Britain, by being the first to conclude the revised treaty—an act due to the remarkable foresight of her statesmen in spite of the opposition of their countrymen in Japan—did much to bring about the cordial feeling of the Japanese towards the British, which made them welcome with such enthusiasm the Anglo-Japanese alliance. The importance of this last as a powerful instrument for the preservation of peace in the extreme East has been, and always will be, appreciated at its full value by the more intelligent and thoughtful among the Japanese; but by the mass of the people it was received with great acclamation, owing partly to the already existing good feeling towards the British, but also in a large measure because it was felt that the fact that Great Britain should leave its "splendid isolation" to enter into this alliance proclaimed in the clearest possible way that Japan had entered on terms of full equality among the brotherhood of nations, and that thenceforth there could be no ground for that discrimination against them as an Asiatic nation which had been so galling to the Japanese people.

There have been, and there still are being made, many charges against the Japanese government and people. While admitting that some of them may be founded on facts, it is permissible to point out that traits and acts of a few individuals have often been generalized to be the national characteristic or the result of a fixed policy, while in many cases such charges are due to misunderstandings arising from want of thorough knowledge of each other's language, customs, usages, ideas, &c. Take the principle of "the open door," for instance; the Japanese government has been charged in several instances with acting contrary to it. It is natural that where (as in China) competition is very keen between men of different nationalities, individuals should sometimes feel aggrieved and make complaints of unfairness against the government of their competitors; it is also natural that people at home should listen to and believe in those charges made against the Japanese by their countrymen in the East, while unfortunately the Japanese, being so far away and often unaware of them, have not a ready means of vindicating themselves; but subsequent investigations have always shown those charges to be either groundless or due to misunderstandings, and it may be asserted that in no case has the charge been substantiated that the Japanese government has knowingly, deliberately, of *malice prepense* been guilty of breach of faith in violating the principle of "the open door" to which it has solemnly pledged itself. That it has often been accused by the Japanese subjects of weakness *vis-à-vis* foreign powers to the detriment of their interests, is perhaps a good proof of its fairness.

The Japanese have often been charged with looseness of commercial morality. This charge is harder to answer than the last, for it cannot be denied that there have been many instances of dishonesty on the part of Japanese tradesmen or employees; *tu quoque* is never a valid argument, but there are black sheep everywhere, and there were special reasons why foreigners should have come in contact with many such in their dealings with the Japanese. In days before the Restoration, merchants and tradesmen were officially classed as the lowest of four classes, the samurai, the farmers, the artisans and the merchants; practically, however, rich merchants serving as bankers and employers of others were held in high esteem, even by the samurai. Yet it cannot be denied that the position of the last three was low compared with that of the samurai; their education was not so high, and although of course there was the same code of morality for them all, there was no such high standard of honour as was enjoined upon the samurai by the bushidō or "the way of samurai." Now, when foreign trade was first opened, it was naturally not firms with long-established credit and methods that first ventured upon the new field of business—some few that did failed owing to their want of experience—it was rather enterprising and adventurous spirits with little capital or credit who eagerly flocked to the newly opened ports to try their fortune. It was not to be expected that all or most of those should be very scrupulous in their dealings with the foreigners; the majority of those adventurers failed, while a few of the abler men, generally those who believed in and practised honesty as the best policy, succeeded and came to occupy an honourable position as business men. It is also asserted that foreigners, or at least some of them, did not scruple to take unfair advantage of the want of experience on the part of their Japanese customers to impose upon them methods which they would not have followed except in the East; it may be that such methods were necessary or were deemed so in dealing with those adventurers, but it is a fact that it afterwards took a long time and great effort on the part of Japanese traders to break through some usages and customs which were established in earlier days and which they deemed derogatory to their credit or injurious to their interests. Infringement of patent rights and fraudulent imitation of trade-marks have with some truth also been charged against the Japanese; about this it is to be remarked that although the principles of morality cannot change, their applications may be new; patents and trade-marks are something new to the Japanese, and it takes time to teach that their infringement should be regarded with the same moral censure as stealing. The government has done everything to prevent such practices by enacting and enforcing laws against them, and nowadays they are not so common. Be that as it may, such a state of affairs as that mentioned above is now passing away almost entirely; commerce and trade are now regarded as highly honourable professions, merchants and business men occupy the highest social positions, several of them having been lately raised to the peerage, and are as honourable a set of men as can be met anywhere. It is however to be regretted that in introducing Western business methods, it has not been quite possible to exclude some of their evils, such as promotion of swindling companies, tampering with members of legislature, and so forth.

The Japanese have also been considered in some quarters to be a bellicose nation. No sooner was the war with Russia over than they were said to be ready and eager to fight with the United States. This is another misrepresentation arising from want of proper knowledge of Japanese character and feelings. Although it is true that within the quarter of a century preceding 1909 Japan was engaged in two sanguinary wars, not to mention the Boxer affair, in which owing to her proximity to the scene of the disturbances she had to take a prominent part, yet neither of these was of her own seeking; in both cases she had to fight or else submit to become a mere cipher in the world, if indeed she could have preserved her existence as an independent state. The Japanese, far from being a bellicose people, deliberately cut off all intercourse with the outside world in order to avoid international troubles, and remained absolutely secluded from the world and at profound peace within their own territory for two centuries and a half. Besides, the Japanese have always regarded the Americans with a special goodwill, due no doubt to the steady liberal attitude of the American government and

people towards Japan and Japanese, and they look upon the idea of war between Japan and the United States as ridiculous.

Restrictions upon Japanese emigrants to the United States and to Australia are irritating to the Japanese, because it is a discrimination against them as belonging to the "yellow" race, whereas it has been their ambition to raise themselves above the level of the Eastern nations to an equality with the Western nations, although they cannot change the colour of their skin. When a Japanese even of the highest rank and standing has to obtain a permit from an American immigrant officer before he can enter American territory, is it not natural that he and his countrymen should resent this discrimination as an indignity? But they have too much good sense to think or even dream of going to war upon such a matter; on the contrary, the Japanese government agreed in 1908 to limit the number of emigrants in order to avoid complications.

It may be repeated that it has ever been the ambition of the Japanese people to take rank with the Great Powers of the world, and to have a voice in the council of nations; they demand that they shall not be discriminated against because of the colour of their skin, but that they shall rather be judged by their deeds. With this aim, they have made great efforts: where charges brought against them have any foundation in fact, they have endeavoured to make reforms; where they are false or due to misunderstandings they have tried to live them down, trusting to time for their vindication. They are willing to be judged by the intelligent and impartial world: a fair field and no favour is what they claim, and think they have a right to claim, from the world. (K.)

BIBLIOGRAPHY.—The latest edition of von Wemckstern's *Bibliography of the Japanese Empire* contains the names of all important books and publications relating to Japan, which have now become very numerous. A general reference must suffice here to Captain F. Brinkley's *Japan* (12 vols., 1904); the works of B. H. Chamberlain, *Things Japanese* (5th ed., 1905, &c.); W. G. Aston, *Hist. of Jap. Literature*, &c., and Lafcadio Hearn, *Japan: an Interpretation* (1904), &c., as the European authors with intimate knowledge of the country who have done most to give accurate and illuminating expression to its development. See also *Fifty Years of New Japan*, an encyclopaedic account of the national development in all its aspects, compiled by Count Shigenobu Okuma (2 vols., 1907, 1908; Eng. ed. by Marcus B. Huish, 1909).

JAPANNING, the art of coating surfaces of metal, wood, &c., with a variety of varnishes, which are dried and hardened on in stoves or hot chambers. These drying processes constitute the main distinguishing features of the art. The trade owes its name to the fact that it is an imitation of the famous lacquering of Japan (see JAPAN: *Art*), which, however, is prepared with entirely different materials and processes, and is in all respects much more brilliant, durable and beautiful than any ordinary japan work. Japanning is done in clear transparent varnishes, in black and in body colours; but black japan is the most characteristic and common style of work. The varnish for black japan consists essentially of pure natural asphaltum with a proportion of gum animé dissolved in linseed oil and thinned with turpentine. In thin layers such a japan has a rich dark brown colour; it only shows a brilliant black in thicker coatings. For fine work, which has to be smoothed and polished, several coats of black are applied in succession, each being separately dried in the stove at a heat which may rise to about 300° F. Body colours consist of a basis of transparent varnish mixed with the special mineral paints of the desired colours or with bronze powders. The transparent varnish used by japanners is a copal varnish which contains less drying oil and more turpentine than is contained in ordinary painters' oil varnish. Japanning produces a brilliant polished surface which is much more durable and less easily affected by heat, moisture or other influences than any ordinary painted and varnished work. It may be regarded as a process intermediate between ordinary painting and enamelling. It is very extensively applied in the finishing of ordinary ironmongery goods and domestic iron-work, deed boxes, clock dials and papier-mâché articles. The process is also applied to blocks of slate for making imitation of black and other marbles for chimneypieces, &c., and in a modified form is employed for preparing enamelled, japan or patent leather.

JAPHETH (יֶפֶת), in the Bible, the youngest son of Noah[1] according to the Priestly Code (*c.* 450 B.C.); but in the earlier tradition[2] the second son, also the "father" of one of the three groups into which the nations of the world are divided.[3] In Gen. ix. 27, Noah pronounces the following blessing on Japheth—

> "God enlarge (Heb. *yapht*) Japheth (Heb. *yepheth*),
> And let him dwell in the tents of Shem;
> And let Canaan be his servant."

This is probably an ancient oracle independent alike of the flood story and the genealogical scheme in Gen. x. Shem is probably Israel; Canaan, of course, the Canaanites; by analogy, Japheth should be some third element of the population of Palestine—the Philistines or the Phoenicians have been suggested. The sense of the second line is doubtful, it may be "let God dwell" or "let Japheth dwell"; on the latter view Japheth appears to be in friendly alliance with Shem. The words might mean that Japheth was an intruding invader, but this is not consonant with the tone of the oracle. Possibly Japheth is only present in Gen. ix. 20-27 through corruption of the text, Japheth may be an accidental repetition of yapht "may he enlarge," misread as a proper name.

In Gen. x. Japheth is the northern and western division of the nations; being perhaps used as a convenient title under which to group the more remote peoples who were not thought of as standing in ethnic or political connexion with Israel or Egypt. Thus of his descendants, Gomer, Magog,[4] Tubal, Meshech, Ashkenaz, Riphath and Togarmah are peoples who are located with more or less certainty in N.E. Asia Minor, Armenia and the lands to the N.E. of the Black Sea; Javan is the Ionians, used loosely for the seafaring peoples of the West, including Tarshish (Tartessus in Spain), Kittim (Cyprus), Rodanim[5] (Rhodes). There is no certain identification of Tiras and Elishah.

The similarity of the name Japheth to the Titan Iapetos of Greek mythology is probably a mere accident. A place Japheth is mentioned in Judith ii. 25, but it is quite unknown.

In addition to commentaries and dictionary articles, see E. Meyer, *Die Israeliten und ihre Nachbarstämme*, pp. 219 sqq. (W. H. BE.)

JAR, a vessel of simple form, made of earthenware, glass, &c., with a spoutless mouth, and usually without handles. The word came into English through Fr. *jarre* or Span. *jarra*, from Arab. *jarrah*, the earthenware vessel of Eastern countries, used to contain water, oil, wine, &c. The simple electrical condenser known as a *Leyden Jar* (*q.v.*) was so called because of the early experiments made in the science of electricity at Leiden. In the sense of a harsh vibrating sound, a sudden shock or vibrating movement, hence dissension, quarrel or petty strife, "jar" is onomatopoeic in origin; it is also seen in the name of the bird night-jar (also known as the goat-sucker). In the expression "on the jar" or "ajar," of a door or window partly open, the word is another form of *chare* or *char*, meaning turn or turning, which survives in charwoman, one who works at a turn, a job and *chore*, a job, spell of work.

JARGON, in its earliest use a term applied to the chirping and twittering of birds, but since the 15th century mainly confined to any language, spoken or written, which is either unintelligible to the user or to the hearer. It is particularly applied by uninstructed hearers or readers to the language full of technical terminology used by scientific, philosophic and other writers. The word is O. Fr., and Cotgrave defines it as "gibridge (gibberish), fustian language." It is cognate with Span. *gerigonza*, and Ital. *gergo*, *gergone*, and probably related to the onomatopoeic O. Fr. *jargouiller*, to chatter. The root is probably seen in Lat. *garrire*, to chatter.

[1] Gen. v. 32, vi. 10, vii. 13, x. 1; cf. 1 Chron. i. 4.
[2] Gen. ix. 27, x. 2, J. *c.* 850–750 B.C. In ix. 18 Ham is an editorial addition.
[3] Gen. x. 1–5; cf. 1 Chron. i. 5–7. For the significance of the genealogies in Gen. x. see HAM.
[4] See GOMER, GOG.
[5] So we should read with 1 Chron. i. 7 (LXX.) for Dodanim.

JARGOON, or JARGON (occasionally in old writings *jargounce* and *jacounce*), a name applied by modern mineralogists to those zircons which are fine enough to be cut as gem-stones, but are not of the red colour which characterizes the hyacinth or jacinth. The word is related to Arab *zargun* (zircon). Some of the finest jargoons are green, others brown and yellow, whilst some are colourless. The colourless jargoon may be obtained by heating certain coloured stones. When zircon is heated it sometimes changes in colour, or altogether loses it, and at the same time usually increases in density and brilliancy. The so-called Matura diamonds, formerly sent from Matara (or Matura), in Ceylon, were decolorized zircons. The zircon has strong refractive power, and its lustre is almost adamantine, but it lacks the fire of the diamond. The specific gravity of zircon is subject to considerable variation in different varieties; thus Sir A. H. Church found the sp. gr. of a fine leaf-green jargoon to be as low as 3·982, and that of a pure white jargoon as high as 4·705. Jargoon and tourmaline, when cut as gems, are sometimes mistaken for each other, but the sp. gr. is distinctive, since that of tourmaline is only 3 to 3·2. Moreover, in tourmaline the dichroism is strongly marked, whereas in jargoon it is remarkably feeble. The refractive indices of jargoon are much higher than those of tourmaline (see ZIRCON). (F. W. R.*)

JARĪR IBN 'ATĪYYA UL-KHATFĪ (d. 728), Arabian poet, was born in the reign of the caliph 'Ali, was a member of the tribe Kulaib, a part of the Tamīm, and lived in Irak. Of his early life little is known, but he succeeded in winning the favour of Hajjāj, the governor of Irak (see CALIPHATE). Already famous for his verse, he became more widely known by his feud with Farazdaq and Akhtal. Later he went to Damascus and visited the court of Abdalmalik ('Abd ul-Malik) and that of his successor, Walīd. From neither of these did he receive a warm welcome. He was, however, more successful with Omar II., and was the only poet received by the pious caliph.

His verse, which, like that of his contemporaries, is largely satire and eulogy, was published in 2 vols. (Cairo, 1896). (G. W. T.)

JARKENT, a town of Russian Central Asia, in the province of Semiryechensk, 70 m. W.N.W. of Kulja and near to the Ili river. Pop. (1897), 16,372.

JARNAC, a town of western France in the department of Charente, on the right bank of the river Charente, and on the railway 23 m. W. of Angoulême, between that city and Cognac. Pop. (1906), 4493. The town is well built; and an avenue, planted with poplar trees, leads to a handsome suspension bridge. The church contains an interesting ogival crypt. There are communal colleges for both sexes. Brandy, wine and wine-casks are made in the town. Jarnac was in 1569 the scene of a battle in which the Catholics defeated the Protestants. A pyramid marks the spot where Louis, Prince de Condé, one of the Protestant generals, was slain. Jarnac gave its name to an old French family, of which the best known member is Gui Chabot, comte de Jarnac (d. *c.* 1575), whose lucky backstroke in his famous duel with Châteigneraie gave rise to the proverbial phrase *coup de jarnac*, signifying an unexpected blow.

JARO, a town of the province of Iloílo, Panay, Philippine Islands, on the Jaro river, 2 m. N.W. of the town of Iloílo, the capital. Pop. (1903), 10,681. It lies on a plain in the midst of a rich agricultural district, has several fine residences, a cathedral, a curious three-tiered tower, a semi-weekly paper and a monthly periodical. Jaro was founded by the Spanish in 1584. From 1903 until February 1908 it was part of the town or municipality of Iloílo.

JAROSITE, a rare mineral species consisting of hydrous potassium and aluminium sulphate, and belonging to the group of isomorphous rhombohedral minerals enumerated below:—

Alunite	K_2	$[Al(OH)_2]_6(SO_4)_4$
Jarosite	K_2	$[Fe(OH)_2]_6(SO_4)_4$
Natrojarosite	Na_2	$[Fe(OH)_2]_6(SO_4)_4$
Plumbojarosite	Pb	$[Fe(OH)_2]_6(SO_4)_4$

Jarosite usually occurs as drusy incrustations of minute indistinct crystals with a yellowish-brown colour and brilliant lustre. Hardness 3; sp. gr. 3·15. The best specimens, consisting of crystalline crusts on limonite, are from the Jaroso ravine in the Sierra Almagrera, province of Almeria, Spain, from which locality the mineral receives its name. It has been also found, often in association with iron ores, at a few other localities. A variety occurring as concretionary or mulberry-like forms is known as moronolite (from Gr. *μῶρον*, "mulberry," and *λίθος*, "stone"); it is found at Monroe in Orange county, New York. The recently discovered species natrojarosite and plumbojarosite occur as yellowish-brown glistening powders consisting wholly of minute crystals, and are from Nevada and New Mexico respectively. (L. J. S.)

JARRAH WOOD (an adaptation of the native name *Jerryhl*), the product of a large tree (*Eucalyptus marginata*) found in south-western Australia, where it is said to cover an area of 14,000 sq. m. The trees grow straight in the stem to a great size, and yield squared timber up to 40 ft. length and 24 in. diameter. The wood is very hard, heavy (sp. gr. 1·010) and close-grained, with a mahogany-red colour, and sometimes sufficient "figure" to render it suitable for cabinet-makers' use. The timber possesses several useful characteristics; and great expectations were at first formed as to its value for shipbuilding and general constructive purposes. These expectations have not, however, been realized, and the exclusive possession of the tree has not proved that source of wealth to western Australia which was at one time expected. Its greatest merit for shipbuilding and marine purposes is due to the fact that it resists, better than any other timber, the attacks of the *Teredo navalis* and other marine borers, and on land it is equally exempt, in tropical countries, from the ravages of white ants. When felled with the sap at its lowest point and well seasoned, the wood stands exposure in the air, earth or sea remarkably well, on which account it is in request for railway sleepers, telegraph poles and piles in the British colonies and India. The wood, however, frequently shows longitudinal blisters, or lacunae, filled with resin, the same as may be observed in spruce fir timber; and it is deficient in fibre, breaking with a short fracture under comparatively moderate pressure. It has been classed at Lloyds for ship-building purposes in line three, table A, of the registry rules.

JARROW, a port and municipal borough in the Jarrow parliamentary division of Durham, England, on the right bank of the Tyne, 6½ m. below Newcastle, and on a branch of the North-Eastern railway. Pop. (1901), 34,295. The parish church of St Paul was founded in 685, and retains portions of pre-Norman work. The central tower is Norman, and there are good Decorated and Perpendicular details in the body of the church. Close by are the scattered ruins of the monastery begun by the pious Biscop in 681, and consecrated with the church by Ceolfrid in 685. Within the walls of this monastery the Venerable Bede spent his life from childhood; and his body was at first buried within the church, whither, until it was removed under Edward the Confessor to Durham, it attracted many pilgrims. The town is wholly industrial, devoted to ship-building, chemical works, paper mills and the neighbouring collieries. It owes its development from a mere pit village very largely to the enterprise of Sir Charles Mark Palmer (*q.v.*). Jarrow Slake, a river bay, 1 m. long by ½ m. broad, contains the Tyne docks of the North-Eastern railway company. A great quantity of coal is shipped. Jarrow was incorporated in 1875, and the corporation consists of a mayor, 6 aldermen and 18 councillors. Area, 783 acres.

JARRY, NICOLAS, one of the best-known 17th century French calligraphers. He was born at Paris about 1620, and was officially employed by Louis XIV. His most famous work is the *Guirlande de Julie* (1641). He died some time before 1674.

JARVIS, JOHN WESLEY (1780–1840), American artist, nephew of the great John Wesley, was born at South Shields, England, and was taken to the United States at the age of five. He was one of the earliest American painters to give

serious attention to the study of anatomy. He lived at first in Philadelphia, afterwards establishing himself in New York, where he enjoyed great popularity, though his conviviality and eccentric mode of life affected his work. He visited Baltimore, Charleston and New Orleans, entertaining much and painting portraits of prominent people, particularly in New Orleans, where General Andrew Jackson was one of his sitters. He had for assistants at different times both Sully and Inman. He affected singularity in dress and manners, and his *mots* were the talk of the day. But his work deteriorated, and he died in great poverty in New York City. Examples of his painting are in the collection of the New York Historical Society.

JASHAR, BOOK OF, in Hebrew *Sepher ha-yashar*, a Hebrew composition mentioned as though well-known in Josh. x. 13 and 2 Sam. i. 18. From these two passages it seems to have been a book of songs relating to important events, but no early collection of the kind is now extant, nor is anything known of it. Various speculations have been put forward as to the name: (1) that it means the book of the upright, *i.e.* Israel or distinguished Israelites, the root being the same as in Jeshurun; (2) that Jashar (יָשָׁר) is a transposition of shîr (שִׁיר, song); (3) that it should be pointed Yashîr (יָשִׁיר, sing; cf. Exod. xv. 1) and was so called after its first word. None of these is very convincing, though support may be found for them all in the versions. The Septuagint favours (1) by its rendering ἐπὶ βιβλίου τοῦ εὐθοῦς in Samuel (it omits the words in Joshua); the Vulgate has *in libro justorum* in both places; the Syriac in Samuel has *Ashîr*, which suggests a Hebrew reading *ha-shîr* (the song), and in Joshua it translates "book of praises." The Targum on both passages has "book of the law," an explanation which is followed by the chief Jewish commentators, making the incidents the fulfilment of passages in the Pentateuch. Since it contained the lament of David (2 Sam. i. 18) it cannot have been completed till after his time. If Wellhausen's restoration of 1 Kings viii. 12 be accepted (from Septuagint 1 Kings viii. 53, ἐν βιβλίῳ τῆς ᾠδῆς) where the reference is to the building of the Temple, the book must have been growing in the time of Solomon. The attempt of Donaldson[1] to reconstruct it is largely subjective and uncritical.

In later times when it became customary to compose midrashic works under well-known names, a book of Jashar naturally made its appearance. It need hardly be remarked that this has nothing whatever to do with the older book. It is an anonymous elaboration in Hebrew of the early part of the biblical narrative, probably composed in the 12th century. The fact that its legendary material is drawn from Arabic sources, as well as from Talmud, Midrash and later Jewish works, would seem to show that the writer lived in Spain, or, according to others, in south Italy. The first edition appeared at Venice in 1625, and it has been frequently printed since. It was translated into English by (or for) M. M. Noah (New York, 1840). A work called *The Book of . . . Jasher, translated . . . by Alcuin* (1751; 2nd ed., Bristol, 1829), has nothing to do with this or with any Hebrew original, but is a mere fabrication by the printer, Jacob Ilive, who put it forward as the book "mentioned in Holy Scripture."

BIBLIOGRAPHY.—M. Heilprin, *Historical Poetry of the Ancient Hebrews* (New York, 1879), i. 128–131; Mercati, "Una congettura sopra il libro del Giusto," in *Studi e Testi* (5, Roma, 1901). On the medieval work see Zunz, *Gottesdienstliche Vorträge der Juden* (Frankfurt a. M., 1892), 2nd ed., p. 162.

JASHPUR, a tributary state of India, in the Central Provinces, having been transferred from Bengal in 1905. The country is divided almost equally into high and low lands. The Uparghat plateau on the east rises 2200 ft. above sea-level, and the hills above it reach their highest point in Ranijula (3527 ft.). The only river of importance is the Ib, in the bed of which diamonds are found, while from time immemorial its sands have been washed for gold. Jashpur iron, smelted by the Kols, is highly prized. Jungles of *sál* forests abound, harbouring elephant, bison and other wild beasts. Jungle products include lac, silk cocoons and beeswax, which are exported. Area 1948 sq. m.; pop. (1901), 132,114; estimated revenue £8000.

[1] *Jashar: fragmenta archetypa carminum Hebraicorum* (Berlin, 1854). Cf. Perowne's *Remarks* on it (Lond. 1855).

JASMIN, JACQUES (1798–1864), Provençal poet, was born at Agen on the 6th of March 1798, his family name being Boé. His father, who was a tailor, had a certain facility for making doggerel verses, which he sang or recited at fairs and such-like popular gatherings; and Jacques, who used generally to accompany him, was thus early familiarized with the part which he afterwards so successfully filled himself. When sixteen years of age he found employment at a hairdresser's shop, and subsequently started a similar business of his own on the Gravier at Agen. In 1825 he published his first volume of *Papillotos* ("Curl Papers"), containing poems in French (a language he used with a certain sense of restraint), and in the familiar Agen *patois*—the popular speech of the working classes—in which he was to achieve all his literary triumphs. Jasmin was the most famous forerunner in Provençal literature (*q.v.*) of Mistral and the *Félibrige*. His influence in rehabilitating, for literary purposes, his native dialect, was particularly exercised in the public recitals of his poems to which he devoted himself. His poetic gift, and his flexible voice and action, fitted him admirably for this double rôle of troubadour and jongleur. In 1835 he recited his "Blind Girl of Castel-Cuillé" at Bordeaux, in 1836 at Toulouse; and he met with an enthusiastic reception in both those important cities. Most of his public recitations were given for benevolent purposes, the proceeds being contributed by him to the restoration of the church of Vergt and other good works. Four successive volumes of *Papillotos* were published during his lifetime, and contained amongst others the following remarkable poems, quoted in order: "The Charivari," "My Recollections" (supplemented after an interval of many years), "The Blind Girl," "Françounetto," "Martha the Simple," and "The Twin Brothers." With the exception of "The Charivari," these are all touching pictures of humble life—in most cases real episodes—carefully elaborated by the poet till the graphic descriptions, full of light and colour, and the admirably varied and melodious verse, seem too spontaneous and easy to have cost an effort. Jasmin was not a prolific writer, and, in spite of his impetuous nature, would work a long time at one poem, striving to realize every feeling he wished to describe, and give it its most lucid and natural expression. A verse from his spirited poem, "The Third of May," written in honour of Henry IV., and published in the first volume of *Papillotos*, is engraved on the base of the statue erected to that king at Nérac. In 1852 Jasmin's works were crowned by the Académie Française, and a pension was awarded him. The medal struck on the occasion bore the inscription: *Au poëte moral et populaire*. His title of "Maistre ès Jeux" is a distinction only conferred by the academy of Toulouse on illustrious writers. Pius IX. sent him the insignia of a knight of St Gregory the Great, and he was made chevalier of the Legion of Honour. He spent the latter years of his life on a small estate which he had bought near Agen and named "Papillotos," and which he describes in *Ma Bigno* ("My Vine"). Though invited to represent his native city, he refused to do so, preferring the pleasures and leisure of a country life, and wisely judging that he was no really eligible candidate for electoral honours. He died on the 4th of October 1864. His last poem, an answer to Renan, was placed between his folded hands in his coffin.

JASMINE, or JESSAMINE, botanically *Jasminum*, a genus of shrubs or climbers constituting the principal part of the tribe Jasminoideae of the natural order Oleaceae, and comprising about 150 species, of which 40 or more occur in the gardens of Britain. The plants of the genus are mostly natives of the warmer regions of the Old World; there is one South American species. The leaves are pinnate or ternate, or sometimes apparently simple, consisting of one leaflet, articulated to the petiole. The flowers, usually white or yellow, are arranged in terminal or axillary panicles, and have a tubular 5- or 8-cleft calyx, a cylindrical corolla-tube, with a spreading limb, two included stamens and a two-celled ovary.

The name is derived from the Persian *yâsmîn*. Linnaeus obtained a fancied etymology from ἴα, violets, and ὀσμή, smell, but the odour of its flowers bears no resemblance to that of the violet. The common white jasmine, *Jasminum officinale*, one

of the best known and most highly esteemed of British hardy ligneous climbers, is a native of northern India and Persia, introduced about the middle of the 16th century. In the centre and south of Europe it is thoroughly acclimatized. Although it grows to the height of 12 and sometimes 20 ft., its stem is feeble and requires support; its leaves are opposite, pinnate and dark green, the leaflets are in three pairs, with an odd one, and are pointed, the terminal one larger and with a tapering point. The fragrant white flowers bloom from June to October; and, as they are found chiefly on the young shoots, the plant should only be pruned in the autumn. Varieties with golden and silver-edged leaves and one with double flowers are known.

The zambak or Arabian jasmine, *J. Sambac*, is an evergreen white-flowered climber, 6 or 8 ft. high, introduced into Britain in the latter part of the 17th century. Two varieties introduced somewhat later are respectively 3-leaved and double-flowered, and these, as well as that with normal flowers, bloom throughout the greater part of the

Jasminum grandiflorum, half natural size; flower, natural size.

year. On account of their exquisite fragrance the flowers are highly esteemed in the East, and are frequently referred to by the Persian and Arabian poets. An oil obtained by boiling the leaves is used to anoint the head for complaints of the eye, and an oil obtained from the roots is used medicinally to arrest the secretion of milk. The flowers of one of the double varieties are held sacred to Vishnu, and used as votive offerings in Hindu religious ceremonies. The Spanish, or Catalonian jasmine, *J. grandiflorum*, a native of the north-west Himalaya, and cultivated both in the old and new world, is very like *J. officinale*, but differs in the size of the leaflets; the branches are shorter and stouter, and the flowers very much larger, and reddish underneath. By grafting it on two-year-old plants of *J. officinale*, an erect bush about 3 ft. high is obtained, requiring no supports. In this way it is very extensively cultivated at Cannes and Grasse, in the south of France; the plants are set in rows, fully exposed to the sun; they come into full bearing the second year after grafting; the blossoms, which are very large and intensely fragrant, are produced from July till the end of October, but those of August and September are the most odoriferous.

The aroma is extracted by the process known as *enfleurage*, *i.e.* absorption by a fatty body, such as purified lard or olive oil. Square glass trays framed with wood about 3 in. deep are spread over with grease about half an inch thick, in which ridges are made to facilitate absorption, and sprinkled with freshly gathered flowers, which are renewed every morning during the whole time the plant remains in blossom; the trays are piled up in stacks to prevent the evaporation of the aroma; and finally the pomade is scraped off the glass, melted at as low a temperature as possible, and strained. When oil is employed as the absorbent, coarse cotton cloths previously saturated with the finest olive oil are laid on wire-gauze frames, and repeatedly covered in the same manner with fresh flowers; they are then squeezed under a press, yielding what is termed *huile antique au jasmin*. Three pounds of flowers will perfume 1 lb of grease—this is exhausted by maceration in 1 pt. of rectified spirit to form the "extract." An essential oil is distilled from jasmine in Tunis and Algeria, but its high price prevents its being used to any extent. The East Indian oil of jasmine is a compound largely contaminated with sandalwood-oil.

The distinguishing characters of *J. odoratissimum*, a native of the Canary Islands and Madeira, consist principally in the alternate, obtuse, ternate and pinnate leaves, the 3-flowered terminal peduncles and the 5-cleft yellow corolla with obtuse segments. The flowers have the advantage of retaining when dry their natural perfume, which is suggestive of a mixture of jasmine, jonquil and orange-blossom. In China *J. paniculatum* is cultivated as an erect shrub, known as *sieu-hing-hwa*; it is valued for its flowers, which are used with those of *J. Sambac*, in the proportion of 10 lb of the former to 30 lb of the latter, for scenting tea—40 lb of the mixture being required for 100 lb of tea. *J. angustifolium* is a beautiful evergreen climber 10 to 12 ft. high, found in the Coromandel forests, and introduced into Britain during the present century. Its leaves are of a bright shining green; its large terminal flowers are white with a faint tinge of red, fragrant and blooming throughout the year.

In Cochin China a decoction of the leaves and branches of *J. nervosum* is taken as a blood-purifier; and the bitter leaves of *J. floribundum* (called in Abyssinia *habbez-zelim*) mixed with kousso is considered a powerful anthelmintic, especially for tapeworm; the leaves and branches are added to some fermented liquors to increase their intoxicating quality. In Catalonia and in Turkey the wood of the jasmine is made into long, slender pipe-stems, highly prized by the Moors and Turks. Syrup of jasmine is made by placing in a jar alternate layers of the flowers and sugar, covering the whole with wet cloths and standing it in a cool place; the perfume is absorbed by the sugar, which is converted into a very palatable syrup. The important medicinal plant known in America as the "Carolina jasmine" is not a true jasmine (see GELSEMIUM).

Other hardy species commonly cultivated in gardens are the low or Italian yellow-flowered jasmine, *J. humile*, an East Indian species introduced and now found wild in the south of Europe, an erect shrub 3 or 4 ft. high, with angular branches, alternate and mostly ternate leaves, blossoming from June to September; the common yellow jasmine, *J. fruticans*, a native of southern Europe and the Mediterranean region, a hardy evergreen shrub, 10 to 12 ft. high, with weak, slender stems requiring support, and bearing yellow, odourless flowers from spring to autumn; and *J. nudiflorum* (China), which bears its bright yellow flowers in winter before the leaves appear. It thrives in almost any situation and grows rapidly.

JASON (Ἰάσων), in Greek legend, son of Aeson, king of Iolcus in Thessaly. He was the leader of the Argonautic expedition (see ARGONAUTS). After he returned from it he lived at Corinth with his wife Medea (*q.v.*) for many years. At last he put away Medea, in order to marry Glauce (or Creusa), daughter of the Corinthian king Creon. To avenge herself, Medea presented the new bride with a robe and head-dress, by whose magic properties the wearer was burnt to death, and slew her children by Jason with her own hand. A later story represents Jason as reconciled to Medea (Justin, xlii. 2). His death was said to have been due to suicide through grief, caused by Medea's vengeance (Diod. Sic. iv. 55); or he was crushed by the fall of the poop of the ship "Argo," under which, on the advice of Medea, he had laid himself down to sleep (argument of Euripides' *Medea*). The name (more correctly Iason) means "healer," and Jason is possibly a local hero of Iolcus to whom healing powers were attributed. The ancients regarded him as the oldest navigator, and the patron of navigation. By the moderns he has been variously explained as a solar deity; a god of summer; a god of storm; a god of rain, who carries off the rain-giving cloud (the golden fleece) to refresh the earth after a long period of drought. Some regard the legend as a chthonian myth, Aea (Colchis) being the under-world in the Aeolic religious system from which Jason liberates himself and his betrothed; others, in view of certain resemblances between the story of Jason and that of Cadmus (the ploughing of the field, the sowing of the dragon's teeth, the fight with the Sparti, who are finally set fighting with one another by a stone hurled into their midst), associate both with Demeter the corn-goddess, and refer certain episodes to practices in use at country festivals, *e.g.* the stone throwing, which, like the βαλλητύς at the Eleusinia and the λιθοβολία at

Troezen (Pausanias ii. 30, 4 with Frazer's note) was probably intended to secure a good harvest by driving away the evil spirits of unfruitfulness.

See articles by C. Seeliger in Roscher's *Lexikon der Mythologie* and by F. Durrbach in Daremberg and Saglio's *Dictionnaire des antiquités*; H. D. Müller, *Mythologie der griechischen Stämme* (1861), ii. 328, who explains the name Jason as "wanderer"; W. Mannhardt, *Mythologische Forschungen* (1884), pp. 75, 130; O. Crusius, *Beiträge zur griechischen Mythologie und Religionsgeschichte* (Leipzig, 1886).

Later Versions of the Legend.—Les fais et prouesses du noble et vaillant chevalier Jason was composed in the middle of the 15th century by Raoul Lefèvre on the basis of Benoît's *Roman de Troie*, and presented to Philip of Burgundy, founder of the order of the Golden Fleece. The manners and sentiments of the 15th century are made to harmonize with the classical legends after the fashion of the Italian pre-Raphaelite painters, who equipped Jewish warriors with knightly lance and armour. The story is well told; the digressions are few; and there are many touches of domestic life and natural sympathy. The first edition is believed to have been printed at Bruges in 1474.

Caxton translated the book under the title of *A Boke of the hoole Lyf of Jason*, at the command of the duchess of Burgundy. A Flemish translation appeared at Haarlem in 1495. The Benedictine Bernard de Montfaucon (1655–1741) refers to a MS. by Guido delle Colonne, *Historia Medeae et Jasonis* (unpublished).

The *Histoire de la Thoison d'Or* (Paris, 1516) by Guillaume Fillastre (1400–1473), written about 1440–1450, is an historical compilation dealing with the exploits of the *très chrétiennes maisons* of France, Burgundy and Flanders.

JASON OF CYRENE, a Hellenistic Jew, who lived about 100 B.C. and wrote a history of the times of the Maccabees down to the victory over Nicanor (175–161 B.C.). This work is said to have been in five books and formed the basis of the present 2 Macc. (see ch. ii. 19–32).

JASPER, an opaque compact variety of quartz, variously coloured and often containing argillaceous matter. The colours are usually red, brown, yellow or green, and are due to admixture with compounds of iron, either oxides or silicates. Although the term jasper is now restricted to opaque quartz it is certain that the ancient *jaspis* or *ἴασπις* was a stone of considerable translucency. The jasper of antiquity was in many cases distinctly green, for it is often compared with the emerald and other green objects. Jasper is referred to in the *Niebelungenlied* as being clear and green. Probably the jasper of the ancients included stones which would now be classed as chalcedony, and the emerald-like jasper may have been akin to our chrysoprase. The Hebrew word *yashefeh* may have designated a green jasper (cf. Assyrian *yashpu*). Professor Flinders Petrie has suggested that the *odem*, the first stone on the High Priest's breastplate, translated "sard," was a red jasper, whilst *tarshish*, the tenth stone, may have been a yellow jasper (Hastings's *Dict. Bible*, 1902).

Many varieties of jasper are recognized. Riband jasper is a form in which the colours are disposed in bands, as in the well-known ornamental stone from Siberia, which shows a regular alternation of dark red and green stripes. Egyptian jasper is a brown jasper, occurring as nodules in the Lybian desert and in the Nile valley, and characterized by a zonal arrangement of light and dark shades of colour. Agate-jasper is a variety intermediate between true jasper and chalcedony. Basanite, lydite, or Lydian stone, is a velvet-black flinty jasper, used as a touchstone for testing the purity of precious metals by their streak. Porcelain jasper is a clay indurated by natural calcination. (F. W. R.*)

JASSY (*Iaşĭ*), also written JASH, JASCHI and YASSY, the capital of the department of Jassy, Rumania; situated on the left bank of the river Bahlui, an affluent of the Jijia, about 10 m. W. of the Pruth and the Russian frontier. Pop. (1900), 78,067. Jassy communicates by rail with Galatz on the Danube, Kishinev in Bessarabia, and Czernowitz in Bukowina. The surrounding country is one of uplands and woods, among which rise the monasteries of Cetaţuia, Frumoasa, and Galata with its mineral springs, the water-cure establishment of Rapide and the great seminary of Socola. Jassy itself stands pleasantly amid vineyards and gardens, partly on two hills, partly in the hollow between. Its primitive houses of timber and plaster were mostly swept away after 1860, when brick or stone came into general use, and good streets were cut among the network of narrow, insanitary lanes. Jassy is the seat of the metropolitan of Moldavia, and of a Roman Catholic archbishop. Synagogues and churches abound. The two oldest churches date from the reign of Stephen the Great (1458–1504); perhaps the finest, however, are the 17th-century metropolitan, St Spiridion and Trei Erarchi, the last a curious example of Byzantine art, erected in 1639 or 1640 by Basil the Wolf, and adorned with countless gilded carvings on its outer walls and twin towers. The St Spiridion Foundation (due to the liberality of Prince Gregory Ghika in 1727, and available for the sick of all countries and creeds) has an annual income of over £80,000, and maintains hospitals and churches in several towns of Moldavia, besides the baths at Slanic in Walachia. The main hospital in Jassy is a large building, and possesses a maternity institution, a midwifery school, a chemical institute, an inoculating establishment, &c. A society of physicians and naturalists has existed in Jassy since the early part of the 19th century, and a number of periodicals are published. Besides the university, founded by Prince Cuza in 1864, with faculties of literature, philosophy, law, science and medicine, there are a military academy and schools of art, music and commerce; a museum, a fine hall and a theatre; the state library, where the chief records of Rumanian history are preserved; an appeal court, a chamber of commerce and several banks. The city is the headquarters of the 4th army corps. It has an active trade in petroleum, salt, metals, timber, cereals, fruit, wine, spirits, preserved meat, textiles, clothing, leather, cardboard and cigarette paper.

The inscription by which the existence of a *Jassiorum municipium* in the time of the Roman Empire is sought to be proved, lies open to grave suspicion; but the city is mentioned as early as the 14th century, and probably does derive its name from the Jassians, or Jazygians, who accompanied the Cumanian invaders. It was often visited by the Moldavian court. About 1564, Prince Alexander Lapusneanu, after whom one of the chief streets is named, chose Jassy for the Moldavian capital, instead of Suceava (now Suczawa, in Bukowina). It was already famous as a centre of culture. Between 1561 and 1563 an excellent school and a Lutheran church were founded by the Greek adventurer, Jacob Basilicus (see RUMANIA: *History*). In 1643 the first printed book published in Moldavia was issued from a press established by Basil the Wolf. He also founded a school, the first in which the mother-tongue took the place of Greek. Jassy was burned by the Tatars in 1513, by the Turks in 1538, and by the Russians in 1686. By the Peace of Jassy the second Russo-Turkish War was brought to a close in 1792. A Greek insurrection under Ypsilanti in 1821 led to the storming of the city by the Turks in 1822. In 1844 there was a severe conflagration. For the loss caused to the city in 1861 by the removal of the seat of government to Bucharest the constituent assembly voted £148,150, to be paid in ten annual instalments, but no payment was ever made.

JĀTAKA, the technical name, in Buddhist literature, for a story of one or other of the previous births of the Buddha. The word is also used for the name of a collection of 547 of such stories included, by a most fortunate conjuncture of circumstances, in the Buddhist canon. This is the most ancient and the most complete collection of folk-lore now extant in any literature in the world. As it was made at latest in the 3rd century B.C., it can be trusted not to give any of that modern or European colouring which renders suspect much of the folk-lore collected by modern travellers.

Already in the oldest documents, drawn up by the disciples soon after the Buddha's death, he is identified with certain ancient sages of renown. That a religious teacher should claim to be successor of the prophets of old is not uncommon in the history of religions. But the current belief in metempsychosis led, or enabled, the early Buddhists to make a much wider claim. It was not very long before they gradually identified their master with the hero of each of the popular fables and stories of which

they were so fond. The process must have been complete by the middle of the 3rd century B.C.; for we find at that date illustrations of the Jātakas in the bas-reliefs on the railing round the Bharahat tope with the titles of the Jātaka stories inscribed above them in the characters of that period.[1] The hero of each story is made into a Bodhisatta; that is, a being who is destined, after a number of subsequent births, to become a Buddha. This rapid development of the Bodhisatta theory is the distinguishing feature in the early history of Buddhism, and was both cause and effect of the simultaneous growth of the Jātaka book. In adopting the folk-lore and fables already current in India, the Buddhists did not change them very much. The stories as preserved to us, are for the most part Indian rather than Buddhist. The ethics they inculcate or suggest are milk for babes; very simple in character and referring almost exclusively to matters common to all schools of thought in India, and indeed elsewhere. Kindness, purity, honesty, generosity, worldly wisdom, perseverance, are the usual virtues praised; the higher ethics of the Path are scarcely mentioned. These stories, popular with all, were especially appreciated by that school of Buddhists that laid stress on the Bodhisatta theory—a school that obtained its chief support, and probably had its origin, in the extreme north-west of India and in the highlands of Asia. That school adopted, from the early centuries of our era, the use of Sanskrit, instead of Pali, as the means of literary expression. It is almost impossible, therefore, that they would have carried the canonical Pali book, voluminous as it is, into Central Asia. Shorter collections of the original stories, written in Sanskrit, were in vogue among them. One such collection, the Jātaka-mālā by Ārya Sūra (6th century), is still extant. Of the existence of another collection, though the Sanskrit original has not yet been found, we have curious evidence. In the 6th century a book of Sanskrit fables was translated into Pahlavi, that is, old Persian (see BIDPAI). In succeeding centuries this work was retranslated into Arabic and Hebrew, thence into Latin and Greek and all the modern languages of Europe. The book bears a close resemblance to the earlier chapters of a late Sanskrit fable book called, from its having five chapters, the *Pancha tantra*, or Pentateuch.

The introduction to the old Jātaka book gives the life of the historical Buddha. That introduction must also have reached Persia by the same route. For in the 8th century St John of Damascus put the story into Greek under the title of *Barlaam and Josaphat*. This story became very popular in the West. It was translated into Latin, into seven European languages, and even into Icelandic and the dialect of the Philippine Islands. Its hero, that is the Buddha, was canonized as a Christian saint; and the 27th of November was officially fixed as the date for his adoration as such.

The book popularly known in Europe as *Aesop's Fables* was not written by Aesop. It was put together in the 14th century at Constantinople by a monk named Planudes, and he drew largely for his stories upon those in the Jātaka book that had reached Europe along various channels. The fables of Babrius and Phaedrus, written respectively in the 1st century before, and in the 1st century after, the Christian era, also contain Jātaka stories known in India in the 4th century B.C. A great deal has been written on this curious question of the migration of fables. But we are still very far from being able to trace the complete history of each story in the Jātaka book, or in any one of the later collections. For India itself the record is most incomplete. We have the original Jātaka book in text and translation. The history of the text of the *Pancha tantra*, about a thousand years later, has been fairly well traced out. But for the intervening centuries scarcely anything has been done. There are illustrations, in the bas-reliefs of the 3rd century B.C., of Jātakas not contained in the Jātaka book. Another collection, the *Cariyâ piṭaka*, of about the same date, has been edited, but not translated. Other collections both in Pali and Sanskrit are known to be extant in MS,; and a large number of Jātaka stories, not included in any formal collection, are mentioned, or told in full, in other works.

AUTHORITIES.—V. Fausböll, *The Jataka*, Pali text (7 vols., London, 1877–1897), (Eng. trans., edited by E. B. Cowell, 6 vols., Cambridge, 1895–1907); *Cariyâ piṭaka*, edited by R. Morris for the Pali Text Society (London, 1882); H. Kern, *Jātaka-mālā*, Sanskrit text (Cambridge, Mass., 1891), (Eng. trans. by J. S. Speyer, Oxford, 1895); Rhys Davids, *Buddhist Birth Stories* (with full bibliographical tables) (London, 1880); *Buddhist India* (chap. xi. on the Jātaka Book) (London, 1903); E. Kuhn, *Barlaam und Joasaph* (Munich, 1893); A. Cunningham, *The Stupa of Bharhut* (London, 1879).

(T. W. R. D.)

[1] A complete list of these inscriptions will be found in Rhys Davids's *Buddhist India*, p. 209.

JATH, a native state of India, in the Deccan division of Bombay, ranking as one of the southern Mahratta jagirs. With the small state of Daphlapur, which is an integral part of it, it forms the Bijapur Agency, under the collector of Bijapur district. Area, including Daphlapur, 980 sq. m. Pop. (1901), 68,665, showing a decline of 14% in the decade. Estimated revenue £24,000; tribute £700. Agriculture and cattle-breeding are carried on; there are no important manufactures. The chief, whose title is deshmukh, is a Mahratta of the Daphle family. The town of JATH is 92 m. S.E. of Satara. Pop. (1901), 5404.

JÁTIVA (formerly written XATIVA), or SAN FELIPE DE JÁTIVA, a town of eastern Spain, in the province of Valencia, on the right bank of the river Albaida, a tributary of the Júcar, and at the junction of the Valencia-Murcia and Valencia-Albacete railways. Pop. (1900), 12,600. Játiva is built on the margin of a fertile and beautiful plain, and on the southern slopes of the Monte Bernisa, a hill with two peaks, each surmounted by a castle. With its numerous fountains, and spacious avenues shaded with elms or cypresses, the town has a clean and attractive appearance. Its collegiate church, dating from 1414, but rebuilt about a century later in the Renaissance style, was formerly a cathedral, and is the chief among many churches and convents. The town-hall and a church on the castle hill are partly constructed of inscribed Roman masonry, and several houses date from the Moorish occupation. There is a brisk local trade in grain, fruit, wine, oil and rice.

Játiva was the Roman Saetabis, afterwards Valeria Augusta, of Carthaginian or Iberian origin. Pliny (23–79) and Martial (*c.* 40–102) mention the excellence of its linen cloth. Under the Visigoths (*c.* 483–711) it became an episcopal see; but early in the 8th century it was captured by the Moors, under whom it attained great prosperity, and received its present name. It was reconquered by James I. of Aragon (1213–1276). During the 15th and 16th centuries, Játiva was the home of many members of the princely house of Borgia or Borja, who migrated hither from the town of Borja in the province of Saragossa. Alphonso Borgia, afterwards Pope Calixtus III., and Rodrigo Borgia, afterwards Pope Alexander VI., were natives of Játiva, born respectively in 1378 and 1431. The painter Jusepe Ribera was also born here in 1588. Owing to its gallant defence against the troops of the Archduke Charles in the war of the Spanish succession, Játiva received the additional name of San Felipe from Philip V. (1700–1746).

JĀTS, or JUTS, a people of north-western India, who numbered altogether more than 7 millions in 1901. They form a considerable proportion of the population in the Punjab, Rājputana and the adjoining districts of the United Provinces, and are also widely scattered through Sind and Baluchistan. Some writers have identified the Jāts with the ancient Getae, and there is strong reason to believe them a degraded tribe of Rājputs, whose Scythic origin has also been maintained. Hindu legends point to a prehistoric occupation of the Indus valley by this people, and at the time of the Mahommedan conquest of Sind (712) they, with a cognate tribe called Meds, constituted the bulk of the population. They enlisted under the banner of Mahommed bin Kāsim, but at a later date offered a vigorous resistance to the Arab invaders. In 836 they were overthrown by Amran, who imposed on them a tribute of dogs, and used their arms to vanquish the Meds. In 1025, however, they had gathered audacity, not only to invade Mansura, and compel the abjuration of the Mussulman amir, but to attack the victorious army of Mahmūd, laden with the spoil of Somnāth. Chastisement duly ensued: a formidable flotilla, collected at Mūltān, shattered in thousands the comparatively defenceless Jāt boats on the Indus, and annihilated their national pretensions. It is not until the decay of the Mogul Empire that the Jāts again appear in history. One branch of them, settled

south of Agra, mainly by bold plundering raids founded two dynasties which still exist at Bharatpur (*q.v.*) and Dholpur (*q.v.*). Another branch, settled north-west of Delhi, who adopted the Sikh religion, ultimately made themselves dominant throughout the Punjab (*q.v.*) under Ranjit Singh, and are now represented in their original home by the Phulkian houses of Patiala (*q.v.*), Jind (*q.v.*) and Nabha (*q.v.*). It is from this latter branch that the Sikh regiments of the Indian army are recruited. The Jāts are mainly agriculturists and cattle breeders. In their settlements on the Ganges and Jumna, extending as far east as Bareilly, they are divided into two great clans, the Dhe and the Hele; while in the Punjab there are said to be one hundred different sections. Their religion varies with locality. In the Punjab they have largely embraced Sikh tenets, while in Sind and Baluchistan they are Mahommedans. In appearance they are not ill-favoured though extremely dark; they have good teeth, and large beards, sometimes stained with indigo. Their inferiority of social position, however, to some extent betrays itself in their aspect, and tends to be perpetuated by their intellectual apathy.

JAUBERT, PIERRE AMÉDÉE ÉMILIEN PROBE (1779–1847), French Orientalist, was born at Aix in Provence on the 3rd of June 1779. He was one of the most distinguished pupils of Silvestre de Sacy, whose funeral *Discours* he pronounced in 1838. Jaubert acted as interpreter to Napoleon in Egypt in 1798–1799, and on his return to Paris held various posts under government. In 1802 he accompanied Sebastiani on his Eastern mission; and in 1804 he was at Constantinople. Next year he was despatched to Persia to arrange an alliance with the shah; but on the way he was seized and imprisoned in a dry cistern for four months by the pasha of Bayazid. The pasha's death freed Jaubert, who successfully accomplished his mission, and rejoined Napoleon at Warsaw in 1807. On the eve of Napoleon's downfall he was appointed chargé d'affaires at Constantinople. The restoration ended his diplomatic career, but in 1818 he undertook a journey with government aid to Tibet, whence he succeeded in introducing into France 400 Kashmir goats. The rest of his life Jaubert spent in study, in writing and in teaching. He became professor of Persian in the collège de France, and director of the école des langues orientales, and in 1830 was elected member of the Académie des Inscriptions. In 1841 he was made a peer of France and councillor of state. He died in Paris on the 28th of January, 1847.

Besides articles in the *Journal asiatique*, he published *Voyage en Arménie et en Perse* (1821; the edition of 1860 has a notice of Jaubert, by M. Sédillot) and *Éléments de la grammaire turque* (1823–1834). See notices in the *Journal asiatique*, Jan. 1847, and the *Journal des débats*, Jan. 30, 1847.

JAUCOURT, ARNAIL FRANÇOIS, Marquis de (1757–1852), French politician, was born on the 14th of November 1757 at Tournon (Seine-et-Marne) of a Protestant family, protected by the prince de Condé, whose regiment he entered. He adopted revolutionary ideas and became colonel of his regiment. In the Assembly, to which he was returned in 1791 by the department of Seine-et-Marne, he voted generally with the minority, and his views being obviously too moderate for his colleagues he resigned in 1792 and was soon after arrested on suspicion of being a reactionary. Mme de Staël procured his release from P. L. Manuel just before the September massacres. He accompanied Talleyrand on his mission to England, returning to France after the execution of Louis XVI. He lived in retirement until the establishment of the Consulate, when he entered the tribunate, of which he was for some time president. In 1803 he entered the senate, and next year became attached to the household of Joseph Bonaparte. Presently his imperialist views cooled, and at the Restoration he became minister of state and a peer of France. At the second Restoration he was for a brief period minister of marine, but held no further office. He devoted himself to the support of the Protestant interest in France. A member of the upper house throughout the reign of Louis Philippe, he was driven into private life by the establishment of the Second Republic, but lived to see the *Coup d'état* and to rally to the government of Louis Napoleon, dying in Paris on the 5th of February 1852.

JAUER, a town of Germany, in the Prussian province of Silesia, 13 m. by rail S. of Leignitz, on the Wüthende Neisse. Pop. (1900), 13,024. St Martin's (Roman Catholic) church dates from 1267–1290, and the Evangelical church from 1655. A new town-hall was erected in 1895–1898. Jauer manufactures leather, carpets, cigars, carriages and gloves, and is specially famous for its sausages. The town was first mentioned in 1242, and was formerly the capital of a principality embracing about 1200 sq. m., now occupied by the circles of Jauer, Bunzlau, Löweberg, Hirschberg and Schönau. From 1392 to 1741 it belonged to the kings of Bohemia, being taken from Maria Theresa by Frederick the Great. Jauer was formerly the prosperous seat of the Silesian linen trade, but the troubles of the Thirty Years' War, in the course of which it was burned down three times, permanently injured this.

See Schönaich, *Die alte Fürstentumshauptstadt Jauer* (Jauer, 1903).

JAUHARĪ (Abu Nasr Isma'il ibn Ḥammad ul-Jauhari) (d. 1002 or 1010), Arabian lexicographer, was born at Fārāb on the borders of Turkestan. He studied language in Fārāb and Bagdad, and later among the Arabs of the desert. He then settled in Damghan and afterwards at Nīshapūr, where he died by a fall from the roof of a house. His great work is the *Kitāb us-Ṣaḥāḥ fil-Lugha*, an Arabic dictionary, in which the words are arranged alphabetically according to the last letter of the root. He himself had only partially finished the last recension, but the work was completed by his pupil, Abū Isḥaq Ibrāhīm ibn Ṣāliḥ ul-Warrāq.

An edition was begun by E. Scheidius with a Latin translation, but one part only appeared at Harderwijk (1776). The whole has been published at Tebriz (1854) and at Cairo (1865), and many abridgments and Persian translations have appeared; cf. C. Brockelmann, *Geschichte der arabischen Literatur* (Weimar, 1898), i. 128 seq.

(G. W. T.)

JAUNDICE (Fr. *jaunisse*, from *jaune*, yellow), or Icterus (from its resemblance to the colour of the golden oriole, of which Pliny relates that if a jaundiced person looks upon it he recovers but the bird dies), a term in medicine applied to a yellow coloration of the skin and other parts of the body, depending in most instances on some derangement affecting the liver. This yellow colour is due to the presence in the blood of bile or of some of the elements of that secretion. Jaundice, however, must be regarded more as a symptom of some morbid condition previously existing than as a disease *per se*.

Cases with jaundice may be divided into three groups.

1. *Obstructive Jaundice.*—Any obstruction of the passage of bile from the liver into the intestinal canal is sooner or later followed by the appearance of jaundice, which in such circumstances is due to the absorption of bile into the blood. The obstruction is due to one of the following causes: (1) Obstruction by foreign bodies within the bile duct, *e.g.* gallstones or parasites; (2) inflammation of the duodenum or the lining membrane of the duct; (3) stricture or obliteration of the duct; (4) a tumour growing from the duct; (5) pressure on the duct from without, from the liver or other organ, or tumours arising from them. Obstructions from these causes may be partial or complete, and the degree of jaundice will vary accordingly, but it is to be noted that extensive organic disease of the liver may exist without the evidence of obstructive jaundice.

The effect upon the liver of impediments to the outflow of bile such as those above indicated is in the first place an increase in its size, the whole biliary passages and the liver cells being distended with retained bile. This enlargement, however, speedily subsides when the obstruction is removed, but should it persist the liver ultimately shrinks and undergoes atrophy in its whole texture. The bile thus retained is absorbed into the system, and shows itself by the yellow staining seen to a greater or less extent in all the tissues and many of the fluids of the body. The kidneys, which in such circumstances act in some measure vicariously to the liver and excrete a portion of the

retained bile, are apt to become affected in their structure by the long continuance of jaundice.

The symptoms of obstructive jaundice necessarily vary according to the nature of the exciting cause, but there generally exists evidence of some morbid condition before the yellow coloration appears. Thus, if the obstruction be due to an impacted gallstone in the common or hepatic duct, there will probably be the symptoms of intense suffering characterizing hepatic colic (see COLIC). In the cases most frequently seen—those, namely, arising from simple catarrh of the bile ducts due to gastro-duodenal irritation spreading through the common duct—the first sign to attract attention is the yellow appearance of the white of the eye, which is speedily followed by a similar colour on the skin over the body generally. The yellow tinge is most distinct where the skin is thin, as on the forehead, breast, elbows, &c. It may be also well seen in the roof of the mouth, but in the lips and gums the colour is not observed till the blood is first pressed from them. The tint varies, being in the milder cases faint, in the more severe a deep saffron yellow, while in extreme degrees of obstruction it may be of dark brown or greenish hue. The colour can scarcely, if at all, be observed in artificial light.

The urine exhibits well marked and characteristic changes in jaundice which exist even before any evidence can be detected on the skin or elsewhere. It is always of dark brown colour resembling porter, but after standing in the air it acquires a greenish tint. Its froth is greenish-yellow, and it stains with this colour any white substance. It contains not only the bile colouring matter but also the bile acids. The former is detected by the play of colours yielded on the addition of nitric acid, the latter by the purple colour, produced by placing a piece of lump sugar in the urine tested, and adding thereto a few drops of strong sulphuric acid.

The contents of the bowels also undergo changes, being characterized chiefly by their pale clay colour, which is in proportion to the amount of hepatic obstruction, and to their consequent want of admixture with bile. For the same reason they contain a large amount of unabsorbed fatty matter, and have an extremely offensive odour.

Constitutional symptoms always attend jaundice with obstruction. The patient becomes languid, drowsy and irritable, and has generally a slow pulse. The appetite is usually but not always diminished, a bitter taste in the mouth is complained of, while flatulent eructations arise from the stomach. Intolerable itching of the skin is a common accompaniment of jaundice, and cutaneous eruptions or boils are occasionally seen. Yellow vision appears to be present in some very rare cases. Should the jaundice depend on advancing organic disease of the liver, such as cancer, the tinge becomes gradually deeper, and the emaciation and debility more marked towards the fatal termination, which in such cases is seldom long postponed. Apart from this, however, jaundice from obstruction may exist for many years, as in those instances where the walls of the bile ducts are thickened from chronic catarrh, but where they are only partially occluded. In the common cases of acute catarrhal jaundice recovery usually takes place in two or three weeks.

The treatment of this form of jaundice bears reference to the cause giving rise to the obstruction. In the ordinary cases of simple catarrhal jaundice, or that following the passing of gall-stones, a light nutritious diet (milk, soups, &c., avoiding saccharine and farinaceous substances and alcoholic stimulants), along with counter-irritation applied over the right side and the use of laxatives and cholagogues, will be found to be advantageous. Diaphoretics and diuretics to promote the action of the skin and kidneys are useful in jaundice. In the more chronic forms, besides the remedies above named, the waters of Carlsbad are of special efficacy. In cases other than acute catarrhal, operative interference is often called for, to remove the gall-stones, tumour, &c., causing the obstruction.

2. *Toxaemic Jaundice* is observed to occur as a symptom in certain fevers, *e.g.* yellow fever, ague, and in pyaemia also as the effect of certain poisons, such as phosphorus, and the venom of snake-bites. Jaundice of this kind is almost always slight, and neither the urine nor the discharges from the bowels exhibit changes in appearance to such a degree as in the obstructive variety. Grave constitutional symptoms are often present, but they are less to be ascribed to the jaundice than to the disease with which it is associated.

3. *Hereditary Jaundice.*—Under this group there are the jaundice of new-born infants, which varies enormously in severity; the cases in which a slight form of jaundice obtains in several members of the same family, without other symptoms, and which may persist for years; and lastly the group of cases with hypertrophic cirrhosis.

The name *malignant jaundice* is sometimes applied to that very fatal form of disease otherwise termed acute yellow atrophy of the liver (see ATROPHY).

JAUNPUR, a city and district of British India, in the Benares division of the United Provinces. The city is on the left bank of the river Gumti, 34 m. N.W. from Benares by rail. Pop. (1901), 42,771. Jaunpur is a very ancient city, the former capital of a Mahommedan kingdom which once extended from Budaun and Etawah to Behar. It abounds in splendid architectural monuments, most of which belong to the period when the rulers of Jaunpur were independent of Delhi. The fort of Feroz Shah is in great part completely ruined, but there remain a fine gateway of the 16th century, a mosque dating from 1376, and the *hammams* or baths of Ibrahim Shah. Among other buildings may be mentioned the Atala Masjid (1408) and the ruined Jinjiri Masjid, mosques built by Ibrahim, the first of which has a great cloistered court and a magnificent façade; the Dariba mosque constructed by two of Ibrahim's governors; the Lal Darwaza erected by the queen of Mahmud; the Jama Masjid (1438–1478) or great mosque of Husain, with court and cloisters, standing on a raised terrace, and in part restored in modern times; and finally the splendid bridge over the Gumti, erected by Munim Khan, Mogul governor in 1569–1573. During the Mutiny of 1857 Jaunpur formed a centre of disaffection. The city has now lost its importance, the only industries surviving being the manufacture of perfumes and papier-mâché articles.

The DISTRICT OF JAUNPUR has an area of 1551 sq. m. It forms part of the wide Gangetic plain, and its surface is accordingly composed of a thick alluvial deposit. The whole country is closely tilled, and no waste lands break the continuous prospect of cultivated fields. It is divided into two unequal parts by the sinuous channel of the Gumti, a tributary of the Ganges, which flows past the city of Jaunpur. Its total course within the district is about 90 m., and it is nowhere fordable. It is crossed by two bridges, one at Jaunpur and the other 2 m. lower down. The Gumti is liable to sudden inundations during the rainy season, owing to the high banks it has piled up at its entrance into the Ganges, which act as dams to prevent the prompt outflow of its flooded waters. These inundations extend to its tributary the Saī. Much damage was thus effected in 1774; but the greatest recorded flood took place in September 1871, when 4000 houses in the city were swept away, besides 9000 more in villages along its banks. The other rivers are the Saī, Barna, Pili and Basohi. Lakes are numerous in the north and south; the largest has a length of 8 m. Pop. (1901), 1,202,920, showing a decrease of 5% in the decade. Sugar-refining is the principal industry. The district is served by the line of the Oudh & Rohilkhand railway from Benares to Fyzabad, and by branches of this and of the Bengal & North-Western systems.

In prehistoric times Jaunpur seems to have formed a portion of the Ajodhya principality, and when it first makes an appearance in authentic history it was subject to the rulers of Benares. With the rest of their dominions it fell under the yoke of the Mussulman invaders in 1194. From that time the district appears to have been ruled by a prince of the Kanauj dynasty, as a tributary of the Mahommedan suzerain. In 1388 Mālik Sarwar Khwāja was sent by Mahommed Tughlak to govern the eastern province. He fixed his residence at Jaunpur, made himself independent of the Delhi court, and assumed the title of Sultan-us-Shark, or "eastern emperor." For nearly a century

the Sharki dynasty ruled at Jaunpur, and proved formidable rivals to the sovereigns of Delhi. The last of the dynasty was Sultan Husain, who passed his life in a fierce and chequered struggle for supremacy with Bahlol Lodi, then actual emperor at Delhi. At length, in 1478, Bahlol succeeded in defeating his rival in a series of decisive engagements. He took the city of Jaunpur, but permitted the conquered Husain to reside there, and to complete the building of his great mosque, the Jama Masjid, which now forms the chief ornament of the town. Many other architectural works in the district still bear witness to its greatness under its independent Mussulman rulers. In 1775 the district was made over to the British by the Treaty of Lucknow. From that time nothing occurred which calls for notice till the Mutiny. On the 5th of June 1857, when the news of the Benares revolt reached Jaunpur, the sepoys mutinied. The district continued in a state of complete anarchy till the arrival of the Gurkha force from Azamgarh in September. In November the surrounding country was lost again, and it was not till May 1858 that the last smouldering embers of disaffection were stifled by the repulse of the insurgent leader at the hands of the people themselves.

See A. Führer, *The Shargi Architecture of Jaunpur* (1889).

JAUNTING-CAR, a light two-wheeled carriage for a single horse, in its commonest form with seats for four persons placed back to back, with the foot-boards projecting over the wheels. It is the typical conveyance for persons in Ireland (see CAR). The first part of the word is generally taken to be identical with the verb " to jaunt," now only used in the sense of to go on a short pleasure excursion, but in its earliest uses meaning to make a horse caracole or prance, hence to jolt or bump up and down. It would apparently be a variant of " jaunce," of the same meaning, which is supposed to be taken from O. Fr. *jancer*. Skeat takes the origin of jaunt and jaunce to be Scandinavian, and connects them with the Swedish dialect word *ganta*, to romp; and he finds cognate bases in such words as " jump," " high jinks." The word " jaunty," sprightly, especially used of anything done with an easy nonchalant air, is a corruption of " janty," due to confusion with " jaunt." " Janty," often spelt in the 17th and 18th centuries " janté " or " jantee," represents the English pronunciation of Fr. *gentil*, well-bred, neat, spruce.

JAUREGUI, JUAN (1562–1582), a Biscayan by birth, was in 1582 in the service of a Spanish merchant, Gaspar d'Anastro, who was resident at Antwerp. Tempted by the reward of 80,000 ducats offered by Philip II. of Spain for the assassination of William the Silent, prince of Orange, but being himself without courage to undertake the task, d'Anastro, with the help of his cashier Venero, persuaded Jauregui to attempt the murder for the sum of 2877 crowns. On Sunday the 18th of March 1582, as the prince came out of his dining-room Jauregui offered him a petition, and William had no sooner taken it into his hand than Jauregui fired a pistol at his head. The ball pierced the neck below the right ear and passed out at the left jaw-bone; but William ultimately recovered. The assassin was killed on the spot.

JAURÉGUIBERRY, JEAN BERNARD (1815–1887), French admiral, was born at Bayonne on the 26th of August 1815. He entered the navy in 1831, was made a lieutenant in 1845, commander in 1856, and captain in 1860. After serving in the Crimea and in China, and being governor of Senegal, he was promoted to rear-admiral in 1869. He served on land during the second part of the Franco-German War of 1870–71, in the rank of auxiliary general of division. He was present at Coulmiers, Villépion and Loigny-Poupry, in command of a division, and in Chanzy's retreat upon Le Mans and the battle at that place in command of a corps. He was the most distinguished of the many naval officers who did good service in the military operations. On the 9th of December he had been made vice-admiral, and in 1871 he commanded the fleet at Toulon; in 1875 he was a member of the council of admiralty; and in October 1876 he was appointed to command the evolutionary squadron in the Mediterranean. In February 1879 he became minister of the navy in the Waddington cabinet, and on the 27th of May following was elected a senator for life. He was again minister of the navy in the Freycinet cabinet in 1880. A fine example of the fighting French seaman of his time, Jauréguiberry died at Paris on the 21st of October 1887.

JÁUREGUI Y AGUILAR, JUAN MARTÍNEZ DE (1583–1641), Spanish poet, was baptized at Seville on the 24th of November 1583. In due course he studied at Rome, returning to Spain shortly before 1610 with a double reputation as a painter and a poet. A reference in the preface to the *Novelas exemplares* has been taken to mean that he painted the portrait of Cervantes, who, in the second part of *Don Quixote*, praises the translation of Tasso's *Aminta* published at Rome in 1607. Jáuregui's *Rimas* (1618), a collection of graceful lyrics, is preceded by a controversial preface which attracted much attention on account of its outspoken declaration against *culteranismo*. Through the influence of Olivares, he was appointed groom of the chamber to Philip IV., and gave an elaborate exposition of his artistic doctrines in the *Discurso poêtico contra el hablar culto y oscuro* (1624), a skilful attack on the new theories, which procured for its author the order of Calatrava. It is plain, however, that the shock of controversy had shaken Jáuregui's convictions, and his poem *Orfeo* (1624) is visibly influenced by Góngora. Jáuregui died at Madrid on the 11th of January 1641, leaving behind him a translation of the *Pharsalia* which was not published till 1684. This rendering reveals Jáuregui as a complete convert to the new school, and it has been argued that, exaggerating the affinities between Lucan and Góngora—both of Cordovan descent—he deliberately translated the thought of the earlier poet into the vocabulary of the later master. This is possible; but it is at least as likely that Jáuregui unconsciously yielded to the current of popular taste, with no other intention than that of conciliating the public of his own day.

JAURÈS, JEAN LÉON (1859–), French Socialist leader, was born at Castres (Tarn) on the 3rd of September 1859. He was educated at the lycée Louis-le-Grand and the école normale supérieure, and took his degree as associate in philosophy in 1881. After teaching philosophy for two years at the lycée of Albi (Tarn), he lectured at the university of Toulouse. He was elected republican deputy for the department of Tarn in 1885. In 1889, after unsuccessfully contesting Castres, he returned to his professional duties at Toulouse, where he took an active interest in municipal affairs, and helped to found the medical faculty of the university. He also prepared two theses for his doctorate in philosophy, *De primis socialismi germañici lineamentis apud Lutherum, Kant, Fichte et Hegel* (1891), and *De la réalité du monde sensible*. In 1902 he gave energetic support to the miners of Carmaux who went out on strike in consequence of the dismissal of a socialist workman, Calvignac; and in the next year he was re-elected to the chamber as deputy for Albi. Although he was defeated at the elections of 1898 and was for four years outside the chamber, his eloquent speeches made him a force in politics as an intellectual champion of socialism. He edited the *Petite République*, and was one of the most energetic defenders of Captain Alfred Dreyfus. He approved of the inclusion of M. Millerand, the socialist, in the Waldeck-Rousseau ministry, though this led to a split with the more revolutionary section led by M. Guesde. In 1902 he was again returned as deputy for Albi, and during the Combes administration his influence secured the coherence of the radical-socialist coalition known as the *bloc*. In 1904 he founded the socialist paper, *L'Humanité*. The French socialist groups held a congress at Rouen in March 1905, which resulted in a new consolidation; the new party, headed by MM. Jaurès and Guesde, ceased to co-operate with the radicals and radical-socialists, and became known as the unified socialists, pledged to advance a collectivist programme. At the general elections of 1906 M. Jaurès was again elected for the Tarn. His ability and vigeur were now generally recognized; but the strength of the socialist party, and the practical activity of its leader, still had to reckon with the equally practical and vigorous liberalism of M. Clemenceau. The latter was able to appeal to his countrymen (in a notable

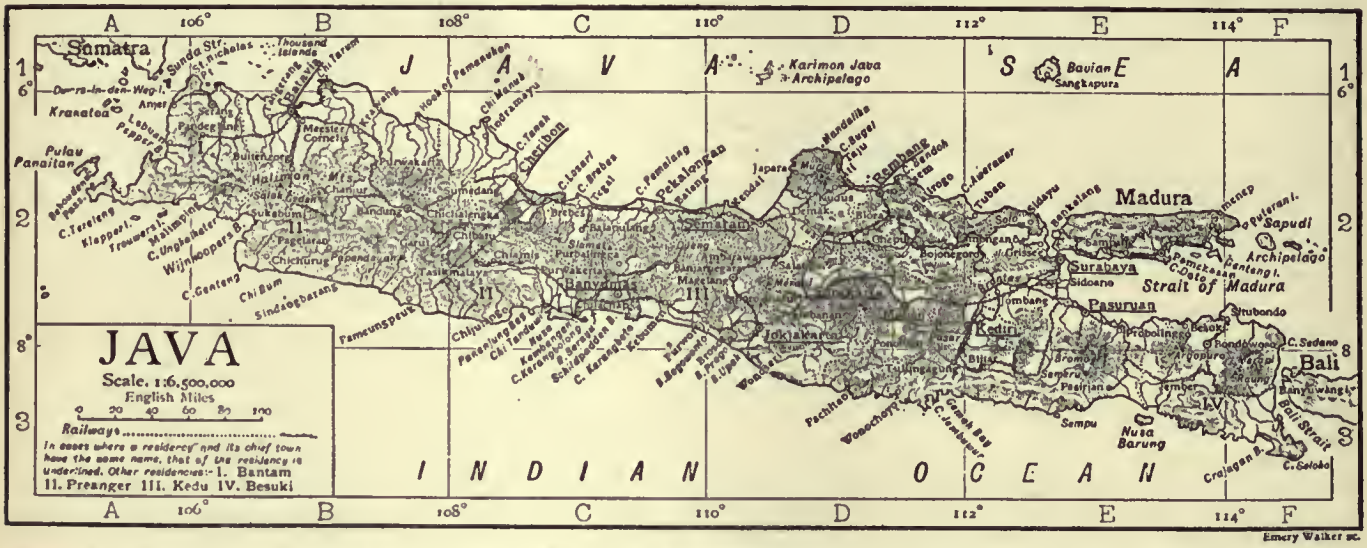
speech in the spring of 1906) to rally to a radical programme which had no socialist Utopia in view; and the appearance in him of a strong and practical radical leader had the result of considerably diminishing the effect of the socialist propaganda. M. Jaurès, in addition to his daily journalistic activity, published *Les preuves; affaire Dreyfus* (1900); *Action socialiste* (1899); *Études socialistes* (1902), and, with other collaborators, *Histoire socialiste* (1901), &c.

JAVA, one of the larger islands of that portion of the Malay Archipelago which is distinguished as the Sunda Islands. It lies between 105° 12′ 40″ (St Nicholas Point) and 114° 35′ 38″ E. (Cape Seloko) and between 5° 52′ 34″ and 8° 46′ 46″ S. It has a total length of 622 m. from Pepper Bay in the west to Banyuwangi in the east, and an extreme breadth of 121 m. from Cape Bugel in Japara to the coast of Jokjakarta, narrowing towards the middle to about 55 m. Politically and commercially it is important as the seat of the colonial government of the Dutch East Indies, all other parts of the Dutch territory being distinguished as the Outer Possessions (*Buitenbezittungens*). According to the triangulation survey (report published in 1901) the area of Java proper is 48,504 sq. m.; of Madura, the large adjacent and associated island, 1732; and of the smaller islands administratively included with Java and Madura 1416, thus making a total of 50,970 sq. m. The more important of these islands are the following: Pulau Panaitan or Princes Island (*Prinseneiland*), 47 sq. m., lies in the Sunda Strait, off the south-western peninsula of the main island, from which it is separated by the Behouden Passage. The Thousand Islands are situated almost due N. of Batavia. Of these five were inhabited in 1906 by about 1280 seafarers from all parts and their descendants. The Karimon Java archipelago, to the north of Semarang, numbers twenty-seven islands with an area of 16 sq. m. and a population of about 800 (having one considerable village on the main island). Bavian[1] (Bawian), 100 m. N. of Surabaya, is a ruined volcano with an area of 73 sq. m. and a population of about 44,000. About a third of the men are generally absent as traders or coolies. In Singapore and Sumatra they are known as Boyans. They are devout Mahommedans and many of them make the pilgrimage to Mecca. The Sapudi and Kangean archipelagoes are eastward continuations of Madura. The former, thirteen in all, with an area of 58 sq. m. and 53,000 inhabitants, export cattle, dried fish and trepang; and many of the male population work as day labourers in Java or as lumbermen in Sumbawa, Flores, &c. The main island of the Kangians has an area of 19 sq. m.; the whole group 23 sq. m. It is best known for its limestone caves and its buffaloes. Along the south coast the islands are few and small—Klapper or Deli, Trouwers or Tingal, Nusa Kembangan, Sempu and Nusa Barung.

[1] It must be observed that Bavian, &c., are mere conventional appendices to Java.

From Sumatra on the W., Java is separated by the Sunda Strait, which at the narrowest is only 14 m. broad, but widens elsewhere to about 50 m. On the E. the strait of Bali, which parts it from the island of that name, is at the northern end not more than 1½ m. across. Through the former strong currents run for the greater part of the day throughout the year, outwards from the Java Sea to the Indian Ocean. In the strait of Bali the currents are perhaps even stronger and are extremely irregular. Pilots with local knowledge are absolutely necessary for vessels attempting either passage. In spite of the strength of the currents the Sunda Strait is steadily being diminished in width, and the process if continued must result in a restoration of that junction of Sumatra and Java which according to some authorities formerly existed.[2]

In general terms Java may be described as one of the breakwater islands of the Indian Ocean—part of the mountainous rim (continuous more or less completely with Sumatra) of the partially submerged plateau which lies between the ocean on the S. and the Chinese Sea on the N., and has the massive island of Borneo as its chief subaerial portion. While the waves and currents of the ocean sweep away most of the products of denudation along the south coast or throw a small percentage back in the shape of sandy downs, the Java Sea on the north—not more than 50 fathoms deep—allows them to settle and to form sometimes with extraordinary rapidity broad alluvial tracts.[3]



It is customary and obvious to divide Java into three divisions, the middle part of the island narrowing into a kind of isthmus, and each of the divisions thus indicated having certain structural characteristics of its own. West Java, which consists of Bantam, Krawang and the Preanger Regencies, has an area of upwards of 18,000 sq. m. In this division the highlands lie for the most part in a compact mass to the south and the lowlands form a continuous tract to the north. The main portion of the uplands consists of the Preanger Mountains, with the plateaus of Bandong, Pekalongan, Tegal, Badung and Gurut, encircled with volcanic summits. On the borders of the Preanger, Batavia and Bantam are the Halimon Mountains (the Blue Mountains of the older travellers), reaching their greatest altitudes in the volcanic summits of Gedeh and Salak. To the west lie the highlands of Bantam, which extending northward cut off the northern lowlands from the Sunda Strait. Middle Java is the smallest of the three divisions, having an area of not much more than 13,200 sq. m. It comprises Tegal, Pekalongan, Banyumas, Bagelen, Kedu, Jokjakarta, Surakarta, and thus not only takes in the whole of the isthmus but encroaches on the broad eastern portion of the island. In the isthmus mountains are not so closely massed

[2] H. B. Guppy (*R. S. G. Soc. Magazine*, 1889) holds that there is no sufficient proof of this connexion but gives interesting details of the present movement.

[3] See G. F. Tijdeman's map of the depths of the sea in the eastern part of the Indian archipelago in M. Weber's *Siboga Expedition*, 1903. The details of the coast forms of the island have been studied by J. F. Snelleman and J. F. Niermeyer in a paper in the Veth *Feestbundel*, utilizing *inter alia* Guppy's observations.

in the south nor the plains so continuous on the north. The watershed culminating in Slamet lies almost midway between the ocean and the Java Sea, and there are somewhat extensive lowlands in the south. In that part of middle Java which physically belongs to eastern Java there is a remarkable series of lowlands stretching almost right across the island from Semarang in the north to Jokjakarta in the south. Eastern Java comprises Rembang, Madiun, Kediri, Surabaya, Pasuruan and Besuki, and has an area of about 17,500 sq. m. In this division lowlands and highlands are intermingled in endless variety except along the south coast, where the watershed-range forms a continuous breakwater from Jokjakarta to Besuki. The volcanic eminences, instead of rising in lines or groups, are isolated.

For its area Java is one of the most distinctly volcanic regions of the world. Volcanic forces made it, and volcanic forces have continued to devastate and fertilize it. According to R. D. M. Verbeek about 125 volcanic centres can be distinguished, a number which may be increased or diminished by different methods of classification. It is usual to arrange the volcanoes in the following groups: westernmost Java 11 (all extinct); Preanger 50 (5 active); Cheribon 2 (both extinct); Slamet 2 (1 active); middle Java 16 (2 active); Murio 2 (both extinct); Lavu 2 (extinct); Wilis 2 (extinct); east Java 21 (5 active). The active volcanoes of the present time are Gedeh, Tangkuban, Prahu, Gutar, Papandayan, Galung-gung, Slamet, Sendor, Merapi,[1] Kalut (or Klut), Bromo, Semeru, Lamongan, Raung, but the activity of many of these is trifling, consisting of slight ejections of steam and scoriae.

The plains differ in surface and fertility, according to their geological formation. Built up of alluvium and diluvium, the plains of the north coast-lands in western and middle Java are at their lowest levels, near the mouths of rivers and the sea, in many cases marshy and abounding in lakes and coral remains, but for the rest they are fertile and available for culture. The plains, too, along the south coast of middle Java—of Banyumas and Bagelen—contain many morasses as well as sandy stretches and dunes impeding the outlet of the rivers. They are, nevertheless, available for the cultivation more particularly of rice, and are thickly peopled. In eastern Java, again, the narrow coast plains are to be distinguished from the wider plains lying between the parallel chains of limestone and between the volcanoes. The narrow plains of the north coast are constituted of yellow clay and tuffs containing chalk, washed down by the rivers from the mountain chains and volcanoes. Like the western plains, they, too, are in many cases low and marshy, and fringed with sand and dunes. The plains, on the other hand, at some distance from the sea, or lying in the interior of eastern Java, such as Surakarta, Madiun, Kediri, Pasuruan, Probolinggo and Besuki, owe their formation to the volcanoes at whose bases they lie, occupying levels as high as 1640 ft. down to 328 ft. above the sea, whence they decline to the lower plains of the coast. Lastly, the plains of Lusi, Solo and Brantas, lying between the parallel chains in Japara, Rembang and Surabaya, are in part the product of rivers formerly flowing at a higher level of 30 to 60 or 70 ft., in part the product of the sea, dating from a time when the northern part of the above-named residencies was an island, such as Madura, the mountains of which are the continuation of the north parallel chain, is still.

The considerable rivers of western Java all have their outlets on the north coast, the chief among them being the Chi (Dutch *Tji*) Tarum and the Chi Manuk. They are navigable for native boats and rafts, and are used for the transport of coffee and salt. On the south coast the Chi Tanduwi, on the east of the Preanger, is the only stream available as a waterway, and this only for a few miles above its mouth. In middle Java, also, the rivers discharging at the north coast—the Pamali, Chomal, &c.—are serviceable for the purposes of irrigation and cultivation, but are navigable only near their mouths. The rivers of the south coast—Progo, Serayu, Bogowonto, and Upak, enriched by rills from the volcanoes—serve abundantly to irrigate the plains of Bagelen, Banyumas, &c. Their stony beds, shallows and rapids, and the condition of their mouths lessen, however, their value as waterways. More navigable are the larger rivers of eastern Java. The Solo is navigable for large praus, or native boats, as far up as Surakarta, and above that town for lighter boats, as is also its affluent the Gentung. The canal constructed in 1893 at the lower part of this river, and alterations effected at its mouth, have proved of important service both in irrigating the plain and facilitating the river's outlet into the sea. The Brantas is also navigable in several parts. The smaller rivers of eastern Java are, however, much in the condition of those of western Java. They serve less as waterways than as reservoirs for the irrigation of the fertile plains through which they flow.

The north coast of Java presents everywhere a low strand covered with nipa or mangrove, morasses and fishponds, sandy stretches and low dunes, shifting river-mouths and coast-lines, ports and roads, demanding continual attention and regulation. The south coast is of a different make. The dunes of Banyumas, Bagelen, and Jokjakarta, ranged in three ridges, rising to 50 ft. high, and varying in breadth from 300 to over 1600 ft., liable, moreover, to transformation from tides and the east monsoon, oppose everywhere, also in Preanger and Besuki, a barrier to the discharge of the rivers and the drainage of the coast-lands. They assist the formation of lagoons and morasses. At intervals in the dune coast, running in the direction of the limestone mountains, there tower up steep inaccessible masses of land, showing neither ports nor bays, hollowed out by the sea, rising in perpendicular walls to a height of 160 ft. above sea-level. Sometimes two branches project at right angles from the chain on to the coast, forming a low bay between the capes or ends of the projecting branches, from 1000 to 1600 ft. high. Such a formation occurs frequently along the coast of Besuki, presenting a very irregular coast-line. Of course the north coast is of much greater commercial importance than the south coast.

Geology.—With the exception of a few small patches of schist, supposed to be Cretaceous, the whole island, so far as is known, is covered by deposits of Tertiary and Quaternary age. The ancient "schist formation," which occurs in Sumatra, Borneo, &c., does not rise to the surface anywhere in Java itself, but it is visible in the island of Karimon Java off the north coast. The Cretaceous schists have yielded fossils only at Banjarnegara, where a limestone with Orbitolina is interstratified with them. They are succeeded unconformably by Eocene deposits, consisting of sandstones with coal-seams and limestones containing Nummulites, Alveolina and Orthophragmina; and these beds are as limited in extent as the Cretaceous schists themselves. Sedimentary deposits of Upper Tertiary age are widely spread, covering about 38% of the surface. They consist of breccias, marls and limestones containing numerous fossils, and are for the most part Miocene but probably include a part of the Pliocene also. They were laid down beneath the sea, but have since been folded and elevated to considerable heights. Fluviatile deposits of late Pliocene age have been found in the east of Java, and it was in these that the remarkable anthropoid ape or ape-like man, *Pithecanthropus erectus* of Dubois, was discovered. The Quaternary deposits lie horizontally upon the upturned edges of the Tertiary beds. They are partly marine and partly fluviatile, the marine deposits reaching to a height of some 350 ft. above the sea and thus indicating a considerable elevation of the island in recent times.

The volcanic rocks of Java are of great importance and cover about 28% of the island. The eruptions began in the middle of the Tertiary period, but did not attain their maximum until Quaternary times, and many of the volcanoes are still active. Most of the cones seem to lie along faults parallel to the axis of the island, or on short cross fractures. The lavas and ashes are almost everywhere andesites and basalts, with a little obsidian. Some of the volcanoes, however, have erupted leucite rocks. Similar rocks, together with phonolite, occur in the island of Bavian.[2]

Climate.—Our knowledge of the climate of Batavia, and thus of that of the lowlands of western Java, is almost perfect; but, rainfall excepted, our information as to the climate of Java as a whole is extremely defective. The dominant meteorological facts are simple and obvious: Java lies in the tropics, under an almost vertical sun, and thus has a day of almost uniform length throughout the year.[3] It is also within the perpetual influence of the great atmospheric movements passing between Asia and Australia; and is affected by the neighbourhood of vast expanses of sea and land (Borneo and Sumatra). There are no such maxima of temperature as are recorded from the continents. The highest known at Batavia was 96° F. in 1877 and the lowest 66° in the same year. The mean annual temperature is 79°. The warmest months are May and October, registering 79·5° and 79·46° respectively; the coldest January and February with 77·63° and 77·7° respectively. The daily range is much greater; at one o'clock the thermometer has a mean height of 84°; after two o'clock it declines to about 73° at six o'clock; the greatest daily amplitude is in August and the least in January and February. Eastern Java and the inland plains of middle Java are said to be hotter, but scientific data are few. A very slight degree of elevation above the seaboard plains produces a remarkable difference in the climate, not so much in its mere temperature as in its influence on health. The dwellers in the coast towns are surprised at the invigorating effects of a change to health resorts from 300 to 1200 ft. above sea-level; and at greater elevations it may be uncomfortably cold at night, with chilly mists and occasional frosts. The year is divided into two seasons by the prevailing winds: the rainy season, that of the west monsoon, lasting from November to March, and the dry season, that of the east monsoon, during the rest of the year; the transition from one monsoon to another—the "canting" of the monsoons—being marked by

[1] This Merapi must be carefully distinguished from Merapi the Fire Mountain of Sumatra.

[2] R. D. M. Verbeek and R. Fennema, *Description géologique de Java et Madoura* (2 vols. and atlas, Amsterdam, 1896; also published in Dutch)—a summary with map was published by Verbeek in *Peterm. Mitt.* xliv. (1898), 24–33, pl. 3. Also K. Martin, *Die Eintheilung der versteinerungsführenden Sedimente von Java*, Samml. Geol. Reichsmus. Leiden, ser. i., vol. vi. (1899–1902), 135–245.

[3] On the 16th of November the sun rises at 5.32 and sets at 5.57; on the 16th of July it rises at 6.12 and sets at 5.57. The longest day is in December and the shortest in June, while on the other hand the sun is highest in February and October and lowest in June and December.

irregularities. On the whole, the east monsoon blows steadily for a longer period than the west. The velocity of the wind is much less than in Europe—not more in the annual mean at Batavia than 3 ft. per second, against 12 to 18 ft. in Europe. The highest velocity ever observed at Batavia was 25 ft. Wind-storms are rare and hardly ever cyclonic. There are as a matter of course a large number of purely local winds, some of them of a very peculiar kind, but few of these have been scientifically dealt with. Thunder-storms are extremely frequent; but the loss of life from lightning is probably diminished by the fact that the palm-trees are excellent conductors. At night the air is almost invariably still. The average rainfall at Batavia is 72·28 in. per annum, of which 51·49 in. are contributed by the west monsoon. The amount varies considerably from year to year: in 1889, 1891 and 1897 there were about 47·24 in.; in 1868 and 1877 nearly 51·17, and in 1872 and 1882 no less than 94·8. There are no long tracts of unbroken rainfall and no long periods of continuous drought. The rainfall is heaviest in January, but it rains only for about one-seventh of the time. Next in order come February, March and December. August, the driest month, has from three to five days of rain, though the amount is usually less than an inch and not more than one and a half inches. The popular description of the rain falling not in drops but streams was proved erroneous by J. Wiesner's careful observations (see *Kais. Akad. d. Wiss. Math. Naturw. Cl.* Bd. xiv., Vienna, 1895), which have been confirmed by A. Woeikof ("Regensintensität und Regendauer in Batavia" in *Z. für Met.*, 1907). The greatest rainfall recorded in an hour (4·5 in.) is enormously exceeded by records even in Europe. From observations taken for the meteorological authorities at a very considerable number of stations, J. H. Boesecken constructed a map in 1900 (*Tijdschr. v. h. Kon. Ned. Aardr. Gen.*, 1900; reproduced in Veth, *Java*, iii. 1903). Among the outstanding facts are the following. The south coasts of both eastern and middle Java have a much heavier rainfall than the north. Majalenka has an annual fall of 175 in. In western Java the maximal district consists of a great ring of mountains from Salak and Gedeh in the west to Galunggung in the east, while the enclosed plateau-region of Chanjur Bandung and Garut are not much different from the sea-board. The whole of middle Java, with the exception of the north coast, has a heavy rainfall. At Chilachap the annual rainfall is 151·43 in., 87·8 in. of which is brought by the south-east monsoon. The great belt which includes the Slamet and the Dieng, and the country on the south coast between Chilachap and Parigi, are maximal. In comparison the whole of eastern Java, with the exception of the mountains from Wilis eastward to Ijen, has a low record which reaches its lowest along the north coast.[1]

Fauna.—In respect of its fauna Java differs from Borneo, Sumatra and the Malay Peninsula far more than these differ among themselves; and, at the same time, it shows a close resemblance to the Malay Peninsula, on the one hand, and to the Himalayas on the other. Of the 176 mammals of the whole Indo-Malayan region the greater number occur in Java. Of these 41 are found on the continent of Asia, 8 are common to Java and Borneo, and 6 are common to Java and Sumatra (see M. Weber, *Das Indo-Malay Archipelago und die Geschichte seiner Thierwelt*, Jena, 1902). No genus and only a few species are confined to the island. Of the land-birds only a small proportion are peculiar. The elephant, the tapir, the bear, and various other genera found in the rest of the region are altogether absent. The Javanese rhinoceros (*Rhinoceros sundaicus*; *sarak* in Javanese, *badak* in Sundanese), the largest of the mammals on the island, differs from that of Sumatra in having one horn instead of two. It ranges over the highest mountains, and its regular paths, worn into deep channels, may be traced up the steepest slopes and round the rims of even active volcanoes. Two species of wild swine, *Sus vittatus* and *Sus verrucosus*, are exceedingly abundant, the former in the hot, the latter in the temperate, region; and their depredations are the cause of much loss to the natives, who, however, being Mahommedans, to whom pork is abhorrent, do not hunt them for the sake of their flesh. Not much less than the rhinoceros is the banteng (*Bibos banteng* or *sundaicus*) found in all the uninhabited districts between 2000 and 7000 ft. of elevation. The kidang or muntjak (*Cervulus muntjac*) and the rusa or russa (*Rusa hippelaphus* or *Russa russa*) are the representatives of the deer kind. The former is a delicate little creature occurring singly or in pairs both in the mountains and in the coast districts; the latter lives in herds of fifty to a hundred in the grassy opens, giving excellent sport to the native hunters. Another species (*Russa kuhlii*) exists in Bavian. The kantjil (*Tragulus javanicus*) is a small creature allied to the musk-deer but forming a genus by itself. It lives in the high woods, for the most part singly, seldom in pairs. It is one of the most peculiar of the Javanese mammals. The royal tiger, the same species as that of India, is still common enough to make a tiger-hunt a characteristic Javanese scene. The leopard (*Felis pardus*) is frequent in the warm regions and often ascends to considerable altitudes. Black specimens occasionally occur, but the spots are visible on inspection; and the fact that in the Amsterdam zoological gardens a black leopard had one of its cubs black and the other normally spotted shows that this is only a case of melanism. In the tree-tops the birds find a dangerous enemy in the matjan rembak, or wild cat (*Felis minuta*), about the size of a common cat. The dog tribe is represented by the fox-like adjag (*Cuon* or *Canis sutilans*) which hunts in ferocious packs; and by a wild dog, *Canis tenggeranus*, if this is not now exterminated. The Cheiroptera hold a prominent place in the fauna, the principal genera being *Pteropus*, *Cynonycteris*, *Cynopterus* and *Macroglossus*. Remarkable especially for size is the kalong, or flying fox, *Pteropus edulis*, a fruit-eating bat, which may be seen hanging during the day in black clusters asleep on the trees, and in the evening hastening in long lines to the favourite feeding grounds in the forest. The damage these do to the young coco-nut trees, the maize and the sugar-palms leads the natives to snare and shoot them; and their flesh is a favourite food with Europeans, who prefer to shoot them by night as, if shot by day, they often cling after death to the branches. Smaller kinds of bats are most abundant, perhaps the commonest being *Scotophilus Temminckii*. In certain places they congregate in myriads, like sea-fowl on the cliffs, and their excrement produces extensive guano deposits utilized by the people of Surakarta and Madiun. The creature known to the Europeans as the flying-cat and to the natives as the kubin is the *Galeopithecus volans* or *variegatus*—a sort of transition from the bats to the lemuroids. Of these last Java has several species held in awe by the natives for their supposed power of fascination. The apes are represented by the wou-wou (*Hylobates leuciscus*), the lutung, and kowi (*Semnopithecus maurus* and *pyrrhus*), the surili (*Semnopithecus mitratus*), and the munyuk (*Cercocebus*, or *Macacus*, *cynamolgos*), the most generally distributed of all. From sunrise to sunset the wou-wou makes its presence known, especially in the second zone where it congregates in the trees, by its strange cry, at times harsh and cacophonous, at times weird and pathetic. The lutung or black ape also prefers the temperate region, though it is met with as high as 7000 ft. above the sea and as low as 2000. The *Cercocebus* or grey ape keeps for the most part to the warm coast lands. Rats (including the brown Norway rat, often called *Mus javanicus*, as if it were a native; a great plague); mice in great variety; porcupines (*Acanthion javanicum*); squirrels (five species) and flying squirrels (four species) represent the rodents. A hare, *Lepus nigricollis*, originally from Ceylon, has a very limited habitat; the Insectivora comprise a shrew-mouse (*Rachyura indica*), two species of tupaya and *Hylomys suillus* peculiar to Java and Sumatra. The nearest relation to the bears is *Arctictis binturong*. *Mydaus meliceps* and *Helictis orientalis* represent the badgers. In the upper part of the mountains occurs *Mustela Henrici*, and an otter (*Aonyx leptonyx*) in the streams of the hot zone. The coffee rat (*Paradoxurus hermaphroditus*), a civet cat (*Viverricula indica*), the Javanese ichneumon (*Herpestes javanicus*), and *Priodon gracilis* may also be mentioned.

In 1820, 176 species of birds were known in Java; by 1900 Vorderman and O. Finsch knew 410. Many of these are, of course, rare and occupy a limited habitat far from the haunts of man. Others exist in myriads and are characteristic features in the landscape. Water-fowl of many kinds, ducks, geese, storks, pelicans, &c., give life to sea-shore and lake, river and marsh. Snipe-shooting is a favourtie sport. Common night-birds are the owl (*Strix flammea*) and the goatsucker (*Caprimulgus affinis*). Three species of hornbill, the year-bird of the older travellers (*Buceros plicatus*, *lunatus* and *albirostris*) live in the tall trees of the forest zone. The Javanese peacock is a distinct species (*Pavo muticus* or *spiciferus*), and even exceeds the well-known Indian species in the splendour of its plumage. *Gallus Bankiva* is famous as the reputed parent of all barndoor fowls; *Gallus furcatus* is an exquisitely beautiful bird and can be trained for cock-fighting. Of parrots two species only are known: *Palaeornis Alexandri* or *javanicus* and the pretty little grass-green *Curyllis pusilla*, peculiar to Java. As talkers and mimics they are beaten by the *Gracula javanensis*, a favourite cage-bird with the natives. A cuckoo, *Chrysococcyx basalis*, may be heard in the second zone. The grass-fields are the foraging-grounds of swarms of weaver-birds (*Plocula javanensis* and *Ploccus baya*). They lay nearly as heavy a toll on the rice-fields as the gelatiks (*Munia oryzivora*), which are everywhere the rice-growers' principal foe. Hawks and falcons make both an easy prey. The *Nictuarinas* or honey-birds (eight species) take the place of the humming-bird, which they rival in beauty and diminutiveness, ranging from the lowlands to an altitude of 4000 ft. In the upper regions the birds, like the plants, are more like those of Europe, and some of them—notably the kanchilan (*Hyloterpe Philomela*)—are remarkable for their song. The edible-nest swallow (*Collocalia fuciphaga*) builds in caves in many parts of the island.[2]

As far back as 1859 P. Bleeker credited Java with eleven hundred species of fish; and naturalists are perpetually adding to the number.[3] In splendour and grotesqueness of colouring many kinds, as is well known, look rather like birds than fish. In the neighbourhood of Batavia about three hundred and eighty species are used as food by the natives and the Chinese, who have added to the number by the introduction of the goldfish, which reaches a great size. The sea fish most prized by Europeans is *Lates calcarifer* (a perch). Of more than one hundred species of snakes about twenty-four species

[1] S. Figei, *Regenwaarnemingen in Nederlandsch Indië* (1902).

[2] See J. C. Konigsberger, "De vogels Java en hunne oeconomische betukenis," *Med. int. s. Lands Plantentuin.*

[3] See especially M. Weber, *Siboga Expedition.*

(including the cobra di capella) are poisonous and these are responsible for the deaths of between one hundred and two hundred persons per annum. Adders and lizards are abundant. Geckos are familiar visitants in the houses of the natives. There are two species of crocodiles.

As in other tropical-rain forest lands the variety and abundance of insects are amazing. At sundown the air becomes resonant for hours with their myriad voices. The *Coleoptera* and the *Lepidoptera* form the glory of all great collections for their size and magnificence. Of butterflies proper five hundred species are known. Of the beetles one of the largest and handsomest is *Chalcosoma atlas*. Among the spiders (a numerously represented order) the most notable is a bird-killing species, *Selene scomia javanensis*. In many parts the island is plagued with ants, termites and mosquitoes. Crops of all kinds are subject to disastrous attacks of creeping and winged foes—many still unidentified (see especially Snellen van Hollenhoven, *Essai d'une faune entomologique de l'Archipel Indo-néerlandais*). Of still lower forms of life the profusion is no less perplexing. Among the worms the *Perichaeta musica* reaches a length of about twenty inches and produces musical sounds. The shell of the *Tridacna gigas* is the largest anywhere known.

Flora.—For the botanist Java is a natural paradise, affording him the means of studying the effects of moisture and heat, of air-currents and altitudes, without the interference of superincumbent arctic conditions. The botanic gardens of Buitenzorg have long been famous for their wealth of material, the ability with which their treasures have been accumulated and displayed, their value in connexion with the economic development of the island and the extensive scientific literature published by their directors.[1] There is a special establishment at Chibodas open to students of all nations for the investigation on the spot of the conditions of the primeval forest. Hardly any similar area in the world has a flora of richer variety than Java. It is estimated that the total number of the species of plants is about 5000; but this is probably under the mark (De Candolle knew of 2605 phanerogamous species), and new genera and species of an unexpected character are from time to time discovered. The lower parts of the island are always in the height of summer. The villages and even the smaller towns are in great measure concealed by the abundant and abiding verdure; and their position in the landscape is to be recognized mainly by their groves, orchards and cultivated fields. The amount and distribution of heat and moisture at the various seasons of the year form the dominant factors in determining the character of the vegetation. Thus trees which are evergreen in west Java are deciduous in the east of the island, some dropping their leaves (*e.g. Tetrameles nudiflora*) at the very time they are in bloom or ripening their fruit. This and other contrasts are graphically described from personal observation by A. F. W. Schimper in his *Pflanzen-Geographie auf physiologischer Grundlage* (Jena, 1898). The abundance of epiphytes, orchids, pitcher-plants, mosses and fungi is a striking result of the prevalent humidity; and many trees and plants indeed, which in drier climates root in the soil, derive sufficient moisture from their stronger neighbours. Of orchids J. J. Smith records 562 species (100 genera), but the flowers of all except about a score are inconspicuous. This last fact is the more remarkable because, taken generally, the Javanese vegetation differs from that of many other tropical countries by being abundantly and often gorgeously floriferous. Many of the loftiest trees crown themselves with blossoms and require no assistance from the climbing plants that seek, as it were, to rival them in their display of colour. Shrubs, too, and herbaceous plants often give brilliant effects in the savannahs, the deserted clearings, the edges of the forest and the sides of the highways. The *lantana*, a verbenaceous alien introduced, it is said, from Jamaica by Lady Raffles, has made itself aggressively conspicuous in many parts of the island, more especially in the Preanger and middle Java, where it occupies areas of hundreds of acres.

The effect of mere altitude in the distribution of the flora was long ago emphasized by Friedrich Junghuhn, the Humboldt of Java, who divided the island into four vertical botanical zones—a division which has generally been accepted by his successors, though, like all such divisions, it is subject to many modifications and exceptions. The forest, or hot zone, extends to a height of 2000 ft. above the sea; the second, that of moderate heat, has its upper limit at about 4500; the third, or cool, zone reaches 7500; and the fourth, or coldest, comprises all that lies beyond. The lowest zone has, of course, the most extensive area; the second is only a fiftieth and the third a five-thousandth of the first; and the fourth is an insignificant remainder. The lowest is the region of the true tropical forest, of rice-fields and sugar-plantations, of coconut palms, cotton, sesamum, cinnamon and tobacco (though this last has a wide altitudinal range). Many parts of the coast (especially on the north) are fringed with mangrove (*Rhizophora mucronata*), &c., and species of *Bruguiera*; the downs have their characteristic flora—convolvulus and *Spinifex squarrosus* catching the eye for very different reasons. Farther inland along the seaboard appear the nipa dwarf palm (*Nipa fruticans*), the *Alsbonia scholaris* (the wood of which is lighter than cork), Cycadacea, tree-ferns, screw pines (*Pandanus*), &c. In west Java the gebang palm (*Corypha gebanga*) grows in clumps and belts not far from but never quite close to the coast; and in east Java a similar position is occupied by the lontar (*Borassus flabeltiformis*), valuable for its timber, its sago and its sugar, and in former times for its leaves, which were used as a writing-material. The fresh-water lakes and ponds of this region are richly covered with Utricularia and various kinds of lotus (*Nymphaea lotus, N. stellata, Nelumbium speciosum*, &c.) interspersed with *Pista stratiotes* and other floating plants. Vast prairies are covered with the silvery alang-alang grass broken by bamboo thickets, clusters of trees and shrubs (*Butea frondosa, Emblica officinalis*, &c.) and islands of the taller erigedeh or glagah (*Saccharum spontaneum*). Alang-alang (*Imperata arundinacea*, Cyr. var. Bentham) grows from 1 to 4 ft. in height. It springs up wherever the ground is cleared of trees and is a perfect plague to the cultivator. It cannot hold its own, however, with the ananas, the kratok (*Phaseolus lunatus*) or the lantana; and, in the natural progress of events, the forest resumes its sway except where the natives encourage the young growth of the grass by annually setting the prairies on fire. The true forest, which occupies a great part of this region, changes its character as we proceed from west to east. In west Java it is a dense rain-forest in which the struggle of existence is maintained at high pressure by a host of lofty trees and parasitic plants in bewildering profusion. The preponderance of certain types is remarkable. Thus of the Moraceae there are in Java (and mostly here) seven genera with ninety-five species, eighty-three of which are *Ficus* (see S. H. Koorders and T. Valeton, "Boomsoorten op Java" in *Bijdr. Mede. Dep. Landbower* (1906). These include the so-called waringin, several kinds of figs planted as shade-trees in the parks of the nobles and officials. The Magnoliaceae and Anonaceae are both numerously represented. In middle Java the variety of trees is less, a large area being occupied by teak. In eastern Java the character of the forest is mainly determined by the abundance of the Casuarina or Chimoro (*C. montana* and *C. Junghuhniana*). Another species, *C. equiseti folia*, is planted in west Java as an ornamental tree. These trees are not crowded together and encumbered with the heavy parasitic growths of the rain-forest; but their tall stems are often covered with multitudes of small vermilion fungi. Wherever the local climate has sufficient humidity, the true rain-forest claims its own. The second of Junghuhn's zones is the region of, more especially, tea, cinchona and coffee plantations, of maize and the sugar palm (areng). In the forest the trees are richly clad with ferns and enormous fungi; there is a profusion of underwood (*Pavetta macrophylla Javanica* and *salicifolia*; several species of *Lasianthus, Boehmarias, Strobilanthus*, &c.), of woody lianas and ratans, of tree ferns (especially *Alsophila*). Between the bushes the ground is covered with ferns, lycopods, tradescantias, Bignoniaceae, species of *Aeschynanthus*. Of the lianas the largest is *Plectocomia elongata*; one specimen of which was found to have a length of nearly 790 ft. One of the fungi, *Telephora princeps*, is more than a yard in diameter. The trees are of different species from those of the hot zone even when belonging to the same genus; and new types appear mostly in limited areas. The third zone, which consists mainly of the upper slopes of volcanic mountains, but also comprises several plateaus (the Dieng, parts of the Tengger, the Ijen) is a region of clouds and mists. There are a considerable number of lakes and swamps in several parts of the region, and these have a luxuriant environment of grasses, Cyperaceae, Characeae and similar forms. The taller trees of the region—oaks, chestnuts, various Lauraceae, and four or five species of *Podocarpus*—with some striking exceptions, *Astronia spectabilis*, &c., are less floriferous than those of the lower zones; but the shrubs (*Rhododendron javanicum, Ardisia javanica*, &c.), herbs and parasites more than make up for this defect. There is little cultivation, except in the Tengger, where the natives grow maize, rye and tobacco, and various European vegetables (cabbage, potatoes, &c.), with which they supply the lowland markets. In western Java one of the most striking features of the upper parts of this temperate region is what Schimper calls the "absolute dominion of mosses," associated with the "elfin forest," as he quaintly calls it, a perfect tangle of "low, thick, oblique or even horizontal stems," almost choked to leaflessness by their grey and ghostly burden. Much of the lower vegetation begins to have a European aspect; violets, primulas, thalictrums, ranunculus, vacciniums, equisetums, rhododendrons (*Rhod. retusum*). The *Primula imperialis*, found only on the Pangerango, is a handsome species, prized by specialists. In the fourth or alpine zone occur such distinctly European forms as *Artemisia vulgaris, Plantago major, Solanum nigrum, Stellaria media*; and altogether the alpine flora contains representatives of no fewer than thirty-three families. A characteristic shrub is *Anaphalis javanica*, popularly called the Javanese edelweiss, which "often entirely excludes all other woody plants."[2] The tallest and noblest

[1] The *Annales de Buitenzorg*, with their *Icones bogorienses*, are universally known; the *Teysmannia* is named after a former director. A history of the gardens was published by Dr Treub, *Festboek van's Lands Plantentuin* (1891).

[2] Bertha Hoola van Nooten published *Fleurs, fruits et feuillages de la flore et de la pomone de l'île de Java* in 1863, but the book is difficult of access. Excellent views of characteristic aspects of the vegetation will be found in Karsten and Schenck, *Vegetationsbilder* (1903).

of all the trees in the island is the rasamala or liquid-ambar (*Altingia excelsa*), which, rising with a straight clean trunk, sometimes 6 ft. in diameter at the base, to a height of 100 to 130 ft., spreads out into a magnificent crown of branches and foliage. When by chance a climbing plant has joined partnership with it, the combination of blossoms at the top is one of the finest colour effects of the forest. The rasamala, however, occurs only in the Preanger and in the neighbouring parts of Bantam and Buitenzorg. Of the other trees that may be classified as timber—from 300 to 400 species—many attain noble proportions. It is sufficient to mention *Calophyllum inophyllum*, which forms fine woods in the south of Bantam, *Mimusops acuminata*, *Irna glabra*, *Dalbergia latifolia* (sun wood, English black-wood) in middle and east Java; the rare but splendid *Pithecolobium Junghuhnianum*; *Schima Noronhae*, *Bischofia javanica*, *Pterospermum javanicum* (greatly prized for ship-building), and the upas-tree. From the economic point of view all these hundreds of trees are of less importance than *Tectona grandis*, the jati or teak, which, almost to the exclusion of all others, occupies about a third of the government forest-lands. It grows best in middle and eastern Java, preferring the comparatively dry and hot climate of the plains and lower hills to a height of about 2000 ft. above the sea, and thriving best in more or less calciferous soils. In June it sheds its leaves and begins to bud again in October. Full-grown trees reach a height of 100 to 150 ft. In 1895 teak (with a very limited quantity of other timber) was felled to the value of about £101,800, and in 1904 the corresponding figure was about £119,935.

That an island which has for so long maintained a dense and growing population in its more cultivable regions should have such extensive tracts of primeval or quasi-primeval forest as have been above indicated would be matter of surprise to one who did not consider the simplicity of the life of the Javanese. They require but little fuel; and both their dwellings and their furniture are mostly constructed of bamboo supplemented with a palm or two. They destroy the forest mainly to get room for their rice-fields and pasture for their cattle. In doing this, however, they are often extremely reckless and wasteful; and if it had not been for the unusual humidity of the climate their annual fires would have resulted in widespread conflagrations. As it is, many mountains are now bare which within historic times were forested to the top; but the Dutch government has proved fully alive to the danger of denudation. The state has control of all the woods and forests of the island with the exception of those of the Preanger, the "particular lands," and Madura; and it has long been engaged in replanting with native trees and experimenting with aliens from other parts of the world—*Eucalyptus globulus*, the juar, *Cassia florida* from Sumatra, the surian (*Cedrela febrifuga*), &c. The greatest success has been with cinchona.

Left to itself Java would soon clothe itself again with even a richer natural vegetation than it had when it was first occupied by man. The open space left by the demolition of the fortifications on Nusa Kambangan was in twenty-eight years densely covered by thousands of shrubs and trees of about twenty varieties, many of the latter 80 ft. high. Resident Snijthoff succeeded about the close of the 19th century in re-afforesting a large part of Mount Muriâ by the simple expedient of protecting the territory he had to deal with from all encroachments by natives.[1]

Population.—The population of Java (including Madura, &c.) was 30,098,008 in 1905. In 1900 it was 28,746,688; in 1890, 23,912,564; and in 1880, 19,794,505. The natives consist of the Javanese proper, the Sundanese and the Madurese. All three belong to the Malay stock. Between Javanese and Sundanese the distinction is mainly due to the influence of the Hindus on the former and the absence of this on the latter. Between Javanese and Madurese the distinction is rather to be ascribed to difference of natural environment. The Sundanese have best retained the Malay type, both in physique and fashion of life. They occupy the west of the island. The Madurese area, besides the island of Madura and neighbouring isles, includes the eastern part of Java itself. The residencies of Tegal, Pekalongan, Banyumas, Bagelen, Kedu, Semarang, Japara, Surakarta, Jokjakarta, Rembang, Madiun, Kediri and Surabaya have an almost purely Javanese population. The Javanese are the most numerous and civilized of the three peoples.

The colour of the skin in all three cases presents various shades of yellowish-brown; and it is observed that, owing perhaps to the Hindu strain, the Javanese are generally darker than the Sundanese. The eyes are always brown or black, the hair of the head black, long, lank and coarse. Neither breast nor limbs are provided with hair, and there is hardly even the suggestion of a beard. In stature the Sundanese is less than the Javanese proper, being little over 5 ft. in average height, whereas the Javanese is nearly 5½ ft.; at the same time the Sundanese is more stoutly built. The Madurese is as tall as the Javanese, and as stout as the Sundanese. The eye is usually set straight in the head in the Javanese and Madurese; among the Sundanese it is often oblique. The nose is generally flat and small, with wide nostrils, although among the Javanese it not infrequently becomes aquiline. The lips are thick, yet well formed; the teeth are naturally white, but often filed and stained. The cheek-bones are well developed, more particularly with the Madurese. In expressiveness of countenance the Javanese and Madurese are far in advance of the Sundanese. The women are not so well made as the men, and among the lower classes especially soon grow absolutely ugly. In the eyes of the Javanese a golden yellow complexion is the perfection of female beauty. To judge by their early history, the Javanese must have been a warlike and vigorous people, but now they are peaceable, docile, sober, simple and industrious.

One million only out of the twenty-six millions of natives are concentrated in towns, a fact readily explained by their sources of livelihood. The great bulk of the population is distributed over the country in villages usually called by Europeans dessas, from the Low Javanese word *désâ* (High Javanese *dusun*). Every dessa, however small (and those containing from 100 to 1000 families are exceptionally large), forms an independent community; and no sooner does it attain to any considerable size than it sends off a score of families or so to form a new dessa. Each lies in the midst of its own area of cultivation. The general enceinte is formed by an impervious hedge of bamboos 40 to 70 ft. high. Within this lie the houses, each with its own enclosure, which, even when the fields are the communal property, belongs to the individual householder. The capital of a district is only a larger dessa, and that of a regency has the same general type, but includes several kampongs or villages. The bamboo houses in the strictly Javanese districts are always built on the ground; in the Sunda lands they are raised on piles. Some of the well-to-do, however, have stone houses. The principal article of food is rice; a considerable quantity of fish is eaten, but little meat. Family life is usually well ordered. The upper class practise polygamy, but among the common people a man has generally only one wife. The Javanese are nominally Mahommedans, as in former times they were Buddhists and Brahmins; but in reality, not only such exceptional groups as the Kalangs of Surakarta and Jokjakarta and the Baduwis or nomad tribes of Bantam, but the great mass of the people must be considered as believers rather in the primitive animism of their ancestors, for their belief in Islam is overlaid with superstition. As we ascend in the social scale, however, we find the name of Mahommedan more and more applicable; and consequently in spite of the paganism of the populace the influence of the Mahommedan "priests" (this is their official title in Dutch) is widespread and real. Great prestige attaches to the pilgrimage to Mecca, which was made by 5068 persons from Java in 1900. In every considerable town there is a mosque. Christian missionary work is not very widely spread.

Languages.—In spite of Sundanese, Madurese and the intrusive Malay, Javanese has a right to the name. It is a rich and cultivated language which has passed through many stages of development and, under peculiar influences, has become a linguistic complex of an almost unique kind. Though it is customary and convenient to distinguish New Javanese from Kavi or Old Javanese, just as it was customary to distinguish English from Anglo-Saxon, there is no break of historical continuity. Kavi (Basa Kavi, *i.e.* the language of poetry) may be defined as the form spoken and written before the founding of Majapahit; and middle Javanese, still represented by the dialect of Banyumas, north Cheribon, north Krawang and north Bantam, as the form the language assumed under the Majapahit court influence; while New Javanese is the language as it has developed since the fall of that kingdom. Kavi continued to be a literary language long after it had become archaic. It contains more Sanskrit than any other language of the archipelago. New Javanese breaks up into two great varieties, so different that sometimes they are regarded as two distinct languages. The nobility use one form, Krâmâ; the common people another, Ngoko, the "thouing" language (cf. Fr. *tutoyant*, Ger. *duzend*); but each class understands the language of the other class. The aristocrat speaks

[1] It is interesting to compare this with the natural "reflorization" of Krakatoa. See Penzig, *Ann. jard. de Buitenzorg*, vol. viii. (1902); and W. Botting in *Nature* (1903).

to the commonalty in the language of the commoner; the commoner speaks to the aristocracy in the language of the aristocrat; and, according to clearly recognized etiquette, every Javanese plays the part of aristocrat or commoner towards those whom he addresses. To speak Ngoko to a superior is to insult him; to speak Krâmâ to an equal or inferior is a mark of respect. In this way Dipa Negârâ showed his contempt for the Dutch General de Kock. The ordinary Javanese thinks in Ngoko; the children use it to each other, and so on. Between the two forms there is a kind of compromise, the Madya, or middle form of speech, employed by those who stand to each other on equal or friendly footing or by those who feel little constraint of etiquette. For every idea expressed in the language Krâmâ has one vocable, the Ngoko another, the two words being sometimes completely different and sometimes differing only in the termination, the beginning or the middle. Thus every Javanese uses, as it were, two or even three languages delicately differentiated from each other. How this state of affairs came about is matter of speculation. Almost certainly the existence side by side of two peoples, speaking each its own tongue, and occupying towards each other the position intellectually and politically of superior and inferior, had much to do with it. But Professor Kern thinks that some influence must also be assigned to *pamela* or *pantang*, word-taboo—certain words being in certain circumstances regarded as of evil omen—a superstition still lingering, *e.g.* even among the Shetland fishermen (see G. A. F. Hazeu, *De taal pantangs*). It has sometimes been asserted that Krâmâ contains more Sanskrit words than Ngoko does; but the total number in Krâmâ does not exceed 20; and sometimes there is a Sanskrit word in Ngoko which is not in Krâmâ. There is a village Krâmâ which is not recognized by the educated classes: Krâmâ inggil, with a vocabulary of about 300 words, is used in addressing the deity or persons of exalted rank. The Basa Kedaton or court language is a dialect used by all living at court except royalties, who use Ngoko. Among themselves the women of the court employ Krâmâ or Madya, but they address the men in Basa Kedaton.[1]

Literature.—Though a considerable body of Kavi literature is still extant, nothing like a history of it is possible. The date and authorship of most of the works are totally unknown. The first place may be assigned to the *Brata Yuda* (Sansk., *Bharata Yudha*, the conflict of the Bharatas), an epic poem dealing with the struggle between the Pandâwâs and the Koràwas for the throne of Ngastina celebrated in parwas 5–10 of the *Mahâbhârata*. To the conception, however, of the modern Javanese it is a purely native poem; its kings and heroes find their place in the native history and serve as ancestors to their noble families. (Cohen Stuart published the modern Javanese version with a Dutch translation and notes, *Brâtâ-Joedâ*, &c., Samarang, 1877. The Kavi text was lithographed at the Hague by S. Lankhout.) Of greater antiquity probably is the *Ardjunâ Wiwâhâ* (or marriage festival of Ardjuna), which Professor Kern thinks may be assigned to the first half of the 11th century of the Christian era. The name indicates its *Mahâbhârata* origin. (Friederich published the Kavi text from a Bali MS., and *Wiwâhâ Djarwa en Brâtâ Joedo Kawi*, lithographed facsimiles of two palm-leaf MSS., Batavia, 1878. Djarwa is the name of the poetic diction of modern Javanese.) The oldest poem of which any trace is preserved is probably the mythological *Kândâ* (*i.e.* tradition); the contents are to some extent known from the modern Javanese version. In the literature of modern Javanese there exists a great variety of so-called *babads* or chronicles. It is sufficient to mention the "history" of Baron Sakender, which appears to give an account—often hardly recognizable—of the settlement of Europeans in Java (Cohen Stuart published text and translation, Batavia, 1851; J. Veth gives an analysis of the contents), and the *Babad Tanah Djawi* (the Hague, 1874, 1877), giving the history of the island to 1647 of the Javanese era. Even more numerous are the *wayangs* or puppet-plays which usually take their subjects from the Hindu legends or from those relating to the kingdoms of Majapahit and Pajajaram (see *e.g.* H. C. Humme, *Abiâsâ, een Javaansche toneelstuk*, the Hague, 1878). In these plays grotesque figures of gilded leather are moved by the performer, who recites the appropriate speeches and, as occasion demands, plays the part of chorus.

Several Javanese specimens are also known of the beast fable, which plays so important a part in Sanskrit literature (W. Palmer van den Broek, *Javaansche Vertellingen, bevattende de lotgevallen van een kantjil, een reebok*, &c., the Hague, 1878). To the Hindu-Javanese literature there naturally succeeded a Mahommedan-Javanese literature consisting largely of translations or imitations of Arabic originals; it comprises religious romances, moral exhortations and mystical treatises in great variety.[2]

Arts.—In mechanic arts the Javanese are in advance of the other peoples of the archipelago. Of thirty different crafts practised among them, the most important are those of the blacksmith or cutler, the carpenter, the kris-sheath maker, the coppersmith, the goldsmith and the potter. Their skill in the working of the metals is the more noteworthy as they have to import the raw materials. The most esteemed product of the blacksmith's skill is the kris; every man and boy above the age of fourteen wears one at least as part of his ordinary dress, and men of rank two and sometimes four. In the finishing and adornment of the finer weapons no expense is spared; and ancient krises of good workmanship sometimes fetch enormous prices. The Javanese gold and silver work possesses considerable beauty, but there is nothing equal to the filigree of Sumatra; the brass musical instruments are of exceptional excellence. Both bricks and tiles are largely made, as well as a coarse unglazed pottery similar to that of Hindustan; but all the finer wares are imported from China. Cotton spinning, weaving and dyeing are carried on for the most part as purely domestic operations by the women. The usual mode of giving variety of colour is by weaving in stripes with a succession of different coloured yarns, but another mode is to cover with melted wax or damar the part of the cloth not intended to receive the dye. This process is naturally a slow one, and has to be repeated according to the number of colours required. As a consequence the *battiks*, as the cloths thus treated are called, are in request by the wealthier classes. For the most part quiet colours are preferred. To the Javanese of the present day the ancient buildings of the Hindu periods are the work of supernatural power. Except when employed by his European master he seldom builds anything more substantial than a bamboo or timber framework; but in the details of such erections he exhibits both skill and taste. When Europeans first came to the island they found native vessels of large size well entitled to the name of ships; and, though shipbuilding proper is now carried on only under the direction of Europeans, boat-building is a very extensive native industry along the whole of the north coast—the boats sometimes reaching a burden of 50 tons. The only one of the higher arts which the Javanese have carried to any degree of perfection is music; and in regard to the value of their efforts in this direction Europeans differ greatly. The orchestra (*gamelan*) consists of wind, string and percussion instruments, the latter being in preponderancy to the other two. (Details of the instruments will be found in Raffles' *Java*, and a description of a performance in the *Tour du monde*, 1880.)

Chief Towns and Places of Note.—The capital of Java and of the Dutch East India possessions is Batavia (*q.v.*), pop. 115,567. At Meester Cornelis (pop. 33,119), between 6 and 7 m. from Batavia on the railway to Buitenzorg, the battle was fought in 1811 which placed Java in the hands of the British. In the vicinity lies Depok, originally a Christian settlement of freed slaves, but now with about 3000 Mahommedan inhabitants and only 500 Christians. The other chief towns, from west to east through the island, are as follows: Serang (pop. 5600) bears the same relation to Bantam, about 6 m. distant, which New Batavia bears to Old Batavia, its slight elevation of 100 ft. above the sea making it fitter for European occupation. Anjer (Angerlor, Anger) lies 96 m. from Batavia by rail on the coast at the narrowest part of the Sunda Strait; formerly European vessels were wont to call there for fresh provisions and water. Pandeglang (pop. 3644), 787 ft. above sea-level, is known for its hot and cold sulphur springs. About 17 m. west of Batavia lies Tangerang (pop. 13,535), a busy place with about 2800 or 3000 Chinese among its inhabitants. Buitenzorg (*q.v.*) is the country-seat of the governor-general, and its botanic gardens are famous. Krawang, formerly chief town of the residency of that name—the least populous of all—has lost its importance since Purwakerta (pop. 6862) was made the administrative centre. At Wanyasa in the neighbourhood the first tea plantations were attempted on a large scale.

The Preanger regencies—Bandung, Chanjur, Sukabumi, Sumedang, Garut and Tasikmalaya—constitute the most important of all the residencies, though owing to their lack of harbour on the south and the intractable nature of much of their soil they have not shared in the prosperity enjoyed by many other parts of the island. Bandung, the chief town since 1864, lies 2300 ft. above sea-level, 109 m. south of Batavia by rail; it is a well-built and flourishing place (pop. 28,965; Europeans 1522, Chinese 2650) with a handsome resident's house (1867), a large mosque (1867), a school for the sons of native men of rank, the most important quinine factory in the island, and a race-course where in July a good opportunity is afforded of seeing both the life of fashionable and official Java and the customs and costumes of the common people. The district is famous for its waterfalls, one of the most remarkable of which is where the Chi Tarum rushes through a narrow gully to leap down from the Bandung plateau. In the neighbourhood is the great military camp of Chimahi. Chanjur, formerly the chief town, in spite of its loss of administrative position still has a population of 13,599. From Sukabumi (pop. 12,112; 569 Europeans), a pleasant health resort among the hills at an altitude of 1965 ft., tourists are accustomed to visit Wijnkoopers Bay for the sake of the picturesque shore scenery. Chichalengka became after 1870 one of the centres of the coffee industry. Sumedang has only 8013 inhabitants, having declined since the railway took away the highway traffic: it is exceeded both by Garut (10,647) and by Tasikmalaya (9196), but it is a beautiful place well known to sportsmen for its proximity to the Rancha Ekek swamp, where great snipe-shooting matches are

[1] See Walbreken, *De Taalsvorten in het Javaansh*; and G. A. Wilken, *Handboek voor de vergelijkende Volkenkunde van Nederlandsch Indie*, edited by C. M. Pleyte (1893).

[2] See Van den Berg's account of the MSS. of the Batavian Society (the Hague, 1877); and a series of papers by C. Poensen in *Meded. van wege het Ned. Zendelinggenootschap* (1880).

held every year. For natural beauty few parts of Java can compare with the plain of Tasikmalaya, itself remarkable, in a country of trees, for its magnificent avenues. N.E. of the Preanger lies the residency of Cheribon[1] (properly Chi Rebon, the shrimp river). The chief town (pop. 24,564) is one of the most important places on the north coast, though the unhealthiness of the site has caused Europeans to settle at Tangkil, 2 m. distant. The church (1842), the regent's residence, and the great prison are among the principal buildings; there are also extensive salt warehouses. The native part of the town is laid out more regularly than is usual, and the Chinese quarter (pop. 3352) has the finest Chinese temple in Java. The palaces of the old sultans of Cheribon are less extensive than those of Surakarta and Jokjakarta. Though the harbour has to be kept open by constant dredging the roadstead is good all the year round. A strange pleasure palace of Sultan Supeh, often described by travellers, lies about 2 m. off near Sunya Raja. Mundu, a village 4 m. south-east of Cheribon, is remarkable as the only spot on the north coast of the island visited by the ikan prut or belly-fish, a species about as large as a cod, caught in thousands and salted by the local fishermen. Indramayu, which lies on both banks of the Chi Manuk about 8 m. from the coast, is mentioned under the name of Dermayo as a port for the rice of the district and the coffee of the Preanger. The coffee trade is extinct but the rice trade is more flourishing than ever, and the town has 13,400 inhabitants, of whom 2200 are Chinese. It might have a great commercial future if money could be found for the works necessary to overcome the disadvantage of its position—the roads being safe only during the east monsoon and the river requiring to be deepened and regulated. Tegal has long been one of the chief towns of Java: commerce, native trade and industry, and fisheries are all well represented and the sugar factories give abundant employment to the inhabitants. The harbour has been the object of various improvements since 1871. The whole district is densely populated (3100 to the sq. m.) and the town proper with its 16,665 inhabitants is surrounded by extensive kampongs (Balapulang, Lebaksiu, &c.). In Pekalongan (pop. 38,211) and Batang (21,286) the most important industry is the production of battiks and stamped cloths; there are also iron-works and sugar factories. The two towns are only some 5 m. apart. The former has a large mosque, a Protestant church, an old fort and a large number of European houses. The Chinese quarters consist of neat stone or brick buildings. Pekalongan smoked ducks are well known. Brebes (13,474) on the Pamali is an important trade centre. Banyumas (5000) is the seat of a resident; it is exceeded by Purwokerto (12,610), Purbalinggo (12,094) and Chilachap (12,000). This last possesses the best harbour on the south coast, and but for malaria would have been an important place. It was chosen as the seat of a great military establishment but had to be abandoned, the fort being blown up in 1893. Semarang (pop. 89,286, of whom 4800 are Europeans and 12,372 Chinese) lies on the Kali Ngaran near the centre of the north coast. Up to 1824 the old European town was surrounded by a wall and ditch. It was almost the exact reproduction of a Dutch town without the slightest accommodation to the exigencies of the climate, the streets narrow and irregular. The modern town is well laid out. Among the more noteworthy buildings of Semarang are the old Prince of Orange fort, the resident's house, the Roman Catholic church, the Protestant church, the mosque, the military hospital. A new impulse to the growth of the town was given by the opening of the railway to Surakarta and Jokjakarta in 1875. As a seaport the place is unfortunately situated. The river has long been silted up; the roadstead is insecure in the west monsoon. After many delays an artificial canal, begun in 1858, became available as a substitute for the river; but further works are necessary. A second great canal to the east, begun in 1896, helps to prevent inundations and thus improve the healthiness of the town. Demak, 13 m. N.E. of Semarang, though situated in a wretched region of swamps and having only 5000 inhabitants, is famous in ancient Javanese history. The mosque, erected by the first sultan of Demak, was rebuilt in 1845; only a small part of the old structure has been preserved, but as a sanctuary it attracts 6000 or 7000 pilgrims annually. To visit Demak seven times has the same ceremonial value as the pilgrimage to Mecca. The tombs of several of the sultans are still extant. Salatiga ("three stones," with allusion to three temples now destroyed) was in early times one of the resting places of ambassadors proceeding to the court of Mataram, and in the European history of Java its name is associated with the peace of 1755 and the capitulation of 1811. It is the seat of a cavalry and artillery camp. Its population, about 10,000, seems to be declining. Ambarawa with its railway station is, on the other hand, rapidly increasing. Its population of 14,745 includes 459 Europeans. About a mile to the N. lies the fortress of Willem I. which Van den Bosch meant to make the centre of the Javanese system of defensive works; the Banyubiru military camp is in the neighbourhood. Kendal (15,000) is a centre of the sugar industry. Kudus (31,000; 4300 Chinese) has grown to be one of the most important inland towns. Its cloth and battik pedlars are known throughout the island and the success of their enterprise is evident in the style of their houses. A good trade is also carried on in cattle, kapok, copra, pottery and all sorts of small wares. The mosque in the old town has interesting remains of Majapahit architecture; and the tomb of Pangeran Kudus is a noted Mahommedan sanctuary. A steam tramway leads northward towards, but does not reach, Japara, which in the 17th century was the chief port of the kingdom of Mataram and retained its commercial importance till the Dutch Company removed its establishment to Semarang. In 1818 Daendels transferred its resident to Pati. Ungaran, 1026 ft. above the sea, was a place of importance as early as the 17th century, and in modern times has become known as a sanatorium. Rembang, a well-built coast town and the seat of a resident, has grown rapidly to have a population of 29,538 with 210 Europeans. Very similar to each other are Surakarta or Solo and Jokjakarta, the chief towns of the quasi-independent states or Vorstenlanden. Surakarta (pop. 109,459; Chinese 5159, Europeans 1913) contains the palace (Kraton, locally called the Bata bumi) of the susuhunan (which the Dutch translated as emperor), the dalem of Prince Mangku Negårå, the residences of the Solo nobles, a small Dutch fort (Vastenburg), a great mosque, an old Dutch settlement, and a Protestant church. Here the susuhunan lives in Oriental pomp and state. To visitors there are few more interesting entertainments than those afforded by the celebration of the 31st of August (the birthday of the queen of the Netherlands) or of the New Year and the Puasa festivals, with their wayungs, ballet-dancers, and so on. Jokjakarta (35 m. S.) has been a great city since Mangku Bumi settled there in 1755. The Kraton has a circuit of 3½ m., and is a little town in itself with the palace proper, the residences of the ladies of the court and kampongs for the hereditary smiths, carpenters, sculptors, masons, payong-makers, musical instrument makers, &c., &c., of his highness. The independent Prince Paku Alam has a palace of his own. As in Surakarta there are an old Dutch town and a fort. The Jogka market is one of the most important of all Java, especially for jewelry. The total population is 72,235 with 1424 Europeans. To the south-east lies Pasar Gedeh, a former capital of Mataram, with tombs of the ancient princes in the Kraton, a favourite residence of wealthy Javanese traders. Surabaya (*q.v.*), on the strait of Madura, is the largest commercial town in Java. Its population increased from 118,000 in 1890 to 146,944 in 1900 (8906 Europeans). To the north lies Grissee or Gresih (25,688 inhabitants) with a fairly good harbour and of special interest in the early European history of Java. Inland is the considerable town of Lamongan (12,485 inhabitants). Fifteen m. S. by rail lies Sidoarjo (10,207; 185 Europeans), the centre of one of the most densely populated districts and important as a railway junction. In the neighbourhood is the populous village of Mojosari. Pasuruan was until modern times one of the chief commercial towns in Java, the staple being sugar. Since the opening of the railway to Surabaya it has greatly declined, and its warehouses and dwelling-houses are largely deserted. The population is 27,152 with 663 Europeans. Probolinggo (called by the natives Banger) is a place of 13,240 inhabitants. The swampy tracts in the vicinity are full of fishponds. The baths of Banyubiru (blue water) to the south have Hindu remains much visited by devotees. Pasirian in the far south of the residency is a considerable market town and the terminus of a branch railway. Besuki, the easternmost of all the residencies, contains several places of some importance; the chief town Bondowoso (8289.); Besuki, about the same size, but with no foreign trade; Jember, a small but rapidly increasing place, and Banyuwangi (17,559). This last was at one time the seat of the resident, now the eastern terminus of the railway system, and is a seaport on the Bali Strait with an important office of the telegraph company controlling communication with Port Darwin and Singapore. It has a very mingled population, besides Javanese and Madurese, Chinese and Arabs, Balinese, Buginese and Europeans. The chief town of Kediri (10,489) is the only residency town in the interior traversed by a navigable river, and is exceeded by Tulungagung; and the residency of Madiun has two considerable centres of population: Madiun (21,168) and Ponorogo (16,765).

Agriculture.—About 40% of the soil of Java is under cultivation. Bantam and Besuki have each 16% of land under cultivation; Krawang, 21%; Preanger, 23%; Rembang, 30%; Japara, 62%; Surabaya, 65%; Kedu, 66%; Samarang, 67%. Proceeding along the south coast from its west end, we find that in Bantam all the land cultivated on its south shore amounts to at most but 5% of that regency; in Preanger and Banyumas, as far as Chilachap, the land under cultivation amounts at a maximum to 20%. East of Surakarta the percentages of land on the south coast under cultivation decline from 30 to 20 and 10. East of the residency of Probolinggo the percentage of land cultivated on the south coast sinks to as low as 2. On the north coast, in Krawang and Rembang, with their morasses and double chains of chalk, there are districts with only 20% and 10% of the soil under cultivation. In the residencies, on the other hand, of Batavia, Cheribon, Tegal, Samarang, Japara, Surabaya and Pasuruan, there are districts having 80% to 90% of soil, and even more, under cultivation.

The agricultural products of Java must be distinguished into those raised by the natives for their own use and those raised for the government and private proprietors. The land assigned to the

[1] Cheribon is the form employed by the Dutch: an exception to their usual system, in which Tj- takes the place of the Ch- used in this article.

natives for their own culture and use amounts to about 9,625,000 acres. In western Java the prevailing crop is rice, less prominently cultivated in middle Java, while in eastern Java and Madura other articles of food take the first rank. The Javanese tell strange legends concerning the introduction of rice, and observe various ceremonies in connexion with its planting, paying more regard to them than to the proper cultivation of the cereal. The agricultural produce grown on the lands of the government and private proprietors, comprising an area of about 3½ million acres, consists of sugar, cinchona, coffee, tobacco, tea, indigo, &c. The Javanese possess buffaloes, ordinary cattle, horses, dogs and cats. The buffalo was probably introduced by the Hindus. As in agricultural products, so also in cattle-rearing, western Java is distinguished from middle and eastern Java. The average distribution of buffaloes is 106 per 1000 inhabitants, but it varies considerably in different districts, being greatest in western Java. The fact that rice is the prevailing culture in the west, while in eastern Java other plants constitute the chief produce, explains the larger number of buffaloes found in western Java, these animals being more in requisition in the culture of rice. The ordinary cattle are of mixed race; the Indian zebu having been crossed with the banting and with European cattle of miscellaneous origin. The horses, though small, are of excellent character, and their masters, according to their own ideas, are extremely particular in regard to purity of race. Riding comes naturally to the Javanese; horse-races and tournays have been in vogue among them from early times.

Coffee is an alien in Java. Specimens brought in 1696 from Cannanore on the Malabar coast perished in an earthquake and floods in 1699; the effective introduction of the precious shrub was due to Hendrik Zwaardekron (see N. P. van den Berg, "Voortbrenging en verbruck van koffie," *Tijdschrift v. Nijverh. en Landb.* 1879; and the article "Koffie" in *Encyc. Ned. Ind.* Wiji kawih is mentioned in a Kavi inscription of A.D. 856, and the bean-broth in David Tappen's list of Javanese beverages, 1667–1682, may have been coffee). The first consignment of coffee (894 lb) to the Netherlands was made in 1711–1712, but it was not till after 1721 that the yearly exports reached any considerable amount. The aggregate quantity sold in the home market from 1711 to 1791 was 2,036,437 piculs, or on an average about 143 tons per annum; and this probably represented nearly the whole production of the island. By the beginning of the 19th century the annual production was about 7143 tons and after the introduction of the Van den Bosch system of forced culture a further augmentation was effected. The forced culture system was, in 1909, however, of little importance. Official reports show that from 1840 to 1873 the amount ranged from 5226 tons to 7354. During the ten years 1869 to 1878 the average crop of the plantations under state control was 5226 tons, that of the private planters about 810. The government has shown a strange reluctance to surrender the old-fashioned monopoly, but the spirit of private enterprise has slowly gained the day. Though the appearance of the coffee blight (*Hemileia vastatrix*) almost ruined the industry the planters did not give in. An immune variety was introduced from Liberia, and scientific methods of treatment have been adopted in dealing with the plantations. In 1887, a record year, the value of the coffee crop reached £3,083,333, and at its average it was about £1,750,000 between 1886 and 1895. The value was only £1,166,666 in 1896. The greatest difficulties are the uncertainties both of the crop and of its marketable value. The former is well shown in the figures for 1903 to 1905; government 17,900, 3949 and 3511 tons, and private planters 22,395, 15,311 and 21,395 tons. Liberia coffee is still produced in much smaller quantity than Java coffee; the latter on an average of these three years 21,360 tons; the former 7409.

The cultivation of sugar has been long carried on in Java, and since the decline of the coffee plantations it has developed into the leading industry of the island. There are experimental stations at Pasuruan, Pekalongan and elsewhere, where attempts are made to overcome the many diseases to which the cane is subject. Many of the mills are equipped with high-class machinery and produce sugar of excellent colour and grain. In 1853–1857 the average crop was 98,094 tons; in 1869–1873, 170,831, and in 1875–1880, 204,678. By 1899–1900 the average had risen to 787,673 tons; and the crops for 1904 and 1905 were respectively 1,064,935 and 1,028,357 tons. Prices fluctuate, but the value of the harvest of 1905 was estimated at about £15,000,000.

The cultivation of indigo shows a strange vitality. Under the culture system the natives found this the most oppressive of all the state crops. The modern chemist at one time seemed to have killed the industry by his synthetic substitute, but in every year between 1899 and 1904 Java exported between one million and one and a half million pounds of the natural product. Japan and Russia were the largest buyers. As blue is a favourite colour with the Javanese proper a large quantity is used at home.

Tea was first introduced to Java by the Japanese scholar von Siebold in 1826. The culture was undertaken by the state in 1829 with plants from China, but in 1842 they handed it over to contractors, whose attempts to increase their profits by delivering an inferior article ultimately led to the abandonment of the contract system in 1860. In the meantime the basis of a better state of the industry had been laid by the Dutch tea-taster J. J. L. L. Jacobsen of the Nederlandsch Handel Maatschappij, who introduced not only fresh stock, but expert growers from China in 1852–1853. The tea-planters (often taking possession of the abandoned coffee-plantations) have greatly improved the quality of their products. Assam tea was introduced in 1878, and this has rapidly extended its area. The exports increased from 12,110,724 lb in 1898 to 25,772,564 in 1905. More than half the total goes to the Netherlands; the United Kingdom ranks next, and, far behind both, Russia.

In 1854 the government introduced the culture of cinchona with free labour, and it had considerable success under F. Junghuhn and his successors, though the varieties grown were of inferior quality. Later seed of the best cinchona was obtained, and under skilful management Java has become the chief producer of quinine in the world. Cacao is produced in the Preanger regencies, Pekalongan, Semarang, Pasuruan, Besuki, Kediri and Surakarta. In 1903, a record year, 1,101,835 piculs (about 6540 tons) were produced. *Broussonetia papyrifera* is grown for the sake of its bark, so well known in Japan (Jap. *kodsu*) as a paper material. The ground-nut (the widely spread *Arachis hypogaea* from South America), locally known as kachang china or tanah, is somewhat extensively grown. The oil is exported to Holland, where it is sold as Delft salad oil. Tapioca has long been cultivated, especially in the Preanger. The industry is mainly in the hands of the Chinese, and the principal foreign purchasers are English biscuit manufacturers. The kapok is a tree from tropical America which, growing freely in any soil, is extensively used throughout Java along the highways as a support for telegraph and telephone wires, and planted as a prop in pepper and cubeb plantations. The silky fibre contained in its long capsuloid fruits is known as cotton wool; and among other uses it serves almost as well as cork for filling life-belts; and the oil from its seed is employed to adulterate ground-nut oil. The quantity of wool exported nearly trebled between 1890 and 1896, in the latter year the total sent to Holland, Australia, Singapore, &c., amounting to 38,586 bales. The rapid exhaustion of the natural supply of india-rubber and gutta-percha began to attract the attention of government in the latter decades of the 19th century. Extensive experiments have been made in the cultivation of *Ficus elastica* (the karet of the natives), *Castilloa elastica*, and *Hevea brasiliensis*. The planting of gutta-percha trees was begun about 1886, and a regular system introduced in the Preanger in 1901. The *Palaquium oblongifolium* plantations at Blavan, Kemutuk and Sewang in Banyumas have also been brought under official control. Java tobacco, amounting to about 35,200,000 lb a year, is cultivated almost exclusively in eastern Java. Among other products which are of some importance as articles of export may be mentioned nutmegs, mace, pepper, hides, arrack and copra.

Particular Lands.—At different times down to 1830 the government disposed of its lands in full property to individuals who, acquiring complete control of the inhabitants as well as of the soil, continued down to the 19th century to act as if they were independent of all superior authority. In this way more than 1½ millions of the people were subject not to the state but to "stock companies, absentee landlords and Chinese." According to the *Regeerings Almanak* (1906) these "particular lands," as they are called, were distributed as follows: Bantam 21, Batavia 36, Meester Cornelis 163, Tangerang 80, Buitenzorg 61, Semarang 32, Surabaya 46, Krawang and Demak 3 each, Cheribon 2, and Pekalongan, Kendal and Pasuruan 1 each. In Meester Cornelis no fewer than 297,912 persons were returned in 1905 as living on these lands. Of the 168 estates there are not 20 that grow anything but grass, rice and cocoanuts. In Buitenzorg (thanks probably to the Botanic Gardens) matters are better: tea, coffee, cinchona and india-rubber appearing amongst the objects of cultivation; and, in general, it must be noted that these estates have often natural difficulties to contend against far beyond their financial strength.

Minerals.—Of all the great islands of the archipelago Java is the poorest in metallic ores. Gold and silver are practically non-existent. Manganese is found in Jokjakarta and various other parts. A concession for working the magnetic iron sands in the neighbourhood of Chilachap was granted in 1904. Coal occurs in thin strata and small pockets in many parts (Bantam, Rembang, Jokjakarta, &c.); and in 1905 a concession was granted to a company to work the coal-beds at Bajah close to the harbour of Wijnkoopers Bay, a port of call of the Koninklijk Paketvaart Maatschappij. The discovery by De Groot in 1863 of petroleum added a most important industry to the list of the resources of Java. The great Dort Petroleum Company, now centred at Amsterdam, was founded in 1887. The production of this company alone rose from 79,179 *kisten* or cases (each 8·14 gall.) in 1891 to 1,642,780 in 1890, and to 1,967,124 in 1905. In 1904 there were no fewer than 36 concessions for petroleum. At the same time there is a larger importation of oil from Sumatra as well as from America and Russia. Sulphur is regularly worked in the Gunong Slamet, G. Sindoro, G. Sumbing, and in the crater of the Tangkuban Prahu as well as in other places in the Preanger regencies and in Pasuruan. Brine-wells exist in various parts. The bledegs (salt-mud wells) of Grobogan in the Solo Valley, Semarang, are best known. They rise from Miocene strata and yield iodine and bromine products as well as common salt. The natives of the district are allowed to extract the salt for their own use, but elsewhere (except in Jokjakarta) the manufacture

of salt is a government monopoly and confined to the districts of Sumenep, Panekasan and Sampang in Madura, where from 3000 to 4000 people are hereditarily engaged in extracting salt from sea water, delivering it to the government at the rate of 10 fl. (nearly 17s.) per koyang (3700 lb). The distribution of this salt (rough-grained, greyish and highly hygroscopic) is extremely unsatisfactory. The waste was so great that in 1901 the government paid a prize of about £835 (10,000 fl.) to Karl Boltz von Bolzberg for an improved method of packing. Between 1888 and 1892 the annual amount delivered was 71,405 tons; in the next five years it rose to 89,932; and between 1898 and 1902 sank again to 88,856. The evil effects of this monopoly have been investigated by J. E. de Meyer, "Zout als middel van belasting," *De Ind. Gids.* (1905). The scarcity of salt has led to a great importation of salted fish from Siam (upwards of 6600 tons in 1902).

Communications.—Roads and railways for the most part follow the fertile plains and table-lands along the coast and between the volcanic areas. The principal railways are the Semarang-Jokjakarta and Batavia-Buitenzorg lines of the Netherlands-Indian railway company, and the Surabaya-Pasuruan, Bangil-Mulang, Sidoarjo-Paron, Kertosono-Tulung Agung, Buitenzorg-Chianjur, Surakarta-Madiun, Pasuruan-Probolinggo, Jokjakarta-Chilachap and other lines of the government. The earliest lines, between Batavia and Buitenzorg and between Semarang and the capitals of the sultanates, were built about 1870 by a private company with a state guarantee. Since 1875, when Dr van Goltstein, then a cabinet minister and afterwards Dutch minister in London, had an act passed for the construction of state railways in Java, their progress has become much more rapid. In addition, several private companies have built either light railways or tramways, such as that between Semarang and Joana, and the total length of all lines was 2460 in 1905. There are some 3500 miles of telegraph line, and cables connect Java with Madura, Bali and Sumatra, and Port Darwin in Australia. Material welfare was promoted by the establishment of lines of steamships between Java and the other islands, all belonging to a Royal Packet Company, established in 1888 under a special statute, and virtually possessing a monopoly on account of the government mail contracts.

Administration.—Each village (dessa) forms an independent community, a group of dessas forms a district, a group of districts a department and a group of departments a residency, of which there are seventeen. At the head of each residency is a resident, with an assistant resident and a controller, all Dutch officials. The officials of the departments and districts are natives appointed by the government; those of the dessa are also natives, elected by the inhabitants and approved by the resident. In the two sultanates of Surakarta and Jokjakarta the native sultans govern under the supervision of the residents. (For the colonial administration of Netherlands India see MALAY ARCHIPELAGO.)

History.—The origin of the name Java is very doubtful. It is not improbable that it was first applied either to Sumatra or to what was known of the Indian Archipelago—the insular character of the several parts not being at once recognized. Jawa Dwipa, or "land of millet," may have been the original form and have given rise both to the Jaba diu of Ptolemy and to the Je-pho-thi of Fahien, the Chinese pilgrim of the 4th–5th century. The oldest form of the name in Arabic is apparently Zábej. The first epigraphic occurrence of Jawa is in an inscription of 1343. In Marco Polo the name is the common appellation of all the Sunda islands. The Jawa of Ibn Batuta is Sumatra; Java is his Mul Jáwa (*i.e.* possibly "original Java"). Jáwá is the modern Javanese name (in the court speech Jawi), sometimes with Nusa, "island," or Tanah, "country," prefixed.

It is impossible to extract a rational historical narrative from the earlier *babads* or native chronicles, and even the later are destitute of any satisfactory chronology. The first great era in the history is the ascendancy of the Hindus, and that breaks up into three periods—a period of Buddhism, a period of aggressive Sivaism, and a period of apparent compromise. Of the various Hindu states that were established in the island, that of Majapahit was the most widely dominant down to the end of the 15th century; its tributaries were many, and it even extended its sway into other parts of the archipelago. The second era of Javanese history is the invasion of Islam in the beginning of the 15th century; and the third is the establishment of European and more particularly of Dutch influence and authority in the island. About 1520 the Portuguese entered into commercial relationship with the natives, but at the close of the same century the Dutch began to establish themselves. At the time when the Dutch East India company began to fix its trading factories on the coast towns, the chief native state was Mataram, which had in the 16th century succeeded to the overlordship possessed by the house of Demak—one of the states that rose after the fall of Majapahit. The emperors of Java, as the princes of Mataram are called in the early accounts, had their capital at Kartasura, now an almost deserted place, 6 m. west of Surakarta. At first and for long the company had only forts and little fragments of territory at Jakatra (Batavia), &c.; but in 1705 it obtained definite possession of the Preanger by treaty with Mataram; and in 1745 its authority was extended over the whole north-east coast, from Cheribon to Banyuwangi. In 1755 the kingdom of Mataram was divided into the two states of Surakarta and Jokjakarta, which still retain a shadow of independence. The kingdom of Bantam was finally subjugated in 1808. By the English occupation of the island (1811–1818) the European ascendancy was rather strengthened than weakened; the great Java war (1825–1830), in which Dipå Negårå, the last Javanese prince, a clever, bold and unscrupulous leader, struggled to maintain his claim to the whole island, resulted in the complete success of the Dutch. To subdue him and his following, however, taxed all the resources of the Dutch Indian army for a period of five years, and cost it the loss of 15,000 officers and soldiers, besides millions of guilders. Nor did his great influence die with him when his adventurous career came to a close in 1855 at Macassar. Many Javanese, who dream of a restoration of their ancient empire, do not believe even yet that Dipå Negårå is dead. They are readily persuaded by fanatical hadjis that their hero will suddenly appear to drive away the Dutch and claim his rightful heritage. Several times there have been political troubles in the native states of central Java, in which Dipå Negårå's name was used, notably in 1883, when many rebellious chieftains were exiled. Similar attempts at revolt had been made before, mainly in 1865 and 1870, but none so serious perhaps as that in 1849, in which a son and a brother of Dipå Negårå were implicated, aiming to deliver and reinstate him. All such attempts proved as futile there as others in different parts of Java, especially in Bantam, where the trouble of 1850 and 1888 had a religious origin, and in the end they directly contributed to the consolidation of Dutch sway. Being the principal Dutch colony in the Malay Archipelago, Java was the first to benefit from the material change which resulted from the introduction of the Grondwet or Fundamental Law of 1848 in Holland. The main changes were of an economical character, but the political developments were also important. Since 1850 Dutch authority has steadily advanced, principally at the expense of the semi-independent sultanates in central Java, which had been allowed to remain after the capture and exile of Dipå Negårå. The power of the sultans of Jokjakarta and Surakarta has diminished; in 1863 Dutch authority was strengthened in the neighbouring island of Madura, and Bantam has lost every vestige of independence. The strengthening of the Dutch power has largely resulted from a more statesmanlike and more generous treatment of the natives, who have been educated to regard the *orang blanda*, or white man, as their protector against the native rulers. Thus, in 1866, passports for natives travelling in Java were abolished by the then governor-general, Dr Sloet van de Beele, who also introduced many reforms, reducing the *corvée* in the government plantations to a minimum, and doing away with the monopoly of fisheries. Six years later a primary education system for the natives, and a penal code, whose liberal provisions seemed framed for Europeans, were introduced.

Antiquities.—Ordinary traces of early human occupation are few in Java. The native bamboo buildings speedily perish. Stone weapons are occasionally found. But remains of the temples and monastic buildings of the Hindu period are numerous and splendid, and are remarkable as representing architecture which reached a high standard without the use of mortar, supporting columns or arches. Chandis (*i.e.* temples, though the word originally meant a depository for the ashes of a saint) are not found in western Java. They exist in two great zones: one in middle Java, one in eastern Java, each with its own distinguishing characteristics, both architectural and religious. The former begins in the Dyeng plateau, in the east of Banyumas, and extends into the east of Bagelen, Kedu and the neighbouring districts of Semarang, northern Jokjakarta, and the western corner of Surakarta. The latter lies mainly in Surabaya, Kediri and Pasuruan. A considerable number of

ruins also exist in Probolinggo. Farther east they grow scarce. There is none in Madura. The remains of Macham Putih in Banyuwangi are possibly of non-Hindu origin. In the regency of Kendal (Semarang), to the north of Kedu, the place-names show that temples once existed.[1] Some of them are Sivaite, some Buddhist, some astoundingly composite. None of the Buddhist buildings shows traces of the older Himaryana form of the creed. The greatest of all is a perfect sculptural exposition of the Mahayana doctrine. As to the period during which these temples were erected, authorities are not agreed. Ijzerman assigns the central Java groups to between the 8th and the 10th centuries. The seven-storeyed vihara (monastery) mentioned in the famous Menang-Kabu inscription (Sumatra) as founded by Maharaja Dhiraya Adityadharma in A.D. 656 is by some supposed to be Boro-Budur. A copper plate of 840 refers to Dyeng (Dehyang) as one of the sacred mountains of Java. One thing seems certain, that the temples of the eastern zone are of much more recent origin than most, at least, of the central zone. They are generally distinguished by the characteristics of a decadent and more voluptuous age, and show that the art of the time had become less Indian and more Javanese, with traces of influences derived from the more eastern East. At the same time it must be noted that even in Boro Budur there are non-Indian elements in the decoration, indicating that the Hindu architect employed native artists and to some extent left them a free hand.

In his standard work on *Indian and Eastern Architecture* (London, 1876), James Fergusson asserted that the Javanese temples are in the Chalukyan style. But J. W. Ijzerman in an elaborate paper in the *Album-Kern* contends that the learned historian of architecture was misled by basing his opinion mainly on inaccurate drawings reproduced by Raffles. The Javanese temples, with the solitary exception of Chandi Bima in the Dyeng, are Dravidian and not Chalukyan. The very temples quoted by Fergusson, when more carefully examined, disprove his statement: a fact not without its bearing on the history of the Hindu immigration.

The wonderful scenery of the Dyeng plateau was already, in all probability, an object of superstitious awe to the aboriginal inhabitants of Java; and thus it would catch the attention of the earliest Hindu settlers. The old crater floor is full of traces of human occupation; though, in spite of the tradition of the existence of a considerable town, no sepulchral relics of the inhabitants have been discovered. There still remain five groups of temples—some well preserved, some mere heaps of stone—to prove the devotion their builders bore to Siva, his consort Durga, and Ganesha their son. The Arjuno group, in the middle of the plateau, consists of Chandi Arjuno (with its chapel or priests' residence, Ch. Semar), Ch. Srikahdi, Ch. Puntadeva and Ch. Sembadro, each a simple square chamber with a portico reached by a flight of steps. The second group, Ch. Daravati and Ch. Parakesit, lies to the north-east. The third, now a ruined mound, lies to the east. The fourth, to the north-west, is a group of seven small temples of which Ch. Sanchaki is the most important, with a square ground plan and an octagon roof with a second circular storey. Of the fifth group, in the south, only one temple remains—the Chandi Bima—a small, beautiful and exceptionally interesting building, in "the form of a pyramid, the ribs of which stand out much more prominently than the horizontal lines of the niche-shaped ornaments which rest each on its lotus cushion." How this happens to be the one Chalukyan temple amid hundreds is a problem to be solved. The plateau lies 6500 ft. above the sea, and roads and stairways, locally known as Buddha roads, lead up from the lowlands of Bagelen and Pekalongan. The stairway between Lake Menjur and Lake Chebong alone consisted of 4700 steps. The width of the roadway, however, is only some three or four feet. A remarkable subterranean tunnel still exists, which served to drain the plateau.

Of all the Hindu temples of Java the largest and most magnificent is Boro-Budur, which ranks among the architectural marvels of the world. It lies in the residency of Kedu, a little to the west of the Progo, a considerable stream flowing south to the Indian Ocean. The place is best reached by taking the steam-tram from Magelang or Jokjakarta to the village of Muntilam Passar, where a conveyance may be hired. Strictly speaking, Boro-Budur is not a temple but a hill, rising about 150 ft. above the plain, encased with imposing terraces constructed of hewn lava-blocks and crowded with sculptures. The lowest terrace now above ground forms a square, each side 497 ft. long. About 50 ft. higher there is another terrace of similar shape. Then follow four other terraces of more irregular contour. The structure is crowned by a dome or cupola 52 ft. in diameter surrounded by sixteen smaller bell-shaped cupolas. Regarded as a whole, the main design, to quote Mr Sewell, may be described as "an archaic Indian temple, considerably flattened and consisting of a series of terraces, surmounted by a quasi-stupa capped by a dagoba." It was discovered by the engineer J. W. Ijzerman in 1885 that the basement of the structure had been earthed up before the building was finished, and that the lowest retaining wall was completely concealed by the embankment. The architects had evidently found that their temple was threatened with a destructive subsidence; and, while the sculptors were still busy with the decoration of the lower façades, they had to abandon their work. But the unfinished bas-reliefs were carefully protected by clay and blocks of stone and left in position; and since 1896 they are gradually but systematically being exhumed and photographed by the Dutch archaeologists, who, however, have to proceed with caution, filling up one portion of the embankment before they go on to deal with another. The subjects treated in this lowest enceinte are of the most varied description, forming a picture-gallery of landscapes, scenes of outdoor and domestic life, mingled with mythological and religious designs. Among the genre class appear men shooting birds with blow-pipe or bow and arrow, fishermen with rod or net, a man playing a bagpipe, and so on. It would seem as if the architect had intended gradually to wean the devotees from the things of this world. When once they began to ascend from stage to stage of the temple-hill they were introduced to the realities of religion; and, by the time they reached the dagoba they had passed through a process of instruction and were ready, with enlightened eyes, to enter and behold the image of Buddha, symbolically left imperfect, as beyond the power of human art to realize or portray. From basement to summit the whole hill is a great picture bible of the Mahayana creed.

If the statues and bas-reliefs of Boro-Budur were placed side by side they would extend for 3 m. The eye of the spectator, looking up from the present ground-level, is caught, says Mr Sewell, by the rows of life-size Buddhas that adorn the retaining walls of the several terraces and the cage-like shrines on the circular platforms. All the great figures on the east side represent Akshobhya, the Dhyani Buddha of the East. His right hand is in the Chumis-parsa mudra (pose) touching the earth in front of the right knee—"I swear by the earth." All the statues on the south side are Ratnasam Chavu in the varada mudra—the right hand displayed upwards—"I give you all." On the west side the statues represent Amitabha in the dhyana or padinasama mudra, the right hand resting palm upwards on the left, both being on the lap—the attitude of meditation. Those on the north represent Amogasiddhi in the abhaya mudra, the right hand being raised and displayed, palm outwards—"Fear not, all is well."

Other remarkable groups of Hindu temples exist near the village of Prambanan[2] (less correctly Brambanan) in Surakarta, but not far from the borders of Jokjakarta, with a station on the railway between the two chief towns. The village has been named after the temples, Prambanan signifying the place of teachers. The whole ecclesiastical settlement was surrounded by three lines of wall, of which only the inmost is now visible above ground. Between the second and third walls are 157 small temples, and in the central enclosure are the ruins of six larger temples in a double row with two smaller ones at the side. The middle temple of the western row is the main building, full of statues of purely Sivaite character—Siva as Guru or teacher, Siva as Kala or Time the Destroyer, Durga, Ganesha, and so on. But, just as many churches in Christendom are called not after the Christ but after the Virgin, so this is known as Lara (*i.e.* Virgin) Janggrang from the popular name of Durga. In the southern temple of the row is a very fine figure of a four-armed Brahma; in the northern there was a Vishnu with attendant figures. Of the other row the middle temple is again the largest, with Siva, his nandi or bull, and other symbolic sculptures. To the north lies the extraordinary cluster of temples which, though it does not deserve its popular name of Chandi Sewu, the thousand shrines, consists of at least 240 small buildings gathered round a great central temple, richly adorned, though roofless and partially ruined since the earthquake of 1867. Among the more noteworthy figures are those of the huge and ungainly guardians of the temple kneeling at the four main gateways of each of the principal buildings. Colonel Yule pointed out that there are distinct traces of a fine coat of stucco on the exterior and the interior of the buildings, and he compared in this respect "the cave walls of Ellora, the great idols at Bamian, and the Doric order at Selinus." Other temples in the same neighbourhood as Chandi Sewu are Ch. Lumbung, Ch. Kali Bening (Baneng), with a monstrous Kala head as the centre of the design on the southern side, Ch. Kalong and Ch. Plaosan. Tradition assigns these temples to 1266–1296.

Of the temples of the eastern zone the best known is Chandi Jago (or Tumpang), elaborately described in the Archaeological Commission's monograph. According to the *Pararaton*, a native chronicle (published in the *Verhand. v. h. Bat. Gen. v. K. en W.*, 1896), it belongs to the 13th century, containing the tomb of Rangavuni or Vishnuvardhana, who died in 1272–1273. The shrine proper occupies the third of three platforms, the lowest of which forms a

[1] See R. Verbeek, "Liget der oudheden van Java," in *Verhand. v. h. Bat. Gen.*, xlvi., and his *Oudreid kundige kaart van Java*. R. Sewell's "Antiquarian notes in Java," in *Journal of the Royal Asiatic Society* (1906), give the best conspectus available for English readers. W. B. Worsfold, *A Visit to Java* (London, 1893), has a good sketch of what was then known, revised by Professor W. Rhys Davids; but whoever wishes full information must refer to Dutch authorities. These are numerous but difficult of access.

[2] The chief authorities on Prambanan are J. W. Ijzerman, *Beschrijving der oudheden nabij de Grens der residenties Soerakarta en Djogjakarta* (Batavia, 1891, with photographs and atlas); and J. Groneman, *Tjandi Parambanan op Midden Java*; see also *Guide à travers l'exposition des Pays-Bas* (The Hague, 1900), No. 174, sqq.

square of 45 to 46 ft. each side. The building fronts the west, and is constructed of an andesitic tuff of inferior quality and dark colour. Of distinctly Buddhistic influence there is no trace. The makara (elephant-fish head) is notably absent. The sculptures which run round the base and along the sides of the platforms or terraces are of the most elaborate and varied description—kings on thrones, dwarfs, elephants, supernatural beings, diabolical and grotesque, tree-monsters, palaces, temples, courtyards, lakes, gardens, forests—all are represented. In one place appears a Chinese- or Burmese-looking seven-roofed pagoda; in another, a tall temple strangely split down the centre, with a flight of steps running up the fissure. The inscriptions are in the Devanagari character. In the same neighbourhood are Ch. Singossari, Ch. Kidal, &c. Another of the most beautiful of the eastern temples is Ch. Jabung, mentioned in 1330. It is built of red brick; and its distinctly Javanese origin is suggested by the frequency of the snake-motif still characteristic of modern Javanese art. It may be added that a comparison of the several buildings of the zone affords an interesting study in the development of the pilaster as a decorative rather than structural element.

At Panabaram, near Blitar, Kediri, is another group of stone temples and other buildings. The chief temple is remarkable for the richness of its sculptures, which are peculiarly delicate and spirited in their details. The decoration of the mere robes of one of the free-standing stairway-guardians consists of scroll-work, interspersed with birds and animals rendered in a non-Indian style, reminiscent of Chinese or Japanese work. It has been described as one of the most beautiful pieces of sculpture in all the East.

Sculptures from the temples are scattered far and wide throughout Java, and it is one of the greatest difficulties of the archaeologist to determine the origin of many of the most interesting specimens. This, too, is often the case with those that have found their way to the museums of Java and Europe (Batavia, Leiden, Haarlem, Berlin, &c.). Minor relics of the past are to be found alike in the palaces of the nobles and the huts of the highland peasants. Zodiac cups of copper or bronze dating from the 12th or 13th century are in daily use among the Tenggerese. The musical instruments used by the musicians of the native courts are often prized on account of their great antiquity.

As many of the Chinese came from China centuries ago and have not ceased to hold intercourse with their native country, the houses of the wealthier men among them are often rich in ancient specimens of Chinese art. The special exhibition organized by Henri Borel and other enthusiasts showed how much of value in this matter might be brought together in spite of the reluctance of the owners to commit the sacrilege of exposing to public gaze the images of their ancestral gods and heroes. Borel has given exquisite examples of images of Kwan-yin (the Chinese Virgin-Goddess), of Buddhas, of the ghoulish god of literature, of Lie-tai-Peh (the Chinese poet who has gone to live in the planet Venus), &c., in illustration of his papers in *L'Art flamand et hollandais*, pt. v. (1900), a translation of his monograph published at Batavia.

AUTHORITIES.—Besides the special works quoted *passim*, see Sir Stamford Raffles, *History of Java* (London, 1830); F. Junghuhn, *Java: seine Gestalt, Pflanzendecke, und innere Bauart* (Ger. trans. by J. K. Hasskarl, Leipzig, 1854–1857); P. J. Veth, *Java, Geographisch, ethnologisch, historisch* (2nd ed., Haarlem, 1896–1903), a masterly compendium originally based largely on Junghuhn's descriptions; L. van Deventer, *Geschiedenis der Nederlanders op Java* (2nd ed., Haarlem, 1895); L. W. C. van den Berg, *Le Hadhramout et les colonies arabes dans l'archipel indien* (Batavia, 1886); E. R. Scidmore, *Java, the Garden of the East* (New York, 1898); J. Chailley-Bert, *Java et ses habitants* (Paris, 1900); C. Day, *The Policy and Administration of the Dutch in Java* (London, 1904); E. S. de Klerck, *De Java-Oorlog van 1825–1830* (Batavia, 1905); *Encyclopaedie v. N. Indië*, art. "Java;" *Guide à travers l'Exposition de Paris* (The Hague, 1900), with articles by specialists on each department of the Dutch colonies, more particularly Java; *Koloniale Verslagen en Regeerings-almanak van N. Indië*, being official publications of the Dutch and Dutch East-Indian Government (see also MALAY ARCHIPELAGO).

(H. A. W.; O. J. R. H.)

JAVELIN, a spear, particularly one light enough to be thrown, a dart. The javelin was often provided with a thong to help in casting (see SPEAR). Javelin-throwing is one of the contests in the athletic section at the international Olympic games. Formerly the sheriff of a county or borough had a body of men armed with javelins, and known as javelin-men, who acted as a bodyguard for the judges when they went on assize. Their duties are now performed by the ordinary police. The word itself is an adaptation of Fr. *javeline*. There are several words in Celtic and Scandinavian languages and in Old English, meaning a spear or dart, that seem to be connected with *javel*, the base form in French; thus Welsh *gaflach*, Irish *gabhla*, O. Norwegian *gaflok*, O. E. *gafeluc*, later in the form *gavelock*, *cf.* O. Norman-Fr. *gavelot*, *javelot*, Ital. *giavelotto*. The origin seems to be Celtic, and the word is cognate with Ir. *gafa*, a hook, fork, gaff; the root is seen in "gable" (*q.v.*), and in the German *Gabel*, fork. The change in meaning from fork, forked end of a spear, to the spear itself is obscure.

JAW (Mid. Eng. *jawe*, *jowe* and *geowe*, O. Eng. *cheowan*, connected with "chaw" and "chew," and in form with "jowl"), in anatomy, the term for the upper maxillary bone, and the mandible or lower maxillary bone of the skull; it is sometimes loosely applied to all the lower front parts of the skull (*q.v.*).

JAWĀLĪQĪ, ABU MANṢŪR MAUHŪB UL-JAWĀLĪQĪ (1073–1145), Arabian grammarian, was born at Bagdad, where he studied philology under Tibrīzī and became famous for his handwriting. In his later years he acted as imam to the caliph Moqtafi. His chief work is the *Kitāb ul-Mu'arrab*, or "Explanation of Foreign Words used in Arabic."

The text was edited from an incomplete manuscript by E. Sachau (Leipzig, 1867). Many of the lacunae in this have been supplied from another manuscript by W. Spitta in the *Journal of the German Oriental Society*, xxxiii. 208 sqq. Another work, written as a supplement to the *Durrat ul-Ghawwās* of Harīrī (*q.v.*), has been published as "Le Livre des locutions vicieuses," by H. Derenbourg in *Morgenländische Forschungen* (Leipzig, 1875), pp. 107–166. (G. W. T.)

JAWHAR, a native state of India, in the Konkan division of Bombay, situated among the lower ranges of the western Ghats. Area 310 sq. m. Pop. (1901), 47,538. The estimated revenue is £11,000; there is no tribute. The chief, who is a Koli by caste, traces back his descent to 1343. The leading exports are teak and rice. The principal village is that of Jawhar (pop. 3567).

JAWORÓW, a town in Galicia, Austria, 30 m. W. of Lemberg. Pop. (1900), 10,090. It has a pottery, a brewery, a distillery and some trade in agricultural produce. Not far from it is the watering-place of Szkto with sulphur springs. The town was a favourite residence of John Sobieski, who there received the congratulations of the pope and the Venetian republic on his success against the Turks at Vienna (1683). At Jaworów Peter the Great was betrothed to Catherine I.

JAY, JOHN (1745–1829), American statesman, the descendant of a Huguenot family, and son of Peter Jay, a successful New York merchant, was born in New York City on the 12th of December 1745. On graduating at King's College (now Columbia University) in 1764, Jay entered the office of Benjamin Kissam, an eminent New York lawyer. In 1768 he was admitted to the bar, and rapidly acquired a lucrative practice. In 1774 he married Sarah, youngest daughter of William Livingston, and was thus brought into close relations with one of the most influential families in New York. Like many other able young lawyers, Jay took an active part in the proceedings that resulted in the independence of the United States, identifying himself with the conservative element in the Whig or patriot party. He was sent as a delegate from New York City to the Continental Congress at Philadelphia in September 1774, and though almost the youngest member, was entrusted with drawing up the address to the people of Great Britain. Of the second congress, also, which met at Philadelphia on the 10th of May 1775, Jay was a member; and on its behalf he prepared an address to the people of Canada and an address to the people of Jamaica and Ireland. In April 1776, while still retaining his seat in the Continental Congress, Jay was chosen as a member of the third provincial congress of New York; and his consequent absence from Philadelphia deprived him of the honour of affixing his signature to the Declaration of Independence. As a member of the fourth provincial congress he drafted a resolution by which the delegates of New York in the Continental Congress were authorized to sign the Declaration of Independence. In 1777 he was chairman of the committee of the convention which drafted the first New York state constitution. After acting for some time as one of the council of safety (which administered the state government until the new constitution came into effect), he was made chief justice of New York state, in September 1777. A clause in the state constitution prohibited any justice of the Supreme Court from holding any other post save that of delegate to Congress on a "special occasion,"

but in November 1778 the legislature pronounced the secession of what is now the state of Vermont from the jurisdiction of New Hampshire and New York to be such an occasion, and sent Jay to Congress charged with the duty of securing a settlement of the territorial claims of his state. He took his seat in congress on the 7th of December, and on the 10th was chosen president in succession to Henry Laurens.

On the 27th of September 1779 Jay was appointed minister plenipotentiary to negotiate a treaty between Spain and the United States. He was instructed to endeavour to bring Spain into the treaty already existing between France and the United States by a guarantee that Spain should have the Floridas in case of a successful issue of the war against Great Britain, reserving, however, to the United States the free navigation of the Mississippi. He was also to solicit a subsidy in consideration of the guarantee, and a loan of five million dollars. His task was one of extreme difficulty. Although Spain had joined France in the war against Great Britain, she feared to imperil her own colonial interests by directly encouraging and aiding the former British colonies in their revolt against their mother country, and she had refused to recognize the United States as an independent power. Jay landed at Cadiz on the 22nd of January 1780, but was told that he could not be received in a formally diplomatic character. In May the king's minister, Count de Florida Blanca, intimated to him that the one obstacle to a treaty was the question of the free navigation of the Mississippi, and for months following this interview the policy of the court was clearly one of delay. In February 1781 Congress instructed Jay that he might make concessions regarding the navigation of the Mississippi, if necessary; but further delays were interposed, the news of the surrender of Yorktown arrived, and Jay decided that any sacrifice to obtain a treaty was no longer advisable. His efforts to procure a loan were not much more successful, and he was seriously embarrassed by the action of Congress in drawing bills upon him for large sums. Although by importuning the Spanish minister, and by pledging his personal responsibility, Jay was able to meet some of the bills, he was at last forced to protest others; and the credit of the United States was saved only by a timely subsidy from France.

In 1781 Jay was commissioned to act with Franklin, John Adams, Jefferson and Henry Laurens in negotiating a peace with Great Britain. He arrived in Paris on the 23rd of June 1782, and jointly with Franklin had proceeded far with the negotiations when Adams arrived late in October. The instructions of the American negotiators were as follows:—

"You are to make the most candid and confidential communications upon all subjects to the ministers of our generous ally, the king of France; to undertake nothing in the negotiations for peace or truce without their knowledge and concurrence; and ultimately to govern yourselves by their advice and opinion, endeavouring in your whole conduct to make them sensible how much we rely on his majesty's influence for effectual support in every thing that may be necessary to the present security, or future prosperity, of the United States of America."

Jay, however, in a letter written to the president of Congress from Spain, had expressed in strong terms his disapproval of such dependence upon France, and, on arriving in Paris, he demanded that Great Britain should treat with his country on an equal footing by first recognizing its independence, although the French minister, Count de Vergennes, contended that an acknowledgment of independence as an effect of the treaty was as much as could reasonably be expected. Finally, owing largely to Jay, who suspected the good faith of France, the American negotiators decided to treat independently with Great Britain. The provisional articles, which were so favourable to the United States as to be a great surprise to the courts of France and Spain, were signed on the 30th of November 1782, and were adopted with no important change as the final treaty on the 3rd of September 1783.

On the 24th of July 1784 Jay landed in New York, where he was presented with the freedom of the city and elected a delegate to Congress. On the 7th of May Congress had already chosen him to be secretary for foreign affairs, and in December Jay resigned his seat in Congress and accepted the secretaryship. He continued to act in this capacity until 1790, when Jefferson became secretary of state under the new constitution. In the question of this constitution Jay had taken a keen interest, and as an advocate of its ratification he wrote over the name "Publius," five (Nos. 2, 3, 4, 5 and 64) of the famous series of papers known collectively as the *Federalist* (see HAMILTON, ALEXANDER). He published anonymously (though without succeeding in concealing the authorship) *An Address to the People of New York*, in vindication of the constitution; and in the state convention at Poughkeepsie he ably seconded Hamilton in securing its ratification by New York. In making his first appointments to federal offices President Washington asked Jay to take his choice; Jay chose that of chief justice of the Supreme Court, and held this position from September 1789 to June 1795. The most famous case that came before him was that of *Chisolm* v. *Georgia*, in which the question was, Can a state be sued by a citizen of another state? Georgia argued that it could not be so sued, on the ground that it was a sovereign state, but Jay decided against Georgia, on the ground that sovereignty in America resided with the people. This decision led to the adoption of the eleventh amendment to the federal constitution, which provides that no suit may be brought in the federal courts against any state by a citizen of another state or by a citizen or subject of any foreign state. In 1792 Jay consented to stand for the governorship of New York State, but a partisan returning-board found the returns of three counties technically defective, and though Jay had received an actual majority of votes, his opponent, George Clinton, was declared elected.

Ever since the War of Independence there had been friction between Great Britain and the United States. To the grievances of the United States, consisting principally of Great Britain's refusal to withdraw its troops from the forts on the north-western frontier, as was required by the peace treaty of 1783, her refusal to make compensation for negroes carried away by the British army at the close of the War of Independence, her restrictions on American commerce, and her refusal to enter into any commercial treaty with the United States, were added, after war broke out between France and Great Britain in 1793, the anti-neutral naval policy according to which British naval vessels were authorized to search American merchantmen and impress American seamen, provisions were treated as contraband of war, and American vessels were seized for no other reason than that they had on board goods which were the property of the enemy or were bound for a port which though not actually blockaded was declared to be blockaded. The anti-British feeling in the House of Representatives became so strong that on the 7th of April 1794 a resolution was introduced to prohibit commercial intercourse between the United States and Great Britain until the north-western posts should be evacuated and Great Britain's anti-neutral naval policy should be abandoned. Thereupon Washington, fearing that war might result, appointed Jay minister extraordinary to Great Britain to negotiate a new treaty, and the Senate confirmed the appointment by a vote of 18 to 8, although the non-intercourse resolution which came from the house a few days later was defeated in the senate only by the casting vote of Vice-President John Adams. Jay landed at Falmouth in June 1794, signed a treaty with Lord Grenville on the 19th of November, and disembarked again at New York on the 28th of May 1795. The treaty, known in history as Jay's Treaty, provided that the north-western posts should be evacuated by the 1st of June 1796, that commissioners should be appointed to settle the north-east and the north-west boundaries, and that the British claims for British debts as well as the American claims for compensation for illegal seizures should be referred to commissioners. More than one-half of the clauses in the treaty related to commerce, and although they contained rather small concessions to the United States, they were about as much as could reasonably have been expected in the circumstances. One clause, the operation of which was limited to two years from the close of the existing war, provided that American vessels not exceeding 70 tons burden

might trade with the West Indies, but should carry only American products there and take away to American ports only West Indian products; moreover, the United States was to export in American vessels no molasses, sugar, coffee, cocoa or cotton to any part of the world. Jay consented to this prohibition under the impression that the articles named were peculiarly the products of the West Indies, not being aware that cotton was rapidly becoming an important export from the southern states. The operation of the other commercial clauses was limited to twelve years. By them the United States was granted limited privileges of trade with the British East Indies; some provisions were made for reciprocal freedom of trade between the United States and the British dominions in Europe; some articles were specified under the head of "contraband of war"; it was agreed that whenever provisions were seized as contraband they should be paid for, and that in cases of the capture of a vessel carrying contraband goods such goods only and not the whole cargo should be seized; it was also agreed that no vessel should be seized merely because it was bound for a blockaded port, unless it attempted to enter the port after receiving notice of the blockade. The treaty was laid before the Senate on the 8th of June 1795, and, with the exception of the clause relating to trade with the West Indies, was ratified on the 24th by a vote of 20 to 10. As yet the public was ignorant of its contents, and although the Senate had enjoined secrecy on its members even after the treaty had been ratified, Senator Mason of Virginia gave out a copy for publication only a few days later. The Republican party, strongly sympathizing with France and strongly disliking Great Britain, had been opposed to Jay's mission, and had denounced Jay as a traitor and guillotined him in effigy when they heard that he was actually negotiating. The publication of the treaty only added to their fury. They filled newspapers with articles denouncing it, wrote virulent pamphlets against it, and burned Jay in effigy. The British flag was insulted. Hamilton was stoned at a public meeting in New York while speaking in defence of the treaty, and Washington was grossly abused for signing it. In the House of Representatives the Republicans endeavoured to prevent the execution of the treaty by refusing the necessary appropriations, and a vote (29th of April, 1795) on a resolution that it ought to be carried into effect stood 49 to 49; but on the next day the opposition was defeated by a vote of 51 to 48. Once in operation, the treaty grew in favour. Two days before landing on his return from the English mission, Jay had been elected governor of New York state; notwithstanding his temporary unpopularity, he was re-elected in April 1798. With the close of this second term of office in 1801, he ended his public career. Although not yet fifty-seven years old, he refused all offers of office and retiring to his estate near Bedford in Westchester county, N.Y., spent the rest of his life in rarely interrupted seclusion. In politics he was throughout inclined toward Conservatism, and after the rise of parties under the federal government he stood with Alexander Hamilton and John Adams as one of the foremost leaders of the Federalist party, as opposed to the Republicans or Democratic-Republicans. From 1821 until 1828 he was president of the American Bible Society. He died on the 17th of May 1829. The purity and integrity of his life are commemorated in a sentence by Daniel Webster: "When the spotless ermine of the judicial robe fell on John Jay, it touched nothing less spotless than itself."

See *The Correspondence and Public Papers of John Jay* (4 vols., New York, 1890–1893), edited by H. P. Johnston; William Jay, *Life of John Jay with Selections from his Correspondence and Miscellaneous Papers* (2 vols., New York, 1833); William Whitelocke, *Life and Times of John Jay* (New York, 1887); and George Pellew, *John Jay* (Boston, 1890), in the "American Statesmen Series."

John Jay's son, WILLIAM JAY (1789–1858), was born in New York City on the 16th of June 1789, graduated from Yale in 1807, and soon afterwards assumed the management of his father's large estate in Westchester county, N.Y. He was actively interested in peace, temperance and anti-slavery movements. He took a prominent part in 1816 in founding the American Bible Society; was a judge of Westchester county from 1818 to 1843, when he was removed from office by the party in power in New York, which hoped, by sacrificing an anti-slavery judge, to gain additional strength in the southern states; joined the American anti-slavery society in 1834, and held several important offices in this organization. In 1840, however, when it began to advocate measures which he deemed too radical, he withdrew his membership, but with his pen he continued his labours on behalf of the slave, urging emancipation in the district of Columbia and the exclusion of slavery from the Territories, though deprecating any attempt to interfere with slavery in the states. He was a member of the American peace society and was its president for several years. His pamphlet, *War and Peace: the Evils of the First with a Plan for Securing the Last*, advocating international arbitration, was published by the English Peace Society in 1842, and is said to have contributed to the promulgation, by the powers signing the Treaty of Paris in 1856, of a protocol expressing the wish that nations, before resorting to arms, should have recourse to the good offices of a friendly power. Among William Jay's other writings, the most important are *The Life of John Jay* (2 vols., 1833) and a *Review of the Causes and Consequences of the Mexican War* (1849). He died at Bedford on the 14th of October 1858.

See Bayard Tuckerman; *William Jay and the Constitutional Movement for the Abolition of Slavery* (New York, 1893).

William Jay's son, JOHN JAY (1817–1894), also took an active part in the anti-slavery movement. He was a prominent member of the free soil party, and was one of the organizers of the Republican party in New York. He was United States minister to Austria-Hungary in 1869–1875, and was a member, and for a time president, of the New York civil service commission appointed by Governor Cleveland in 1883.

JAY, WILLIAM (1769–1853), English Nonconformist divine, was born at Tisbury in Wiltshire on the 6th of May 1769. He adopted his father's trade of stone-mason, but gave it up in 1785 in order to enter the Rev. Cornelius Winter's school at Marlborough. During the three years that Jay spent there, his preaching powers were rapidly developed. Before he was twenty-one he had preached nearly a thousand times, and in 1788 he had for a while occupied Rowland Hill's pulpit in London. Wishing to continue his reading he accepted the humble pastorate of Christian Malford, near Chippenham, where he remained about two years. After one year at Hope chapel, Clifton, he was called to the ministry of Argyle Independent chapel in Bath; and on the 30th of January 1791 he began the work of his life there, attracting hearers of every religious denomination and of every rank, and winning for himself a wide reputation as a brilliant pulpit orator, an earnest religious author, and a friendly counsellor. Sheridan declared him to be the most manly orator he had ever heard. A long and honourable connexion of sixty-two years came to an end in January 1853, and he died on the 27th of December following.

The best-known of Jay's works are his *Morning and Evening Exercises*: *The Christian contemplated*: *The Domestic Minister's Assistant*; and his *Discourses*. He also wrote a *Life of Rev. Cornelius Winter*, and *Memoirs of Rev. John Clarke*. An edition of Jay's *Works* in 12 vols., 8vo, revised by himself, was issued in 1842–1844, and again in 1856. A new edition, in 8 vols., 8vo, was published in 1876. See *Autobiography* (1854); S. Wilson's *Memoir of Jay* (1854); S. Newth in *Pulpit Memorials* (1878).

JAY (Fr. *géai*), a well-known and very beautiful European bird, the *Corvus glandarius* of Linnaeus, the *Garrulus glandarius* of modern ornithologists. To this species are more or less closely allied numerous birds inhabiting the Palaearctic and Indian regions, as well as the greater part of America, but not occurring in the Antilles, in the southern portion of the Neotropical Region, or in the Ethiopian or Australian. All these birds are commonly called jays, and form a group of the crows or *Corvidae*, which may fairly be considered a sub-family, *Garrulinae*. Indeed there are, or have been, systematists who would elevate the jays to the rank of a family *Garrulidae*—a proceeding which seems unnecessary. Some of

them have an unquestionable resemblance to the pies, if the group now known by that name can be satisfactorily severed from the true *Corvinae*. In structure the jays are not readily differentiated from the pies; but in habit they are much more arboreal, delighting in thick coverts, seldom appearing in the open, and seeking their food on or under trees. They seem also never to walk or run when on the ground, but always to hop. The body-feathers are commonly loose and soft; and, gaily coloured as are most of the species, in few of them has the plumage the metallic glossiness it generally presents in the pies, while the proverbial beauty of the "jay's wing" is due to the vivid tints of blue—turquoise and cobalt, heightened by bars of jet-black, an indication of the same style of ornament being observable in the greater

Fig. 1—European Jay.

number of the other forms of the group, and in some predominating over nearly the whole surface. Of the many genera that have been proposed by ornithologists, perhaps about nine may be deemed sufficiently well established.

The ordinary European jay, *Garrulus glandarius* (fig. 1), has suffered so much persecution in the British Islands as to have become in many districts a rare bird. In Ireland it seems now to be indigenous to the southern half of the island only; in England generally, it is far less numerous than formerly; and in Scotland its numbers have decreased with still greater rapidity. There is little doubt that it would have been exterminated but for its stock being supplied in autumn by immigration, and for its shy and wary behaviour, especially at the breeding-season, when it becomes almost wholly mute, and thereby often escapes detection. No truthful man, however much he may love the bird, will gainsay the depredations on fruit and eggs that it at times commits; but the gardeners and gamekeepers of Britain, instead of taking a few simple steps to guard their charge from injury, deliberately adopt methods of wholesale destruction—methods that in the case of this species are only too easy and too effectual—by proffering temptation to trespass which it is not in jay-nature to resist, and accordingly the bird runs great chance of total extirpation. Notwithstanding the war carried on against the jay, its varied cries and active gesticulations show it to be a sprightly bird, and at a distance that renders its beauty-spots invisible, it is yet rendered conspicuous by its cinnamon-coloured body and pure white tail-coverts, which contrast with the deep black and rich chestnut that otherwise mark its plumage, and even the young at once assume a dress closely resembling that of the adult. The nest, generally concealed in a leafy tree or bush, is carefully built, with a lining formed of fine roots neatly interwoven. Herein from four to seven eggs, of a greenish-white closely freckled, so as to seem suffused with light olive, are laid in March or April, and the young on quitting it accompany their parents for some weeks.

Though the common jay of Europe inhabits nearly the whole of this quarter of the globe south of 64° N. lat., its territory in the east of Russia is also occupied by *G. brandti*, a kindred form, which replaces it on the other side of the Ural, and ranges thence across Siberia to Japan; and again on the lower Danube and thence to Constantinople the nearly allied *G. krynicki* (which alone is found in southern Russia, Caucasia and Asia Minor) shares its haunts with it.[1] It also crosses the Mediterranean to Algeria and Morocco; but there, as in southern Spain, it is probably but a winter immigrant. The three forms just named have the widest range of any of the genus. Next to them come *G. atricapillus*, reaching from Syria to Baluchistan, *G. japonicus*, the ordinary jay of southern Japan, and *G. sinensis*, the Chinese bird. Other forms have a much more limited area, as *G. cervicalis*, the local and resident jay of Algeria, *G. hyrcanus*, found on the southern shores of the Caspian Sea, and *G. taevanus*, confined to the island of Formosa. The most aberrant of the true jays is *G. lidthi*, a very rare species, which seems to come from some part of Japan (*vide* Salvadori, *Atti Accad. Torino*, vii. 474), though its exact locality is not known.

Leaving the true jays of the genus *Garrulus*, it is expedient next to consider those of a group named, in 1831, *Perisoreus* by Prince C. L. Bonaparte (*Saggio*, &c., *Anim. Vertebrati*, p. 43) and *Dysornithia* by Swainson (*F. B.-Americana*, ii. 495).[2]

This group contains two species—one the *Lanius infaustus* of Linnaeus and the Siberian jay of English writers, which ranges throughout the pine-forests of the north of Europe and Asia, and the second the *Corvus canadensis* of the same author, or Canada jay, occupying a similar station in America. The so-called Siberian jay is one of the most entertaining birds in the world. Its versatile cries and actions, as seen and heard by those who penetrate the solitude of the northern forests it inhabits, can never be forgotten by one who has had experience of them, any more than the pleasing sight of its rust-coloured tail, which an occasional gleam of sunshine will light up into a brilliancy quite unexpected by those who have only surveyed the bird's otherwise gloomy appearance in the glass-case of a museum. It seems scarcely to know fear, obtruding itself on the notice of any traveller who invades its haunts, and, should he halt, making itself at once a denizen of his bivouac. In confinement it speedily becomes friendly, but suitable food for it is not easily found. Linnaeus seems to have been under a misapprehension when he applied to it the trivial epithet it bears; for by none of his countrymen is it deemed an unlucky bird, but rather the reverse. In fact, no one can listen to the cheery sound of its ordinary calls with any but a hopeful feeling. The Canada jay, or "whisky-jack" (the corruption probably of a Cree name), seems to be of a similar nature, but it presents a still more sombre coloration, its nestling plumage,[3] indeed, being thoroughly corvine in appearance and suggestive of its being a pristine form.

Fig. 2.—American Blue Jay.

As though to make amends for the dull plumage of the species last mentioned, North America offers some of the most brilliantly

[1] Further information will possibly show that these districts are not occupied at the same season of the year by the two forms.

[2] Recent writers have preferred the former name, though it was only used sub-generically by its author, who assigned to it no characters, which the inventor of the latter was careful to do, regarding it at the same time as a genus.

[3] In this it was described and figured (*F. B. Americana*, ii. 296, pl. 55) as a distinct species, *G. brachyrhynchus*.

coloured of the sub-family, and the common blue jay[1] of Canada and the eastern states of the Union, *Cyanurus cristatus* (fig. 2), is one of the most conspicuous birds of the Transatlantic woods. The account of its habits by Alexander Wilson is known to every student of ornithology, and Wilson's followers have had little to do but supplement his history with unimportant details. In this bird and its many allied forms, coloration, though almost confined to various tints of blue, seems to reach its climax, but want of space forbids more particular notice of them, or of the members of the other genera *Cyanocitta*, *Cyanocorax*, *Xanthura*, *Psilorhinus*, and more, which inhabit various parts of the Western continent. It remains, however, to mention the genus *Cissa*, including many beautiful forms belonging to the Indian region, and among them the *C. speciosa* and *C. sinensis*, so often represented in Oriental drawings, though doubts may be expressed whether these birds are not more nearly related to the pies than to the jays. (A. N.)

JEALOUSY (adapted from Fr. *jalousie*, formed from *jaloux*, jealous, Low Lat. *zelosus*, Gr. ζῆλος, ardour, zeal, from the root seen in ζέειν, to boil, ferment; cf. "yeast"), originally a condition of zealous emulation, and hence, in the usual modern sense, of resentment at being (or believing that one is or may be) supplanted or preferred in the love or affection of another, or in the enjoyment of some good regarded as properly one's own. Jealousy is really a form of envy, but implies a feeling of personal claim which in envy or covetousness is wanting. The jealousy of God, as in Exod. xx. 5, "For I, the Lord thy God, am a jealous God," has been defined by Pusey (*Minor Prophets*, 1860) as the attribute "whereby he does not endure the love of his creatures to be transferred from him." "Jealous," by etymology, is however, only another form of "zealous," and the identity is exemplified by such expressions as "I have been very jealous for the Lord God of Hosts" (1 Kings xix. 10). A kind of glass, thick, ribbed and non-transparent, was formerly known as "jealous-glass," and this application is seen in the borrowed French word *jalousie*, a blind or shutter, made of slats of wood, which slope in such a way as to admit air and a certain amount of light, while excluding rain and sun and inspection from without.

JEAN D'ARRAS, a 15th-century *trouvère*, about whose personal history nothing is known, was the collaborator with Antoine du Val and Fouquart de Cambrai in the authorship of a collection of stories entitled *Évangiles de quenouille*. They purport to record the narratives of a group of ladies at their spinning, who relate the current theories on a great variety of subjects. The work dates from the middle of the 15th century and is of considerable value for the light it throws on medieval manners.

There were many editions of this book in the 15th and 16th centuries, one of which was printed by Wynkyn de Worde in English, as *The Gospelles of Dystaves*. A modern edition (Collection Jannet) has a preface by Anatole France.

Another *trouvère*, JEAN D'ARRAS who flourished in the second half of the 14th century, wrote, at the request of John, duke of Berry, a long prose romance entitled *Chronique de la princesse*. It relates with many digressions the antecedents and life of the fairy Mélusine (*q.v.*).

JEAN DE MEUN, or DE MEUNG (*c.* 1250–*c.* 1305), whose original name was Jean Clopinel or Chopinel, was born at Meun-sur-Loire. Tradition asserts that he studied at the university of Paris. At any rate he was, like his contemporary, Rutebeuf, a defender of Guillaume de Saint-Amour and a bitter critic of the mendicant orders. Most of his life seems to have been spent in Paris, where he possessed, in the Rue Saint-Jacques, a house with a tower, court and garden, which was described in 1305 as the house of the late Jean de Meung, and was then bestowed by a certain Adam d'Andely on the Dominicans. Jean de Meun says that in his youth he composed songs that were sung in every public place and school in France. In the enumeration of his own works he places first his continuation of the *Roman de la rose* of Guillaume de Lorris (*q.v.*). The date of this second part is generally fixed between 1268 and 1285 by a reference in the poem to the death of Manfred and Conradin, executed (1268) by order of Charles of Anjou (d. 1285) who is described as the present king of Sicily. M. F. Guillon (*Jean Clopinel*, 1903), however, considering the poem primarily as a political satire, places it in the last five years of the 13th century. Jean de Meun doubtless edited the work of his predecessor, Guillaume de Lorris, before using it as the starting-point of his own vast poem, running to 19,000 lines. The continuation of Jean de Meun is a satire on the monastic orders, on celibacy, on the nobility, the papal see, the excessive pretensions of royalty, and especially on women and marriage. Guillaume had been the servant of love, and the exponent of the laws of "courtoisie"; Jean de Meun added an "art of love," exposing with brutality the vices of women, their arts of deception, and the means by which men may outwit them. Jean de Meun embodied the mocking, sceptical spirit of the *fabliaux*. He did not share in current superstitions, he had no respect for established institutions, and he scorned the conventions of feudalism and romance. His poem shows in the highest degree, in spite of the looseness of its plan, the faculty of keen observation, of lucid reasoning and exposition, and it entitles him to be considered the greatest of French medieval poets. He handled the French language with an ease and precision unknown to his predecessors, and the length of his poem was no bar to its popularity in the 13th and 14th centuries. Part of its vogue was no doubt due to the fact that the author, who had mastered practically all the scientific and literary knowledge of his contemporaries in France, had found room in his poem for a great amount of useful information and for numerous citations from classical authors. The book was attacked by Guillaume de Degulleville in his *Pèlerinage de la vie humaine* (*c.* 1330), long a favourite work both in England and France; by John Gerson, and by Christine de Pisan in her *Épître au dieu d'amour*; but it also found energetic defenders.

Jean de Meun translated in 1284 the treatise, *De re militari*, of Vegetius into French as *Le livre de Vegèce de l'art de chevalerie*[2] (ed. Ulysse Robert, *Soc. des anciens textes fr.*, 1897). He also produced a spirited version, the first in French, of the letters of Abelard and Héloïse. A 14th-century MS. of this translation in the Bibliothèque Nationale has annotations by Petrarch. His translation of the *De consolatione philosophiae* of Boëtius is preceded by a letter to Philip IV. in which he enumerates his earlier works, two of which are lost—*De spirituelle amitié* from the *De spirituali amicitia* of Aelred of Rievaulx (d. 1166), and the *Livre des merveilles d'Hirlande* from the *Topographia Hibernica*, or *De Mirabilibus Hiberniae* of Giraldus Cambrensis (Giraud de Barry). His last poems are doubtless his *Testament* and *Codicille*. The *Testament* is written in quatrains in monorime, and contains advice to the different classes of the community.

See also Paulin Paris in *Hist. lit. de la France*, xxviii. 391–439, and E. Langlois in *Hist. de la langue et de la lit. française*, ed. L. Petit de Julleville, ii. 125–161 (1896); and editions of the *Roman de la rose* (*q.v.*).

JEANNETTE, a borough of Westmoreland county, Pennsylvania, U.S.A., about 27 m. E. by S. of Pittsburg. Pop. (1890), 3296; (1900), 5865 (1340 foreign-born); (1910), 8077. It is served by the Pennsylvania railroad, and is connected with Pittsburg and Uniontown by electric railway. It is supplied with natural gas and is primarily a manufacturing centre, its principal manufactures being glass, table-ware and rubber goods. Jeannette was founded in 1888, and was incorporated as a borough in 1889.

JEANNIN, PIERRE (1540–1622), French statesman, was born at Autun. A pupil of the great jurist Jacques Cujas at Bourges, he was an advocate at Dijon in 1569 and became councillor and then president of the *parlement* of Burgundy. He opposed in vain the massacre of St Bartholomew in his province. As councillor to the duke of Mayenne he sought to reconcile him with Henry IV. After the victory of Fontaine-Française (1595), Henry took Jeannin into his council and in 1602 named him intendant of finances. He took part in the principal events of the reign, negotiated the treaty of Lyons with the duke of Savoy

[1] The birds known as blue jays in India and Africa are rollers (*q.v.*).

[2] Jean de Meun's translation formed the basis of a rhymed version (1290) by Jean Priorat of Besançon, *Li abreyance de l'ordre de chevalerie*.

(see HENRY IV.), and the defensive alliance between France and the United Netherlands in 1608. As superintendent of finances under Louis XIII., he tried to establish harmony between the king and the queen-mother.

See Berger de Xivrey, *Lettres missives de Henri IV.* (in the *Collection inédite pour l'histoire de France*), t. v. (1850); P(ierre) S(aumaise), *Eloge sur la vie de Pierre Janin* (Dijon, 1623); Sainte-Beuve, *Causeries du lundi*, t. x. (May 1854).

JEBB, JOHN (1736–1786), English divine, was educated at Cambridge, where he was elected fellow of Peterhouse in 1761, having previously been second wrangler. He was a man of independent judgment and warmly supported the movement of 1771 for abolishing university and clerical subscription to the Thirty-nine Articles. In his lectures on the Greek Testament he is said to have expressed Socinian views. In 1775 he resigned his Suffolk church livings, and two years afterwards graduated M.D. at St Andrews. He practised medicine in London and was elected F.R.S. in 1779.

Another JOHN JEBB (1775–1833), bishop of Limerick, is best known as the author of *Sacred Literature* (London, 1820).

JEBB, SIR RICHARD CLAVERHOUSE (1841–1905), English classical scholar, was born at Dundee on the 27th of August 1841. His father was a well-known barrister, and his grandfather a judge. He was educated at Charterhouse and at Trinity College, Cambridge. He won the Porson and Craven scholarships, was senior classic in 1862, and became fellow and tutor of his college in 1863. From 1869 to 1875 he was public orator of the university; professor of Greek at Glasgow from 1875 to 1889, and at Cambridge from 1889 till his death on the 9th of December 1905. In 1891 he was elected member of parliament for Cambridge University; he was knighted in 1900. Jebb was acknowledged to be one of the most brilliant classical scholars of his time, a humanist in the best sense, and his powers of translation from and into the classical languages were unrivalled. A collected volume, *Translations into Greek and Latin*, appeared in 1873 (ed. 1909). He was the recipient of many honorary degrees from European and American universities, and in 1905 was made a member of the Order of Merit. He married in 1874 the widow of General A. J. Slemmer, of the United States army, who survived him.

Jebb was the author of numerous publications, of which the following are the most important: The *Characters* of Theophrastus (1870), text, introduction, English translation and commentary (re-edited by J. E. Sandys, 1909); *The Attic Orators from Antiphon to Isaeus* (2nd ed., 1893), with companion volume, *Selections from the Attic Orators* (2nd ed., 1888); *Bentley* (1882); *Sophocles* (3rd ed., 1893) the seven plays, text, English translation and notes, the promised edition of the fragments being prevented by his death; *Bacchylides* (1905), text, translation, and notes; *Homer* (3rd ed., 1888), an introduction to the *Iliad* and *Odyssey*; *Modern Greece* (1901); *The Growth and Influence of Classical Greek Poetry* (1893). His translation of the *Rhetoric* of Aristotle was published posthumously under the editorship of J. E. Sandys (1909). A selection from his *Essays and Addresses*, and a subsequent volume, *Life and Letters of Sir Richard Claverhouse Jebb* (with critical introduction by A. W. Verrall) were published by his widow in 1907; see also an appreciative notice by J. E. Sandys, *Hist. of Classical Scholarship*, iii. (1908).

JEBEIL (anc. *Gebal-Byblus*), a town of Syria pleasantly situated on a slight eminence near the sea, about 20 m. N. of Beirut. It is surrounded by a wall 1½ m. in circumference, with square towers at the angles, and a castle at the south-east corner. Numerous broken granite columns in the gardens and vineyards that surround the town, with the number of ruined houses within the walls, testify to its former importance. The stele of Jehawmelek, king of Gebal, found here, is one of the most important of Phoenician monuments. The small port is almost choked up with sand and ruins. Pop. 3000, all Moslems.

The inhabitants of the Phoenician Gebal and Greek Byblus were renowned as stonecutters and ship-builders. Arrian (ii. 20.1) represents Enylus, king of Byblus, as joining Alexander with a fleet, after that monarch had captured the city. Philo of Byblus makes it the most ancient city of Phoenicia, founded by Cronus, *i.e.* the Moloch who appears from the stele of Jehawmelek to have been with Baalit the chief deity of the city. According to Plutarch (*Mor.* 357), the ark with the corpse of Osiris was cast ashore at Byblus, and there found by Isis. The orgies of Adonis in the temple of Baalit (Aphrodite Byblia) are described by Lucian, *De Dea Syr.*, cap. vi. The river Adonis is the Nahr al-Ibrahim, which flows near the town. The crusaders, after failing before it in 1099, captured "Giblet" in 1103, but lost it again to Saladin in 1189. Under Mahommedan rule it has gradually decayed. (D. G. H.)

JEBEL (plur. *jibāl*), also written GEBEL with hard *g* (plur. *gibāl*), an Arabic word meaning a mountain or a mountain chain. It is frequently used in place-names. The French transliteration of the word is *djebel*. *Jebeli* signifies a mountaineer. The pronunciation with a hard *g* sound is that used in the Egyptian dialect of Arabic.

JEDBURGH, a royal and police burgh and county-town of Roxburghshire, Scotland. Pop. of police burgh (1901), 3136. It is situated on Jed Water, a tributary of the Teviot, 56¼ m. S.E. of Edinburgh by the North British railway, via Roxburgh and St Boswells (49 m. by road), and 10 m. from the border at Catcleuch Shin, a peak of the Cheviots, 1742 ft. high. Of the name Jedburgh there have been many variants, the earliest being Gedwearde (800), Jedwarth (1251), and Geddart (1586), while locally the word is sometimes pronounced Jethart. The town is situated on the left bank of the Jed, the main streets running at right angles from each side of the central market-place. Of the renowned group of Border abbeys—Jedburgh, Melrose, Dryburgh and Kelso—that of Jedburgh is the stateliest. In 1118, according to tradition, but more probably as late as 1138, David, prince of Cumbria, here founded a priory for Augustinian monks from the abbey of St Quentin at Beauvais in France, and in 1147, after he had become king, erected it into an abbey dedicated to the Virgin. Repeatedly damaged in Border warfare, it was ruined in 1544–45 during the English invasion led by Sir Ralph Evers (or Eure). The establishment was suppressed in 1559, the revenues being temporarily annexed to the Crown. After changing owners more than once, the lands were purchased in 1637 by the 3rd earl of Lothian. Latterly five of the bays at the west end had been utilized as the parish church, but in 1873–1875 the 9th marquess of Lothian built a church for the service of the parish, and presented it to the heritors in exchange for the ruined abbey in order to prevent the latter from being injured by modern additions and alterations.

The abbey was built of Old Red sandstone, and belongs mostly to the end of the 12th and the beginning of the 13th centuries. The architecture is mixed, and the abbey is a beautiful example of the Norman and Transition styles. The total length is 235 ft., the nave being 133½ ft. long and 59½ ft. wide. The west front contains a great Norman porch and a fine wheel window. The nave, on each side, has nine pointed arches in the basement storey, nine round arches in the triforium, and thirty-six pointed arches in the clerestory, through which an arcade is carried on both sides. The tower, at the intersection of the nave and transepts, is of unusually massive proportions, being 30 ft. square and fully 100 ft. high; the network baluster round the top is modern. With the exception of the north piers and a small portion of the wall above, which are Norman, the tower dates from the end of the 15th century. The whole of the south transept has perished. The north transept, with early Decorated windows, has been covered in and walled off, and is the burial-ground of the Kerrs of Fernihirst, ancestors of the marquess of Lothian. The earliest tombstone is dated 1524; one of the latest is the recumbent effigy, by G. F. Watts, R.A., of the 8th marquess of Lothian (1832–1870). All that is left of the choir, which contains some very early Norman work, is two bays with three tiers on each side, corresponding to the design of the nave. It is supposed that the aisle, with Decorated window and groined roof, south of the chancel, formed the grammar school (removed from the abbey in 1751) in which Samuel Rutherford (1600–1661), principal of St Mary's College, St Andrews, and James Thomson, author of *The Seasons*, were educated. The door leading from the south aisle into a herbaceous garden, formerly the cloister, is an exquisite copy of one which had become greatly decayed. It was designed by Sir Rowand Anderson, under whose superintendence restoration in the abbey was carried out.

The castle stood on high ground at the south end of the burgh, or "town-head." Erected by David I., it was one of the strongholds ceded to England in 1174, under the treaty of Falaise, for the ransom of William the Lion. It was, however, so often captured by the English that it became a menace rather than a protection, and the townsfolk demolished it in 1409. It had

occasionally been used as a royal residence, and was the scene, in November 1285, of the revels held in celebration of the marriage (solemnized in the abbey) of Alexander III. to Joleta, or Yolande, daughter of the count of Dreux. The site was occupied in 1823 by the county prison, now known as the castle, a castellated structure which gradually fell into disuse and was acquired by the corporation in 1890. A house exists in Backgate in which Mary Queen of Scots, resided in 1566, and one in Castlegate which Prince Charles Edward occupied in 1745.

The public buildings include the grammar school (built in 1883 to replace the successor of the school in the abbey), founded by William Turnbull, bishop of Glasgow (d. 1454), the county buildings, the free library and the public hall, which succeeded to the corn exchange destroyed by fire in 1898, a loss that involved the museum and its contents, including the banners captured by the Jethart weavers at Bannockburn and Killiecrankie. The old market cross still exists, and there are two public parks. The chief industry is the manufacture of woollens (blankets, hosiery), but brewing, tanning and iron-founding are carried on, and fruit (especially pears) and garden produce are in repute. Jedburgh was made a royal burgh in the reign of David I., and received a charter from Robert I. and another, in 1566, from Mary Queen of Scots. Sacked and burned time after time during the Border strife, it was inevitable that the townsmen should become keen fighters. Their cry of "Jethart's here!" was heard wherever the fray waxed most fiercely, and the Jethart axe of their invention—a steel axe on a 4-ft. pole—wrought havoc in their hands.

"Jethart or Jeddart justice," according to which a man was hanged first and tried afterwards, seems to have been a hasty generalization from a solitary fact—the summary execution in James VI.'s reign of a gang of rogues at the instance of Sir George Home, but has nevertheless passed into a proverb.

Old Jeddart, 4 m. S. of the present town, the first site of the burgh, is now marked by a few grassy mounds, and of the great Jedburgh forest, only the venerable oaks, the "Capon Tree" and the "King of the Woods" remain. Dunion Hill (1095 ft.), about 2 m. south-west of Jedburgh, commands a fine view of the capital of the county.

JEEJEEBHOY (Jijibhai), **SIR JAMSETJEE** (Jamsetji), Bart. (1783–1859), Indian merchant and philanthropist, was born in Bombay in 1783, of poor but respectable parents, and was left an orphan in early life. At the age of sixteen, with a smattering of mercantile education and a bare pittance, he commenced a series of business travels destined to lead him to fortune and fame. After a preliminary visit to Calcutta, he undertook a voyage to China, then fraught with so much difficulty and risk that it was regarded as a venture betokening considerable enterprise and courage; and he subsequently initiated a systematic trade with that country, being himself the carrier of his merchant wares on his passages to and fro between Bombay and Canton and Shanghai. His second return voyage from China was made in one of the East India Company's fleet, which, under the command of Sir Nathaniel Dance, defeated the French squadron under Admiral Linois (Feb. 15, 1804). On his fourth return voyage from China, the Indiaman in which he sailed was forced to surrender to the French, by whom he was carried as a prisoner to the Cape of Good Hope, then a neutral Dutch possession; and it was only after much delay, and with great difficulty, that he made his way to Calcutta in a Danish ship. Nothing daunted, he undertook yet another voyage to China, which was more successful than any of the previous ones. By this time he had fairly established his reputation as a merchant possessed of the highest spirit of enterprise and considerable wealth, and thenceforward he settled down in Bombay, where he directed his commercial operations on a widely extended scale. By 1836 his firm was large enough to engross the energies of his three sons and other relatives; and he had amassed what at that period of Indian mercantile history was regarded as fabulous wealth. An essentially self-made man, having experienced in early life the miseries of poverty and want, in his days of affluence Jamsetjee Jeejeebhoy developed an active instinct of sympathy with his poorer countrymen, and commenced that career of private and public philanthropy which is his chief title to the admiration of mankind. His liberality was unbounded, and the absorbing occupation of his later life was the alleviation of human distress. To his own community he gave lavishly, but his benevolence was mainly cosmopolitan. Hospitals, schools, homes of charity, pension funds, were founded or endowed by him, while numerous public works in the shape of wells, reservoirs, bridges, causeways, and the like, not only in Bombay, but in other parts of India, were the creation of his bounty. The total of his known benefactions amounted at the time of his death, which took place in 1859, to over £230,000. It was not, however, the amount of his charities so much as the period and circumstances in which they were performed that made his benevolent career worthy of the fame he won. In the first half of the 19th century the various communities of India were much more isolated in their habits and their sympathies than they are now. Jamsetjee Jeejeebhoy's unsectarian philanthropy awakened a common understanding and created a bond between them which has proved not only of domestic value but has had a national and political significance. His services were recognized first in 1842 by the bestowal of a knighthood upon him, and in 1858 by that of a baronetcy. These were the very first distinctions of their kind conferred by Queen Victoria upon a British subject in India.

His title devolved in 1859 on his eldest son Cursetjee, who, by a special Act of the Viceroy's Council in pursuance of a provision in the letters-patent, took the name of Sir Jamsetjee Jeejeebhoy as second baronet. At his death in 1877 his eldest son, Menekjee, became Sir Jamsetjee Jeejeebhoy, the third baronet. Both had the advantage of a good English education, and continued the career of benevolent activity and devoted loyalty to British rule which had signalized the life-work of the founder of the family. They both visited England to do homage to their sovereign; and their public services were recognized by their nomination to the order of the Star of India, as well as by appointment to the Legislative Councils of Calcutta and Bombay.

On the death of the third baronet, the title devolved upon his brother, Cowsajee (1853–1908), who became Sir Jamsetjee Jeejeebhoy, fourth baronet, and the recognized leader of the Parsee community all over the world. He was succeeded by his son Rustomjee (b. 1878), who became Sir Jamsetjee Jeejeebhoy, fifth baronet.

Since their emigration from Persia, the Parsee community had never had a titular chief or head, its communal funds and affairs being managed by a public body, more or less democratic in its constitution, termed the Parsee panchayat. The first Sir Jamsetjee, by the hold that he established on the community, by his charities and public spirit, gradually came to be regarded in the light of its chief; and the recognition which he was the first in India to receive at the hands of the British sovereign finally fixed him and his successors in the baronetcy in the position and title of the official Parsee leader. (M. M. Bh.)

JEFFERIES, RICHARD (1848–1887), English naturalist and author, was born on the 6th of November 1848, at the farmhouse of Coate about 2½ m. from Swindon, on the road to Marlborough. He was sent to school, first at Sydenham and then at Swindon, till the age of fifteen or so, but his actual education was at the hands of his father, who gave him his love for Nature and taught him how to observe. For the faculty of observation, as Jefferies, Gilbert White, and H. D. Thoreau have remarked, several gifts are necessary, including the possession of long sight and quick sight, two things which do not always go together. To them must be joined trained sight and the knowledge of what to expect. The boy's father first showed him what there was to look for in the hedge, in the field, in the trees, and in the sky. This kind of training would in many cases be wasted: to one who can understand it, the book of Nature will by-and-by offer pages which are blurred and illegible to the city-bred lad, and even to the country lad the power of reading them must be maintained by constant practice. To live amid streets or in the working world destroys

it. The observer must live alone and always in the country; he must not worry himself about the ways of the world; he must be always, from day to day, watching the infinite changes and variations of Nature. Perhaps, even when the observer can actually read this book of Nature, his power of articulate speech may prove inadequate for the expression of what he sees. But Jefferies, as a boy, was more than an observer of the fields; he was bookish, and read all the books that he could borrow or buy. And presently, as is apt to be the fate of a bookish boy who cannot enter a learned profession, he became a journalist and obtained a post on the local paper. He developed literary ambitions, but for a long time to come was as one beating the air. He tried local history and novels; but his early novels, which were published at his own risk and expense, were, deservedly, failures. In 1872, however, he published a remarkable letter in *The Times*, on "The Wiltshire Labourer," full of original ideas and of facts new to most readers. This was in reality the turning-point in his career. In 1873, after more false starts, Jefferies returned to his true field of work, the life of the country, and began to write for *Fraser's Magazine* on "Farming and Farmers." He had now found himself. The rest of his history is that of continual advance, from close observation becoming daily more and more close, to that intimate communion with Nature with which his later pages are filled. The developments of the later period are throughout touched with the melancholy that belongs to ill-health. For, though in his prose poem called "The Pageant of Summer" the writer seems absolutely revelling in the strength of manhood that belongs to that pageant, yet, in the *Story of My Heart*, written about the same time, we detect the mind that is continually turned to death. He died at Goring, worn out with many ailments, on the 14th of August 1887. The best-known books of Richard Jefferies are: *The Gamekeeper at Home* (1878); *The Story of My Heart* (1883); *Life of the Fields* (1884), containing the best paper he ever wrote, "The Pageant of Summer"; *Amaryllis at the Fair* (1884), in which may be found the portraits of his own people; and *The Open Air*. He stands among the scanty company of men who address a small audience, for whom he read aloud these pages of Nature spoken of above, which only he, and the few like unto him, can decipher.

See Sir Walter Besant, *Eulogy of Richard Jefferies* (1888); H. S. Salt, *Richard Jefferies: a Study* (1894); Edward Thomas, *Richard Jefferies, his Life and Work* (1909). (W. Be.)

JEFFERSON, JOSEPH (1829–1905), American actor, was born in Philadelphia on the 20th of February 1829. He was the third actor of this name in a family of actors and managers, and the most famous of all American comedians. At the age of three he appeared as the boy in Kotzebue's *Pizarro*, and throughout his youth he underwent all the hardships connected with theatrical touring in those early days. After a miscellaneous experience, partly as actor, partly as manager, he won his first pronounced success in 1858 as Asa Trenchard in Tom Taylor's *Our American Cousin* at Laura Keene's theatre in New York. This play was the turning-point of his career, as it was of Sothern's. The naturalness and spontaneity of humour with which he acted the love scenes revealed a spirit in comedy new to his contemporaries, long used to a more artificial convention; and the touch of pathos which the part required revealed no less to the actor an unexpected power in himself. Other early parts were Newman Noggs in *Nicholas Nickleby*, Caleb Plummer in *The Cricket on the Hearth*, Dr Pangloss in *The Heir at Law*, Salem Scudder in *The Octoroon*, and Bob Acres in *The Rivals*, the last being not so much an interpretation of the character as Sheridan sketched it as a creation of the actor's. In 1859 Jefferson made a dramatic version of the story of *Rip Van Winkle* on the basis of older plays, and acted it with success at Washington. The play was given its permanent form by Dion Boucicault in London, where (1865) it ran 170 nights, with Jefferson in the leading part. Jefferson continued to act with undiminished popularity in a limited number of parts in nearly every town in the United States, his Rip Van Winkle, Bob Acres, and Caleb Plummer being the most popular. He was one of the first to establish the travelling combinations which superseded the old system of local stock companies. With the exception of minor parts, such as the First Gravedigger in *Hamlet*, which he played in an "all star combination" headed by Edwin Booth, Jefferson created no new character after 1865; and the success of Rip Van Winkle was so pronounced that he has often been called a one-part actor. If this was a fault, it was the public's, who never wearied of his one masterpiece. Jefferson died on the 23rd of April 1905. No man in his profession was more honoured for his achievements or his character. He was the friend of many of the leading men in American politics, art and literature. He was an ardent fisherman and lover of nature, and devoted to painting. Jefferson was twice married: to an actress, Margaret Clements Lockyer (1832–1861), in 1850, and in 1867 to Sarah Warren, niece of William Warren the actor.

Jefferson's *Autobiography* (New York, 1889) is written with admirable spirit and humour, and its judgments with regard to the art of the actor and of the playwright entitle it to a place beside Cibber's *Apology*. See William Winter, *The Jeffersons* (1881), and *Life of Joseph Jefferson* (1894); Mrs. E. P. Jefferson, *Recollections of Joseph Jefferson* (1909).

JEFFERSON, THOMAS (1743-1826), third president of the United States of America, and the most conspicuous apostle of democracy in America, was born on the 13th of April 1743, at Shadwell, Albemarle county, Virginia. His father, Peter Jefferson (1707-1757), of early Virginian yeoman stock, was a civil engineer and a man of remarkable energy, who became a justice of the peace, a county surveyor and a burgess, served the Crown in inter-colonial boundary surveys, and married into one of the most prominent colonial families, the Randolphs. Albemarle county was then in the frontier wilderness of the Blue Ridge, and was very different, socially, from the lowland counties where a few broad-acred families dominated an open-handed, somewhat luxurious and assertive aristocracy. Unlike his Randolph connexions, Peter Jefferson was a whig and a thorough democrat; from him, and probably, too, from the Albemarle environment, his son came naturally by democratic inclinations.

Jefferson carried with him from the college of William and Mary at Williamsburg, in his twentieth year, a good knowledge of Latin, Greek and French (to which he soon added Spanish, Italian and Anglo-Saxon), and a familiarity with the higher mathematics and natural sciences only possessed, at his age, by men who have a rare natural taste and ability for those studies. He remained an ardent student throughout life, able to give and take in association with the many scholars, American and foreign, whom he numbered among his friends and correspondents. With a liberal Scotsman, Dr William Small, then of the faculty of William and Mary and later a friend of Erasmus Darwin, and George Wythe (1726–1806), a very accomplished scholar and leader of the Virginia bar, Jefferson was an habitual member, while still in college, of a *partie carrée* at the table of Francis Fauquier (*c.* 1720–1768), the accomplished lieutenant-governor of Virginia. Jefferson was an expert violinist, a good singer and dancer, proficient in outdoor sports, and an excellent horseman. Thorough-bred horses always remained to him a necessary luxury. When it is added that Fauquier was a passionate gambler, and that the gentry who gathered every winter at Williamsburg, the seat of government of the province, were ruinously addicted to the same weakness, and that Jefferson had a taste for racing, it does credit to his early strength of character that of his social opportunities he took only the better. He never used tobacco, never played cards, never gambled, and was never party to a personal quarrel.

Soon after leaving college he entered Wythe's law office, and in 1767, after five years of close study, was admitted to the bar. His thorough preparation enabled him to compete from the first with the leading lawyers of the colony, and his success shows that the bar had no rewards that were not fairly within his reach. As an advocate, however, he did not shine; a weakness of voice made continued speaking impossible, and he had neither the ability nor the temperament for oratory. To his legal scholarship and collecting zeal Virginia owed the preservation of a large part of her early statutes. He seems to have lacked interest in litigiousness, which was extraordinarily developed in colonial

Virginia; and he saw and wished to reform the law's abuses. It is probable that he turned, therefore, the more willingly to politics; at any rate, soon after entering public life he abandoned practice (1774).

The death of his father had left him an estate of 1900 acres, the income from which (about £400) gave him the position of an independent country gentleman; and while engaged in the law he had added to his farms after the ambitious Virginia fashion, until, when he married in his thirtieth year, there were 5000 acres all paid for; and almost as much more[1] came to him in 1773 on the death of his father-in-law. On the 1st of January 1772, Jefferson married Martha Wayles Skelton (1749–1782), a childless widow of twenty-three, very handsome, accomplished, and very fond of music. Their married life was exceedingly happy, and Jefferson never remarried after her early death. Of six children born from their union, two daughters alone survived infancy. Jefferson was emotional and very affectionate in his home, and his generous and devoted relations with his children and grandchildren are among the finest features of his character.

Jefferson began his public service as a justice of the peace and parish vestryman; he was chosen a member of the Virginia house of burgesses in 1769 and of every succeeding assembly and convention of the colony until he entered the Continental Congress in 1775. His forceful, facile pen gave him great influence from the first; but though a foremost member of several great deliberative bodies, he can fairly be said never to have made a speech. He hated the "morbid rage of debate" because he believed that men were never convinced by argument, but only by reflection, through reading or unprovocative conversation; and this belief guided him through life. Moreover it is very improbable that he could ever have shone as a public speaker, and to this fact unfriendly critics have attributed, at least in part, his abstention from debate. The house of burgesses of 1769, and its successors in 1773 and 1774, were dissolved by the governor (see VIRGINIA) for their action on the subject of colonial grievances and intercolonial co-operation. Jefferson was prominent in all; was a signer of the Virginia agreement of non-importation and economy (1769); and was elected in 1774 to the first Virginia convention, called to consider the state of the colony and advance intercolonial union. Prevented by illness from attending, Jefferson sent to the convention elaborate resolutions, which he proposed as instructions to the Virginia delegates to the Continental Congress that was to meet at Philadelphia in September. In the direct language of reproach and advice, with no disingenuous loading of the Crown's policy upon its agents, these resolutions attacked the errors of the king, and maintained that "the relation between Great Britain and these colonies was exactly the same as that of England and Scotland after the accession of James and until the Union; and that our emigration to this country gave England no more rights over us than the emigration of the Danes and Saxons gave to the present authorities of their mother country over England." This was cutting at the common root of allegiance, emigration and colonization; but such radicalism was too thorough-going for the immediate end. The resolutions were published, however, as a pamphlet, entitled *A Summary View of the Rights of America*, which was widely circulated. In England, after receiving such modifications—attributed to Burke—as adapted it to the purposes of the opposition, this pamphlet ran through many editions, and procured for its author, as he said, "the honour of having his name inserted in a long list of proscriptions enrolled in a bill of attainder commenced in one of the two houses of parliament, but suppressed in embryo by the hasty course of events." It placed Jefferson among the foremost leaders of revolution, and procured for him the honour of drafting, later, the Declaration of Independence, whose historical portions were, in large part, only a revised transcript of the *Summary View*. In June 1775 he took his seat in the Continental Congress, taking with him fresh credentials of radicalism in the shape of Virginia's answer, which he had drafted, to Lord North's conciliatory propositions. Jefferson soon drafted the reply of Congress to the same propositions. Reappointed to the next Congress, he signalized his service by the authorship of the Declaration of Independence (*q.v.*). Again reappointed, he surrendered his seat, and after refusing a proffered election to serve as a commissioner with Benjamin Franklin and Silas Deane in France, he entered again, in October 1776, the Virginia legislature, where he considered his services most needed.

The local work to which Jefferson attributed such importance was a revision of Virginia's laws. Of the measures proposed to this end he says: "I considered four, passed or reported, as forming a system by which every trace would be eradicated of ancient or future aristocracy, and a foundation laid for a government truly republican"—the repeal of the laws of entail; the abolition of primogeniture and the unequal division of inheritances (Jefferson was himself an eldest son); the guarantee of freedom of conscience and relief of the people from supporting, by taxation, an established church; and a system of general education. The first object was embodied in law in 1776, the second in 1785, the third[2] in 1786 (supplemented 1799, 1801). The last two were parts of a body of codified laws prepared (1776–1779) by Edmund Pendleton,[3] George Wythe, and Jefferson, and principally by Jefferson. Not so fortunate were Jefferson's ambitious schemes of education. District, grammar and classical schools, a free state library and a state college, were all included in his plan. He was the first American statesman to make education by the state a fundamental article of democratic faith. His bill for elementary education he regarded as the most important part of the code, but Virginia had no strong middle class, and the planters would not assume the burden of educating the poor. At this time Jefferson championed the natural right of expatriation, and gradual emancipation of the slaves. His earliest legislative effort, in the five-day session of 1769, had been marked by an effort to secure to masters freedom to manumit their slaves without removing them from the state. It was unsuccessful, and the more radical measure he now favoured was even more impossible of attainment; but a bill he introduced to prohibit the importation of slaves was passed in 1778—the only important change effected in the slave system of the state during the War of Independence. Finally he endeavoured, though unsuccessfully, to secure the introduction of juries into the courts of chancery, and—a generation and more before the fruition of the labours of Romilly and his coworkers in England—aided in securing a humanitarian revision of the penal code,[4] which, though lost by one vote in 1785, was sustained by public sentiment, and was adopted in 1796. Jefferson is of course not entitled to the sole credit for all these services: Wythe, George Mason and James Madison, in particular, were his devoted lieutenants, and—after his departure for France—the principals in the struggle; moreover, an approving public opinion must receive large credit. But Jefferson was throughout the chief inspirer and foremost worker.

In 1779, at almost the gloomiest stage of the war in the southern states, Jefferson succeeded Patrick Henry as the governor of Virginia, being the second to hold that office after the organization of the state government. In his second term (1780–1781) the state was overrun by British expeditions, and Jefferson, a civilian, was blamed for the ineffectual resistance. Though he cannot be said to have been eminently fitted for the task that devolved upon him in such a crisis, most of the criticism of his

[1] It was embarrassed with a debt, however, of £3749, which, owing to conditions caused by the War of Independence, he really paid three times to his British creditors (not counting destruction on his estates, of equal amount, ordered by Lord Cornwallis). This greatly reduced his income for a number of years.

[2] The first law of its kind in Christendom, although not the earliest practice of such liberty in America.

[3] George Mason and Thomas L. Lee were members of the commission, but they were not lawyers, and did little actual work on the revision.

[4] Capital punishment was confined to treason and murder; the former was not to be attended by corruption of blood, drawing, or quartering; all other felonies were made punishable by confinement and hard labour, save a few to which was applied, against Jefferson's desire, the principle of retaliation.

administration was undoubtedly grossly unjust. His conduct being attacked, he declined renomination for the governorship, but was unanimously returned by Albemarle as a delegate to the state legislature; and on the day previously set for legislative inquiry on a resolution offered by an impulsive critic, he received, by unanimous vote of the house, a declaration of thanks and confidence. He wished however to retire permanently from public life, a wish strengthened by the illness and death of his wife. At this time he composed his *Notes on Virginia*, a semi-statistical work full of humanitarian liberalism. Congress twice offered him an appointment as one of the plenipotentiaries to negotiate peace with England, but, though he accepted the second offer, the business was so far advanced before he could sail that his appointment was recalled. During the following winter (1783) he was again in Congress, and headed the committee appointed to consider the treaty of peace. In the succeeding session his service was marked by a report, from which resulted the present monetary system of the United States (the fundamental idea of its decimal basis being due, however, to Gouverneur Morris); and by the honour of reporting the first definitely formulated plan for the government of the western territories,[1] that embodied in the ordinance of 1784. He was already particularly associated with the great territory north-west of the Ohio; for Virginia had tendered to Congress in 1781, while Jefferson was governor, a cession of her claims to it, and now in 1784 formally transferred the territory by act of Jefferson and his fellow delegates in congress: a consummation for which he had laboured from the beginning. His anti-slavery opinions grew in strength with years (though he was somewhat inconsistent in his attitude on the Missouri question in 1820–1821). Not only justice but patriotism as well pleaded with him the cause of the negroes,[2] for he foresaw the certainty that the race must some day, in some way, be freed, and the dire political dangers involved in the institution of slavery; and could any feasible plan of emancipation have been suggested he would have regarded its cost as a mere bagatelle.

From 1784 to 1789 Jefferson was in France, first under an appointment to assist Benjamin Franklin and John Adams in negotiating treaties of commerce with European states, and then as Franklin's successor (1785–1789) as minister to France.[3] In these years he travelled widely in western Europe. Though the commercial principles of the United States were far too liberal for acceptance, as such, by powers holding colonies in America, Jefferson won some specific concessions to American trade. He was exceedingly popular as a minister. The criticism is even to-day current with the uninformed that Jefferson took his manners,[4] morals, "irreligion" and political philosophy from his French residence; and it cannot be wholly ignored. It may therefore be said that there is nothing except unsubstantiated scandal to contradict the conclusion, which various evidence supports, that Jefferson's morals were pure. His religious views and political beliefs will be discussed later. His theories had a deep and broad basis in English whiggism; and though he may well have found at least confirmation of his own ideas in French writers—and notably in Condorcet—he did not read sympathetically the writers commonly named, Rousseau and Montesquieu; besides, his democracy was seasoned, and he was rather a teacher than a student of revolutionary politics when he went to Paris. The *Notes on Virginia* were widely read in Paris, and undoubtedly had some influence in forwarding the dissolution of the doctrines of divine rights and passive obedience among the cultivated classes of France. Jefferson was deeply interested in all the events leading up to the French Revolution, and all his ideas were coloured by his experience of the five seething years passed in Paris. On the 3rd of June 1789 he proposed to the leaders of the third estate a compromise between the king and the nation. In July he received the extraordinary honour of being invited to assist in the deliberations of the committee appointed by the national assembly to draft a constitution. This honour his official position compelled him, of course, to decline; for he sedulously observed official proprieties, and in no way gave offence to the government to which he was accredited.

When Jefferson left France it was with the intention of soon returning; but President Washington tendered him the secretaryship of state in the new federal government, and Jefferson reluctantly accepted. His only essential objection to the constitution—the absence of a bill of rights—was soon met, at least partially, by amendments. Alexander Hamilton (*q.v.*) was secretary of the treasury. These two men, antipodal in temperament and political belief, clashed in irreconcilable hostility, and in the conflict of public sentiment, first on the financial measures of Hamilton, and then on the questions with regard to France and Great Britain, Jefferson's sympathies being predominantly with the former, Hamilton's with the latter, they formed about themselves the two great parties of Democrats and Federalists. The schools of thought for which they stood have since contended for mastery in American politics: Hamilton's gradually strengthened by the necessities of stronger administration, as time gave widening amplitude and increasing weight to the specific powers—and so to Hamilton's great doctrine of the "implied powers"—of the general government of a growing country; Jefferson's rooted in colonial life, and buttressed by the hopes and convictions of democracy.

The most perplexing questions treated by Jefferson as secretary of state arose out of the policy of neutrality adopted by the United States toward France, to whom she was bound by treaties and by a heavy debt of gratitude. Separation from European politics—the doctrine of "America for Americans" that was embodied later in the Monroe declaration—was a tenet cherished by Jefferson as by other leaders (not, however, Hamilton) and by none cherished more firmly, for by nature he was peculiarly opposed to war, and peace was a fundamental part of his politics. However deep, therefore, his French sympathies, he drew the same safe line as did Washington between French politics and American politics,[5] and handled the Genet complications to the satisfaction of even the most partisan Federalists. He expounded, as a very high authority has said, "with remarkable clearness and power the nature and scope of neutral duty," and gave a "classic" statement of the doctrine of recognition.[6]

But the French question had another side in its reaction on American parties.[7] Jefferson did not read excesses in Paris as warnings against democracy, but as warnings against the abuses

[1] This plan applied to the south-western as well as to the north-western territory, and was notable for a provision that slavery should not exist therein after 1800. This provision was defeated in 1784, but was adopted in 1787 for the north-western territory—a step which is very often said to have saved the Union in the Civil War; the south-western territory (out of which were later formed Mississippi, Alabama, &c.) being given over to slavery. Thus the anti-slavery clause of the ordinance of 1784 was not adopted; and it was preceded by unofficial proposals to the same end; yet to it belongs rightly some special honour as blazoning the way for federal control of slavery in the territories, which later proved of such enormous consequence. Jefferson in the first draft of the Ordinance of 1784, suggested the names to be given to the states eventually to be formed out of the territory concerned. For his suggestions he has been much ridiculed. The names are as follows: Illinoia, Michigania, Sylvania, Polypotamia, Assenisipia, Charronesus, Pelisipia, Saratoga, Metropotamia and Washington.

[2] He owned at one time above 150 slaves. His overseers were under contract never to bleed them; but he manumitted only a few at his death.

[3] During this time he assisted in negotiating a treaty of amity and commerce with Prussia (1785) and one with Morocco (1789), and negotiated with France a "convention defining and establishing the functions and privileges of consuls and vice-consuls" (1788).

[4] Patrick Henry humorously declaimed before a popular audience that Jefferson, who favoured French wine and cookery, had "abjured his native victuals."

[5] Jefferson did not sympathize with the temper of his followers who condoned the zealous excesses of Genet, and in general with the "misbehaviour" of the democratic clubs; but, as a student of English liberties, he could not accept Washington's doctrine that for a self-created permanent body to declare "this act unconstitutional, and that act pregnant with mischiefs" was "a stretch of arrogant presumption" which would, if unchecked, "destroy the country."

[6] John Basset Moore, *American Diplomacy* (New York, 1905).

[7] Compare C. D. Hazen, *Contemporary American opinion of the French Revolution* (Johns Hopkins University, Baltimore, 1897).

of monarchy; nor did he regard Bonaparte's *coup d'état* as revealing the weakness of republics, but rather as revealing the danger of standing armies; he did not look on the war of the coalitions against France as one of mere powers, but as one between forms of government; and though the immediate fruits of the Revolution belied his hopes, as they did those of ardent humanitarians the world over, he saw the broad trend of history, which vindicated his faith that a successful reformation of government in France would insure "a general reformation through Europe, and the resurrection to a new life of their people." Each of these statements could be reversed as regards Hamilton. It is the key to an understanding of the times to remember that the War of Independence had disjointed society; and democracy—which Jefferson had proclaimed in the Declaration of Independence, and enthroned in Virginia—after strengthening its rights by the sword, had run to excesses, particularly in the Shays' rebellion, that produced a conservative reaction. To this reaction Hamilton explicitly appealed in the convention of 1787; and of this reaction various features of the constitution, and Hamiltonian federalism generally, were direct fruits. Moreover, independently of special incentives to the alarmist and the man of property, the opinions of many Americans turned again, after the war, into a current of sympathy for England, as naturally as American commerce returned to English ports. Jefferson, however, far from America in these years and unexposed to reactionary influences, came back with undiminished fervour of democracy, and the talk he heard of praise for England, and fearful recoil before even the beginning of the revolution in France, disheartened him, and filled him with suspicion.[1] Hating as he did feudal class institutions and Tudor-Stuart traditions of arbitrary rule,[2] his attitude can be imagined toward Hamilton's oft-avowed partialities—and Jefferson assumed, his intrigues—for British class-government with its eighteenth-century measure of corruption. In short, Hamilton took from recent years the lesson of the evils of lax government; whereas Jefferson clung to the other lesson, which crumbling colonial governments had illustrated, that governments derived their strength (and the Declaration had proclaimed that they derived their just rights) from the will of the governed. Each built his system accordingly: the one on the basis of order, the other on individualism—which led Jefferson to liberty alike in religion and in politics. The two men and the fate of the parties they led are understandable only by regarding one as the leader of reaction, the other as in line with the American tendencies. The educated classes characteristically furnished Federalism with a remarkable body of alarmist leaders; and thus it happened that Jefferson, because, with only a few of his great contemporaries, he had a thorough trust and confidence in the people, became the idol of American democracy.

As Hamilton was somewhat officious and very combative, and Jefferson, although uncontentious, very suspicious and quite independent, both men holding inflexibly to opinions, cabinet harmony became impossible when the two secretaries had formed parties about them and their differences were carried into the newspapers;[3] and Washington abandoned perforce his idea "if parties did exist to reconcile them." Partly from discontent with a position in which he did not feel that he enjoyed the absolute confidence of the president,[4] and partly because of the embarrassed condition of his private affairs, Jefferson repeatedly sought to resign, and finally on the 31st of December 1793, with Washington's reluctant consent, gave up his portfolio and retired to his home at Monticello, near Charlottesville.

Here he remained improving his estate (having refused a foreign mission) until elected vice-president in 1796. Jefferson was never truly happy except in the country. He loved gardening, experimented enthusiastically in varieties and rotations of crops and kept meteorological tables with diligence. For eight years he tabulated with painful accuracy the earliest and latest appearance of thirty-seven vegetables in the Washington market. When abroad he sought out varieties of grasses, trees, rice and olives for American experiment, and after his return from France received yearly for twenty-three years, from his old friend the superintendent of the *Jardin des plantes*, a box of seeds, which he distributed to public and private gardens throughout the United States. Jefferson seems to have been the first discoverer of an exact formula for the construction of mould-boards of least resistance for ploughs. He managed to make practical use of his calculus about his farms, and seems to have been remarkably apt in the practical application of mechanical principles.

In the presidential election of 1796 John Adams, the Federalist candidate, received the largest number of electoral votes, and Jefferson, the Republican candidate, the next largest number, and under the law as it then existed the former became president and the latter vice-president. Jefferson re-entered public life with reluctance, though doubtless with keen enough interest and resolution. He had rightly measured the strength of his followers, and was waiting for the government to "drift into unison" with the republican sense of its constituents, predicting that President Adams would be "overborne" thereby. This prediction was speedily fulfilled. At first the reign of terror and the X. Y. Z. disclosures strengthened the Federalists, until these, mistaking the popular resentment against France for a reaction against democracy—an equivalence in their own minds—passed the alien and sedition laws. In answer to those odious measures Jefferson and Madison prepared and procured the passage of the Kentucky and Virginia resolutions. These resolutions later acquired extraordinary and pernicious prominence in the historical elaboration of the states'-rights doctrine. It is, however, unquestionably true, that as a startling protest against measures "to silence," in Jefferson's words, "by force and not by reason the complaints or criticisms, just or unjust, of our citizens against the conduct of our agents," they served, in this respect, a useful purpose; and as a counterblast against Hamiltonian principles of centralization they were probably, at that moment, very salutary; while even as pieces of constitutional interpretation it is to be remembered that they did not contemplate nullification by any single state, and, moreover, are not to be judged by constitutional principles established later by courts and war. The Federalist party had ruined itself, and it lost the presidential election of 1800. The Republican candidates, Jefferson and Aaron Burr (*q.v.*), receiving equal votes, it devolved upon the House of Representatives, in accordance with the system which then obtained, to make one of the two president, the other vice-president. Party feeling in America has probably never been more dangerously impassioned than in the three years preceding

[1] It was at this period of his life that Jefferson gave expression to some of the opinions for which he has been most severely criticized and ridiculed. For the Shays' rebellion he felt little abhorrence, and wrote: "A little rebellion now and then is a good thing . . . an observation of this truth should render honest republican governors so mild in their punishment of rebellions as not to discourage them too much. It is a medicine necessary for the sound health of government" (*Writings*, Ford ed., iv. 362–363). Again, "Can history produce an instance of rebellion so honorably conducted? . . . God forbid that we should ever be twenty years without such a rebellion. . . . What signify a few lives lost in a century or two? The tree of liberty must be refreshed from time to time with the blood of patriots and tyrants. It is its natural manure" (Ibid. iv. 467). Again he says: "Societies exist under three forms—(1) without government, as among our Indians; (2) under governments wherein the will of every one has a just influence. . . . (3) under governments of force. . . . It is a problem not clear in my mind that the first condition is not the best." (Ibid. iv. 362.)

[2] He turned law students from Blackstone's toryism to Coke on Littleton; and he would not read Walter Scott, so strong was his aversion to that writer's predilection for class and feudalism.

[3] Hamilton wrote for the papers himself; Jefferson never did. A talented clerk in his department, however, Philip Freneau, set up an anti-administration paper. It was alleged that Jefferson appointed him for the purpose, and encouraged him. Undoubtedly there was nothing in the charge. The Federalist outcry could only have been silenced by removal of Freneau, or by disclaimers or admonitions, which Jefferson did not think it incumbent upon himself—or, since he thought Freneau was doing good, desirable for him—to make.

[4] Contrary to the general belief that Hamilton dominated Washington in the cabinet, there is the president's explicit statement that "there were as many instances" of his deciding against as in favour of the secretary of the treasury.

this election; discount as one will the contrary obsessions of men like Fisher Ames, Hamilton and Jefferson, the time was fateful. Unable to induce Burr to avow Federalist principles, influential Federalists, in defiance of the constitution, contemplated the desperate alternative of preventing an election, and appointing an extra-constitutional (Federalist) president *pro tempore*. Better counsels, however, prevailed; Hamilton used his influence in favour of Jefferson as against Burr, and Jefferson became president, entering upon his duties on the 4th of March 1801. Republicans who had affiliated with the Federalists at the time of the X.Y.Z. disclosures returned; very many of the Federalists themselves Jefferson placated and drew over. "Believing," he wrote, "that (excepting the ardent monarchists) all our citizens agreed in ancient whig principles"—or, as he elsewhere expressed it, in "republican forms"—"I thought it advisable to define and declare them, and let them see the ground on which we can rally." This he did in his inaugural, which, though somewhat rhetorical, is a splendid and famous statement of democracy.[1] His conciliatory policy produced a mild schism in his own party, but proved eminently wise, and the state elections of 1801 fulfilled his prophecy of 1791 that the policy of the Federalists would leave them "all head and no body." In 1804 he was re-elected by 162 out of 176 votes.

Jefferson's administrations were distinguished by the simplicity that marked his conduct in private life. He eschewed the pomp and ceremonies, natural inheritances from English origins, that had been an innocent setting to the character of his two noble predecessors. His dress was of "plain cloth" on the day of his inauguration. Instead of driving to the Capitol in a coach and six, he walked without a guard or servant from his lodgings—or, as a rival tradition has it, he rode, and hitched his horse to a neighbouring fence—attended by a crowd of citizens. Instead of opening Congress with a speech to which a formal reply was expected, he sent in a written message by a private hand. He discontinued the practice of sending ministers abroad in public vessels. Between himself and the governors of states he recognized no difference in rank. He would not have his birthday celebrated by state balls. The weekly levée was practically abandoned. Even such titles as "Excellency," "Honourable," "Mr" were distasteful to him. It was formally agreed in cabinet meeting that "when brought together in society, all are perfectly equal, whether foreign or domestic, titled or untitled, in or out of office." Thus diplomatic grades were ignored in social precedence and foreign relations were seriously compromised by dinner-table complications. One minister who appeared in gold lace and dress sword for his first, and regularly appointed, official call on the president, was received—as he insisted with studied purpose—by Jefferson in negligent undress and slippers down at the heel. All this was in part premeditated system[2]—a part of Jefferson's purpose to republicanize the government and public opinion, which was the distinguishing feature of his administration; but it was also simply the nature of the man. In the company he chose by preference, honesty and knowledge were his only tests. He knew absolutely no social distinctions in his willingness to perform services for the deserving. He held up to his daughter as an especial model the family of a poor but gifted mechanic as one wherein she would see "the best examples of rational living." "If it be possible," he said, "to be certainly conscious of anything, I am conscious of feeling no difference between writing to the highest and lowest being on earth."

Jefferson's first administration was marked by a reduction of the army, navy, diplomatic establishment and, to the uttermost, of governmental expenses; some reduction of the civil service, accompanied by a large shifting of offices to Republicans; and, above all, by the Louisiana Purchase (*q.v.*), following which Meriwether Lewis and William Clark, sent by Jefferson, conducted their famous exploring expedition across the continent to the Pacific (see Lewis, Meriwether). Early in his term he carried out a policy he had urged upon the government when minister to France and when vice-president, by dispatching naval forces to coerce Tripoli into a decent respect for the trade of his country—the first in Christendom to gain honourable immunity from tribute or piracy in the Mediterranean. The Louisiana Purchase, although the greatest "inconsistency" of his career, was also an illustration, in corresponding degree, of his essential practicality, and one of the greatest proofs of his statesmanship. It was the crowning achievement of his administration. It is often said that Jefferson established the "spoils system" by his changes in the civil service. He was the innovator, because for the first time there was opportunity for innovation. But mere justice requires attention to the fact that incentive to that innovation, and excuse for it, were found in the absolute one-party monopoly maintained by the Federalists. Moreover, Jefferson's ideals were high; his reasons for changes were in general excellent; he at least so far resisted the great pressure for office—producing by his resistance dissatisfaction within his party—as not to have lowered, apparently, the personnel of the service; and there were no such blots on his administration as President Adams's "midnight judges." Nevertheless, his record here was not clear of blots, showing a few regrettable inconsistencies.[3] Among important but secondary measures of his second administration were the extinguishment of Indian titles, and promotion of Indian emigration to lands beyond the Mississippi; reorganization of the militia; fortification of the seaports; reduction of the public debt; and a simultaneous reduction of taxes. But his second term derives most of its historical interest from the unsuccessful efforts to convict Aaron Burr of treasonable acts in the south-west, and from the efforts made to maintain, without war, the rights of neutrals on the high seas. In his diplomacy with Napoleon and Great Britain Jefferson betrayed a painful incorrigibility of optimism. A national policy of "growling before fighting"—later practised successfully enough by the United States—was not then possible; and one writer has very justly said that what chiefly affects one in the whole matter is the pathos of it—"a philosopher and a friend of peace struggling with a despot of superhuman genius, and a Tory cabinet of superhuman insolence and stolidity" (Trent). It is possible to regard the embargo policy dispassionately as an interesting illustration of Jefferson's love of peace. The idea—a very old one with Jefferson—was not entirely original; in essence it received other attempted applications in the Napoleonic period—and especially in the continental blockade. Jefferson's statesmanship had the limitations of an agrarian outlook. The extreme to which he carried his advocacy of diplomatic isolation, his opposition to the creation of an adequate navy,[4] his estimate of cities as "sores upon the body politic," his prejudice against manufactures, trust in farmers, and political distrust of the artisan class, all reflect them.

When, on the 4th of March 1809, Jefferson retired from the presidency, he had been almost continuously in the public service for forty years. He refused to be re-elected for a third time, though requested by the legislatures of five states to be a candidate; and thus, with Washington's prior example, helped

[1] See also Jefferson to E. Gerry, 26th of January 1799 (*Writings*, vii. 325), and to Dupont de Nemours (x. 23). Cf. Hamilton to J. Dayton, 1799 (*Works*, x. 329).

[2] In 1786 he suggested to James Monroe that the society of friends he hoped to gather in Albemarle might, in sumptuary matters, "set a good example" to a country (*i.e.* Virginia) that "needed" it.

[3] See C. R. Fish, *The Civil Service and the Patronage* (Harvard Historical Studies, New York, 1905), ch. 2.

[4] Jefferson's dislike of a navy was due to his desire for an economical administration and for peace. Shortly after his inauguration he expressed a desire to lay up the larger men of war in the eastern branch of the Potomac, where they would require only "one set of plunderers to take care of them." To Thomas Paine he wrote in 1807: "I believe that gunboats are the only *water* defence which can be useful to us and protect us from the ruinous folly of a navy." (*Works*, Ford ed., ix. 137.) The gunboats desired by Jefferson were small, cheap craft equipped with one or two guns and kept on shore under sheds until actually needed, when they were to be launched and manned by a sort of naval militia. A large number of these boats were constructed and they afforded some protection to coasting vessels against privateers, but in bad weather, or when employed against a frigate, they were worse than useless, and Jefferson's "gunboat system" was admittedly a failure.

to establish a precedent deemed by him to be of great importance under a democratic government. His influence seemed scarcely lessened in his retirement. Madison and Monroe, his immediate successors—neighbours and devoted friends, whom he had advised in their early education and led in their maturer years—consulted him on all great questions, and there was no break of principles in the twenty-four years of the "Jeffersonian system." Jefferson was one of the greatest political managers his country has known. He had a quick eye for character, was genuinely amiable, uncontentious, tactful, masterful; and it may be assumed from his success that he was wary or shrewd to a degree. It is true, moreover, that, unless tested by a few unchanging principles, his acts were often strikingly inconsistent; and even when so tested, not infrequently remain so in appearance. Full explanations do not remove from some important transactions in his political life an impression of indirectness. But reasonable judgment must find very unjust the stigma of duplicity put upon him by the Federalists. Measured by the records of other men equally successful as political leaders, there seems little of this nature to criticize severely. Jefferson had the full courage of his convictions. Extreme as were his principles, his pertinacity in adhering to them and his independence of expression were quite as extreme. There were philosophic and philanthropic elements in his political faith which will always lead some to class him as a visionary and fanatic; but although he certainly indulged at times in dreams at which one may still smile, he was not, properly speaking, a visionary; nor can he with justice be stigmatized as a fanatic. He felt fervently, was not afraid to risk all on the conclusions to which his heart and his mind led him, declared himself with openness and energy; and he spoke and even wrote his conclusions, how ever bold or abstract, without troubling to detail his reasoning or clip his off-hand speculations. Certain it is that there is much in his utterances for a less robust democracy than his own to cavil at.[1] Soar, however, as he might, he was essentially not a doctrinaire, but an empiricist; his mind was objective. Though he remained, to the end, firm in his belief that there had been an active monarchist party,[2] this obsession did not carry him out of touch with the realities of human nature and of his time. He built with surety on the colonial past, and had a better reasoned view of the actual future than had any of his contemporaries.

Events soon appraised the ultra-Federalist judgment of American democracy, so tersely expressed by Fisher Ames as "like death . . . only the dismal passport to a more dismal hereafter"; and, with it, appraised Jefferson's word in his first inaugural for those who, "in the full tide of successful experiment," were ready to abandon a government that had so far kept them "free and firm, on the visionary fear that it might by possibility lack energy to preserve itself." Time soon tested, too, his principle that that government must prove the strongest on earth "where every man . . . would meet invasions of the public order as his own personal concern." He summed up as follows the difference between himself and the Hamiltonian group: "One feared most the ignorance of the people; the other the selfishness of rulers independent of them." Jefferson, in short, had unlimited faith in the honesty of the people; a large faith in their common sense; believed that all is to be won by appealing to the reason of voters; that by education their ignorance can be eliminated; that human nature is indefinitely perfectible; that majorities rule, therefore, not only by virtue of force (which was Locke's ultimate justification of them), but of right.[3] His importance as a maker of modern America can scarcely be overstated, for the ideas he advocated have become the very foundations of American republicanism. His administration ended the possibility, probability or certainty—measure it as one will—of the development of Federalism in the direction of class government; and the party he formed, inspired by the creed he gave it, fixed the democratic future of the nation. And by his own labours he had vindicated his faith in the experiment of self-government.

Jefferson's last years were devoted to the establishment of the university of Virginia at Charlottesville, near his home. He planned the buildings, gathered its faculty—mainly from abroad—and shaped its organization. Practically all the great ideas of aim, administration and curriculum that dominated American universities at the end of the 19th century were anticipated by him. He hoped that the university might be a dominant influence in national culture, but circumstances crippled it. His educational plans had been maturing in his mind since 1776. His financial affairs in these last years gave him grave concern. His fine library of over 10,000 volumes was purchased at a low price by Congress in 1815, and a national contribution ($16,500) just before his death enabled him to die in peace. Though not personally extravagant, his salary, and the small income from his large estates, never sufficed to meet his generous maintenance of his representative position; and after his retirement from public life the numerous visitors to Monticello consumed the remnants of his property. He died on the 4th of July 1826, the fiftieth anniversary of the Declaration of Independence, on the same day as John Adams. He chose for his tomb the epitaph: "Here was buried Thomas Jefferson, author of the Declaration of American Independence, of the statute of Virginia for religious freedom, and father of the university of Virginia."

Jefferson was about 6 ft. in height, large-boned, slim, erect and sinewy. He had angular features, a very ruddy complexion, sandy hair, and hazel-flecked, grey eyes. Age lessened the unattractiveness of his exterior. In later years he was negligent in dress and loose in bearing. There was grace, nevertheless, in his manners; and his frank and earnest address, his quick sympathy (yet he seemed cold to strangers), his vivacious, desultory, informing talk, gave him an engaging charm. Beneath a quiet surface he was fairly aglow with intense convictions and a very emotional temperament. Yet he seems to have acted habitually, in great and little things, on system. His mind, no less trenchant and subtle than Hamilton's, was the most impressible, the most receptive, mind of his time in America. The range of his interests is remarkable. For many years he was president of the American philosophical society. Though it is a biographical tradition that he lacked wit, Molière and *Don Quixote* seem to have been his favourites; and though the utilitarian wholly crowds romanticism out of his writings, he had enough of that quality in youth to prepare to learn Gaelic in order to translate Ossian, and sent to Macpherson for the originals! His interest in art was evidently intellectual. He was singularly sweet-tempered, and shrank from the impassioned political bitterness that raged about him; bore with relative equanimity a flood of coarse and malignant abuse of his motives, morals, religion,[4] personal honesty and decency; cherished very few personal animosities; and better than any of his great antagonists cleared political opposition of ill-blooded personality. In short, his kindness of heart rose above all social, religious or political differences, and nothing destroyed his confidence in men and his sanguine views of life.

AUTHORITIES.—See the editions of Jefferson's *Writings* by H. A. Washington (9 vols., New York, 1853–1854), and—the best—by Paul

[1] See *e.g.* his letters in 1787 on the Shays' rebellion, and his speculations on the doctrine that one generation may not bind another by paper documents. With the latter may be compared present-day movements like the initiative and referendum, and not a few discussions of national debts. Jefferson's distrust of governments was nothing exceptional for a consistent individualist.

[2] In his last years he carefully sifted and revised his contemporary notes evidencing, as he believed, the existence of such a party, and they remain as his *Ana* (chiefly Hamiltoniana). The only just judgment of these notes is to be obtained by looking at them, and by testing his suspicions with the letters of Hamilton, Ames, Oliver Wolcott, Theodore Sedgwick, George Cabot and the other Hamiltonians. Such a comparison measures also the relative judgment, temper and charity of these writers and Jefferson. It must still remain true, however, that Jefferson's *Ana* present him in a far from engaging light.

[3] "Jefferson, in 1789, wrote some such stuff about the will of majorities, as a New Englander would lose his rank among men of sense to avow."—Fisher Ames (Jan. 1800).

[4] He was classed as a "French infidel" and atheist. His attitude toward religion was in fact deeply reverent and sincere, but he insisted that religion was purely an individual matter, "evidenced, as concerns the world by each one's daily life," and demanded absolute freedom of private judgment. He looked on Unitarianism with much sympathy and desired its growth. "I am a Christian," he wrote in 1823, "in the only sense in which he (Jesus) wished any one to be; sincerely attached to his doctrines in preference to all others; ascribing to himself every human excellence, and believing he never claimed any other."

Leicester Ford (10 vols., New York, 1892–1899); letters in Massachusetts Historical Society, *Collections*, series 7, vol. i.; S. E. Forman, *The Letters and Writings of Thomas Jefferson, including all his Important Utterances on Public Questions* (1900); J. P. Foley, *The Jefferson Cyclopaedia* (New York, 1900); the *Memoir, Correspondence*, &c., by T. J. Randolph (4 vols., Charlottesville, Va., 1829); biographies by James Schouler ("Makers of America Series," New York, 1893); John T. Morse ("American Statesmen Series," Boston, 1883), George Tucker (2 vols., Philadelphia, 1837); James Parton (Boston, 1874); and especially that by Henry S. Randall (3 vols., New York, 1853), a monumental work, although marred by some special pleading, and sharing Jefferson's implacable opinions of the "Monocrats." See also Henry Adams, *History of the United States 1801–1817*, vols. 1–4 (New York, 1889–1890); Herbert B. Adams, *Thomas Jefferson and the University of Virginia* (U. S. bureau of education, Washington, 1888); Sarah N. Randolph, *Domestic Life of Thomas Jefferson* (New York, 1871); and an illuminating appreciation by W. P. Trent, in his *Southern Statesmen of the Old Régime* (New York, 1897); that by John Fiske, *Essays, Historical and Literary*, vol. i. (New York, 1902), has slighter merits. (F. S. P.)

JEFFERSON CITY (legally and officially the City of Jefferson), the capital of Missouri, U.S.A., and the county-seat of Cole county, on the Missouri river, near the geographical centre of the state, about 125 m. W. of St Louis. Pop. (1890), 6742; (1900), 9664, of whom 786 were foreign-born and 1822 were negroes; (1910 census), 11,850. It is served by the Missouri Pacific, the Chicago & Alton, and the Missouri, Kansas & Texas railways. Its site is partly in the bottom-lands of the river and partly on the steep banks at an elevation of about 600 ft. above the sea. A steel bridge spans the river. The state capitol, an imposing structure built on a bluff above the river, was built in 1838–1842 and enlarged in 1887–1888; it was first occupied in 1840 by the legislature, which previously had met (after 1837) in the county court house. Other prominent buildings are the United States court house and post office, the state supreme court house, the county court house, the state penitentiary, the state armoury and the executive mansion. The penitentiary is to a large extent self-supporting; in 1903–1904 the earnings were $3493.80 in excess of the costs, but in 1904–1906 the costs exceeded the earnings by $9044. Employment is furnished for the convicts on the pentitentiary premises by incorporated companies. The state law library here is one of the best of the kind in the country, and the city has a public library. In the city is Lincoln Institute, a school for negroes, founded in 1866 by two regiments of negro infantry upon their discharge from the United States army, opened in 1868, taken over by the state in 1879, and having sub-normal, normal, college, industrial and agricultural courses. Coal and limestone are found near the city. In 1905 the total value of the factory product was $3,926,632, an increase of 28·2% since 1900. The original constitution of Missouri prescribed that the capital should be on the Missouri river within 40 m. of the mouth of the Osage, and a commission selected in 1821 the site of Jefferson City, on which a town was laid out in 1822, the name being adopted in honour of Thomas Jefferson. The legislature first met here in 1826; Jefferson City became the county-seat in 1828, and in 1839 was first chartered as a city. The constitutional conventions of 1845 and 1875, and the state convention which issued the call for the National Liberal Republican convention at Cincinnati in 1872, met here, and so for some of its sessions did the state convention of 1861–1863. In June 1861 Jefferson City was occupied by Union forces, and in September–October 1864 it was threatened by Confederate troops under General Sterling Price.

JEFFERSONVILLE, a city and the county-seat of Clark county, Indiana, U.S.A., situated on the N. bank of the Ohio river, opposite Louisville, Kentucky, with which it is connected by several bridges. Pop. (1890), 10,666; (1900), 10,774, of whom 1818 were of negro descent and 615 were foreign-born; (1910 census), 10,412. It is served by the Baltimore & Ohio South-western, the Cleveland, Cincinnati, Chicago & St Louis, and the Pittsburg, Cincinnati, Chicago & St Louis railways, and by three inter-urban electric lines. It is attractively situated on bluffs above the river, which at this point has a descent (known as the falls of the Ohio) of 26 ft. in 2 m. This furnishes good water power for manufacturing purposes both at Jeffersonville and at Louisville. The total value of the factory product in 1905 was $4,526,443, an increase of 20 % since 1900. The Indiana reformatory (formerly the Southern Indiana penitentiary) and a large supply dépôt of the United States army are at Jeffersonville. General George Rogers Clark started (June 24, 1778) on his expedition against Kaskaskia and Vincennes from Corn Island (now completely washed away) opposite what is now Jeffersonville. In 1786 the United States government established Fort Finney (built by Captain Walter Finney), afterwards re-named Fort Steuben, on the site of the present city; but the fort was abandoned in 1791, and the actual beginning of Jeffersonville was in 1802, when a part of the Clark grant (the site of the present city) was transferred by its original owner, Lieut. Isaac Bowman, to three trustees, under whose direction a town was laid out. Jeffersonville was incorporated as a town in 1815, and was chartered as a city in 1839.

JEFFREY, FRANCIS JEFFREY, Lord (1773–1850), Scottish judge and literary critic, son of a depute-clerk in the Court of Session, was born at Edinburgh on the 23rd of October 1773. After attending the high school for six years, he studied at the university of Glasgow from 1787 to May 1789, and at Queen's College, Oxford, from September 1791 to June 1792. He had begun the study of law at Edinburgh before going to Oxford, and now resumed his studies there. He became a member of the speculative society, where he measured himself in debate with Scott, Brougham, Francis Horner, the marquess of Lansdowne, Lord Kinnaird and others. He was admitted to the Scotch bar in December 1794, but, having abandoned the Tory principles in which he had been educated, he found that his Whig politics seriously prejudiced his legal prospects. In consequence of his lack of success at the bar he went to London in 1798 to try his fortune as a journalist, but without success; he also made more than one vain attempt to obtain an office which would have secured him the advantage of a small but fixed salary. His marriage with Catherine Wilson in 1801 made the question of a settled income even more pressing. A project for a new review was brought forward by Sydney Smith in Jeffrey's flat in the presence of H. P. Brougham (afterwards Lord Brougham), Francis Horner and others; and the scheme resulted in the appearance on the 10th of October 1802 of the first number of the *Edinburgh Review*. At the outset the *Review* was not under the charge of any special editor. The first three numbers were, however, practically edited by Sydney Smith, and on his leaving for England the work devolved chiefly on Jeffrey, who, by an arrangement with Constable, the publisher, was eventually appointed editor at a fixed salary. Most of those associated in the undertaking were Whigs; but, although the general bias of the *Review* was towards social and political reforms, it was at first so little of a party organ that for a time it numbered Sir Walter Scott among its contributors; and no distinct emphasis was given to its political leanings until the publication in 1808 of an article by Jeffrey himself on the work of Don Pedro Cevallos on the *French Usurpation of Spain*. This article expressed despair of the success of the British arms in Spain, and Scott at once withdrew his subscription, the *Quarterly* being soon afterwards started in opposition. According to Lord Cockburn the effect of the first number of the *Edinburgh Review* was "electrical." The English reviews were at that time practically publishers' organs, the articles in which were written by hack-writers instructed to praise or blame according to the publishers' interests. Few men of any standing consented to write for them. The *Edinburgh Review*, on the other hand, enlisted a brilliant and independent staff of contributors, guided by the editor, not the publisher. They received sixteen guineas a sheet (sixteen printed pages), increased subsequently to twenty-five guineas in many cases, instead of the two guineas which formed the ordinary London reviewer's fee. Further, the review was not limited to literary criticism. It constituted itself the accredited organ of moderate Whig public opinion. The particular work which provided the starting-point of an article was in many cases merely the occasion for the exposition, always

brilliant and incisive, of the author's views on politics, social subjects, ethics or literature. These general principles and the novelty of the method ensured the success of the undertaking even after the original circle of exceptionally able men who founded it had been dispersed. It had a circulation, great for those days, of 12,000 copies. The period of Jeffrey's editorship extended to about twenty-six years, ceasing with the ninety-eighth number, published in June 1829, when he resigned in favour of Macvey Napier.

Jeffrey's own contributions, according to a list which has the sanction of his authority, numbered two hundred, all except six being written before his resignation of the editorship. Jeffrey wrote with great rapidity, at odd moments of leisure and with little special preparation. Great fluency and ease of diction, considerable warmth of imagination and moral sentiment, and a sharp eye to discover any oddity of style or violation of the accepted canons of good taste, made his criticisms pungent and effective. But the essential narrowness and timidity of his general outlook prevented him from detecting and estimating latent forces, either in politics or in matters strictly intellectual and moral; and this lack of understanding and sympathy accounts for his distrust and dislike of the passion and fancy of Shelley and Keats, and for his praise of the half-hearted and elegant romanticism of Rogers and Campbell. (For his treatment of the lake poets see WORDSWORTH, WILLIAM.)

A criticism in the fifteenth number of the *Review* on the morality of Moore's poems led in 1806 to a duel between the two authors at Chalk Farm. The proceedings were stopped by the police, and Jeffrey's pistol was found to contain no bullet. The affair led to a warm friendship, however, and Moore contributed to the *Review*, while Jeffrey made ample amends in a later article on *Lalla Rookh* (1817).

Jeffrey's wife had died in 1805, and in 1810 he became acquainted with Charlotte, daughter of Charles Wilkes of New York, and great-niece of John Wilkes. When she returned to America, Jeffrey followed her, and they were married in 1813. Before returning to England they visited several of the chief American cities, and his experience strengthened Jeffrey in the conciliatory policy he had before advocated towards the States. Notwithstanding the increasing success of the *Review*, Jeffrey always continued to look to the bar as the chief field of his ambition. As a matter of fact, his literary reputation helped his professional advancement. His practice extended rapidly in the civil and criminal courts, and he regularly appeared before the general assembly of the Church of Scotland, where his work, though not financially profitable, increased his reputation. As an advocate his sharpness and rapidity of insight gave him a formidable advantage in the detection of the weaknesses of a witness and the vulnerable points of his opponent's case, while he grouped his own arguments with an admirable eye to effect, especially excelling in eloquent closing appeals to a jury. Jeffrey was twice, in 1820 and 1822, elected lord rector of the university of Glasgow. In 1829 he was chosen dean of the faculty of advocates. On the return of the Whigs to power in 1830 he became lord advocate, and entered parliament as member for the Perth burghs. He was unseated, and afterwards returned for Malton, a borough in the interest of Lord Fitzwilliam. After the passing of the Scottish Reform Bill, which he introduced in parliament, he was returned for Edinburgh in December 1832. His parliamentary career, which, though not brilliantly successful, had won him high general esteem, was terminated by his elevation to the judicial bench as Lord Jeffrey in May 1834. In 1842 he was moved to the first division of the Court of Session. On the disruption of the Scottish Church he took the side of the seceders, giving a judicial opinion in their favour, afterwards reversed by the house of lords. He died at Edinburgh on the 26th of January 1850.

Some of his contributions to the *Edinburgh Review* appeared in four volumes in 1844 and 1845. This selection includes the essay on "Beauty" contributed to the *Ency. Brit.* The *Life of Lord Jeffrey, with a Selection from his Correspondence*, by Lord Cockburn, appeared in 1852 in 2 vols. See also the *Selected Correspondence of Macvey Napier* (1877); the sketch of Jeffrey in Carlyle's *Reminiscences*, vol. ii. (1881); and an essay by Lewis E. Gates in *Three Studies in Literature* (New York, 1899).

JEFFREYS, GEORGE JEFFREYS, 1ST BARON (1648–1689), lord chancellor of England, son of John Jeffreys, a Welsh country gentleman, was born at Acton Park, his father's seat in Denbighshire, in 1648. His family, though not wealthy, was of good social standing and repute in Wales; his mother, a daughter of Sir Thomas Ireland of Bewsey, Lancashire, was "a very pious good woman." He was educated at Shrewsbury, St Paul's and Westminster schools, at the last of which he was a pupil of Busby, and at Trinity College, Cambridge; but he left the university without taking a degree, and entered the Inner Temple as a student in May 1663. From his childhood Jeffreys displayed exceptional talent, but on coming to London he occupied himself more with the pleasures of conviviality than with serious study of the law. Though he never appears to have fallen into the licentious immorality prevalent at that period, he early became addicted to hard drinking and boisterous company. But as the records of his early years, and indeed of his whole life, are derived almost exclusively from vehemently hostile sources, the numerous anecdotes of his depravity cannot be accepted without a large measure of scepticism. He was a handsome, witty and attractive boon-companion, and in the taverns of the city he made friends among attorneys with practice in the criminal courts. Thus assisted he rose so rapidly in his profession that within three years of his call to the bar in 1668, he was elected common serjeant of the city of London. Such advancement, however, was not to be attained even in the reign of Charles II. solely by the aid of disreputable friendships. Jeffreys had remarkable aptitude for the profession of an advocate—quick intelligence, caustic humour, copious eloquence. His powers of cross-examination were masterly; and if he was insufficiently grounded in legal principles to become a profound lawyer, nothing but greater application was needed in the opinion of so hostile a critic as Lord Campbell, to have made him the rival of Nottingham and Hale. Jeffreys could count on the influence of respectable men of position in the city, such as Sir Robert Clayton and his own namesake Alderman Jeffreys; and he also enjoyed the personal friendship of the virtuous Sir Matthew Hale. In 1667 Jeffreys had married in circumstances which, if improvident, were creditable to his generosity and sense of honour; and his domestic life, so far as is known, was free from the scandal common among his contemporaries. While holding the judicial office of common serjeant, he pursued his practice at the bar. With a view to further preferment he now sought to ingratiate himself with the court party, to which he obtained an introduction possibly through William Chiffinch, the notorious keeper of the king's closet. He at once attached himself to the king's mistress, the duchess of Portsmouth; and as early as 1672 he was employed in confidential business by the court. His influence in the city of London, where opposition to the government of Charles II. was now becoming pronounced, enabled Jeffreys to make himself useful to Danby. In September 1677 he received a knighthood, and his growing favour with the court was further marked by his appointment as solicitor-general to James, duke of York; while the city showed its continued confidence in him by electing him to the post of recorder in October 1678.

In the previous month Titus Oates had made his first revelations of the alleged popish plot, and from this time forward Jeffreys was prominently identified, either as advocate or judge, with the memorable state trials by which the political conflict between the Crown and the people was waged during the remainder of the 17th century. The popish plot, followed by the growing agitation for the exclusion of the duke of York from the succession, widened the breach between the city and the court. Jeffreys threw in his lot with the latter, displaying his zeal by initiating the movement of the "abhorrers" (*q.v.*) against the "petitioners" who were giving voice to the popular demand for the summoning of parliament. He was rewarded with the coveted office of chief justice of Chester on the 30th

of April 1680; but when parliament met in October the House of Commons passed a hostile resolution which induced him to resign his recordership, a piece of pusillanimity that drew from the king the remark that Jeffreys was "not parliament-proof." Jeffreys nevertheless received from the city aldermen a substantial token of appreciation for his past services. In 1681 he was created a baronet. In June 1683 the first of the Rye House conspirators were brought to trial. Jeffreys was briefed for the crown in the prosecution of Lord William Howard; and, having been raised to the bench as lord chief justice of the king's bench in September, he presided at the trials of Algernon Sidney in November 1683 and of Sir Thomas Armstrong in the following June. In the autumn of 1684 Jeffreys, who had been active in procuring the surrender of municipal charters to the crown, was called to the cabinet, having previously been sworn of the privy council. In May 1685 he had the satisfaction of passing sentence on Titus Oates for perjury in the plot trials; and about the same time James II. rewarded his zeal with a peerage as Baron Jeffreys of Wem, an honour never before conferred on a chief justice during his tenure of office. Jeffreys had for some time been suffering from stone, which aggravated the irritability of his naturally violent temper; and the malady probably was in some degree the cause of the unmeasured fury he displayed at the trial of Richard Baxter (*q.v.*) for seditious libel—if the unofficial *ex parte* report of the trial, which alone exists, is to be accepted as trustworthy.

In August 1685 Jeffreys opened at Winchester the commission known in history as the "bloody assizes," his conduct of which has branded his name with indelible infamy. The number of persons sentenced to death at these assizes for complicity in the duke of Monmouth's insurrection is uncertain. The official return of those actually executed was 320; many hundreds more were transported and sold into slavery in the West Indies. In all probability the great majority of those condemned were in fact concerned in the rising, but the trials were in many cases a mockery of the administration of justice. Numbers were cajoled into pleading guilty; the case for the prisoners seldom obtained a hearing. The merciless severity of the chief justice did not however exceed the wishes of James II.; for on his return to London Jeffreys received from the king the great seal with the title of lord chancellor. For the next two years he was a strenuous upholder of prerogative, though he was less abjectly pliant than has sometimes been represented. There is no reason to doubt the sincerity of his attachment to the Church of England; for although the king's favour was capricious, Jeffreys never took the easy and certain path to secure it that lay through apostasy; and he even withstood James on occasion, when the latter pushed his Catholic zeal to extremes. Though it is true that he accepted the presidency of the ecclesiastical commission, Burnet's statement that it was Jeffreys who suggested that institution to James is probably incorrect; and he was so far from having instigated the prosecution of the seven bishops in 1688, as has been frequently alleged, that he disapproved of the proceedings and rejoiced secretly at the acquittal. But while he watched with misgiving the king's preferment of Roman Catholics, he made himself the masterful instrument of unconstitutional prerogative in coercing the authorities of Cambridge University, who in 1687 refused to confer degrees on a Benedictine monk, and the fellows of Magdalen College, Oxford, who declined to elect as their president a disreputable nominee of the king.

Being thus conspicuously identified with the most tyrannical measures of James II., Jeffreys found himself in a desperate plight when on the 11th of December 1688 the king fled from the country on the approach to London of William of Orange. The lord chancellor attempted to escape like his master; but in spite of his disguise as a common seaman he was recognized in a tavern at Wapping—possibly, as Roger North relates, by an attorney whom Jeffreys had terrified on some occasion in the court of chancery—and was arrested and conveyed to the Tower. The malady from which he had long suffered had recently made fatal progress, and he died in the Tower on the 18th of April 1689. He was succeeded in the peerage by his son, John (2nd Baron Jeffreys of Wem), who died without male issue in 1702, when the title became extinct.

It is impossible to determine precisely with what justice tradition has made the name of "Judge Jeffreys" a byword of infamy. The Revolution, which brought about his fall, handed over his reputation at the same time to the mercy of his bitterest enemies. They alone have recorded his actions and appraised his motives and character. Even the adherents of the deposed dynasty had no interest in finding excuse for one who served as a convenient scapegoat for the offences of his master. For at least half a century after his death no apology for Lord Jeffreys would have obtained a hearing; and none was attempted. With the exception therefore of what is to be gathered from the reports of the state trials, all knowledge of his conduct rests on testimony tainted by undisguised hostility. Innumerable scurrilous lampoons vilifying the hated instrument of James's tyranny, but without a pretence of historic value, flooded the country at the Revolution; and these, while they fanned the undiscriminating hatred of contemporaries who remembered the judge's severities, and perpetuated that hatred in tradition, have not been sufficiently discounted even by modern historians like Macaulay and Lord Campbell. The name of Jeffreys has therefore been handed down as that of a coarse, ignorant, dissolute, foul-mouthed, inhuman bully, who prostituted the seat of justice. That there was sufficient ground for the execration in which his memory was long held is not to be gainsaid. But the portrait has nevertheless been blackened overmuch. An occasional significant admission in his favour may be gleaned even from the writings of his enemies. Thus Roger North declares that "in matters indifferent," *i.e.* where politics were not concerned, Jeffreys became the seat of justice better than any other that author had seen in his place. Sir J. Jekyll, master of the rolls, told Speaker Onslow that Jeffreys "had great parts and made a great chancellor in the business of his court. In mere private matters he was thought an able and upright judge wherever he sat." His keen sense of humour, allied with a spirit of inveterate mockery and an exuberant command of pungent eloquence, led him to rail and storm at prisoners and witnesses in grossly unseemly fashion. But in this he did not greatly surpass most of his contemporaries on the judicial bench, and it was a failing from which even the dignified and virtuous Hale was not altogether exempt. The intemperance of Jeffreys which shocked North, certainly did not exceed that of Saunders; in violence he was rivalled by Scroggs; though accused of political apostasy, he was not a shameless renegade like Williams; and there is no evidence that in pecuniary matters he was personally venal, or that in licentiousness he followed the example set by Charles II. and most of his courtiers. Some of his actions that have incurred the sternest reprobation of posterity were otherwise estimated by the best of his contemporaries. His trial of Algernon Sidney, described by Macaulay and Lord Campbell as one of the most heinous of his iniquities, was warmly commended by Dr William Lloyd, who was soon afterwards to become a popular idol as one of the illustrious seven bishops (see letter from the bishop of St Asaph in H. B. Irving's *Life of Judge Jeffreys*, p. 184). Nor was the habitual illegality of his procedure on the bench so unquestionable as many writers have assumed. Sir James Stephen inclined to the opinion that no actual abuse of law tainted the trials of the Rye House conspirators, or that of Alice Lisle, the most prominent victim of the "bloody assizes." The conduct of the judges in Russell's trial was, he thinks, "moderate and fair in general"; and the trial of Sidney "much resembled that of Russell." The same high authority pronounces that the trial of Lord Delamere in the House of Lords was conducted by Jeffreys "with propriety and dignity." And if Jeffreys judged political offenders with cruel severity, he also crushed some glaring abuses; conspicuous examples of which were the frauds of attorneys who infested Westminster Hall, and the systematic kidnapping practised by the municipal authorities of Bristol. Moreover, if any value is to be attached to the evidence of physiognomy, the

traditional estimate of the character of Jeffreys obtains no confirmation from the refinement of his features and expression as depicted in Kneller's portrait in the National Portrait Gallery of London. But even though the popular notion requires to be thus modified in certain respects, it remains incontestable that Jeffreys was probably on the whole the worst example of a period when the administration of justice in England had sunk to the lowest degradation, and the judicial bench had become the too willing tool of an unconstitutional and unscrupulous executive.

BIBLIOGRAPHY.—The chief contemporary authorities for the life of Jeffreys are Bishop Burnet's *History of my own Time* (1724), and see especially the edition " with notes by the Earls of Dartmouth and Hardwick, Speaker Onslow and Dean Swift " (Oxford Univ. Press, 1833); Roger North's *Life of the Right Hon. Francis North, Baron of Guildford* (1808) and *Autobiography* (ed. by Augustus Jessopp, 1887); *Ellis Correspondence*, *Verney Papers* (Hist. MSS. Comm.), *Hatton Correspondence* (Camden Soc. pub.); the earl of Ailesbury's *Memoirs*; Evelyn's *Diary*. The only trustworthy information as to the judicial conduct and capacity of Jeffreys is to be found in the reports of the *State Trials*, vols. vii.–xii.; and cf. Sir J. F. Stephen's *History of the Criminal Law of England* (1883). For details of the " bloody assizes," see *Harl. MSS.*, 4689; George Roberts, *The Life, Progresses and Rebellion of James Duke of Monmouth*, vol. ii. (1844); also many pamphlets, lampoons, &c., in the British Museum, as to which see the article on " Sources of History for Monmouth's Rebellion and the Bloody Assizes," by A. L. Humphreys, in *Proceedings of the Somersetshire Archaeological and Natural Hist. Soc.* (1892). Later accounts are by H. W. Woolrych, *Memoirs of the Life of Judge Jeffreys* (1827); Lord Campbell, *The Lives of the Lord Chancellors* (1845), 1st series, vol. iii.; E. Foss, *The Judges of England* (1864), vol. vii.; Henry Roscoe, *Lives of Eminent British Lawyers* (1830); Lord Macaulay, *History of England* (1848; and many subsequent editions). Most of these works, and especially those by Macaulay and Campbell, are uncritical in their hostility to Jeffreys, and are based for the most part on untrustworthy authorities. The best modern work on the subject, though unduly favourable to Jeffreys, is H. B. Irving's *Life of Judge Jeffreys* (1898), the appendix to which contains a full bibliography.

(R. J. M.)

JEHOIACHIN (Heb. " Yah[weh] establisheth "), in the Bible, son of Jehoiakim and king of Judah (2 Kings xxiv. 8 sqq.; 2 Chron, xxxvi. 9 seq.). He came to the throne at the age of eighteen in the midst of the Chaldean invasion of Judah, and is said to have reigned three months. He was compelled to surrender to Nebuchadrezzar and was carried off to Babylon (597 B.C.). This was the First Captivity, and from it Ezekiel (one of the exiles) dates his prophecies. Eight thousand people of the better class (including artisans, &c.) were removed, the Temple was partially despoiled (see Jer. xxvii. 18–20; xxiii.v. 3 seq.),[1] and Jehoiachin's uncle Mattaniah (son of Josiah) was appointed king. Jehoiachin's fate is outlined in Jer. xxii. 20–30 (cf. xxvii. 20). Nearly forty years later, Nebuchadrezzar II. died (562 B.C.) and Evil-Merodach (Amil-Marduk) his successor released the unfortunate captive and gave him precedence over the other subjugated kings who were kept prisoners in Babylon. With this gleam of hope for the unhappy Judaeans both the book of Kings and the prophecies of Jeremiah conclude (2 Kings xxv. 27–30; Jer. lii. 31–34).

See, further, JEREMIAH (especially chaps. xxiv., xxvii. seq.), and JEWS, § 17.

JEHOIAKIM (Heb. " Yah[weh] raiseth up "), in the Bible, son of Josiah (*q.v.*) and king of Judah (2 Kings xxiii. 34–xxiv. 6). On the defeat of Josiah at Megiddo his younger brother Jehoahaz (or Shallum) was chosen by the Judaeans, but the Egyptian conquerer Necho summoned him to his headquarters at Riblah (south of Hamath on the Orontes) and removed him to Egypt, appointing in his stead Eliakim, whose name (" El[God] raiseth up ") was changed to its better-known synonym, Jehoiakim. For a time Jehoiakim remained under the protection of Necho and paid heavy tribute; but with the rise of the new Chaldean Empire under Nebuchadrezzar II., and the overthrow of Egypt at the battle of Carchemish (605 B.C.) a vital change occurred. After three years of allegiance the king revolted. Invasions followed by Chaldeans, Syrians, Moabites and Ammonites, perhaps the advance troops despatched by the Babylonian king; the power of Egypt was broken and the whole land came into the hands of Nebuchadrezzar. It was at the close of Jehoiakim's reign, apparently just before his death, that the enemy appeared at the gates of Jerusalem, and although he himself " slept with his fathers " his young son was destined to see the first captivity of the land of Judah (597 B.C.). (See JEHOIACHIN.)

Which " three years " (2 Kings xxiv. 1) are intended is disputed; it is uncertain whether Judah suffered in 605 B.C. (Berossus in Jos. *c. Ap.* i. 19) or was left unharmed (Jos. *Ant.* x. 6. 1); perhaps Nebuchadrezzar made his first inroad against Judah in 602 B.C. because of its intrigue with Egypt (H. Winckler, *Keilinschrift. u. d. alte Test.*, pp. 107 seq.), and the three years of allegiance extends to 599. The chronicler's tradition (2 Chron. xxxvi. 5–8) speaks of Jehoiakim's captivity, apparently confusing him with Jehoiachin. The Septuagint, however, still preserves there the record of his peaceful death, in agreement with the earlier source in 2 Kings, but against the prophecy of Jeremiah (xxii. 18 seq., xxxvi. 30), which is accepted by Jos. *Ant.* x. 6. 3. The different traditions can scarcely be reconciled. Nothing certain is known of the marauding bands sent against Jehoiakim; for Syrians (*Aram*) one would expect Edomites (*Edom*), but see Jer. xxxv. 11; some recensions of the Septuagint even include the " Samaritans "! (For further references to this reign see especially JEREMIAH; see also JEWS: *History*, § 17.) (S. A. C.)

JEHOL (" hot stream "), or CH'ÊNG-TÊ-FU, a city of China, formerly the seat of the emperor's summer palace, near 118° E. and 41° N., about 140 m. N.E. of Peking, with which it is connected by an excellent road. Pop. (estimate), 10,000. It is a flourishing town, and consists of one great street, about 2 m. long, with smaller streets radiating in all directions. The people are well-to-do and there are some fine shops. The palace, called Pi-shu-shan-chuang, or " mountain lodge for avoiding heat," was built in 1703 on the plan of the palace of Yuen-ming-yuen near Peking. A substantial brick wall 6 m. in circuit encloses several well-wooded heights and extensive gardens, rockeries, pavilions, temples, &c. Jehol was visited by Lord Macartney on his celebrated mission to the emperor K'ienlung in 1793; and it was to Jehol that the emperor Hienfêng retired when the allied armies of England and France occupied Peking in 1860. In the vicinity of Jehol are numerous Lama monasteries and temples, the most remarkable being Potala-su, built on the model of the palace of the grand lama of Tibet at Potala.

JEHORAM, or JORAM (Heb. " Yah[weh] is high "), the name of two Biblical characters.

1. The son of Ahab, and king of Israel in succession to his brother Ahaziah.[2] He maintained close relations with Judah, whose king came to his assistance against Moab which had revolted after Ahab's death (2 Kings i. 1; iii.). The king in question is said to have been Jehoshaphat; but, according to Lucian's recension, it was Ahaziah, whilst i. 17 would show that it was Jehoram's namesake (see 2). The result of the campaign appears to have been a defeat for Israel (see on the incidents EDOM, ELISHA, MOAB). The prophetical party were throughout hostile to Jehoram (with his reform iii. 2 contrast x. 27), and the singular account of the war of Benhadad king of Syria against the king of Israel (vi. 24–vii.) shows the feeling against the reigning dynasty. But whether the incidents in which Elisha and the unnamed king of Israel appear originally belonged to the time of Jehoram is very doubtful, and in view of the part which Elisha took in securing the accession of Jehu, it has been urged with much force that they belong to the dynasty of the latter, when the high position of the prophet would be perfectly natural.[3] The briefest account is given of Jehoram's alliance with Ahaziah (son of 2 below) against Hazael of Syria, at Ramoth-Gilead

[1] 2 Kings xxiv. 13 seq. gives other numbers and a view of the disaster which is more suitable for the Second Captivity. (See ZEDEKIAH.)

[2] 2 Kings i. 17 seq.; see Lucian's reading (cf. Vulg. and Pesh.). Apart from the allusion 1 Kings xxii. 49 (see 2 Chron. xx. 35), and the narrative in 2 Kings i. (see ELIJAH), nothing is known of this Ahaziah. Notwithstanding his very brief reign (1 Kings xxii. 51; 2 Kings iii. 1), the compiler passes the usual hostile judgment (1 Kings xxii. 52 seq.); see KINGS (BOOKS). The chronology in 1 Kings xxii. 51 is difficult; if Lucian's text (twenty-fourth year of Jehoshaphat) is correct, Jehoram 1 and 2 must have come to their respective thrones at almost the same time.

[3] In vii. 6 the hostility of Hittites and Mizraim (*q.v.*) points to a period *after* 842 B.C. (See JEWS, § 10 seq.)

(2 Kings viii. 25-29), and the incident—with the wounding of the Israelite king in or about the critical year 842 B.C.—finds a noteworthy parallel in the time of Jehoshaphat and Ahab (1 Kings xxii. 29–36) at the period of the equally momentous events in 854 (see AHAB). See further JEHU.

2. The son of Jehoshaphat and king of Judah. He married Athaliah the daughter of Ahab, and thus was brother-in-law of 1. above, and contemporary with him (2 Kings i. 17). In his days Edom revolted, and this with the mention of Libnah's revolt (2 Kings viii. 20 sqq.) suggests some common action on the part of Philistines and Edomites. The chronicler's account of his life (2 Chron. xxi–xxii. 1) presupposes this, but adds many remarkable details: he began his reign by massacring his brethren (cf. Jehu son of Jehoshaphat, and his bloodshed, 2 Kings ix. seq.); for his wickedness he received a communication from Elijah foretelling his death from disease (cf. Elijah and Ahaziah of Israel, 2 Kings i.); in a great invasion of Philistines and Arabian tribes he lost all his possessions and family, and only Jehoahaz (*i.e.* Ahaziah) was saved.[1] His son Ahaziah reigned only for a year (cf. his namesake of Israel); he is condemned for his Israelite sympathies, and met his end in the general butchery which attended the accession of Jehu (2 Kings viii. 25 sqq.; 2 Chron. xxii. 3 seq., 7; with 2 Kings ix. 27 seq., note the variant tradition in 2 Chron. xxii. 8 seq., and the details which the LXX. (Lucian) appends to 2 Kings x.). (S. A. C.)

JEHOSHAPHAT (Heb. "Yahweh judges"), in the Bible, son of Asa, and king of Judah, in the 9th century B.C. During his period close relations subsisted between Israel and Judah; the two royal houses were connected by marriage (see ATHALIAH; JEHORAM, 2), and undertook joint enterprise in war and commerce. Jehoshaphat aided Ahab in the battle against Benhadad at Ramoth-Gilead in which Ahab was slain (1 Kings xxii.; 2 Chron. xviii.; cf. the parallel incident in 2 Kings viii. 25–29), and trading journeys to Ophir were undertaken by his fleet in conjunction no doubt with Ahab as well as with his son Ahaziah (2 Chron. xx. 35 sqq.; 1 Kings xxii. 47 sqq.). The chronicler's account of his war against Moab, Ammon and Edomite tribes (2 Chron. xx.), must rest ultimately upon a tradition which is presupposed in the earlier source (1 Kings xxii. 47), and the disaster to the ships at Ezion-Geber at the head of the Gulf of Akaba preceded, if it was not the introduction to, the great revolt in the days of Jehoshaphat's son Jehoram, where, again, the details in 2 Chron. xxi. must rely in the first instance upon an old source. Apart from what is said of Jehoshaphat's legislative measures (2 Chron. xix. 4 sqq.; cf. the meaning of his name above), an account is preserved of his alliance with Jehoram of Israel against Moab (2 Kings iii.), on which see JEHORAM; MOAB. The "valley of Jehoshaphat" (Joel iii. 12) has been identified by tradition (as old as Eusebius) with the valley between Jerusalem and the mount of Olives. (S. A. C.)

JEHOVAH (YAHWEH[2]), in the Bible, the God of Israel. "Jehovah" is a modern mispronunciation of the Hebrew name, resulting from combining the consonants of that name, *Jhvh*, with the vowels of the word *ădōnāy*, "Lord," which the Jews substituted for the proper name in reading the scriptures. In such cases of substitution the vowels of the word which is to be read are written in the Hebrew text with the consonants of the word which is not to be read. The consonants of the word to be substituted are ordinarily written in the margin; but inasmuch as Adonay was regularly read instead of the ineffable name Jhvh, it was deemed unnecessary to note the fact at every occurrence. When Christian scholars began to study the Old Testament in Hebrew, if they were ignorant of this general rule or regarded the substitution as a piece of Jewish superstition, reading what actually stood in the text, they would inevitably pronounce the name Jĕhōvāh. It is an unprofitable inquiry who first made this blunder; probably many fell into it independently. The statement still commonly repeated that it originated with Petrus Galatinus (1518) is erroneous; Jehova occurs in manuscripts at least as early as the 14th century.

The form Jehovah was used in the 16th century by many authors, both Catholic and Protestant, and in the 17th was zealously defended by Fuller, Gataker, Leusden and others, against the criticisms of such scholars as Drusius, Cappellus and the elder Buxtorf. It appeared in the English Bible in Tyndale's translation of the Pentateuch (1530), and is found in all English Protestant versions of the 16th century except that of Coverdale (1535). In the Authorized Version of 1611 it occurs in Exod. vi. 3; Ps. lxxxiii. 18; Isa. xii. 2; xxvi. 4, beside the compound names Jehovah-jireh, Jehovah-nissi, Jehovah-shalom; elsewhere, in accordance with the usage of the ancient versions, Jhvh is represented by LORD (distinguished by capitals from the title "Lord," Heb. *adonay*). In the Revised Version of 1885 Jehovah is retained in the places in which it stood in the A. V., and is introduced also in Exod. vi. 2, 6, 7, 8; Ps. lxviii. 20; Isa. xlix. 14; Jer. xvi. 21; Hab. iii. 19. The American committee which cooperated in the revision desired to employ the name Jehovah wherever Jhvh occurs in the original, and editions embodying their preferences are printed accordingly.

Several centuries before the Christian era the name Jhvh had ceased to be commonly used by the Jews. Some of the later writers in the Old Testament employ the appellative Elohim, God, prevailingly or exclusively; a collection of Psalms (Ps. xlii.–lxxxiii.) was revised by an editor who changed the Jhvh of the authors into Elohim (see *e.g.* xlv. 7; xlviii. 10; l. 7; li. 14); observe also the frequency of "the Most High," "the God of Heaven," "King of Heaven," in Daniel, and of "Heaven" in First Maccabees. The oldest Greek versions (Septuagint), from the third century B.C., consistently use Κύριος, "Lord," where the Hebrew has Jhvh, corresponding to the substitution of Adonay for Jhvh in reading the original; in books written in Greek in this period (*e.g.* Wisdom, 2 and 3 Maccabees), as in the New Testament, Κύριος takes the place of the name of God. Josephus, who as a priest knew the pronunciation of the name, declares that religion forbids him to divulge it; Philo calls it ineffable, and says that it is lawful for those only whose ears and tongues are purified by wisdom to hear and utter it in a holy place (that is, for priests in the Temple); and in another passage, commenting on Lev. xxiv. 15 seq.: "If any one, I do not say should blaspheme against the Lord of men and gods, but should even dare to utter his name unseasonably, let him expect the penalty of death."[3]

Various motives may have concurred to bring about the suppression of the name. An instinctive feeling that a proper name for God implicitly recognizes the existence of other gods may have had some influence; reverence and the fear lest the holy name should be profaned among the heathen were potent reasons; but probably the most cogent motive was the desire to prevent the abuse of the name in magic. If so, the secrecy had the opposite effect; the name of the god of the Jews was one of the great names in magic, heathen as well as Jewish, and miraculous efficacy was attributed to the mere utterance of it.

In the liturgy of the Temple the name was pronounced in the priestly benediction (Num. vi. 27) after the regular daily sacrifice (in the synagogues a substitute—probably Adonay—was employed);[4] on the Day of Atonement the High Priest uttered the name ten times in his prayers and benediction. In the last generations before the fall of Jerusalem, however, it was pronounced in a low tone so that the sounds were lost in the chant of the priests.[5]

[1] These details are scarcely the invention of the chronicler; see CHRONICLES, and *Expositor*, Aug. 1906, p. 191.

[2] This form, *Yahweh*, as the correct one, is generally used in the separate articles throughout this work.

[3] See Josephus, *Ant.* ii. 12, 4; Philo, *Vita Mosis*, iii. 11 (ii. §114, ed. Cohn and Wendland); ib. iii. 27 (ii. § 206). The Palestinian authorities more correctly interpreted Lev. xxiv. 15 seq., not of the mere utterance of the name, but of the use of the name of God in blaspheming God.

[4] *Siphrê*, Num. §§ 39, 43; *M. Sotah*, iii. 7; *Sotah*, 38*a*. The tradition that the utterance of the name in the daily benedictions ceased with the death of Simeon the Just, two centuries or more before the Christian era, perhaps arose from a misunderstanding of *Menaḥoth*, 109*b*; in any case it cannot stand against the testimony of older and more authoritative texts.

[5] *Yoma*, 39*b*; *Jer. Yoma*, iii. 7; *Kiddushin*, 71*a*.

After the destruction of the Temple (A.D. 70) the liturgical use of the name ceased, but the tradition was perpetuated in the schools of the rabbis.[1] It was certainly known in Babylonia in the latter part of the 4th century,[2] and not improbably much later. Nor was the knowledge confined to these pious circles; the name continued to be employed by healers, exorcists and magicians, and has been preserved in many places in magical papyri. The vehemence with which the utterance of the name is denounced in the Mishna—"He who pronounces the Name with its own letters has no part in the world to come!"[3]—suggests that this misuse of the name was not uncommon among Jews.

The Samaritans, who otherwise shared the scruples of the Jews about the utterance of the name, seem to have used it in judicial oaths to the scandal of the rabbis.[4]

The early Christian scholars, who inquired what was the true name of the God of the Old Testament, had therefore no great difficulty in getting the information they sought. Clement of Alexandria (d. *c.* 212) says that it was pronounced Ιαουε.[5] Epiphanius (d. 404), who was born in Palestine and spent a considerable part of his life there, gives Ιαβε (one cod. Ιανε).[6] Theodoret (d. *c.* 457),[7] born in Antioch, writes that the Samaritans pronounced the name Ιαβε (in another passage, Ιαβαι), the Jews Αἶα.[8] The latter is probably not Jhvh but *Ehyeh* (Exod. iii. 14), which the Jews counted among the names of God; there is no reason whatever to imagine that the Samaritans pronounced the name Jhvh differently from the Jews. This direct testimony is supplemented by that of the magical texts, in which Ιαβε ζεβυθ (Jahveh Ṣebāōth), as well as Ιαβα, occurs frequently.[9] In an Ethiopic list of magical names of Jesus, purporting to have been taught by him to his disciples, *Yāwē* is found.[10] Finally, there is evidence from more than one source that the modern Samaritan priests pronounce the name *Yahweh* or *Yahwa*.[11]

There is no reason to impugn the soundness of this substantially consentient testimony to the pronunciation Yahweh or Jahveh, coming as it does through several independent channels. It is confirmed by grammatical considerations. The name Jhvh enters into the composition of many proper names of persons in the Old Testament, either as the initial element, in the form Jeho- or Jo- (as in Jehoram, Joram), or as the final element, in the form *-jahu* or *-jah* (as in Adonijahu, Adonijah). These various forms are perfectly regular if the divine name was Yahweh, and, taken altogether, they cannot be explained on any other hypothesis. Recent scholars, accordingly, with but few exceptions, are agreed that the ancient pronunciation of the name was Yahweh (the first *h* sounded at the end of the syllable).

Genebrardus seems to have been the first to suggest the pronunciation *Iahuē*,[12] but it was not until the 19th century that it became generally accepted.

Jahveh or Yahweh is apparently an example of a common type of Hebrew proper names which have the form of the 3rd pers. sing. of the verb. *e.g.* Jabneh (name of a city), Jābīn, Jamlēḳ, Jiptāḥ (Jephthah), &c. Most of these really are verbs, the suppressed or implicit subject being *'ēl*, "*numen*, god," or the name of a god; cf. Jabneh and Jabnĕ-ēl, Jiptāḥ and Jiptaḥ-ēl.

The ancient explanations of the name proceed from Exod. iii. 14, 15, where "Yahweh[13] hath sent me" in *v.* 15 corresponds to "Ehyeh hath sent me" in *v.* 14, thus seeming to connect the name Yahweh with the Hebrew verb *hāyāh*, "to become, to be." The Palestinian interpreters found in this the promise that God would be with his people (cf. *v.* 12) in future oppressions as he was in the present distress, or the assertion of his eternity, or eternal constancy; the Alexandrian translation Ἐγώ εἰμι ὁ ὤν . . . Ὁ ὢν ἀπέσταλκέν με πρὸς ὑμᾶς, understands it in the more metaphysical sense of God's absolute being. Both interpretations, "He (who) is (always the same)," and "He (who) is (absolutely, the truly existent)," import into the name all that they profess to find in it; the one, the religious faith in God's unchanging fidelity to his people, the other, a philosophical conception of absolute being which is foreign both to the meaning of the Hebrew verb and to the force of the tense employed. Modern scholars have sometimes found in the name the expression of the aseity[14] of God; sometimes of his reality, in contrast to the imaginary gods of the heathen. Another explanation, which appears first in Jewish authors of the middle ages and has found wide acceptance in recent times, derives the name from the causative of the verb; He (who) causes things to be, gives them being; or calls events into existence, brings them to pass; with many individual modifications of interpretation—creator, life-giver, fulfiller of promises. A serious objection to this theory in every form is that the verb *hāyāh*, "to be," has no causative stem in Hebrew; to express the ideas which these scholars find in the name Yahweh the language employs altogether different verbs.

This assumption that Yahweh is derived from the verb "to be," as seems to be implied in Exod. iii. 14 seq., is not, however, free from difficulty. "To be" in the Hebrew of the Old Testament is not *hāwāh*, as the derivation would require, but *hāyāh*; and we are thus driven to the further assumption that *hāwāh* belongs to an earlier stage of the language, or to some older speech of the forefathers of the Israelites. This hypothesis is not intrinsically improbable—and in Aramaic, a language closely related to Hebrew, "to be" actually is *hāwā*—but it should be noted that in adopting it we admit that, using the name Hebrew in the historical sense, Yahweh is not a Hebrew name. And, inasmuch as nowhere in the Old Testament, outside of Exod. iii., is there the slightest indication that the Israelites connected the name of their God with the idea of "being" in any sense, it may fairly be questioned whether, if the author of Exod. iii. 14 seq., intended to give an etymological interpretation of the name Yahweh,[15] his etymology is any better than many other paronomastic explanations of proper names in the Old Testament, or than, say, the connexion of the name Ἀπόλλων with ἀπολούων, ἀπολύων in Plato's *Cratylus*, or the popular derivation from ἀπόλλυμι.

A root *hāwāh* is represented in Hebrew by the nouns *hōwāh* (Ezek., Isa. xlvii. 11) and *hawwāh* (Ps., Prov., Job) "disaster, calamity, ruin."[16] The primary meaning is probably "sink down, fall," in which sense—common in Arabic—the verb appears in Job xxxvii. 6 (of snow falling to earth). A Catholic commentator of the 16th century, Hieronymus ab Oleastro, seems to have been the first to connect the name "Jehova" with *hōwāh* interpreting it *contritio, sive pernicies* (destruction of the Egyptians and Canaanites); Daumer, adopting the same etymology, took it in a more general sense: Yahweh, as well as Shaddai, meant "Destroyer," and fitly expressed the nature of the terrible god whom he identified with Moloch.

The derivation of Yahweh from *hāwāh* is formally unimpeachable, and is adopted by many recent scholars, who proceed, however, from the primary sense of the root rather than from the specific meaning of the nouns. The name is accordingly interpreted, He (who) falls (bactyl, *βαίτυλος*, meteorite); or causes (rain or lightning) to fall (storm god); or casts down (his foes, by his thunderbolts). It is obvious that if the derivation be correct, the significance of the name, which in itself denotes only "He falls" or "He fells," must be learned, if at all, from early Israelitish conceptions of the nature of Yahweh rather than from etymology.

[1] R. Johanan (second half of the 3rd century), *Kiddushin*, 71*a*.
[2] Kiddushin, *l.c.* = *Pesaḥim*, 50*a*.
[3] *M. Sanhedrin*, x. 1; Abba Saul, end of 2nd century.
[4] *Jer. Sanhedrin*, x. 1; R. Mana, 4th century.
[5] *Strom.* v. 6. Variants: Ια ουε, Ια ουαι; cod. L. Ιαου.
[6] *Panarion*, Haer. 40, 5; cf. Lagarde, *Psalter juxta Hebraeos*, 154.
[7] *Quaest.* 15 *in Exod.*; *Fab. haeret. compend.* v. 3, *sub fin.*
[8] Αἶα occurs also in the great magical papyrus of Paris, l. 3020 (Wessely, *Denkschrift. Wien. Akad.*, Phil. Hist. Kl., XXXVI. p. 120), and in the Leiden Papyrus, xvii. 31.
[9] See Deissmann, *Bibelstudien*, 13 sqq.
[10] See Driver, *Studia Biblica*, I. 20.
[11] See Montgomery, *Journal of Biblical Literature*, xxv. (1906), 49–51.
[12] *Chronographia*, Paris, 1567 (ed. Paris, 1600, p. 79 seq.).
[13] This transcription will be used henceforth.
[14] *A-se-itas*, a scholastic Latin expression for the quality of existing by oneself.
[15] The critical difficulties of these verses need not be discussed here. See W. R. Arnold, "The Divine Name in Exodus iii. 14," *Journal of Biblical Literature*, XXIV. (1905), 107–165.
[16] Cf. also *hawwāh*, "desire," Mic. vii. 3; Prov. x. 3.

A more fundamental question is whether the name Yahweh originated among the Israelites or was adopted by them from some other people and speech.[1] The biblical author of the history of the sacred institutions (P) expressly declares that the name Yahweh was unknown to the patriarchs (Exod. vi. 3), and the much older Israelite historian (E) records the first revelation of the name to Moses (Exod. iii. 13–15), apparently following a tradition according to which the Israelites had not been worshippers of Yahweh before the time of Moses, or, as he conceived it, had not worshipped the god of their fathers under that name. The revelation of the name to Moses was made at a mountain sacred to Yahweh (the mountain of God) far to the south of Palestine, in a region where the forefathers of the Israelites had never roamed, and in the territory of other tribes; and long after the settlement in Canaan this region continued to be regarded as the abode of Yahweh (Judg. v. 4; Deut. xxxiii. 2 sqq.; 1 Kings xix. 8 sqq. &c.). Moses is closely connected with the tribes in the vicinity of the holy mountain; according to one account, he married a daughter of the priest of Midian (Exod. ii. 16 sqq.; iii. 1); to this mountain he led the Israelites after their deliverance from Egypt; there his father-in-law met him, and extolling Yahweh as "greater than all the gods," offered (in his capacity as priest of the place?) sacrifices, at which the chief men of the Israelites were his guests; there the religion of Yahweh was revealed through Moses, and the Israelites pledged themselves to serve God according to its prescriptions. It appears, therefore, that in the tradition followed by the Israelite historian the tribes within whose pasture lands the mountain of God stood were worshippers of Yahweh before the time of Moses; and the surmise that the name Yahweh belongs to their speech, rather than to that of Israel, has considerable probability. One of these tribes was Midian, in whose land the mountain of God lay. The Kenites also, with whom another tradition connects Moses, seem to have been worshippers of Yahweh. It is probable that Yahweh was at one time worshipped by various tribes south of Palestine, and that several places in that wide territory (Horeb, Sinai, Kadesh, &c.) were sacred to him; the oldest and most famous of these, the mountain of God, seems to have lain in Arabia, east of the Red Sea. From some of these peoples and at one of these holy places, a group of Israelite tribes adopted the religion of Yahweh, the God who, by the hand of Moses, had delivered them from Egypt.[2]

The tribes of this region probably belonged to some branch of the great Arab stock, and the name Yahweh has, accordingly, been connected with the Arabic *hawā*, "the void" (between heaven and earth), "the atmosphere," or with the verb *hawā*, cognate with Heb. *hāwāh*, "sink, glide down" (through space); *hawwā* "blow" (wind). "He rides through the air, He blows" (Wellhausen), would be a fit name for a god of wind and storm. There is, however, no certain evidence that the Israelites in historical times had any consciousness of the primitive significance of the name.

The attempts to connect the name Yahweh with that of an Indo-European deity (Jehoyah-Jove, &c.), or to derive it from Egyptian or Chinese, may be passed over. But one theory which has had considerable currency requires notice, namely, that Yahweh, or Yahu, Yaho,[3] is the name of a god worshipped throughout the whole, or a great part, of the area occupied by the Western Semites. In its earlier form this opinion rested chiefly on certain misinterpreted testimonies in Greek authors about a god Ἰάω, and was conclusively refuted by Baudissin; recent adherents of the theory build more largely on the occurrence in various parts of this territory of proper names of persons and places which they explain as compounds of Yahu or Yah.[4] The explanation is in most cases simply an assumption of the point at issue; some of the names have been misread; others are undoubtedly the names of Jews. There remain, however, some cases in which it is highly probable that names of non-Israelites are really compounded with Yahweh. The most conspicuous of these is the king of Hamath who in the inscriptions of Sargon (722–705 B.C.) is called Yaubi'di and Ilubi'di (compare Jehoiakim-Eliakim). Azriyau of Jaudi, also, in inscriptions of Tiglath-Pileser (745–728 B.C.), who was formerly supposed to be Azariah (Uzziah) of Judah, is probably a king of the country in northern Syria known to us from the Zenjirli inscriptions as Ja'di.

Friedrich Delitzsch brought into notice three tablets, of the age of the first dynasty of Babylon, in which he read the names of *Ya-a'-ve-ilu*, *Ya-ve-ilu*, and *Ya-ū-um-ilu* ("Yahweh is God"), and which he regarded as conclusive proof that Yahweh was known in Babylonia before 2000 B.C.; he was a god of the Semitic invaders in the second wave of migration, who were, according to Winckler and Delitzsch, of North Semitic stock (Canaanites, in the linguistic sense).[5] We should thus have in the tablets evidence of the worship of Yahweh among the Western Semites at a time long before the rise of Israel. The reading of the names is, however, extremely uncertain, not to say improbable, and the far-reaching inferences drawn from them carry no conviction. In a tablet attributed to the 14th century B.C. which Sellin found in the course of his excavations at Tell Ta'annuk (the Taanach of the O.T.) a name occurs which may be read Aḥi-Yawi (equivalent to Hebrew Ahijah);[6] if the reading be correct, this would show that Yahweh was worshipped in Central Palestine before the Israelite conquest. The reading is, however, only one of several possibilities. The fact that the full form Yahweh appears, whereas in Hebrew proper names only the shorter Yahu and Yah occur, weighs somewhat against the interpretation, as it does against Delitzsch's reading of his tablets.

It would not be at all surprising if, in the great movements of populations and shifting of ascendancy which lie beyond our historical horizon, the worship of Yahweh should have been established in regions remote from those which it occupied in historical times; but nothing which we now know warrants the opinion that his worship was ever general among the Western Semites.

Many attempts have been made to trace the West Semitic Yahu back to Babylonia. Thus Delitzsch formerly derived the name from an Akkadian god, I or Ia; or from the Semitic nominative ending, Yau;[7] but this deity has since disappeared from the pantheon of Assyriologists. The combination of Yah with Ea, one of the great Babylonian gods, seems to have a peculiar fascination for amateurs, by whom it is periodically "discovered." Scholars are now agreed that, so far as Yahu or Yah occurs in Babylonian texts, it is as the name of a foreign god.

Assuming that Yahweh was primitively a nature god, scholars in the 19th century discussed the question over what sphere of nature he originally presided. According to some he was the god of consuming fire; others saw in him the bright sky, or the heaven; still others recognized in him a storm god, a theory with which the derivation of the name from Heb. *hāwāh* or Arab. *hawā* well accords. The association of Yahweh with storm and fire is frequent in the Old Testament; the thunder is the voice of Yahweh, the lightning his arrows, the rainbow his bow. The revelation at Sinai is amid the awe-inspiring phenomena of tempest. Yahweh leads Israel through the desert in a pillar of cloud and fire; he kindles Elijah's altar by lightning, and translates the prophet in a chariot of fire. See also Judg. v. 4 seq.;

[1] See HEBREW RELIGION.

[2] The divergent Judaean tradition, according to which the forefathers had worshipped Yahweh from time immemorial, may indicate that Judah and the kindred clans had in fact been worshippers of Yahweh before the time of Moses.

[3] The form *Yahu*, or *Yaho*, occurs not only in composition, but by itself; see *Aramaic Papyri discovered at Assuan*, B 4, 6, 11; E 14; J 6. This is doubtless the original of Ἰάω, frequently found in Greek authors and in magical texts as the name of the God of the Jews.

[4] See a collection and critical estimate of this evidence by Zimmern, *Die Keilinschriften und das Alte Testament*, 465 sqq.

[5] *Babel und Bibel*, 1902. The enormous, and for the most part ephemeral, literature provoked by Delitzsch's lecture cannot be cited here.

[6] *Denkschriften d. Wien. Akad.*, L. iv. p. 115 seq. (1904).

[7] *Wo lag das Paradies?* (1881), pp. 158–166.

Deut. xxxiii. 1; Ps. xviii. 7–15; Hab. iii. 3–6. The cherub upon which he rides when he flies on the wings of the wind (Ps. xviii. 10) is not improbably an ancient mythological personification of the storm cloud, the genius of tempest (cf. Ps. civ. 3). In Ezekiel the throne of Yahweh is borne up on Cherubim, the noise of whose wings is like thunder. Though we may recognize in this poetical imagery the survival of ancient and, if we please, mythical notions, we should err if we inferred that Yahweh was originally a departmental god, presiding specifically over meteorological phenomena, and that this conception of him persisted among the Israelites till very late times. Rather, as the god—or the chief god—of a region and a people, the most sublime and impressive phenomena, the control of the mightiest forces of nature are attributed to him. As the God of Israel Yahweh becomes its leader and champion in war; he is a warrior, mighty in battle; but he is not a god of war in the specific sense.

In the inquiry concerning the nature of Yahweh the name Yahweh Sebaoth (E.V., The LORD of Hosts) has had an important place. The hosts have by some been interpreted of the armies of Israel (see 1 Sam. xvii. 45, and note the association of the name in the Books of Samuel, where it first appears, with the ark, or with war); by others, of the heavenly hosts, the stars conceived as living beings, later, perhaps, the angels as the court of Yahweh and the instruments of his will in nature and history (Ps. lxxxix.); or of the forces of the world in general which do his bidding, cf. the common Greek renderings, Κύριος τῶν δυνάμεων and K. παντοκράτωρ, Universal Ruler). It is likely that the name was differently understood in different periods and circles; but in the prophets the hosts are clearly superhuman powers. In many passages the name seems to be only a more solemn substitute for the simple Yahweh, and as such it has probably often been inserted by scribes. Finally, Sebaoth came to be treated as a proper name (cf. Ps. lxxx. 5, 8, 20), and as such is very common in magical texts.

LITERATURE.—Reland, *Decas exercitationum philologicarum de vera pronuntiatione nominis Jehova*, 1707; Reinke, "Philologisch-historische Abhandlung über den Gottesnamen Jehova," in *Beiträge zur Erklärung des Alten Testaments*, III. (1855); Baudissin, "Der Ursprung des Gottesnamens 'Ιάω," in *Studien zur semitischen Religionsgeschichte*, I. (1876), 179–254; Driver, "Recent Theories on the Origin and Nature of the Tetragrammaton," in *Studia Biblica*, I. (1885), 1–20; Deissmann, "Griechische Transkriptionen des Tetragrammaton," in *Bibelstudien* (1895), 1–20; Blau, *Das altjüdische Zauberwesen*, 1898. See also HEBREW RELIGION. (G. F. Mo.)

JEHU, son of Jehoshaphat and grandson of Nimshi, in the Bible, a general of Ahab and Jehoram, and, later, king of Israel. Ahaziah son of Jehoram of Judah and Jehoram brother of Ahaziah of Israel had taken joint action against the Aramaeans of Damascus who were attacking Ramoth-Gilead under Hazael. Jehoram had returned wounded to his palace at Jezreel, whither Ahaziah had come down to visit him. Jehu, meanwhile, remained at the seat of war, and the prophet Elisha sent a messenger to anoint him king. The general at once acknowledged the call, "drove furiously" to Jezreel, and, having slain both kings, proceeded to exterminate the whole of the royal family (2 Kings ix., x.). A similar fate befell the royal princes of Judah (see ATHALIAH), and thus, for a time at least, the new king must have had complete control over the two kingdoms (cf. 2 Chron. xxii. 9). Israelite historians viewed these events as a great religious revolution inspired by Elijah and initiated by Elisha, as the overthrow of the worship of Baal, and as a retribution for the cruel murder of Naboth the Jezreelite (see JEZEBEL). A vivid description is given of the destruction of the prophets of Baal at the temple in Samaria (2 Kings x. 27; contrast iii. 2). While Jehu was supported by the Rechabites in his reforming zeal, a similar revolt against Baalism in Judah is ascribed to the priest Jehoiada (see JOASH). In the tragedies of the period it seems clear that Elisha's interest in both Jehu and the Syrian Hazael (2 Kings viii. 7 sqq.) had some political significance, and in opposition to the "Deuteronomic" the commendation in 2 Kings x. 28 sqq., Hosea's denunciation (i. 4) indicates the judgment which was passed upon Jehu's bloodshed in other circles.

In the course of an expedition against Hazael in 842 Shalmaneser II. of Assyria received tribute of silver and gold from Ya-u-a son of Omri,[1] Tyre and Sidon; another attack followed in 839. For some years after this Assyria was unable to interfere, and war broke out between Damascus and Israel. The Israelite story, which may perhaps be supplemented from Judaean sources (see JOASH), records a great loss of territory on the east of the Jordan (2 Kings x. 32 seq.). Under Jehu's successor Jehoahaz there was continual war with Hazael and his son Ben-hadad, but relief was obtained by his grandson Joash, and the land recovered complete independence under Jeroboam.

Jehu is also the name of a prophet of the time of Baasha and Jehoshaphat (1 Kings xvi.; 2 Chron. xix., xx.). (S. A. C.)

JEKYLL, SIR JOSEPH (1663–1738), English lawyer and master of the rolls, son of John Jekyll, was born in London, and after studying at the Middle Temple was called to the bar in 1687. He rapidly rose to be chief justice of Chester (1697), serjeant-at-law and king's serjeant (1700), and a knight. In 1717 he was made master of the rolls. A Whig in politics, he sat in parliament for various constituencies from 1697 to the end of his life, and took an active part there in debating constitutional questions with much learning, though, according to Lord Hervey (*Mem.* 1, 474), with little "approbation." He was censured by the House of Commons for accepting a brief for the defence of Lord Halifax in a prosecution ordered by the house. He was one of the managers of the impeachment of the Jacobite earl of Wintoun in 1715, and of Harley (Lord Oxford) in 1717. In later years he supported Walpole. He became very unpopular in 1736 for his introduction of the "gin act," taxing the retailing of spirituous liquors, and his house had to be protected from the mob. Pope has an illusion to "Jekyll or some odd Whig, Who never changed his principle or wig" (*Epilogue to the Satires*). Jekyll was also responsible for the Mortmain Act of 1736, which was not superseded till 1888. He died without issue in 1738.

His great-nephew JOSEPH JEKYLL (d. 1837) was a lawyer, politician and wit, who excited a good deal of contemporary satire, and who wrote some *jeux d'esprit* which were well-known in his time. His *Letters of the late Ignatius Sancho, an African*, was published in 1782. In 1894 his correspondence was edited, with a memoir, by the Hon. Algernon Bourke.

JELLACHICH, JOSEF, COUNT (1801–1859), Croatian statesman, was born on the 16th of October 1801 at Pétervárad. He entered the Austrian army (1819), fought against the Bosnians in 1845, was made ban of Croatia, Slavonia and Dalmatia in 1848 on the petition of the Croatians, and was simultaneously raised to the rank of lieutenant-general by the emperor. As ban, Jellachich's policy was directed to preserving the Slav kingdoms for the Habsburg monarchy by identifying himself with the nationalist opposition to Magyar ascendancy, while at the same time discouraging the extreme "Illyrism" advocated by Lodovik Gáj (1809–1872). Though his separatist measures at first brought him into disfavour at the imperial court, their true objective was soon recognized, and, with the triumph of the more violent elements of the Hungarian revolution, he was hailed as the most conspicuous champion of the unity of the empire, and was able to bring about that union of the imperial army with the southern Slavs by which the revolution in Vienna and Budapest was overthrown (see AUSTRIA-HUNGARY: *History*). He began the war of independence in September 1848 by crossing the Drave at the head of 40,000 Croats. After the bloody battle of Buda he concluded a three days' truce with the Hungarians to enable him to assist Prince Windischgrätz to reduce Vienna, and subsequently fought against the Magyars at Schwechát. During the winter campaign of 1848–49 he commanded, under Windischgrätz, the Austrian right wing, capturing Magyar-Ovar and Raab, and defeating the Magyars at Mór. After the recapture of Buda he was made commander-in-chief of the southern army.

[1] *I.e.* either descendant of, or from the same district as, Omri (see Hogg, *Ency. Bib.* col. 2291). The Assyrian king's sculpture, depicting the embassy and its gifts, is the so-called "black obelisk" now in the British Museum (Nimroud Central Gallery, No. 98; *Guide to Bab. and Ass. Antiq.*, 1900, p. 24 seq., pl. ii.).

At first he gained some successes against Bem (*q.v.*), but on the 14th of July 1849 was routed by the Hungarians at Hegyes and driven behind the Danube. He took no part in the remainder of the war, but returned to Agram to administer Croatia. In 1853 he was appointed commander-in-chief of the army sent against Montenegro, and in 1855 was created a count. He died on the 20th of May 1859. His *Gedichte* were published at Vienna in 1851.

See the anonymous *The Croatian Revolution of the Year* 1848 (Croat.), Agram, 1898. (R. N. B.)

JELLINEK, ADOLF (1821–1893), Jewish preacher and scholar, was born in Moravia. After filling clerical posts in Leipzig, he became *Prediger* (preacher) in Vienna in 1856. He was associated with the promoters of the New Learning within Judaism, and wrote on the history of the Kabbala. His bibliographies (each bearing the Hebrew title *Qontres*) were useful compilations. But his most important work lay in three other directions. (1) *Midrashic.* Jellinek published in the six parts of his *Beth ha-Midrasch* (1853–1878) a large number of smaller *Midrashi*, ancient and medieval homilies and folk-lore records, which have been of much service in the recent revival of interest in Jewish apocalyptic literature. A translation of these collections of Jellinek into German was undertaken by A. Wuensche, under the general title *Aus Israels Lehrhalle.* (2) *Psychological.* Before the study of ethnic psychology had become a science, Jellinek devoted attention to the subject. There is much keen analysis and original investigation in his two essays *Der jüdische Stamm* (1869) and *Der jüdische Stamm in nicht-jüdischen Sprüch-wörtern* (1881–1882). It is to Jellinek that we owe the oft-repeated comparison of the Jewish temperament to that of women in its quickness of perception, versatility and sensibility. (3) *Homiletic.* Jellinek was probably the greatest synagogue orator of the 19th century. He published some 200 sermons, in most of which are displayed unobtrusive learning, fresh application of old sayings, and a high conception of Judaism and its claims. Jellinek was a powerful apologist and an accomplished homilist, at once profound and ingenious.

His son, GEORGE JELLINEK, was appointed professor of international law at Heidelberg in 1891. Another son, MAX HERMANN JELLINEK, was made assistant professor of philology at Vienna in 1892.

A brother of Adolf, HERMANN JELLINEK (b. 1823), was executed at the age of 26 on account of his association with the Hungarian national movement of 1848. One of Hermann Jellinek's best-known works was *Uriel Acosta.* Another brother, MORITZ JELLINEK (1823–1883), was an accomplished economist, and contributed to the Academy of Sciences essays on the price of cereals and on the statistical organization of the country. He founded the Budapest tramway company (1864) and was also president of the corn exchange.

See *Jewish Encyclopedia*, vii. 92–94. For a character sketch of Adolf Jellinek see S. Singer, *Lectures and Addresses* (1908), pp. 88–93; Kohut, *Berühmte israelitische Männer und Frauen.* (I. A.)

JEMAPPES, a town in the province of Hainaut, Belgium, near Mons, famous as the scene of the battle at which Dumouriez, at the head of the French Revolutionary Army, defeated the Austrian army (which was greatly outnumbered) under the duke of Saxe-Teschen and Clerfayt on the 6th of November 1792 (see FRENCH REVOLUTIONARY WARS).

JENA, a university town of Germany, in the grand duchy of Saxe-Weimar, on the left bank of the Saale, 56 m. S.W. from Leipzig by the Grossberigen-Saalfeld and 12 m. S.E. of Weimar by the Weimar-Gera lines of railway. Pop. (1905), 26,355. Its situation in a broad valley environed by limestone hills is somewhat dreary. To the north lies the plateau, descending steeply to the valley, famous as the scene of the battle of Jena. The town is surrounded by promenades occupying the site of the old fortifications; it contains in addition to the medieval market square, many old-fashioned houses and quaint narrow streets. Besides the old university buildings, the most interesting edifices are the 15th-century church of St Michael, with a tower 318 ft. high, containing an altar, beneath which is a doorway leading to a vault, and a bronze statue of Luther, originally destined for his tomb; the university library, in which is preserved a curious figure of a dragon; and the bridge across the Saale, as long as the church steeple is high, the centre arch of which is surmounted by a stone carved head of a malefactor. Across the river is the "mountain," or hill, whence a fine view is obtained of the town and surroundings, and hard by the Fuchs-Turm (Fox tower) celebrated for student orgies, while in the centre of the town is the house of an astronomer, Weigel, with a deep shaft through which the stars can be seen in the day time. Thus the seven marvels of Jena are summed up in the Latin lines:—

Ara, caput, draco, mons, pons, vulpecula turris,
Weigeliana domus; septem miracula Jenae.

There must also be mentioned the university church, the new university buildings, which occupy the site of the ducal palace (Schloss) where Goethe wrote his *Hermann und Dorothea*, the Schwarzer Bär Hotel, where Luther spent the night after his flight from the Wartburg, and four towers and a gateway which now alone mark the position of the ancient walls. The town has of late years become a favourite residential resort and has greatly extended towards the west, where there is a colony of pleasant villas. Its chief prosperity centres, however, in the university. In 1547 the elector John Frederick the Magnanimous of Saxony, while a captive in the hands of the emperor Charles V., conceived the plan of founding a university at Jena, which was accordingly established by his three sons. After having obtained a charter from the emperor Ferdinand I., it was inaugurated on the 2nd of February 1558. It was most numerously attended about the middle of the 18th century; but the most brilliant professoriate was under the duke Charles Augustus, Goethe's patron (1787–1806), when Fichte, Hegel, Schelling, Schlegel and Schiller were on its teaching staff. Founded as a home for the new religious opinions of the 16th century, it has ever been in the forefront of German universities in liberally accepting new ideas. It distances perhaps every other German university in the extent to which it carries out what are popularly regarded as the characteristics of German student-life—duelling and the passion for *Freiheit.* At the end of the 18th and the beginning of the 19th century, the opening of new universities, co-operating with the suspicions of the various German governments as to the democratic opinions which obtained at Jena, militated against the university, which has never regained its former prosperity. In 1905 it was attended by about 1100 students, and its teaching staff (including *privatdocenten*) numbered 112. Amongst its numerous auxiliaries may be mentioned the library, with 200,000 volumes, the observatory, the meteorological institute, the botanical garden, seminaries of theology, philology and education, and well equipped clinical, anatomical and physical institutes. There are also veterinary and agricultural colleges in connexion with the university. The manufactures of Jena are not considerable. The book trade has of late years revived, and there are several printing establishments.

Jena appears to have possessed municipal rights in the 13th century. At the beginning of the 14th century it was in the possession of the margraves of Meissen, from whom it passed in 1423 to the elector of Saxony. Since 1485 it has remained in the Ernestine line of the house of Saxony. In 1662 it fell to Bernhard, youngest son of William duke of Weimar, and became the capital of a small separate duchy. Bernhard's line having become extinct in 1690, Jena was united with Eisenach, and in 1741 reverted with that duchy to Weimar. In more modern times Jena has been made famous by the defeat inflicted in the vicinity, on the 14th of October 1806, by Napoleon upon the Prussian army under the prince of Hohenlohe (see NAPOLEONIC CAMPAIGNS).

See Schreiber and Färber, *Jena von seinem Ursprung bis zur neuesten Zeit* (2nd ed., 1858); Ortloff, *Jena und Umgegend* (3rd ed., 1875); Leonhardt, *Jena als Universität und Stadt* (Jena, 1902); Ritter, *Führer durch Jena und Umgebung* (Jena, 1901); Biedermann, *Die Universität Jena* (Jena, 1858); and the *Urkundenbuch der Stadt Jena*, edited by J. E. A. Martin and O. Devrient (1888–1903).

JENATSCH, GEORG (1596–1639), Swiss political leader, one of the most striking figures in the troubled history of the Grisons in the 17th century, was born at Samaden (capital of the Upper Engadine). He studied at Zürich and Basel, and in 1617 became the Protestant pastor of Scharans (near Thusis). But almost at once he plunged into active politics, taking the side of the Venetian and Protestant party of the Salis family, as against the Spanish and Romanist policy supported by the rival family, that of Planta. He headed the "preachers" who in 1618 tortured to death the arch-priest Rusca, of Sondrio, and outlawed the Plantas. As reprisals, a number of Protestants were massacred at Tirano (1620), in the Valtellina, a very fertile valley, of considerable strategical importance (for through it the Spaniards in Milan could communicate by the Umbrail Pass with the Austrians in Tirol), which then fell into the hands of the Spanish. Jenatsch took part in the murder (1621) of Pompey Planta, the head of the rival party, but later with his friends was compelled to fly the country, giving up his position as a pastor, and henceforth acting solely as a soldier. He helped in the revolt against the Austrians in the Prättigau (1622), and in the invasion of the Valtellina by a French army (1624), but the peace made (1626) between France and Spain left the Valtellina in the hands of the pope, and so destroyed Jenatsch's hopes. Having killed his colonel, Ruinelli, in a duel, Jenatsch had once more to leave his native land, and took service with the Venetians (1629–1630). In 1631 he went to Paris, and actively supported Richelieu's schemes for driving the Spaniards out of the Valtellina, which led to the successful campaign of Rohan (1635), one of whose firmest supporters was Jenatsch. But he soon saw that the French were as unwilling as the Spaniards to restore the Valtellina to the Grisons (which had seized it in 1512). So he became a Romanist (1635), and negotiated secretly with the Spaniards and Austrians. He was the leader of the conspiracy which broke out in 1637, and resulted in the expulsion of Rohan and the French from the Grisons. This treachery on Jenatsch's part did not, however, lead to the freeing of the Valtellina from the Spaniards, and once more he tried to get French support. But on the 24th of January 1639 he was assassinated at Coire by the Plantas; later in the same year the much coveted valley was restored by Spain to the Grisons, which held it till 1797. Jenatsch's career is of general historical importance by reason of the long conflict between France and Spain for the possession of the Valtellina, which forms one of the most bloody episodes in the Thirty Years' War. (W. A. B. C.)

See biography by E. Haffter (Davos, 1894).

JENGHIZ KHAN (1162–1227), Mongol emperor, was born in a tent on the banks of the river Onon. His father Yesukai was absent at the time of his birth, in a campaign against a Tatar chieftain named Temuchin. The fortune of war favoured Yesukai, who having slain his enemy returned to his encampment in triumph. Here he was met by the news that his wife Yulun had given birth to a son. On examining the child he observed in its clenched fist a clot of coagulated blood like a red stone. In the eyes of the superstitious Mongol this circumstance referred to his victory over the Tatar chieftain, and he therefore named the infant Temuchin. The death of Yesukai, which placed Temuchin at the age of thirteen on the Mongol throne, was the signal also for the dispersal of several tribes whose allegiance the old chieftain had retained by his iron rule. When remonstrated with by Temuchin, the rebels replied: "The deepest wells are sometimes dry, and the hardest stone is sometimes broken; why should we cling to thee?" But Yulun was by no means willing to see her son's power melt away; she led those retainers who remained faithful against the deserters, and succeeded in bringing back fully one half to their allegiance. With this doubtful material, Temuchin succeeded in holding his ground against the plots and open hostilities of the neighbouring tribes, more especially of the Naimans, Keraits and Merkits. With one or other of these he maintained an almost unceasing warfare until 1206, when he felt strong enough to proclaim himself the ruler of an empire. He therefore summoned the notables of his kingdom to an assembly on the banks of the Onon, and at their unanimous request adopted the name and title of Jenghiz Khan (Chinese, Chêng-sze, or "perfect warrior"). At this time there remained to him but one open enemy on the Mongolian steppes, Polo the Naiman khan. Against this chief he now led his troops, and in one battle so completely shattered his forces that Kushlek, the successor of Polo, who was left dead upon the field, fled with his ally Toto, the Merkit khan, to the river Irtysh.

Jenghiz Khan now meditated an invasion of the empire of the Kin Tatars, who had wrested northern China from the Sung dynasty. As a first step he invaded western Hia, and, having captured several strongholds, retired in the summer of 1208 to Lung-ting to escape the great heat of the plains. While there news reached him that Toto and Kushlek were preparing for war. In a pitched battle on the river Irtysh he overthrew them completely. Toto was amongst the slain, and Kushlek fled for refuge to the Khitan Tatars. Satisfied with his victory, Jenghiz again directed his forces against Hia. After having defeated the Kin army under the leadership of a son of the sovereign, he captured the Wu-liang-hai Pass in the Great Wall, and penetrated as far as Ning-sia Fu in Kansuh. With unceasing vigour he pushed on his troops, and even established his sway over the province of Liao-tung. Several of the Kin commanders, seeing how persistently victory attended his banners, deserted to him, and garrisons surrendered at his bidding. Having thus secured a firm footing within the Great Wall, he despatched three armies in the autumn of 1213 to overrun the empire. The right wing, under his three sons, Juji, Jagatai and Ogotai, marched towards the south; the left wing, under his brothers Hochar, Kwang-tsin Noyen and Chow-tse-te-po-shi, advanced eastward towards the sea; while Jenghiz and his son Tulē with the centre directed their course in a south-easterly direction. Complete success attended all three expeditions. The right wing advanced as far as Honan, and after having captured upwards of twenty-eight cities rejoined headquarters by the great western road. Hochar made himself master of the country as far as Liao-si; and Jenghiz ceased his triumphal career only when he reached the cliffs of the Shantung promontory. But either because he was weary of the strife, or because it was necessary to revisit his Mongolian empire, he sent an envoy to the Kin emperor in the spring of the following year (1214), saying, "All your possessions in Shantung and the whole country north of the Yellow River are now mine with the solitary exception of Yenking (the modern Peking). By the decree of heaven you are now as weak as I am strong, but I am willing to retire from my conquests; as a condition of my doing so, however, it will be necessary that you distribute largess to my officers and men to appease their fierce hostility." These terms of safety the Kin emperor eagerly accepted, and as a peace offering he presented Jenghiz with a daughter of the late emperor, another princess of the imperial house, 500 youths and maidens, and 3000 horses. No sooner, however, had Jenghiz passed beyond the Great Wall than the Kin emperor, fearing to remain any longer so near the Mongol frontier, moved his court to K'ai-fêng Fu in Honan. This transfer of capital appearing to Jenghiz to indicate a hostile attitude, he once more marched his troops into the doomed empire.

While Jenghiz was thus adding city to city and province to province in China, Kushlek, the fugitive Naiman chief, was not idle. With characteristic treachery he requested permission from his host, the Khitan khan, to collect the fragments of his army which had been scattered by Jenghiz at the battle on the Irtysh, and thus having collected a considerable force he leagued himself with Mahommed, the shah of Khwārizm, against the confiding khan. After a short but decisive campaign the allies remained masters of the position, and the khan was compelled to abdicate the throne in favour of the late guest.

With the power and prestige thus acquired, Kushlek prepared once again to measure swords with the Mongol chief. On receiving the news of his hostile preparations, Jenghiz at once took the field, and in the first battle routed the Naiman troops and made Kushlek a prisoner. His ill-gotten kingdom became

an apanage of the Mongol Empire. Jenghiz now held sway up to the Khwārizm frontier. Beyond this he had no immediate desire to go, and he therefore sent envoys to Mahommed, the shah, with presents, saying, "I send thee greeting; I know thy power and the vast extent of thine empire; I regard thee as my most cherished son. On my part thou must know that I have conquered China and all the Turkish nations north of it; thou knowest that my country is a magazine of warriors, a mine of silver, and that I have no need of other lands. I take it that we have an equal interest in encouraging trade between our subjects." This peaceful message was well received by the shah, and in all probability the Mongol armies would never have appeared in Europe but for an unfortunate occurrence. Shortly after the despatch of this first mission Jenghiz sent a party of traders into Transoxiana who were seized and put to death as spies by Inaljuk, the governor of Otrar. As satisfaction for this outrage Jenghiz demanded the extradition of the offending governor. Far from yielding to this summons, however, Mahommed beheaded the chief of the Mongol envoys, and sent the others back without their beards. This insult made war inevitable, and in the spring of 1219 Jenghiz set out from Karakorum on a campaign which was destined to be as startling in its immediate results as its ulterior effects were far-reaching. The invading force was in the first instance divided into two armies: one commanded by Jenghiz's second son Jagatai was directed to march against the Kankalis, the northern defenders of the Khwārizm empire; and the other, led by Juji, his eldest son, advanced by way of Sighnak against Jand (Jend). Against this latter force Mahommed led an army of 400,000 men, who were completely routed, leaving it is said 160,000 dead upon the field. With the remnant of his host Mahommed fled to Samarkand. Meanwhile Jagatai marched down upon the Syr Daria (Jaxartes) by the pass of Taras and invested Otrar, the offending city. After a siege of five months the citadel was taken by assault, and Inaljuk and his followers were put to the sword. The conquerors levelled the walls with the ground, after having given the city over to pillage. At the same time a third army besieged and took Khojent on the Jaxartes; and yet a fourth, led by Jenghiz and his youngest son Tulē, advanced in the direction of Bokhara. Tashkent and Nur surrendered on their approach, and after a short siege Bokhara fell into their hands. On entering the town Jenghiz ascended the steps of the principal mosque, and shouted to his followers, "The hay is cut; give your horses fodder." No second invitation to plunder was needed; the city was sacked, and the inhabitants either escaped beyond the walls or were compelled to submit to infamies which were worse than death. As a final act of vengeance the town was fired, and before the last of the Mongols left the district, the great mosque and certain palaces were the only buildings left to mark the spot where the "centre of science" once stood. From the ruins of Bokhara Jenghiz advanced along the valley of the Sogd to Samarkand, which, weakened by treachery, surrendered to him, as did also Balkh. But in neither case did submission save either the inhabitants from slaughter or the city from pillage. Beyond this point Jenghiz went no farther westward, but sent Tulē, at the head of 70,000 men, to ravage Khorasan, and two flying columns under Chēpē and Sabutai Bahadar to pursue after Mahommed who had taken refuge in Nishapur. Defeated and almost alone, Mahommed fled before his pursuers to the village of Astara on the shore of the Caspian Sea, where he died of an attack of pleurisy, leaving his empire to his son Jelaleddīn (Jalāl ud-din). Meanwhile Tulē carried his arms into the fertile province of Khorasan, and after having captured Nessa by assault appeared before Merv. By an act of atrocious treachery the Mongols gained possession of the city, and, after their manner, sacked and burnt the town. From Merv Tulē marched upon Nishapur, where he met with a most determined resistance. For four days the garrison fought desperately on the walls and in the streets, but at length they were overpowered, and, with the exception of 400 artisans who were sent into Mongolia, every man, woman and child was slain. Herat escaped the fate which had overtaken Merv and Nishapur by opening its gates to the Mongols. At this point of his victorious career Tulē received an order to join Jenghiz before Talikhan in Badakshan, where that chieftain was preparing to renew his pursuit of Jelaleddīn, after a check he had sustained in an engagement fought before Ghazni. As soon as sufficient reinforcements arrived Jenghiz advanced against Jelaleddīn, who had taken up a position on the banks of the Indus. Here the Turks, though far outnumbered, defended their ground with undaunted courage, until, beaten at all points, they fled in confusion. Jelaleddīn, seeing that all was lost, mounted a fresh horse and jumped into the river, which flowed 20 ft. below. With admiring gaze Jenghiz watched the desperate venture of his enemy, and even saw without regret the dripping horseman mount the opposite bank. From the Indus Jenghiz sent in pursuit of Jelaleddīn, who fled to Delhi, but failing to capture the fugitive the Mongols returned to Ghazni after having ravaged the provinces of Lahore, Peshawar and Melikpur. At this moment news reached Jenghiz that the inhabitants of Herat had deposed the governor whom Tulē had appointed over the city, and had placed one of their own choice in his room. To punish this act of rebellion Jenghiz sent an army of 80,000 men against the offending city, which after a siege of six months was taken by assault. For a whole week the Mongols ceased not to kill, burn and destroy, and 1,600,000 persons are said to have been massacred within the walls. Having consummated this act of vengeance, Jenghiz returned to Mongolia by way of Balkh, Bokhara and Samarkand.

Meanwhile Chēpē and Sabutai marched through Azerbeijan, and in the spring of 1222 advanced into Georgia. Here they defeated a combined force of Lesghians, Circassians and Kipchaks, and after taking Astrakhan followed the retreating Kipchaks to the Don. The news of the approach of the mysterious enemy of whose name even they were ignorant was received by the Russian princes at Kiev with dismay. At the instigation, however, of Mitislaf, prince of Galicia, they assembled an opposing force on the Dnieper. Here they received envoys from the Mongol camp, whom they barbarously put to death. "You have killed our envoys," was the answer made by the Mongols; "well, as you wish for war you shall have it. We have done you no harm. God is impartial; He will decide our quarrel." In the first battle, on the river Kaleza, the Russians were utterly routed, and fled before the invaders, who, after ravaging Great Bulgaria retired, gorged with booty, through the country of Saksin, along the river Aktuba, on their way to Mongolia.

In China the same success had attended the Mongol arms as in western Asia. The whole of the country north of the Yellow river, with the exception of one or two cities, was added to the Mongol rule, and, on the death of the Kin emperor Süan Tsung in 1223, the Kin empire virtually ceased to be, and Jenghiz's frontiers thus became conterminous with those of the Sung emperors who held sway over the whole of central and southern China. After his return from Central Asia, Jenghiz once more took the field in western China. While on this campaign the five planets appeared in a certain conjunction, which to the superstitiously minded Mongol chief foretold that evil was awaiting him. With this presentiment strongly impressed upon him he turned his face homewards, and had advanced no farther than the Si-Kiang river in Kansuh when he was seized with an illness of which he died a short time afterwards (1227) at his travelling palace at Ha-lao-tu, on the banks of the river Sale in Mongolia. By the terms of his will Ogotai was appointed his successor, but so essential was it considered to be that his death should remain a secret until Ogotai was proclaimed that, as the funeral procession moved northwards to the great ordu on the banks of the Kerulen, the escort killed every one they met. The body of Jenghiz was then carried successively to the ordus of his several wives, and was finally laid to rest in the valley of Kilien.

Thus ended the career of one of the greatest conquerors the world has ever seen. Born and nurtured as the chief of a petty Mongolian tribe, he lived to see his armies victorious from the China Sea to the banks of the Dnieper; and, though the empire

which he created ultimately dwindled away under the hands of his degenerate descendants, leaving not a wrack behind, we have in the presence of the Turks in Europe a consequence of his rule, since it was the advance of his armies which drove their Osmanli ancestors from their original home in northern Asia, and thus led to their invasion of Bithynia under Othman, and finally their advance into Europe under Amurath I.

See Sir H. H. Howorth, *The History of the Mongols*; Sir Robert K. Douglas, *The Life of Jenghiz Khan*. (R. K. D.)

JENKIN, HENRY CHARLES FLEEMING (1833–1885), British engineer, was born near Dungeness on the 25th of March 1833, his father (d. 1885) being a naval commander, and his mother (d. 1885) a novelist of some literary repute, her best books perhaps being *Cousin Stella* (1859) and *Who breaks, pays* (1861). Fleeming Jenkin was educated at first in Scotland, but in 1846 the family went to live abroad, owing to financial straits, and he studied at Genoa University, where he took a first-class degree in physical science. In 1851 he began his engineering career as apprentice in an establishment at Manchester, and subsequently he entered Newall's submarine cable works at Birkenhead. In 1859 he began, in concert with Sir William Thomson (afterwards Lord Kelvin), to work on problems respecting the making and use of cables, and the importance of his researches on the resistance of gutta-percha was at once recognized. From this time he was in constant request in connexion with submarine telegraphy, and he became known also as an inventor. In partnership with Thomson, he made a large income as a consulting telegraph engineer. In 1865 he was elected F.R.S., and was appointed professor of engineering at University College, London. In 1868 he obtained the same professorship at Edinburgh University, and in 1873 he published a textbook of *Magnetism and Electricity*, full of original work. He was author of the article "Bridges" in the ninth edition of this encyclopaedia. His influence among the Edinburgh students was pronounced, and R. L. Stevenson's well-known *Memoir* is a sympathetic tribute to his ability and character. The meteoric charm of his conversation is well described in Stevenson's essay on "Talk and Talkers," under the name of Cockshot. Jenkin's interests were by no means confined to engineering, but extended to the arts and literature; his miscellaneous papers, showing his critical and unconventional views, were issued posthumously in two volumes (1887). In 1882 Jenkin invented an automatic method of electric transport for goods—"telpherage"—but the completion of its details was prevented by his death on the 12th of June 1885. A telpher line on his system was subsequently erected at Glynde in Sussex. He was also well known as a sanitary reformer, and during the last ten years of his life he did much useful work in inculcating more enlightened ideas on the subject both in Edinburgh and other places.

JENKINS, SIR LEOLINE (1623–1685), English lawyer and diplomatist, was the son of a Welsh country gentleman. He was born in 1623 and was educated at Jesus College, Oxford, of which he was elected a fellow at the Restoration in 1660, having been an ardent royalist during the civil war and commonwealth; and in 1661 he became head of the college. In the same year he was made registrar of the consistory court of Westminster; in 1664 deputy judge of the court of arches; about a year later judge of the admiralty court; in 1689 judge of the prerogative court of Canterbury. In these offices Jenkins did enduring work in elucidating and establishing legal principles, especially in relation to international law and admiralty jurisdiction. He was selected to draw up the claim of Charles II. to succeed to the property of his mother, Henrietta Maria, on her death in August 1666, and while in Paris for this purpose he succeeded in defeating the rival claim of the duchess of Orleans, being rewarded by a knighthood on his return. In 1673, on being elected member for Hythe, Jenkins resigned the headship of Jesus College. He was one of the English representatives at the congress of Cologne in 1673, and at the more important congress of Nijmwegen in 1676–1679. He was made a privy councillor in February 1680 and became secretary of state in April of the same year, in which office he was the official leader of the opposition to the Exclusion Bill, though he was by no means a pliant tool in the hands of the court. He resigned office in 1684, and died on the 1st of September 1685. He left most of his property to Jesus College, Oxford, including his books, which he bequeathed to the college library, built by himself; and he left some important manuscripts to All Souls College, where they are preserved. Jenkins left his impress on the law of England in the Statute of Frauds, and the Statute of Distributions, of which he was the principal author, and of which the former profoundly affected the mercantile law of the country, while the latter regulated the inheritance of the personal property of intestates. He was never married.

See William Wynne, *Life of Sir Leoline Jenkins* (2 vols., London, 1724), which contains a number of his diplomatic despatches, letters, speeches and other papers. See also Sir William Temple, *Works*, vol. ii. (4 vols., 1770); Anthony à Wood, *Athenae Oxonienses* (Fasti) edited by P. Bliss (4 vols., London, 1813–1820), and *History and Antiquities of the University of Oxford*, edited by J. Gutch (Oxford, 1792–1796).

JENKINS, ROBERT (*fl.* 1731–1745), English master mariner, is known as the protagonist of the "Jenkins's ear" incident, which, magnified in England by the press and the opposition, became a contributory cause of the war between England and Spain (1739). Bringing home the brig "Rebecca" from the West Indies in 1731, Jenkins was boarded by a Spanish guarda-costa, whose commander rifled the holds and cut off one of his ears. On arriving in England Jenkins stated his grievance to the king, and a report was furnished by the commander-in-chief in the West Indies confirming his account. At first the case created no great stir, but in 1738 he repeated his story with dramatic detail before a committee of the House of Commons, producing what purported to be the ear that had been cut off. Afterwards it was suggested that he might have lost the ear in the pillory.

Jenkins was subsequently given the command of a ship in the East India Company's service, and later became supervisor of the company's affairs at St Helena. In 1741 he was sent from England to that island to investigate charges of corruption brought against the acting governor, and from May 1741 until March 1742 he administered the affairs of the island. Thereafter he resumed his naval career, and is stated in an action with a pirate vessel to have preserved his own vessel and three others under his care (see T. H. Brooke, *History of the Island of St Helena* (London, 2nd ed., 1824), and H. R. Janisch, *Extracts from the St Helena Records*, 1885).

JENKS, JEREMIAH WHIPPLE (1856–), American economist, was born in St Clair, Michigan, on the 2nd of September 1856. He graduated at the university of Michigan in 1878; taught Greek, Latin and German in Mt. Morris College, Illinois; studied in Germany, receiving the degree of Ph.D. from the university of Halle in 1885; taught political science and English literature at Knox College, Galesburg, Ill., in 1886–1889; was professor of political economy and social science at Indiana State University in 1889–1891; and was successively professor of political, municipal and social institutions (1891–1892), professor of political economy and civil and social institutions (1892–1901), and after 1901 professor of political economy and politics at Cornell University. In 1899–1901 he served as an expert agent of the United States industrial commission on investigation of trusts and industrial combinations in the United States and Europe, and contributed to vols. i., viii. and xiii. of this commission's report (1900 and 1901), vol. viii. being a report, written wholly by him, on industrial combinations in Europe. In 1901–1902 he was special commissioner of the United States war department on colonial administration, and wrote a *Report on Certain Economic Questions in the English and Dutch Colonies in the Orient*, published (1902) by the bureau of insular affairs; and in 1903 he was adviser to the Mexican ministry of finance on projected currency changes. In 1903–1904 he was a member of the United States commission on international exchange, in especial charge of the reform of currency in China; in 1905 he was special representative of the United States with the imperial Chinese special mission visiting the United States. In 1907 he became a member of the United States immigration commission. Best known as an expert on "trusts," he has written besides on elections, ballot reform, proportional representation, on education (especially as a training for citizenship), on legislation regarding highways, &c.

His principal published works are *Henry C. Carey als Nationalökonom* (Halle a. S., 1885); *The Trust Problem* (1900; revised 1903); *Great Fortunes* (1906); *Citizenship and the Schools* (1906); and *Principles of Politics* (1909).

JENNÉ, a city of West Africa, formerly the capital of the Songhoi empire, now included in the French colony of Upper Senegal and Niger. Jenné is situated on a marigot or natural canal connecting the Niger and its affluent the Bani or Mahel Balevel, and is within a few miles of the latter stream. It lies 250 m. S.W. of Timbuktu in a straight line. The city is surrounded by channels connected with the Bani but in the dry season it ceases to be an island. On the north is the Moorish quarter; on the north-west, the oldest part of the city, stood the citadel, converted by the French since 1893 into a modern fort. The market-place is midway between the fort and the commercial harbour. The old mosque, partially destroyed in 1830, covered a large area in the south-west portion of the city. It was built on the site of the ancient palace of the Songhoi kings. The architecture of many of the buildings bears a resemblance to Egyptian, the façades of the houses being adorned with great buttresses of pylonic form. There is little trace of the influence of Moorish or Arabian art. The buildings are mostly constructed of clay made into flat long bricks. Massive clay walls surround the city. The inhabitants are great traders and the principal merchants have representatives at Timbuktu and all the chief places on the Niger. The boats built at Jenné are famous throughout the western Sudan.

Jenné is believed to have been founded by the Songhoi in the 8th century, and though it has passed under the dominion of many races it has never been destroyed. Jenné seems to have been at the height of its power from the 12th to the 16th century, when its merchandise was found at every port along the west coast of Africa. From this circumstance it is conjectured that Jenné (Guinea) gave its name to the whole coast (see GUINEA). Subsequently, under the control of Moorish, Tuareg and Fula invaders, the importance of the city greatly declined. With the advent of the French, commerce again began to flourish.

See F. Dubois, *Tombouctou la mystérieuse* (Paris, 1897), in which several chapters are devoted to Jenné; also SONGHOI; TIMBUKTU; and SENEGAL.

JENNER, EDWARD (1749–1823), English physician and discoverer of vaccination, was born at Berkeley, Gloucestershire, on the 17th of May 1749. His father, the Rev. Stephen Jenner, rector of Rockhampton and vicar of Berkeley, came of a family that had been long established in that county, and was possessed of considerable landed property; he died when Edward was only six years old, but his eldest son, the Rev. Stephen Jenner, brought his brother up with paternal care and tenderness. Edward received his early education at Wotton-under-Edge and Cirencester, where he already showed a strong taste for natural history. The medical profession having been selected for him, he began his studies under Daniel Ludlow, a surgeon of Sodbury near Bristol; but in his twenty-first year he proceeded to London, where he became a favourite pupil of John Hunter, in whose house he resided for two years. During this period he was employed by Sir Joseph Banks to arrange and prepare the valuable zoological specimens which he had brought back from Captain Cook's first voyage in 1771. He must have acquitted himself satisfactorily in this task, since he was offered the post of naturalist in the second expedition, but declined it as well as other advantageous offers, preferring rather to practise his profession in his native place, and near his eldest brother, to whom he was much attached. He was the principal founder of a local medical society, to which he contributed several papers of marked ability, in one of which he apparently anticipated later discoveries concerning rheumatic inflammations of the heart. He maintained a correspondence with John Hunter, under whose direction he investigated various points in biology, particularly the hibernation of hedgehogs and habits of the cuckoo; his paper on the latter subject was laid by Hunter before the Royal Society, and appeared in the *Phil. Trans.* for 1788. He also devoted considerable attention to the varied geological character of the district in which he lived, and constructed the first balloon seen in those parts. He was a great favourite in general society, from his agreeable and instructive conversation, and the many accomplishments he possessed. Thus he was a fair musician, both as a part singer and as a performer on the violin and flute, and a very successful writer, after the fashion of that time, of fugitive pieces of verse. In 1788 he married Catherine Kingscote, and in 1792 he obtained the degree of doctor of medicine from St Andrews.

Meanwhile the discovery that is associated with his name had been slowly maturing in his mind. When only an apprentice at Sodbury, his attention had been directed to the relations between cow-pox and small-pox in connexion with a popular belief which he found current in Gloucestershire, as to the antagonism between these two diseases. During his stay in London he appears to have mentioned the thing repeatedly to Hunter, who, being engrossed by other important pursuits, was not so strongly persuaded as Jenner was of its possible importance, yet spoke of it to his friends and in his lectures. After he began practice in Berkeley, Jenner was always accustomed to inquire what his professional brethren thought of it; but he found that, when medical men had noticed the popular report at all, they supposed it to be based on imperfect induction. His first careful investigation of the subject dated from about 1775, and five years elapsed before he had succeeded in clearing away the most perplexing difficulties by which it was surrounded. He first satisfied himself that two different forms of disease had been hitherto confounded under the term cow-pox, only one of which protected against small-pox, and that many of the cases of failure were to be thus accounted for; and his next step was to ascertain that the true cow-pox itself only protects when communicated at a particular stage of the disease. At the same time he came to the conclusion that "the grease" of horses is the same disease as cow-pox and small-pox, each being modified by the organism in which it was developed. For many years, cow-pox being scarce in his county, he had no opportunity of inoculating the disease, and so putting his discovery to the test, but he did all he could in the way of collecting information and communicating what he had ascertained. Thus in 1788 he carried a drawing of the cow-pox, as seen on the hands of a milkmaid, to London, and showed it to Sir E. Home and others, who agreed that it was "an interesting and curious subject." At length, on the 14th of May 1796, he was able to inoculate James Phipps, a boy about eight years old, with matter from cow-pox vesicles on the hand of Sarah Nelmes. On the 1st of the following July the boy was carefully inoculated with variolous matter, but (as Jenner had predicted) no small-pox followed. The discovery was now complete, but Jenner was unable to repeat his experiment until 1798, owing to the disappearance of cow-pox from the dairies. He then repeated his inoculations with the utmost care, and prepared a pamphlet (*Inquiry into the Cause and Effects of the Variolae Vaccinae*) which should announce his discovery to the world. Before publishing it, however, he thought it well to visit London, so as to demonstrate the truth of his assertions to his friends; but he remained in London nearly three months, without being able to find any person who would submit to be vaccinated. Soon after he had returned home, however, Henry Cline, surgeon of St Thomas's Hospital, inoculated some vaccine matter obtained from him over the diseased hip-joint of a child, thinking the counter-irritation might be useful, and found the patient afterwards incapable of acquiring small-pox. In the autumn of the same year, Jenner met with the first opposition to vaccination; and this was the more formidable because it proceeded from J. Ingenhousz, a celebrated physician and man of science. But meanwhile Cline's advocacy of vaccination brought it much more decidedly before the medical profession, of whom the majority were prudent enough to suspend their judgment until they had more ample information. But besides these there were two noisy and troublesome factions, one of which opposed vaccination as a useless and dangerous practice, while the other endangered its success much more by rash and self-seeking advocacy. At the head of the latter was George Pearson,

who in November 1798 published a pamphlet speculating upon the subject, before even seeing a case of cow-pox, and afterwards endeavoured, by lecturing on the subject and supplying the virus, to put himself forward as the chief agent in the cause. The matter which he distributed, which had been derived from cows that were found to be infected in London, was found frequently to produce, not the slight disease described by Jenner, but more or less severe eruptions resembling small-pox. Jenner concluded at once that this was due to an accidental contamination of the vaccine with variolous matter, and a visit to London in the spring of 1799 convinced him that this was the case. In the course of this year the practice of vaccination spread over England, being urged principally by non-professional persons of position; and towards its close attempts were made to found institutions for gratuitous vaccination and for supplying lymph to all who might apply for it. Pearson proposed to establish one of these in London, without Jenner's knowledge, in which he offered him the post of honorary corresponding physician! On learning of this scheme to supplant him, and to carry on an institution for public vaccination on principles which he knew to be partly erroneous, Jenner once more visited London early in 1800, when he had influence enough to secure the abandonment of the project. He was afterwards presented to the king, the queen and the prince of Wales, whose encouragement materially aided the spread of vaccination in England. Meanwhile it had made rapid progress in the United States, where it was introduced by Benjamin Waterhouse, then professor of physic at Harvard, and on the continent of Europe, where it was at first diffused by De Carro of Vienna. In consequence of the war between England and France, the discovery was later in reaching Paris; but, its importance once realized, it spread rapidly over France, Spain and Italy.

A few of the incidents connected with its extension may be mentioned. Perhaps the most striking is the expedition which was sent out by the court of Spain in 1803, for the purpose of diffusing cow-pox through all the Spanish possessions in the Old and New Worlds, and which returned in three years, having circumnavigated the globe, and succeeded beyond its utmost expectations. Clergymen in Geneva and Holland urged vaccination upon their parishioners from the pulpit; in Sicily, South America, and Naples religious processions were formed for the purpose of receiving it; the anniversary of Jenner's birthday, or of the successful vaccination of James Phipps, was for many years celebrated as a feast in Germany; and the empress of Russia caused the first child operated upon to receive the name of Vaccinov, and to be educated at the public expense. About the close of the year 1801 Jenner's friends in Gloucestershire presented him with a small service of plate as a testimonial of the esteem in which they held his discovery. This was intended merely as a preliminary to the presenting of a petition to parliament for a grant. The petition was presented in 1802, and was referred to a committee, of which the investigations resulted in a report in favour of the grant, and ultimately in a vote of £10,000.

Towards the end of 1802 steps were taken to form a society for the proper spread of vaccination in London, and the Royal Jennerian Society was finally established, Jenner returning to town to preside at the first meeting. This institution began very prosperously, more than twelve thousand persons having been inoculated in the first eighteen months, and with such effect that the deaths from small-pox, which for the latter half of the 18th century had averaged 2018 annually, fell in 1804 to 622. Unfortunately the chief resident inoculator soon set himself up as an authority opposed to Jenner, and this led to such dissensions as caused the society to die out in 1808.

Jenner was led, by the language of the chancellor of the exchequer when his grant was proposed, to attempt practice in London, but after a year's trial he returned to Berkeley. His grant was not paid until 1804, and then, after the deduction of about £1000 for fees, it did little more than pay the expenses attendant upon his discovery. For he was so thoroughly known everywhere as the discoverer of vaccination that, as he himself said, he was "the vaccine clerk of the whole world." At the same time he continued to vaccinate gratuitously all the poor who applied to him on certain days, so that he sometimes had as many as three hundred persons waiting at his door. Meanwhile honours began to shower upon him from abroad: he was elected a member of almost all the chief scientific societies on the continent of Europe, the first being that of Göttingen, where he was proposed by J. F. Blumenbach. But perhaps the most flattering proof of his influence was derived from France. On one occasion, when he was endeavouring to obtain the release of some of the unfortunate Englishmen who had been detained in France on the sudden termination of the Peace of Amiens, Napoleon was about to reject the petition, when Josephine uttered the name of Jenner. The emperor paused and exclaimed: "Ah, we can refuse nothing to that name." Somewhat later he did the same service to Englishmen confined in Mexico and in Austria; and during the latter part of the great war persons before leaving England would sometimes obtain certificates signed by him which served as passports. In his own country his merits were less recognized. His applications on behalf of French prisoners in England were less successful; he never shared in any of the patronage at the disposal of the government, and was even unable to obtain a living for his nephew George.

In 1806 Lord Henry Petty (afterwards the marquess of Lansdowne) became chancellor of the exchequer, and was so convinced of the inadequacy of the former parliamentary grant that he proposed an address to the Crown, praying that the college of physicians should be directed to report upon the success of vaccination. Their report being strongly in its favour, the then chancellor of the exchequer (Spencer Perceval) proposed that a sum of £10,000 without any deductions should be paid to Jenner. The anti-vaccinationists found but one advocate in the House of Commons; and finally the sum was raised to £20,000. Jenner, however, at the same time had the mortification of learning that government did not intend to take any steps towards checking small-pox inoculation, which so persistently kept up that disease. About the same time a subscription for his benefit was begun in India, where his discovery had been gratefully received, but the full amount of this (£7383) only reached him in 1812.

The Royal Jennerian Society having failed, the national vaccine establishment was founded, for the extension of vaccination, in 1808. Jenner spent five months in London for the purpose of organizing it, but was then obliged, by the dangerous illness of one of his sons, to return to Berkeley. He had been appointed director of the institution; but he had no sooner left London than Sir Lucas Pepys, president of the college of physicians, neglected his recommendations, and formed the board out of the officials of that college and the college of surgeons. Jenner at once resigned his post as director, though he continued to give the benefit of his advice whenever it was needed, and this resignation was a bitter mortification to him. In 1810 his eldest son died, and Jenner's grief at his loss, and his incessant labours, materially affected his health. In 1813 the university of Oxford conferred on him the degree of M.D. It was believed that this would lead to his election into the college of physicians, but that learned body decided that he could not be admitted until he had undergone an examination in classics. This Jenner at once refused; to brush up his classics would, he said, "be irksome beyond measure. I would not do it for a diadem. That indeed would be a bauble; I would not do it for John Hunter's museum."

He visited London for the last time in 1814, when he was presented to the Allied Sovereigns and to most of the principal personages who accompanied them. In the next year his wife's death was the signal for him to retire from public life: he never left Berkeley again, except for a day or two, as long as he lived. He found sufficient occupation for the remainder of his life in collecting further evidence on some points connected with his great discovery, and in his engagements as a physician, a naturalist and a magistrate. In 1818 a severe epidemic of small-pox prevailed, and fresh doubts were thrown on the

efficacy of vaccination, in part apparently owing to the bad quality of the vaccine lymph employed. This caused Jenner much annoyance, which was relieved by an able defence of the practice, written by Sir Gilbert Blane. But this led him, in 1821, to send a circular letter to most of the medical men in the kingdom inquiring into the effect of other skin diseases in modifying the progress of cow-pox. A year later he published his last work, *On the Influence of Artificial Eruptions in Certain Diseases*; and in 1823 he presented his last paper—"On the Migration of Birds"—to the Royal Society. On the 24th of January 1823 he retired to rest apparently as well as usual, and next morning rose and came down to his library, where he was found insensible on the floor, in a state of apoplexy, and with the right side paralysed. He never rallied, and died on the following morning.

A public subscription was set on foot, shortly after his death, by the medical men of his county, for the purpose of erecting some memorial in his honour, and with much difficulty a sufficient sum was raised to enable a statue to be placed in Gloucester Cathedral. In 1850 another attempt was made to set up a monument to him; this appears to have failed, but at length, in 1858, a statue of him was erected by public subscription in London.

Jenner's life was written by the intimate friend of his later years, Dr John Baron of Gloucester (2 vols., 1827, 1838). See also VACCINATION.

JENNER, SIR WILLIAM, BART. (1815–1898), English physician, was born at Chatham on the 30th of January 1815, and educated at University College, London. He became M.R.C.S. in 1837, and F.R.C.P. in 1852, and in 1844 took the London M.D. In 1847 he began at the London fever hospital investigations into cases of "continued" fever which enabled him finally to make the distinction between typhus and typhoid on which his reputation as a pathologist principally rests. In 1849 he was appointed professor of pathological anatomy at University College, and also assistant physician to University College Hospital, where he afterwards became physician (1854–1876) and consulting physician (1879), besides holding similar appointments at other hospitals. He was also successively Holme professor of clinical medicine and professor of the principles and practice of medicine at University College. He was president of the college of physicians (1881–1888); he was elected F.R.S. in 1864, and received honorary degrees from Oxford, Cambridge and Edinburgh. In 1861 he was appointed physician extraordinary, and in 1862 physician in ordinary, to Queen Victoria, and in 1863 physician in ordinary to the prince of Wales; he attended both the prince consort and the prince of Wales in their attacks of typhoid fever. In 1868 he was created a baronet. As a consultant Sir William Jenner had a great reputation, and he left a large fortune when he died, at Bishop's Waltham, Hants, on the 11th of December 1898, having then retired from practice for eight years owing to failing health.

JENNET, a small Spanish horse; the word is sometimes applied in English to a mule, the offspring of a she-ass and a stallion. Jennet comes, through Fr. *genet*, from Span. *jinete*, a light horseman who rides *à la gineta*, explained as "with his legs tucked up." The name is taken to be a corruption of the Arabic Zenāta, a Berber tribe famed for its cavalry. English and French transferred the word from the rider to his horse, a meaning which the word has only acquired in Spain in modern times.

JENOLAN CAVES, a series of remarkable caverns in Roxburgh county, New South Wales, Australia; 113 m. W. by N. of Sydney, and 36 m. from Tarana, which is served by railway. They are the most celebrated of several similar groups in the limestone of the country; they have not yielded fossils of great interest, but the stalactitic formations, sometimes pure white, are of extraordinary beauty. The caves have been rendered easily accessible to visitors and lighted by electricity.

JENSEN, WILHELM (1837–), German author, was born at Heiligenhafen in Holstein on the 15th of February 1837, the son of a local Danish magistrate, who came of old patrician Frisian stock. After attending the classical schools at Kiel and Lübeck, Jensen studied medicine at the universities of Kiel, Würzburg and Breslau. He, however, abandoned the medical profession for that of letters, and after engaging for some years in individual private study proceeded to Munich, where he associated with men of letters. After a residence in Stuttgart (1865–1869), where for a short time he conducted the *Schwäbische Volks-Zeitung*, he became editor in Flensburg of the *Norddeutsche Zeitung*. In 1872 he again returned to Kiel, lived from 1876 to 1888 in Freiburg im Breisgau, and since 1888 has been resident in Munich.

Jensen is perhaps the most fertile of modern German writers of fiction, more than one hundred works having proceeded from his pen; but only comparatively few of them have caught the public taste; such are the novels, *Karin von Schweden* (Berlin, 1878); *Die braune Erica* (Berlin, 1868); and the tale, *Die Pfeifer von Dusenbach, Eine Geschichte aus dem Elsass* (1884). Among others may be mentioned: *Barthenia* (Berlin, 1877); *Götz und Gisela* (Berlin, 1886); *Heimkunft* (Dresden, 1894); *Aus See und Sand* (Dresden, 1897); *Luv und Lee* (Berlin, 1897); and the narratives, *Aus den Tagen der Hansa* (Leipzig, 1885); *Aus stiller Zeit* (Berlin, 1881–1885); and *Heimath* (1901). Jensen also published some tragedies, among which *Dido* (Berlin, 1870) and *Der Kampf für's Reich* (Freiburg im Br., 1884) may be mentioned.

JENYNS, SOAME (1704–1787), English author, was born in London on the 1st of January 1704, and was educated at St John's College, Cambridge. In 1742 he was chosen M.P. for Cambridgeshire, in which his property lay, and he afterwards sat for the borough of Dunwich and the town of Cambridge. From 1755 to 1780 he was one of the commissioners of the board of trade. He died on the 18th of December 1787.

For the measure of literary repute which he enjoyed during his life Jenyns was indebted as much to his wealth and social standing as to his accomplishments and talents, though both were considerable. His poetical works, the *Art of Dancing* (1727) and *Miscellanies* (1770), contain many passages graceful and lively though occasionally verging on licence. The first of his prose works was his *Free Inquiry into the Nature and Origin of Evil* (1756). This essay was severely criticized on its appearance, especially by Samuel Johnson in the *Literary Magazine*. Johnson, in a slashing review—the best paper of the kind he ever wrote—condemned the book as a slight and shallow attempt to solve one of the most difficult of moral problems. Jenyns, a gentle and amiable man in the main, was extremely irritated by his failure. He put forth a second edition of his work, prefaced by a vindication, and tried to take vengeance on Johnson after his death by a sarcastic epitaph.[1] In 1776 Jenyns published his *View of the Internal Evidence of the Christian Religion*. Though at one period of his life he had affected a kind of deistic scepticism, he had now returned to orthodoxy, and there seems no reason to doubt his sincerity, questioned at the time, in defending Christianity on the ground of its total variance with the principles of human reason. The work was deservedly praised in its day for its literary merits, but is so plainly the production of an amateur in theology that as a scientific treatise it is valueless.

A collected edition of the works of Jenyns appeared in 1790, with a biography by Charles Nalson Cole. There are several references to him in Boswell's *Johnson*.

JEOPARDY, a term meaning risk or danger of death, loss or other injury. The word, in Mid. Eng. *juparti, jeupartie*, &c., was adapted from O. Fr. *ju*, later *jeu*, and *parti*, even game, in medieval Latin *jocus partitus*. This term was originally used of a problem in chess or of a stage in any other game at which the chances of success or failure are evenly divided between the players. It was thus early transformed to any state of uncertainty.

JEPHSON, ROBERT (1736–1803), British dramatist, was born in Ireland. After serving for some years in the British army, he retired with the rank of captain, and lived in England, where he was the friend of Garrick, Reynolds, Goldsmith, Johnson, Burke, Burney and Charles Townshend. His appointment as master of the horse to the lord-lieutenant of Ireland

[1] Two lines will suffice:—

Boswell and Thrale, retailers of his wit,
Will tell you how he wrote, and talk'd, and cough'd, and spit.

took him back to Dublin. He published, in the *Mercury* newspaper a series of articles in defence of the lord-lieutenant's administration which were afterwards collected and issued in book form under the title of *The Bachelor, or Speculations of Jeoffry Wagstaffe*. A pension of £300, afterwards doubled, was granted him, and he held his appointment under twelve succeeding viceroys. From 1775 he was engaged in the writing of plays. Among others, his tragedy *Braganza* was successfully performed at Drury Lane in 1775, *Conspiracy* in 1796, *The Law of Lombardy* in 1779, and *The Count of Narbonne* at Covent Garden in 1781. In 1794 he published an heroic poem *Roman Portraits*, and *The Confessions of Jacques Baptiste Couteau*, a satire on the excesses of the French Revolution. He died at Blackrock, near Dublin, on the 31st of May 1803.

JEPHTHAH, one of the judges of Israel, in the Bible, was an illegitimate son of Gilead, and, being expelled from his father's house by his lawful brethren, took refuge in the Syrian land of Tob, where he gathered around him a powerful band of homeless men like himself. The Ammonites pressing hard on his countrymen, the elders of Gilead called for his help, which he consented to give on condition that in the event of victory he should be made their head (Judg. xi. 1–xii. 7). His name is best known in history and literature in connexion with his vow, which led to the sacrifice of his daughter on his successful return. The reluctance shown by many writers in accepting the plain sense of the narrative on this point proceeds to a large extent on unwarranted assumptions as to the stage of ethical development which had been reached in Israel in the period of the judges, or at the time when the narrative took shape. The annual lamentation of the women for her death suggests a mythical origin (see Adonis). Attached to the narrative is an account of a quarrel between Jephthah and the Ephraimites. The latter were defeated, and their retreat was cut off by the Gileadites, who had seized the fords of the Jordan. As the fugitives attempted to cross they were bidden to say "shibbōleth" ("flood" or "ear of corn"), and those who said "sibbōleth" (the Ephraimites apparently being unused to *sh*), were at once put to death. In this way 42,000 of the tribe were killed.[1]

The loose connexion between this and the main narrative, as also the lengthy speech to the children of Ammon (xi. 14–27), which really relates to Moab, has led some writers to infer that two distinct heroes and situations have been combined. See further the commentaries on the Book of Judges (*q.v.*), and Cheyne, *Ency. Bib.*, art. "Jephthah." (S. A. C.)

JERAHMEEL, (Heb. "May God pity"), in the Bible, a clan which with Caleb, the Kenites and others, occupied the southern steppes of Palestine, probably in the district around Arad, about 17 m. S. of Hebron. It was on friendly terms with David during his residence at Ziklag (1 Sam. xxx. 29), and it was apparently in his reign that the various elements of the south were united and were reckoned to Israel. This is expressed in the chronicler's genealogies which make Jerahmeel and Caleb descendants of Judah (see David; Judah).

On the names in 1 Chron. ii. see S. A. Cook, *Ency. Bib.*, col. 2363 seq. Peleth (*v.* 33) may be the origin of the Pelethites (2 Sam. viii. 18; xv. 18; xx. 7), and since the name occurs in the revolt of Korah (Num. xvi. 1), it is possible that Jerahmeel, like Caleb and the Kenites, had moved northwards from Kadesh. Samuel (*q.v.*) was of Jerahmeel (1 Sam. i. 1; Septuagint), and the consecutive Jerahmeelite names Nathan and Zabad (1 Chron. ii. 36) have been associated with the prophet and officer (Zabud, 1 Kings iv. 5) of the times of David and Solomon respectively. The association of Samuel and Nathan with this clan, if correct, is a further illustration of the importance of the south for the growth of biblical history (see Kenites and Rechabites). The *Chronicles of Jerahmeel* (M. Gaster, *Oriental Translation Fund*, 1899) is a late production containing a number of apocryphal Jewish legends of no historical value. (S. A. C.)

[1] Similarly a Syrian story tells how the Druses came to slay Ibrahim Pasha's troops, and desiring to spare the Syrians ordered the men to say *gamal* (camel). As the Syrians pronounce the *g* soft, and the Egyptians the *g*, hard, the former were easily identified. Other examples from the East will be found in H. C. Kay, *Yaman*, p. 36, and in S. Lane-Poole, *History of Egypt in the Middle Ages*, p. 300. Also, at the Sicilian Vespers (March 13, 1282) the French were made to betray themselves by their pronunciation of *ceci* and *ciceri* (Ital. *c* like *tch*; Fr. *c* like *s*).

JERBA, an island off the coast of North Africa in the Gulf of Gabes, forming part of the regency of Tunisia. It is separated from the mainland by two narrow straits, and save for these channels blocks the entrance to a large bight identified with the Lake Triton of the Romans. The western strait, opening into the Gulf of Gabes, is a mile and a half broad; the eastern strait is wider, but at low water it is possible to cross to the mainland by the Tarik-el-Jemil (road of the camel). The island is irregular in outline, its greatest length and breadth being some 20 m., and its area 425 sq. m. It contains neither rivers nor springs, but is supplied with water by wells and cisterns. It is flat and well wooded with date palms and olive trees. Pop. 35,000 to 40,000, the bulk of the inhabitants being Berbers. Though many of them have adopted Arabic a Berber idiom is commonly spoken. An affinity exists between the Berbers of Jerba and the Beni Mzab. About 3000 Jews live apart in villages of their own, and some 400 Europeans, chiefly Maltese and Greeks, are settled in the island. Jerba has a considerable reputation for the manufacture of the woollen tissues interwoven with silk which are known as burnous stuffs; a market for the sale of sponges is held from November till March; and there is a considerable export trade in olives, dates, figs and other fruits. The capital, trading centre and usual landing-place are at Haumt-es-Suk (market quarter) on the north side of the island (pop. 2500). Here are a medieval fort, built by the Spaniards in 1284, and a modern fort, garrisoned by the French. Gallala, to the south, is noted for the manufacture of a kind of white pottery, much prized. At El Kantara (the bridge) on the eastern strait, and formerly connected with the mainland by a causeway, are extensive ruins of a Roman city—probably those of Meninx, once a flourishing seaport.

Jerba is the Lotophagitis or Lotus-eaters' Island of the Greek and Roman geographers, and is also identified with the Brachion of Scylax. The modern name appears as early as the 4th century in Sextus Aurelius Victor. In the middle ages the possession of Jerba was contested by the Normans of Sicily, the Spaniards and the Turks, the Turks proving victorious. In 1560 after the destruction of the Spanish fleet off the coast of the island by Piali Pasha and the corsair Dragut the Spanish garrison at Haumt-es-Suk was exterminated, and a pyramid, 10 ft. broad at the base and 20 ft. high, was built of their skulls and other bones. In 1848 this pyramid was pulled down at the instance of the Christian community, and the bones were buried in the Catholic cemetery. In general, from the Arab invasion in the 7th century Jerba shared the fortunes of Tunisia.

See H. Barth, *Wanderungen durch die Küstenl. des Mittelmeeres* (Berlin, 1849); and H. von Maltzan, *Reise in Tunis und Tripolis* (Leipzig, 1870).

JERBOA, properly the name of an Arabian and North African jumping rodent mammal, *Jaculus aegyptius* (also known as *Jaculus*, or *Dipus, jaculus*) typifying the family *Jaculidae* (or *Dipodidae*), but in a wider sense applied to most of the representatives of that family, which are widely distributed over the desert and semi-desert tracts of the Old World, although unknown in Africa south of the Sahara. In all the more typical members of the family the three middle metatarsals of the long hind-legs are fused into a cannon-bone; and in the true jerboas of the genus *Jaculus* the two lateral toes, with their supporting metatarsals, are lost, although they are present in the alactagas (*Alactaga*), in which, however, as in certain allied genera, only the three middle toes are functional. As regards the true jerboas, there is a curious resemblance in the structure of their hind-legs to that obtaining among birds. In both groups, for instance, the lower part of the hind-leg is formed by a long, slender cannon-bone, or metatarsus, terminating inferiorly in triple condyles for the three long and sharply clawed toes, the resemblance being increased by the fact that in both cases the small bone of the leg (fibula) is fused with the large one (tibia). It may also be noticed that in mammals and birds which hop on two legs, such as jerboas, kangaroos, thrushes and

finches, the proportionate length of the thigh-bone or femur to the tibia and foot (metatarsus and toes) is constant, being 2 to 5; in animals, on the other hand, such as hares, horses and frogs, which use all four feet, the corresponding lengths are 4 to 7. The resemblance between the jerboa's and the bird's skeleton is owing to adaptation to a similar mode of existence. In the young jerboa the proportion of the femur to the rest of the leg is the same as in ordinary running animals. Further, at an early stage of development the fibula is a complete and separate bone, while the three metatarsals, which subsequently fuse together to form the cannon-bone, are likewise separate. In addition to their long hind and short fore limbs, jerboas are mostly characterized by their silky coats—of a fawn colour to harmonize with their desert surroundings—their large eyes, and long tails and ears. As is always the case with large-eared animals, the tympanic bullae of the skull are of unusually large size; the size varying in the different genera according to that of the ears. (For the characteristics of the family and of its more important generic representatives, see RODENTIA.)

In the Egyptian jerboa the length of the body is 8 in., and that of the tail, which is long, cylindrical and covered with short hair terminated by a tuft, 10 in. The five-toed front limbs are extremely short, while the hind pair are six times as long. When about to spring, this jerboa raises its body by means of the hinder extremities, and supports itself at the same time upon its tail, while the fore-feet are so closely pressed to the breast as to be scarcely visible, which doubtless suggested the name *Dipus*, or two-footed. It then leaps into the air and alights upon its four feet, but instantaneously erecting itself, it makes another spring, and so on in such rapid succession as to appear as if rather flying than running. It is a gregarious animal, living in considerable colonies in burrows, which it excavates with its nails and teeth in the sandy soil of Egypt and Arabia. In these it remains during great part of the day, emerging at night in search of the herbs on which it feeds. It is exceedingly shy, and this, together with its extraordinary agility, renders it difficult to capture. The Arabs, however, succeed by closing up all the exits from the burrows with a single exception, by which the rodents are forced to escape, and over which a net is placed for their capture. When confined, they will gnaw through the hardest wood in order to make their escape. The Persian jerboa (*Alactaga indica*) is also a nocturnal burrowing animal, feeding chiefly on grain, which it stores up in underground repositories, closing these when full, and only drawing upon them when the supply of food above ground is exhausted (see also JUMPING MOUSE).

(R. L.*)

JERDAN, WILLIAM (1782–1869), Scottish journalist, was born on the 16th of April 1782, at Kelso, Scotland. During the years between 1799 and 1806 he spent short periods in a country lawyer's office, a London West India merchant's counting-house, an Edinburgh solicitor's chambers,and held the position of surgeon's mate on board H.M. guardship "Gladiator" in Portsmouth Harbour, under his uncle, who was surgeon. He went to London in 1806, and became a newspaper reporter. He was in the lobby of the House of Commons on the 11th of May 1812 when Spencer Perceval was shot, and was the first to seize the assassin. By 1812 he had become editor of *The Sun*, a semi-official Tory paper; he occasionally inserted literary articles, then quite an unusual proceeding; but a quarrel with the chief proprietor brought that engagement to a close in 1817. He passed next to the editor's chair of the *Literary Gazette*, which he conducted with success for thirty-four years. Jerdan's position as editor brought him into contact with many distinguished writers. An account of his friends, among whom Canning was a special intimate, is to be found in his *Men I have Known* (1866). When Jerdan retired in 1850 from the editorship of the *Literary Gazette* his pecuniary affairs were far from satisfactory. A testimonial of over £900 was subscribed by his friends; and in 1853 a government pension of 100 guineas was conferred on him by Lord Aberdeen. He published his *Autobiography* in 1852–1853, and died on the 11th of July 1869.

JEREMIAH, in the Bible, the last pre-exilic prophet (*fl.* 626–586 B.C.?), son of Hilkiah.

Early Days of Jeremiah.—There must anciently have existed one or more prose works on Jeremiah and his times, written partly to do honour to the prophet, partly to propagate those views respecting Israel's past with which the name of Jeremiah was associated. Some fragments of this work (or these works) have come down to us; they greatly add to the popularity of the Book of Jeremiah. Strict historical truth we must not ask of them, but they do give us what was believed concerning Jeremiah in the following age, and we must believe that the personality so honoured was an extraordinary one. We have also a number of genuine prophecies which admit us into Jeremiah's inner nature. These are our best authorities, but they are deficient in concrete facts. By birth Jeremiah was a countryman; he came of a priestly family whose estate lay at Anathoth "in the land of Benjamin" (xxxii. 3; cf. i. 1). He came forward as a prophet in the thirteenth year of Josiah (626 B.C.), still young but irresistibly impelled. Unfortunately the account of the call and of the object of the divine caller come to us from a later hand (ch. i.), but we can well believe that the concrete fact which the prophetic call illuminated was an impending blow to the state (i. 13–16; cf. ch. iv.). What the blow exactly was is disputed,[1] but it is certain that Jeremiah saw the gathering storm and anticipated its result, while the statesmen were still wrapped in a false security. Five years later came the reform movement produced by the "finding" of the "book of the law" in the Temple in 621 B.C. (2 Kings xxii. 8), and some critics have gathered from Jer. xi. 1–8 that Jeremiah joined the ranks of those who publicly supported this book in Jerusalem and elsewhere. To others this view appears in itself improbable. How can a man like Jeremiah have advocated any such panacea? He was indeed not at first a complete pessimist, but to be a preacher of Deuteronomy required a sanguine temper which a prophet of the school of Isaiah could not possess. Besides, there is a famous passage (viii. 8, see R.V.) in which Jeremiah delivers a vehement attack upon the "scribes" (or, as we might render, "bookmen") and their "false pen." If, as Wellhausen and Duhm suppose, this refers to Deuteronomy (*i.e.* the original Deuteronomy), the incorrectness of the theory referred to is proved. And even if we think that the phraseology of viii. 8 applies rather to a body of writings than to a single book, yet there is no good ground (xi. 1–8 and xxxiv. 12 being of doubtful origin) for supposing that Jeremiah would have excepted Deuteronomy from his condemnation.

Stages of his Development.—At first our prophet was not altogether a pessimist. He aspired to convince the better minds that the only hope for Israelites, as well as for Israel, lay in "returning" to the true Yahweh, a deity who was no mere national god, and was not to be cajoled by the punctual offering of costly sacrifices. When Jeremiah wrote iv. 1–4 he evidently considered that the judgment could even then be averted. Afterwards he became less hopeful, and it was perhaps a closer acquaintance with the manners of the capital that served to disillusionize him. He began his work at Anathoth, but v. 1–5 (as Duhm points out) seems to come from one who has just now for the first time "run to and fro in the streets of Jerusalem," observing and observed. And what is the result of his expedition? That he cannot find a single just and honest man; that high and low, rich and poor, are all ignorant of the true method of worshipping God ("the way of Yahweh," v. 4). It would seem as if Anathoth were less corrupt than the capital, the moral state of which so shocked Jeremiah. And yet he does not really go beyond the great city-prophet Isaiah who calls the men of Jerusalem "a people of Gomorrah" (i. 10). With all reverence, an historical student has to deduct something from both these statements. It is true that commercial prosperity had put a severe strain on the old morality, and that contact with other

[1] Davidson (Hast., *D.B.*, ii. 570 b) mentions two views. (1) The foe might be "a creation of his moral presentiment and assigned to the north as the cloudy region of mystery." (2) The more usual view is that the Scythians (see Herod. i. 76, 103–106; iv. 1) are meant. Neither of these views is satisfactory. The passage v. 15–17 is too definite for (1), and as for (2), the idea of a threatened Scythian invasion lacks a sufficient basis. Those who hold (2) have to suppose that original references to the Scythians were retouched under the impression of Chaldean invasions. Hence Cheyne's theory of a north Arabian invasion from the land of Zaphon=Zibeon (Gen. xxxvi. 2, 14), *i.e.* Ishmael. Cf. N. Schmidt, *Ency. Bib.*, Zibeon, "Scythians," § 8; Cheyne, *Critica Biblica*, part i. (Isaiah and Jeremiah).

peoples, as well as the course of political history, had appeared to lower the position of the God of Israel in relation to other gods. Still, some adherents of the old Israelitish moral and religious standards must have survived, only they were not to be found in the chief places of concourse, but as a rule in coteries which handed on the traditions of Amos and Isaiah in sorrowful retirement.

Danger of Book Religion.—Probably, too, even in the highest class there were some who had a moral sympathy with Jeremiah; otherwise we can hardly account for the contents of Deuteronomy, at least if the book "found" in the Temple at all resembled the central portion of our Deuteronomy. And the assumption seems to be confirmed by the respectful attitude of certain "elders of the land" in xxvi. 17 sqq., and of the "princes" in xxxvi. 19, 25, towards Jeremiah, which may, at any rate in part, have been due to the recent reform movement. If therefore Jeremiah aimed at Deuteronomy in the severe language of viii.8, he went too far. History shows that book religion has special dangers of its own.[1] Nevertheless the same incorruptible adviser also shows that book religion may be necessary as an educational instrument, and a compromise between the two types of religion is without historical precedent.

Reaction: Opposition to Jeremiah.—This, however, could not as yet be recognized by the friends of prophecy, even though it seemed for a time as if the claims of book religion were rebuffed by facts. The death of the pious king Josiah at Megiddo in 608 B.C. dashed the high hopes of the "book-men," but meant no victory for Jeremiah. Its only result for the majority was a falling back on the earlier popular cultus of the Baals, and on the heathen customs introduced, or reintroduced, by Josiah's grandfather, Manasseh. Would that we possessed the section of the prophet's biography which described his attitude immediately after the news of the battle of Megiddo! Let us, however, be thankful for what we have, and notably for the detailed narratives in chs. xxvi. and xxxvi. The former is dated in the beginning of the reign of Jehoiakim, though Wellhausen suspects that the date is a mistake, and that the real occasion was the death of Josiah. The one clear-sighted patriot saw the full meaning of the tragedy of Megiddo, and for "prophesying against this city"—secured, as men thought, by the Temple (vii. 4)—he was accused by "the priests, the prophets, and all the people" of high treason. But the divinity which hedged a prophet saved him. The "princes," supported by certain "elders" and by "the people" (quick to change their leaders), succeeded in quashing the accusation and setting the prophet free. No king, be it observed, is mentioned. The latter narrative is still more exciting. In the fourth year of Jehoiakim (= the first of Nebuchadrezzar, xxv. 1) Jeremiah was bidden to write down "all the words that Yahweh had spoken to him against Jerusalem (so LXX.), Judah and all the nations from the days of Josiah onwards" (xxxvi. 2). So at least the authors of Jeremiah's biography tell us. They add that in the next year Jeremiah's scribe Baruch read the prophecies of Jeremiah first to the people assembled in the Temple, then to the "princes," and then to the king, who decided his own future policy by burning Baruch's roll in the brazier. We cannot, however, bind ourselves to this tradition. Much more probably the prophecy was virtually a new one (*i.e.* even if some old passages were repeated yet the setting was new), and the burden of the prophecy was "The king of Babylon shall come and destroy this land."[2] We cannot therefore assent to the judgment that "we have, at least as regards [the] oldest portions [of the book] information considerably more specific than is usual in the case of the writings of the prophets."[3]

Fall of the State.—Under Zedekiah the prophet was less fortunate. Such was the tension of feeling that the "princes," who were formerly friendly to Jeremiah, now took up an attitude of decided hostility to him. At last they had him consigned to a miry dungeon, and it was the king who (at the instance of the Cushite Ebed-melech) intervened for his relief, though he remained a prisoner in other quarters till the fall of Jerusalem (586 B.C.). Nebuchadrezzar, who is assumed to have heard of Jeremiah's constant recommendations of submission, gave him the choice either of going to Babylon or of remaining in the country (chs. xxxviii. seq.). He chose the latter and resided with Gedaliah, the native governor, at Mizpah. On the murder of Gedaliah he was carried to Mizraim or Egypt, or perhaps to the land of Mizrim in north Arabia—against his will (chs. xl.–xliii.). How far all this is correct we know not. The graphic style of a narrative is no sufficient proof of its truth. Conceivably enough the story of Jeremiah's journey to Egypt (or Mizrim) may have been imagined to supply a background for the artificial prophecies ascribed to Jeremiah in chs. xlvi.–li. A legend in Jerome and Epiphanius states that he was stoned to death at Daphnae, but the biography, though not averse from horrors, does not mention this.

A Patriot?—Was Jeremiah really a patriot? The question has been variously answered. He was not a Phocion, for he never became the tool of a foreign power. To say with Winckler[4] that he was "a decided adherent of the Chaldean party" is to go beyond the evidence. He did indeed counsel submission, but only because his detachment from party gave him a clearness of vision (cf. xxxviii. 17, 18) which the politicians lacked. How he suffered in his uphill course he has told us himself (xv. 10–21). In after ages the oppressed people saw in his love for Israel and his patient resignation their own realized ideal. "And Onias said, This is the lover of the brethren, he who prayeth much for the people and the holy city, Jeremiah the prophet of God" (2 Macc. xv. 14). And in proportion as the popular belief in Jeremiah rose, fresh prophecies were added to the book (notably those of the new covenant and of the restoration of the people after seventy years) to justify it. Professor N. Schmidt has gone further into the character of this sympathetic prophet, *Ency. Bib.* "Jeremiah," § 5.

Jeremiah's Prophecies.—It has been said above that our best authorities are Jeremiah's own prophecies. Which may these be? Before answering we must again point out (see also ISAIAH) that the records of the pre-exilic prophets came down in a fragmentary form, and that these fragments needed much supplementing to adapt them to the use of post-exilic readers. In Jeremiah, as in Isaiah, we must constantly ask to what age do the phraseology, the ideas and the implied circumstances most naturally point? According to Duhm there are many passages in which metre (see also AMOS) may also be a factor in our critical conclusions. Jeremiah, he thinks, always uses the same metre. Giesebrecht, on the other hand, maintains that there are passages which are certainly Jeremiah's, but which are not in what Duhm calls Jeremiah's metre; Giesebrecht also, himself rather conservative, considers Duhm remarkably free with his emendations. There has also to be considered whether the text of the poetical passages has not often become corrupt, not only from ordinary causes but through the misunderstanding and misreading of north Arabian names on the part of late scribes and editors, the danger to Judah from north Arabia being (it is held) not less in pre-exilic times than the danger from Assyria and Babylonia, so that references to north Arabia are only to be expected. To bring educated readers into touch with critical workers it is needful to acquaint them with these various points, the neglect of any one of which may to some extent injure the results of criticism.

It is a new stage of criticism on which we have entered, so that no single critic can be reckoned as *the* authority on Jeremiah. But since the results of the higher criticism depend on the soundness and thoroughness of the criticism called "lower," and since Duhm has the advantage of being exceptionally free from that exaggerated respect for the letters of the traditional text which has survived the destruction of the old superstitious veneration for the vowel-points, it may be best to give the student his "higher critical" results, dated 1901. Let us premise, however, that the portions mentioned in the 9th edition of the *Ency. Brit.* as having been "entirely or in part denied," to Jeremiah, viz. x. 1–16; xxx.; xxxiii.; l.–li. and lii., are still regarded in their present form as non-Jeremianic. The question which next awaits decision is whether any part of the booklet on foreign nations (xxv., xlvi.-li.) can safely be regarded as Jeremianic. Giesebrecht still asserts the genuineness of xxv. 15–24 (apart from glosses), xlvii. (in the main) and xlix. 7, 8, 10, 11. Against these views see N. Schmidt, *Ency. Bib.*, col. 2384.

[1] Cf. Ewald, *The Prophets*, Eng. trans., iii. 63, 64.

[2] Cheyne, *Ency. Brit.* (9th ed.), "Jeremiah," suggests after Grätz that the roll simply contained ch. xxv., omitting the most obvious interpolations. Against this view see N. Schmidt, *Ency. Bib.*, "Jeremiah (Book)," § 8, who, however, accepts the negative part of Cheyne's arguments.

[3] Driver, *Introd. to the Lit. of the O.T.* (6), p. 249.

[4] In Helmolt's *Weltgeschichte*, iii. 211.

Let us now listen to Duhm, who analyses the book into six groups of passages. These are (a) i.–xxv., the "words of Jeremiah." (i. 1); (b) xxvi.–xxix., passages from Baruch's biography of Jeremiah; (c) xxx.–xxxi., the book of the future of Israel and Judah; (d) xxxii.–xlv., from Baruch; (e) xlvi.–li., the prophecies "concerning the nations";[1] (f) lii., historical appendix. Upon examining these groups we find that besides a prose letter (ch. xxix.), about sixty poetical pieces may be Jeremiah's. A: Anathoth passages before 621, (a) ii. 2b, 3, 14–28; ii. 29–37; iii. 1–5; iii. 12b, 13, 19, 20; iii. 21–25; iv. 1, 3, 4; these form a cycle. (b) xxxi. 2–6; 15–20; 21, 22; another cycle. (c) iv. 5–8; 11b, 12a, 13, 15–17a; 19–21; 23–26; 29–31; visions and "auditions" of the impending invasion. B: Jerusalem passages. (d) v. 1–6a; 6b–9; 10–17; vi. 1–5; 6b–8; 9–14; 16, 17, 20; 22–26a; 27–30; vii. 28, 29; viii. 4–7a; 8, 9, 13; 14–17; viii. 18–23; ix. 1–8; 9 (short song); 16–18; 19–21; x. 19, 20, 22; reign of Josiah, strong personal element. (e) xxii. 10 (Jehoahaz). xxii. 13–17; probably too xi. 15, 16; xii. 7–12 (Jehoiakim). xxii. 18, 19, perhaps too xxii. 6b, 7; 20–23; and the cycle xiii. 15, 16; 17; 18, 19; 20, 21a, 22–25a, 26, 27 (later, Jehoiakim). xxii. 24; xxii. 28 (Jehoiachin). (f) Later poems. xiv. 2–10; xv. 5–9; xvi. 5–7; xviii. 13–17; xxiii. 9–12; 13–15; xi. 18–20; xv. 10–12; 15–19a, and 20, 21; xvii. 9, 10, 14, 16, 17; xviii. 18–20; xx. 7–11; xx. 14–18; xiv. 17, 18; xvii. 1–4; xxxviii. 24; assigned to the close of Zedekiah's time.

Two Recensions of the Text.—It has often been said that we have virtually two recensions of the text, that represented by the Septuagint and the Massoretic text, and critics have taken different sides, some for one and some for the other. "Recension," however, is a bad term; it implies that the two texts which undeniably exist were the result of revising and editing according to definite critical principles. Such, however, is not the case. It is true that "there are (in the LXX.) many omissions of words, sentences, verses and whole passages, in fact, that altogether about 2700 words are wanting, or the eighth part of the Massoretic text" (Bleek). It may also be admitted that the scribes who produced the Hebrew basis of the Septuagint version, conscious of the unsettled state of the text, did not shrink from what they considered a justifiable simplification. But we must also grant that those from whom the "written" Hebrew text proceeds allowed themselves to fill up and to repeat without any sufficient warrant. In each case in which there is a genuine difference of reading between the two texts, it is for the critic to decide; often, however, he will have to seek to go behind what both the texts present in order to constitute a truer text than either. Here is the great difficulty of the future. We may add to the credit of the Septuagint that the position given to the prophecies on "the nations" (chs. xlvi.–li. in our Bible) in the Septuagint is probably more original than that in the Massoretic text. On this point see especially Schmidt, *Ency. Bib.* "Jeremiah (Book)" §§ 6 and 21; Davidson, Hastings's *Dict. Bible*, ii. 573b–575; Driver, *Introduction* (8th ed.), pp. 269, 270.

The best German commentary is that of Cornill (1905). A skilful translation by Driver, with notes intended for ordinary students (1906) should also be mentioned. (T. K. C.)

JEREMY, EPISTLE OF, an apocryphal book of the Old Testament. This letter purports to have been written by Jeremiah to the exiles who were already in Babylon or on the way thither. The author was a Hellenistic Jew, and not improbably a Jew of Alexandria. His work, which shows little literary skill, was written with a serious practical purpose. He veiled his fierce attack on the idol gods of Egypt by holding up to derision the idolatry of Babylon. The fact that Jeremiah (xxix. 1 sqq.) was known to have written a letter of this nature naturally suggested to a Hellenist, possibly of the 1st century B.C. or earlier, the idea of a second epistolary undertaking, and other passages of Jeremiah's prophecy (x. 1–12; xxix. 4–23) may have determined also its general character and contents.

The writer warned the exiles that they were to remain in captivity for seven generations; that they would there see the worship paid to idols, from all participation in which they were to hold aloof; for that idols were nothing save the work of men's hands, without the powers of speech, hearing or self-preservation. They could not bless their worshippers even in the smallest concerns of life; they were indifferent to moral qualities, and were of less value than the commonest household objects, and finally, "with rare irony, the author compared an idol to a scarecrow (v. 70), impotent to protect, but deluding to the imagination" (Marshall).

The date of the epistle is uncertain. It is believed by some scholars to be referred to in 2 Macc. ii. 2, which says that Jeremiah charged the exiles "not to forget the statutes of the Lord, neither to be led astray in their minds when they saw images of gold and silver and the adornment thereof." But the reference is disputed by Fritzsche, Gifford, Shürer and others. The epistle was included in the Greek canon. There was no question of its canonicity till the time of Jerome, who termed it a pseudepigraph.

See Fritzsche, *Handb. zu den Apok.*, 1851; Gifford, in *Speaker's Apoc.* ii. 286–303; Marshall, in Hastings' *Dict. Bible*, ii. 578–579. (R. H. C.)

JERÉZ DE LA FRONTERA (formerly Xeres), a town of southern Spain, in the province of Cadiz, near the right bank of the river Guadalete, and on the Seville-Cadiz railway, about 7 m. from the Atlantic coast. Pop. (1900), 63,473. Jeréz is built in the midst of an undulating plain of great fertility. Its whitewashed houses, clean, broad streets, and squares planted with trees extend far beyond the limits formerly enclosed by the Moorish walls, almost entirely demolished. The principal buildings are the 15th-century church of San Miguel, the 17th-century collegiate church with its lofty bell-tower, the 16th-century town-hall, superseded, for official purposes, by a modern edifice, the bull-ring, and many hospitals, charitable institutions and schools, including academies of law, medicine and commerce. But the most characteristic features of Jeréz are the huge *bodegas*, or wine-lodges, for the manufacture and storage of sherry, and the vineyards, covering more than 150,000 acres, which surround it on all sides. The town is an important market for grain, fruit and livestock, but its staple trade is in wine. Sherry is also produced in other districts, but takes its name, formerly written in English as *sherris* or *xeres*, from Jeréz. The demand for sherry diminished very greatly during the last quarter of the 19th century, especially in England, which had been the chief consumer. In 1872 the sherry shipped from Cadiz to Great Britain alone was valued at £2,500,000; in 1902 the total export hardly amounted to one-fifth of this sum. The wine trade, however, still brings a considerable profit, and few towns of southern Spain display greater commercial activity than Jeréz. In the earlier part of the 18th century the neighbourhood suffered severely from yellow fever; but it was rendered comparatively healthy when in 1869 an aqueduct was opened to supply pure water. Strikes and revolutionary disturbances have frequently retarded business in more recent years.

Jeréz has been variously identified with the Roman Municipium Seriense; with Asido, perhaps the original of the Moorish Sherish; and with Hasta Regia, a name which may survive in the designation of La Mesa de Asta, a neighbouring hill. Jeréz was taken from the Moors by Ferdinand III. of Castile (1217–1252); but it was twice recaptured before Alphonso X. finally occupied it in 1264. Towards the close of the 14th century it received the title *de la Frontera, i.e.* "of the frontier," common to several towns on the Moorish border.

JERÉZ DE LOS CABALLEROS, a town of south-western Spain, in the province of Badajoz, picturesquely situated on two heights overlooking the river Ardila, a tributary of the Guadiana, 12 m. E. of the Portuguese frontier. Pop. (1900), 10,271. The old town is surrounded by a Moorish wall with six gates; the newer portion is well and regularly built, and planted with numerous orange and other fruit trees. Owing to the lack of railway communication Jeréz is of little commercial importance; its staple trade is in agricultural produce, especially in ham and bacon from the large herds of swine which are reared in the surrounding oak forests. The town is said to have been founded by Alphonso IX. of Leon in 1229; in 1232 it was extended by his son St Ferdinand, who gave it to the knights templar. Hence the name *Jeréz de los Caballeros*, "Jeréz of the knights."

JERICHO (יְרִיחוֹ, יְרֵחוֹ, once יְרֵיחָה, a word of disputed meaning, whether "fragrant" or "moon [-god] city"), an important town in the Jordan valley some 5 m. N. of the Dead Sea. The references to it in the Pentateuch are confined to rough geographical indications of the latitude of the trans-Jordanic camp of the Israelites in Moab before their crossing of the river. This was the first Canaanite city to be attacked and reduced by the victorious Israelites. The story of its conquest is

[1] li. 59–64a, however, is a specimen of imaginative "Midrashic" history. See Giesebrecht's monograph.

fully narrated in the first seven chapters of Joshua. There must be some little exaggeration in the statement that Jericho was totally destroyed; a hamlet large enough to be enumerated among the towns of Benjamin (Josh. xviii. 21) must have remained; but that it was small is shown by the fact that it was deemed a suitable place for David's ambassadors to retire to after the indignities put upon them by Hanun (2 Sam. x. 5; 1 Chron. xix. 5). Its refortification was due to a Bethelite named Hiel, who endeavoured to avert the curse of Joshua by offering his sons as sacrifices at certain stages of the work (1 Kings xvi. 34). After this event it grew again into importance and became the site of a college of prophets (2 Kings ii. 4 sqq.) for whom Elisha "healed" its poisonous waters. The principal spring in the neighbourhood of Jericho still bears (among the foreign residents) the name of Elisha; the natives call it, Ain es-Sultan, or "Sultan's spring." To Jericho the victorious Israelite marauders magnanimously returned their Judahite captives at the bidding of the prophet Oded (2 Chron. xxviii. 15). Here was fought the last fight between the Babylonians and Zedekiah, wherein the kingdom of Judah came to an end (2 Kings xxv. 5; Jer. xxxix. 5, lii. 8). In the New Testament Jericho is connected with the well-known stories of Bar-Timaeus (Matt. xx. 29; Mark x. 46; Luke xviii. 35) and Zacchaeus (Luke xix. 1) and with the good Samaritan (Luke x. 30).

The extra-Biblical history of Jericho is as disastrous as are the records preserved in the Scriptures. Bacchides, the general of the Syrians, captured and fortified it (1. Macc. ix. 50), Aristobulus (Jos. *Ant.* XIV. i. 2) also took it, Pompey (ib. XIV. iv. 1) encamped here on his way to Jerusalem. Before Herod its inhabitants ran away (ib. XIV. xv. 3) as they did before Vespasian (*Wars*, IV. viii. 2). The reason of this lack of warlike quality was no doubt the enervating effect of the great heat of the depression in which the city lies, which has the same effect on the handful of degraded humanity that still occupies the ancient site.

Few places in Palestine are more fertile. It was the city of palm trees of the ancient record of the Israelite invasion preserved in part in Judg. i. 16; and Josephus speaks of its fruitfulness with enthusiasm (*Wars* IV. 8, 3). Even now with every possible hindrance in the way of cultivation it is an important centre of fruit-growing.

The modern er-Rīha is a poor squalid village of, it is estimated, about 300 inhabitants. It is not built exactly on the ancient site. Indeed, the site of Jericho has shifted several times. The mound of Tell es-Sultan, near "Elisha's Fountain," north of the modern village, no doubt covers the Canaanite town. There are two later sites, of Roman or Herodian date, one north, the other west, of this. It was probably the crusaders who established the modern site. An old tower attributed to them is to be seen in the village, and in the surrounding mountains are many remains of early monasticism. Aqueducts, ruined sugar-mills, and other remains of ancient industry abound in the neighbourhood. The whole district is the private property of the sultan of Turkey. In 1907–8 the Canaanite Jericho was excavated under the direction of Prof. Sellin of Vienna.

See "The German Excavations at Jericho," *Pal. Explor. Fund, Quart. Statem.* (1910), pp. 54–68.

JERKIN, a short close-fitting jacket, made usually of leather, and without sleeves, the typical male upper garment of the 16th and 17th centuries. The origin of the word is unknown. The Dutch word *jurk*, a child's frock, often taken as the source, is modern, and represents neither the sound nor the sense of the English word. In architecture the term "jerkin-roofed" is applied, probably with some obscure connexion with the garment, to a particular form of gable end, the gable being cut off half way up the roof and sloping back like a "hipped roof" to the edge.

JEROBOAM (Heb. *yārob'ām*, apparently "Am ['the clan,' here perhaps a divine name] contends"; LXX. ιεροβοαμ), the name of two kings in the Bible.

1. The first king of (north) Israel after the disruption (see SOLOMON). According to the traditions of his early life (1 Kings xi. 26 sqq. and LXX.), he was an Ephraimite who for his ability was placed over the forced levy of Ephraim and Manasseh. Having subsequently incurred Solomon's suspicions he fled to Shishak, king of Egypt, and remained with him until Rehoboam's accession. When the latter came to be made king at Shechem, the old religious centre (see ABIMELECH), hopes were entertained that a more lenient policy would be introduced. But Rehoboam refused to depart from Solomon's despotic rule, and was tactless enough to send Adoniram, the overseer of the *corvée*. He was stoned to death, and Rehoboam realizing the temper of the people fled to Jerusalem and prepared for war. Jeroboam became the recognized leader of the northern tribes.[1] Conflicts occurred (1 Kings xiv. 30), but no details are preserved except the late story of Rehoboam's son Abijah in 2 Chron. xiii. Jeroboam's chief achievement was the fortification of Shechem (his new capital) and of Penuel in east Jordan. To counteract the influence of Jerusalem he established golden calves at Dan and Bethel, an act which to later ages was as gross a piece of wickedness as his rebellion against the legitimate dynasty of Judah. No notice has survived of Shishak's invasion of Israel (see REHOBOAM), and after a reign of twenty-two years Jeroboam was succeeded by Nadab, whose violent death two years later brought the whole house of Jeroboam to an end.

The history of the separation of Judah and Israel in the 10th century B.C. was written from a strong religious standpoint at a date considerably later than the event itself. The visit of Ahijah to Shiloh (xi. 29–39), to announce symbolically the rending of the kingdom, replaces some account of a rebellion in which Jeroboam "lifted up his hand" (*v.* 27) against Solomon. To such an account, not to the incident of Ahijah and the cloak, his flight (*v.* 40) is the natural sequel. The story of Ahijah's prophecy against Jeroboam (ch. xiv.) is not in the original LXX., but another version of the same narrative appears at xii. 24 (LXX.), in which there is no reference to a previous promise to Jeroboam through Ahijah, but the prophet is introduced as a new character. Further, in this version (xii. 24) the incident of the tearing of the cloak is related of Shemaiah and placed at the convention of Shechem. Shemaiah is the prophet who counselled Rehoboam to refrain from war (xii. 21–24); the injunction is opposed to xiv. 30, but appears to be intended to explain Rehoboam's failure to overcome north Israel. (See W. R. Smith, *Old Test. in Jewish Church* (2nd ed.), 117 sqq.; Winckler, *Alte Test. Untersuch.* 12 sqq., and J. Skinner, *Century Bible: Kings*, pp. 443 sqq.)

2. JEROBOAM, son of Joash (2) a contemporary of Azariah king of Judah. He was one of the greatest of the kings of Israel. He succeeded in breaking the power of Damascus, which had long been devastating his land, and extended his kingdom from Hamath on the Orontes to the Dead Sea. The brief summary of his achievements preserved in 2 Kings xiv. 23 sqq. may be supplemented by the original writings of Amos and Hosea.[2] There appears to be an allusion in Amos vi. 13 to the recovery of Ashteroth-Karnaim and Lodebar in E. Jordan, and the conquest of Moab (Isa. xv. seq.) is often ascribed to this reign. After a period of prosperity, internal disturbances broke out and the northern kingdom hastened to its fall. Jeroboam was succeeded by his son Zechariah, who after six months was killed at Ibleam (so read in 2 Kings xv. 10; cp. ix. 27, murder of Ahaziah) by Shallum the son of Jabesh—*i.e.* possibly of Jabesh-Gilead—who a month later fell to Menahem (*q.v.*).

(S. A. C.)

See, further, JEWS §§ 7, 9 and §§ 12, 13.

JEROME, ST (HIERONYMUS, in full EUSEBIUS SOPHRONIUS HIERONYMUS) (*c.* 340–420), was born at Strido (modern Strigau ?), a town on the border of Dalmatia fronting Pannonia, destroyed by the Goths in A.D. 377. What is known of Jerome has mostly been recovered from his own writings. He appears to have been born about 340; his parents were Christians, orthodox though living among people mostly Arians and wealthy. He was at first educated at home, Bonosus, a life-long friend, sharing his youthful studies, and was afterwards sent to Rome. Donatus taught him grammar and explained the Latin poets. Victorinus taught him rhetoric. He attended the law-courts, and listened to the Roman advocates pleading in the Forum. He went to the schools of philosophy, and heard lectures on Plato, Diogenes, Clitomachus and Carneades; the conjunction of names show how philosophy had become a dead tradition.

[1] On the variant traditions in the Hebrew text and the Septuagint, see the commentaries on Kings.

[2] See also JONAH. In 2 Kings xiv. 28, "Hamath, *which had belonged* to Judah" (R.V.) is incorrect; Winckler (*Keilinschrift. u. Alte Test.*, 2nd ed., 262) suspects a reference to Israel's overlordship in Judah; Burney (*Heb. Text of Kings*) reads: "how he fought with Damascus and how he turned away the wrath of Yahweh from Israel"; see also *Ency. Bib.* col. 2406 n. 4, and the commentaries.

His Sundays were spent in the catacombs in discovering graves of the martyrs and deciphering inscriptions. Pope Liberius baptized him in 360; three years later the news of the death of the emperor Julian came to Rome, and Christians felt relieved from a great dread.

When his student days were over Jerome returned to Strido, but did not stay there long. His character was formed. He was a scholar, with a scholar's tastes and cravings for knowledge, easily excited, bent on scholarly discoveries. From Strido he went to Aquileia, where he formed some friendships among the monks of the large monastery, notably with Rufinus, with whom he was destined to quarrel bitterly over the question of Origen's orthodoxy and worth as a commentator; for Jerome was a man who always sacrificed a friend to an opinion, and when he changed sides in a controversy expected his acquaintances to follow him. From Aquileia he went to Gaul (366–370), visiting in turn the principal places in that country, from Narbonne and Toulouse in the south to Treves on the north-east frontier. He stayed some time at Treves studying and observing, and it was there that he first began to think seriously upon sacred things. From Treves he returned to Strido, and from Strido to Aquileia. He settled down to literary work in Aquileia (370–373) and composed there his first original tract, *De muliere septies percussa*, in the form of a letter to his friend Innocentius. Some dispute caused him to leave Aquileia suddenly; and with a few companions, Innocentius, Evagrius, and Heliodorus being among them, he started for a long tour in the East. The epistle to Rufinus (3rd in Vallarsi's enumeration) tells us the route. They went through Thrace, visiting Athens, Bithynia, Galatia, Pontus, Cappadocia and Cilicia, to Antioch, Jerome observing and making notes as they went. He was interested in the theological disputes and schisms in Galatia, in the two languages spoken in Cilicia, &c. At Antioch the party remained some time. Innocentius died of a fever, and Jerome was dangerously ill. This illness induced a spiritual change, and he resolved to renounce whatever kept him back from God. His greatest temptation was the study of the literature of pagan Rome. In a dream Christ reproached him with caring more to be a Ciceronian than a Christian. He disliked the uncouth style of the Scriptures. "O Lord," he prayed, "thou knowest that whenever I have and study secular MSS. I deny thee," and he made a resolve henceforth to devote his scholarship to the Holy Scripture. "David was to be henceforth his Simonides, Pindar and Alcaeus, his Flaccus, Catullus and Severus." Fortified by these resolves he betook himself to a hermit life in the wastes of Chalcis, S.E. from Antioch (373–379). Chalcis was the Thebaid of Syria. Great numbers of monks, each in solitary cell, spent lonely lives, scorched by the sun, ill-clad and scantily fed, pondering on portions of Scripture or copying MSS. to serve as objects of meditation. Jerome at once set himself to such scholarly work as the place afforded. He discovered and copied MSS., and began to study Hebrew. There also he wrote the life of St Paul of Thebes, probably an imaginary tale embodying the facts of the monkish life around him. Just then the Meletian schism, which arose over the relation of the orthodox to Arian bishops and to those baptized by Arians, distressed the church at Antioch (see MELETIUS OF ANTIOCH), and Jerome as usual eagerly joined the fray. Here as elsewhere he had but one rule to guide him in matters of doctrine and discipline—the practice of Rome and the West; for it is singular to see how Jerome, who is daringly original in points of scholarly criticism, was a ruthless partisan in all other matters; and, having discovered what was the Western practice, he set tongue and pen to work with his usual bitterness (*Altercatio luciferiani et orthodoxi*).

At Antioch in 379 he was ordained presbyter. From there he went to Constantinople, where he met with the great Eastern scholar and theologian Gregory of Nazianzus, and with his aid tried to perfect himself in Greek. The result of his studies there was the translation of the *Chronicon* of Eusebius, with a continuation[1] of twenty-eight homilies of Origen on Jeremiah and Ezekiel, and of nine homilies of Origen on the visions of Isaiah.

[1] Cf. Schoene's critical edition (Berlin, 1866, 1875).

In 381 Meletius died, and Pope Damasus interfered in the dispute at Antioch, hoping to end it. Jerome was called to Rome in 382 to give help in the matter, and was made secretary during the investigation. His work brought him into intercourse with this great pontiff, who soon saw what he could best do, and how his vast scholarship might be made of use to the church. Damasus suggested to him to revise the "Old Latin" translation of the Bible; and to this task he henceforth devoted his great abilities. At Rome were published the Gospels (with a dedication to Pope Damasus, an explanatory introduction, and the canons of Eusebius), the rest of the New Testament and the version of the Psalms from the Septuagint known as the *Psalterium romanum*, which was followed (*c.* 388) by the *Psalterium gallicanum*, based on the Hexaplar Greek text. These scholarly labours, however, did not take up his whole time, and it was almost impossible for Jerome to be long anywhere without getting into a dispute. He was a zealous defender of that monastic life which was beginning to take such a large place in the church of the 4th century, and he found enthusiastic disciples among the Roman ladies. A number of widows and maidens met together in the house of Marcella to study the Scriptures with him; he taught them Hebrew, and preached the virtues of the celibate life. His arguments and exhortations may be gathered from many of his epistles and from his tract *Adversus Helvidium*, in which he defends the perpetual virginity of Mary against Helvidius, who maintained that she bore children to Joseph. His influence over these ladies alarmed their relatives and excited the suspicions of the regular priesthood and of the populace, but while Pope Damasus lived Jerome remained secure. Damasus died, however, in 384, and was succeeded by Siricius, who did not show much friendship for Jerome. He found it expedient to leave Rome, and set out for the East in 385. His letters (especially Ep. 45) are full of outcries against his enemies and of indignant protestations that he had done nothing unbecoming a Christian, that he had taken no money, nor gifts great nor small, that he had no delight in silken attire, sparkling gems or gold ornaments, that no matron moved him unless by penitence and fasting, &c. His route is given in the third book *In Rufinum*; he went by Rhegium and Cyprus, where he was entertained by Bishop Epiphanius, to Antioch. There he was joined by two wealthy Roman ladies, Paula, a widow, and Eustochium, her daughter, one of Jerome's Hebrew students. They came accompanied by a band of Roman maidens vowed to live a celibate life in a nunnery in Palestine. Accompanied by these ladies Jerome made the tour of Palestine, carefully noting with a scholar's keenness the various places mentioned in Holy Scripture. The results of this journey may be traced in his translation with emendations of the book of Eusebius on the situation and names of Hebrew places, written probably three years afterwards, when he had settled down at Bethlehem. From Palestine Jerome and his companions went to Egypt, remaining some time in Alexandria; and they visited the convents of the Nitrian desert. Jerome's mind was evidently full of anxiety about his translation of the Old Testament, for we find him in his letters recording the conversations he had with learned men about disputed readings and doubtful renderings; the blind Didymus of Alexandria, whom he heard interpreting Hosea, appears to have been most useful. When they returned to Palestine they all settled at Bethlehem, where Paula built four monasteries, three for nuns and one for monks. She was at the head of the nunneries until her death in 404, when Eustochium succeeded her; Jerome presided over the fourth monastery. Here he did most of his literary work and, throwing aside his unfinished plan of a translation from Origen's Hexaplar text, translated the Old Testament directly from the Hebrew, with the aid of Jewish scholars. He mentions a rabbi from Lydda, a rabbi from Tiberias, and above all rabbi Ben Anina, who came to him by night secretly for fear of the Jews. Jerome was not familiar enough with Hebrew to be able to dispense with such assistance, and he makes the synagogue responsible for the

accuracy of his version: "Let him who would challenge aught in this translation," he says, "ask the Jews." The result of all this labour was the Latin translation of the Scriptures which, in spite of much opposition from the more conservative party in the church, afterwards became the Vulgate or authorized version; but the Vulgate as we have it now is not exactly Jerome's Vulgate, for it suffered a good deal from changes made under the influence of the older translations; the text became very corrupt during the middle ages, and in particular all the Apocrypha, except Tobit and Judith, which Jerome translated from the Chaldee, were added from the older versions. (See BIBLE: *O.T. Versions*.)

Notwithstanding the labour involved in translating the Scriptures, Jerome found time to do a great deal of literary work, and also to indulge in violent controversy. Earlier in life he had a great admiration for Origen, and translated many of his works, and this lasted after he had settled at Bethlehem, for in 389 he translated Origen's homilies on Luke; but he came to change his opinion and wrote violently against two admirers of the great Alexandrian scholar, John, bishop of Jerusalem, and his own former friend Rufinus.

At Bethlehem also he found time to finish *Didymi de spiritu sancto liber*, a translation begun at Rome at the request of Pope Damasus, to denounce the revival of Gnostic heresies by Jovinianus and Vigilantius (*Adv. Jovinianum lib. II.* and *Contra Vigilantium liber*), and to repeat his admiration of the hermit life in his *Vita S. Hilarionis eremitae*, in his *Vita Malchi monachi captivi*, in his translations of the Rule of St Pachomius (the Benedict of Egypt), and in his *S. Pachomii et S. Theodorici epistolae et verba mystica*. He also wrote at Bethlehem *De viris illustribus sive de scriptoribus ecclesiasticis*, a church history in biographies, ending with the life of the author; *De nominibus Hebraicis*, compiled from Philo and Origen; and *De situ et nominibus locorum Hebraicorum*.[1] At the same place, too, he wrote *Quaestiones Hebraicae* on Genesis,[2] and a series of commentaries on Isaiah, Jeremiah, Ezekiel, Daniel, the Twelve Minor Prophets, Matthew and the Epistles of St Paul. About 394 Jerome came to know Augustine, for whom he held a high regard. He engaged in the Pelagian controversy with more than even his usual bitterness (*Dialogi contra pelagianos*); and it is said that the violence of his invective so provoked his opponents that an armed mob attacked the monastery, and that Jerome was forced to flee and to remain in concealment for nearly two years. He returned to Bethlehem in 418, and after a lingering illness died on the 30th of September 420.

Jerome "is one of the few Fathers to whom the title of Saint appears to have been given in recognition of services rendered to the Church rather than for eminent sanctity. He is the great Christian scholar of his age, rather than the profound theologian or the wise guide of souls." His great work was the Vulgate, but his achievements in other fields would have sufficed to distinguish him. His commentaries are valuable because of his knowledge of Greek and Hebrew, his varied interests, and his comparative freedom from allegory. To him we owe the distinction between canonical and apocryphal writings; in the *Prologus Galeatus* prefixed to his version of Samuel and Kings, he says that the church reads the Apocrypha "for the edification of the people, not for confirming the authority of ecclesiastical doctrines." He was a pioneer in the fields of patrology and of biblical archaeology. In controversy he was too fond of mingling personal abuse with legitimate argument, and this weakness mars his letters, which were held in high admiration in the early middle ages, and are valuable for their history of the man and his times. Luther in his *Table Talk* condemns them as dealing only with fasting, meats, virginity, &c. "If he only had insisted upon the works of faith and performed them! But he teaches nothing either about faith, or love, or hope, or the works of faith."

[1] Compare the critical edition of these two works in Lagarde's *Onomastica sacra* (Götting. 1870).

[2] See Lagarde's edition appended to his *Genesis Graece* (Leipzig, 1868).

Editions of the complete works: Erasmus (9 vols., Basel, 1516–1520); Mar. Victorius, bishop of Rieti (9 vols., Rome, 1565–1572); F. Calixtus and A. Tribbechovius (12 vols., Frankfort and Leipzig, 1684–1690); J. Martianay (5 vols., incomplete Benedictine ed., Paris, 1693–1706); D. Vallarsi (11 vols., Verona, 1734–1742), the best; Migne, *Patrol. Ser. Lat.* (xxii.–xxix.). The *De viris illust.* was edited by Herding in 1879. A selection is given in translation by W. H. Fremantle, "Select Library of Nicene and Post Nicene Fathers," 2nd series, vol. vi. (New York, 1893). Biographies are prefixed to most of the above editions. See also lives by F. Z. Collombet (Paris and Lyons, 1844); O. Zöckler (Gotha, 1865); E. L. Cutts (London, 1878); C. Martin (London, 1888); P. Largent (Paris, 1898); F. W. Farrar, *Lives of the Fathers*, ii. 150-297 (Edinburgh, 1889). Additional literature is cited in Hauck-Herzog's *Realencyk. für prot. Theol.* viii. 42.

JEROME, JEROME KLAPKA (1859–), English author, was born on the 2nd of May 1859. He was educated at the philological school, Marylebone, London; and was by turns clerk, schoolmaster and actor, before he settled down to journalism. He made his reputation as a humorist in 1889 with *Idle Thoughts of an Idle Fellow* and *Three Men in a Boat*, and from 1892 to 1897 he was co-editor of the *Idler* with Robert Barr. At the same time he was also the editor of *To-Day*. A one-act play of his, *Barbara*, was produced at the Globe theatre in 1886, and was followed by many others, among them *Sunset* (1888), *Wood Barrow Farm* (1891), *The Passing of the Third Floor Back* (1907). Among his later books are *Letters to Clorinda* (1898), *The Second Thoughts of an Idle Fellow* (1898), *Three Men on the Bummel* (1900), *Tommy and Co.* (1904), *They and I* (1909).

JEROME OF PRAGUE (d. 1416), an early Bohemian church-reformer and friend of John Hus. Jerome's part in the Hussite movement was formerly much overrated. Very little is known of his early years. He is stated to have belonged to a noble Bohemian family[3] and to have been a few years younger than Hus. After beginning his studies at the university of Prague, where he never attempted to obtain any ecclesiastical office, Jerome proceeded to Oxford in 1398. There he became greatly impressed by the writings of Wycliffe, of whose *Dialogus* and *Trialogus* he made copies. Always inclined to a roving life, he soon proceeded to the university of Paris and afterwards continued his studies at Cologne and Heidelberg, returning to Prague in 1407. In 1403 he is stated to have undertaken a journey to Jerusalem. At Paris his open advocacy of the views of Wycliffe brought him into conflict with John Gerson, chancellor of the university. In Prague Jerome soon attracted attention by his advanced and outspoken opinions. He gave great offence also by exhibiting a portrait of Wycliffe in his room. Jerome was soon on terms of friendship with Hus, and took part in all the controversies of the university. When in 1408 a French embassy arrived at Kutná Hora, the residence of King Wenceslaus of Bohemia, and proposed that the papal schism should be terminated by the refusal of the temporal authorities further to recognize either of the rival popes, Wenceslaus summoned to Kutná Hora the members of the university. The Bohemian *magistri* spoke strongly in favour of the French proposals, while the Germans maintained their allegiance to the Roman pope, Gregory XII. The re-organization of the university was also discussed, and as Wenceslaus for a time favoured the Germans, Hus and Jerome, as leaders of the Bohemians, incurred the anger of the king, who threatened them with death by fire should they oppose his will.

In 1410 Jerome, who had incurred the hostility of the archbishop of Prague by his speeches in favour of Wycliffe's teaching, went to Ofen, where King Sigismund of Hungary resided, and, though a layman, preached before the king denouncing strongly the rapacity and immorality of the clergy. Sigismund shortly afterwards received a letter from the archbishop of Prague containing accusations against Jerome. He was imprisoned by order of the king, but does not appear to have been detained long in Hungary. Appearing at Vienna, he was again brought

[3] The statement that Jerome's family name was Faulfiss, is founded on a misunderstood passage of Aeneas Sylvius, *Historica Bohemica*. Aeneas Sylvius names as one of the early Bohemian reformers a man "*genere nobilis, ex domo quam Putridi Piscis vocant.*" This was erroneously believed to refer to Jerome.

before the ecclesiastical authorities. He was accused of spreading Wycliffe's doctrines, and his general conduct at Oxford, Paris, Cologne, Prague and Ofen was censured. Jerome vowed that he would not leave Vienna till he had cleared himself from the accusation of heresy. Shortly afterwards he secretly left Vienna, declaring that this promise had been forced on him. He went first to Vöttau in Moravia, and then to Prague. In 1412 the representatives of Pope Gregory XII. publicly offered indulgences for sale at Prague, wishing to raise money for the pope's campaign against King Ladislaus of Naples, an adherent of the antipope of Avignon. Contrary to the wishes of the archbishop of Prague a meeting of the members of the university took place, at which both Hus and Jerome spoke strongly against the sale of indulgences. The fiery eloquence of Jerome, which is noted by all contemporary writers, obtained for him greater success even than that of Hus, particularly among the younger students, who conducted him in triumph to his dwelling-place. Shortly afterwards Jerome proceeded to Poland—it is said on the invitation of King Wladislaus. His courtly manners and his eloquence here also caused him to become very popular, but he again met with strong opposition from the Roman Church. While travelling with the grand-duke Lithold of Lithuania Jerome took part in the religious services of the Greek Orthodox Church.

During his stay in northern Europe Jerome received the news that Hus had been summoned to appear before the council of Constance. He wrote to his friend advising him to do so and adding that he would also proceed there to afford him assistance. Contrary to the advice of Hus he arrived at Constance on the 4th of April 1415. Advised to fly immediately to Bohemia, he succeeded in reaching Hirschau, only 25 m. from the Bohemian frontier. He was here arrested and brought back in chains to Constance, where he was examined by judges appointed by the council. His courage failed him in prison and, to regain his freedom, he renounced the doctrines of Wycliffe and Hus. He declared that Hus had been justly executed and stated in a letter addressed on the 12th of August 1415 to Lacek, lord of Kravář—the only literary document of Jerome that has been preserved—that "the dead man (Hus) had written many false and harmful things." Full confidence was not placed in Jerome's recantation. He claimed to be heard at a general meeting of the council, and this was granted to him. He now again maintained all the theories which he had formerly advocated, and, after a trial that lasted only one day, he was condemned to be burnt as a heretic. The sentence was immediately carried out on the 30th of May 1416, and he met his death with fortitude. As Poggio Bracciolini writes, "none of the Stoics with so constant and brave a soul endured death, which he (Jerome) seemed rather to long for." The eloquence of the Italian humanist has bestowed a not entirely merited aureole on the memory of Jerome of Prague.

See all works dealing with Hus; and indeed all histories of Bohemia contain detailed accounts of the career of Jerome. *The Lives of John Wicliffe, Lord Cobham, John Huss, Jerome of Prague and Žižka* by William Gilpin (London, 1765) still has a certain value. (L.)

JERROLD, DOUGLAS WILLIAM (1803–1857), English dramatist and man of letters, was born in London on the 3rd of January 1803. His father, Samuel Jerrold, actor, was at that time lessee of the little theatre of Wilsby near Cranbrook in Kent, but in 1807 he removed to Sheerness. There, among the bluejackets who swarmed in the port during the war with France, Douglas grew into boyhood. He occasionally took a child's part on the stage, but his father's profession had little attraction for the boy. In December 1813 he joined the guardship "Namur," where he had Jane Austen's brother as captain,and he served as a midshipman until the peace of 1815. He saw nothing of the war save a number of wounded soldiers from Waterloo; but till his dying day there lingered traces of his early passion for the sea. The peace of 1815 ruined Samuel Jerrold; there was no more prize money. On the 1st of January 1816 he removed with his family to London, where the ex-midshipman began the world again as a printer's apprentice, and in 1819 became a compositor in the printing-office of the *Sunday Monitor*. Several short papers and copies of verses by him had already appeared in the sixpenny magazines, and one evening he dropped into the editor's box a criticism of the opera *Der Freischütz*. Next morning he received his own copy to set up, together with a flattering note from the editor, requesting further contributions from the anonymous author. Thenceforward Jerrold was engaged in journalism. In 1821 a comedy that he had composed in his fifteenth year was brought out at Sadler's Wells theatre, under the title *More Frightened than Hurt*. Other pieces followed, and in 1825 he was engaged for a few pounds weekly to produce dramas and farces to the order of Davidge of the Coburg theatre. In the autumn of 1824 the "little Shakespeare in a camlet cloak," as he was called,married Mary Swann; and, while he was engaged with the drama at night, he was steadily pushing his way as a journalist. For a short while he was part proprietor of a small Sunday newspaper. In 1829, through a quarrel with the exacting Davidge, Jerrold left the Coburg; and his three-act melodrama,*Black-eyed Susan; or, All in the Downs*, was brought out by R. W. Elliston at the Surrey theatre. The success of the piece was enormous. With its free gallant sea-flavour, it took the town by storm, and "all London went over the water to see it." Elliston made a fortune by the piece; T. P. Cooke, who played William, made his reputation; Jerrold received about £60 and was engaged as dramatic author at five pounds a week. But his fame as a dramatist was achieved. In 1830 it was proposed that he should adapt something from the French for Drury Lane. "No," was his reply, "I shall come into this theatre as an original dramatist or not at all." *The Bride of Ludgate* (December 8, 1831) was the first of a number of his plays produced at Drury Lane. The other patent houses threw their doors open to him also (the Adelphi had already done so); and in 1836 Jerrold became co-manager of the Strand theatre with W. J. Hammond, his brother-in-law. The venture was not successful, and the partnership was dissolved. While it lasted Jerrold wrote his only tragedy, *The Painter of Ghent*, and himself appeared in the title-rôle, without any very marked success. He continued to write sparkling comedies till 1854, the date of his last piece,*The Heart of Gold*.

Meanwhile he had won his way to the pages of numerous periodicals—before 1830 of the second-rate magazines only, but after that to those of more importance. He was a contributor to the *Monthly Magazine*, *Blackwood's*, the *New Monthly*, and the *Athenaeum*. To *Punch*, the publication which of all others is associated with his name, he contributed from its second number in 1841 till within a few days of his death. He founded and edited for some time, though with indifferent success, the *Illuminated Magazine*, *Jerrold's Shilling Magazine*, and *Douglas Jerrold's Weekly Newspaper*; and under his editorship *Lloyd's Weekly Newspaper* rose from almost nonentity to a circulation of 182,000. The history of his later years is little more than a catalogue of his literary productions, interrupted now and again by brief visits to the Continent or to the country. Douglas Jerrold died at his house, Kilburn Priory, in London, on the 8th of June 1857.

Jerrold's figure was small and spare, and in later years bowed almost to deformity. His features were strongly marked and expressive from the thin humorous lips to the keen blue eyes gleaming from beneath the shaggy eyebrows. He was brisk and active, with the careless bluffness of a sailor. Open and sincere, he concealed neither his anger nor his pleasure; to his simple frankness all polite duplicity was distasteful. The cynical side of his nature he kept for his writings; in private life his hand was always open. In politics Jerrold was a Liberal,and he gave eager sympathy to Kossuth, Mazzini and Louis Blanc. In social politics especially he took an eager part; he never tired of declaiming against the horrors of war, the luxury of bishops, and the iniquity of capital punishment.

Douglas Jerrold is now perhaps better known from his reputation as a brilliant wit in conversation than from his writings. As a dramatist he was very popular, though his plays have not kept the stage. He dealt with rather humbler forms of social life than had commonly been represented on the boards. He was one of the first and certainly one of the most successful of those

who in defence of the native English drama endeavoured to stem the tide of translation from the French, which threatened early in the 19th century altogether to drown original native talent. His skill in construction and his mastery of epigram and brilliant dialogue are well exemplified in his comedy, *Time Works Wonders* (Haymarket, April 26, 1845). The tales and sketches which form the bulk of Jerrold's collected works vary much in skill and interest; but, although there are evident traces of their having been composed from week to week, they are always marked by keen satirical observation and pungent wit.

Among the best known of his numerous works are: *Men of Character* (1838), including "Job Pippin: The man who couldn't help it," and other sketches of the same kind; *Cakes and Ale* (2 vols., 1842), a collection of short papers and whimsical stories; some more serious novels—*The Story of a Feather* (1844), *The Chronicles of Clovernook* (1846), *A Man made of Money* (1849), and *St Giles and St James* (1851); and various series of papers reprinted from *Punch*—*Punch's Letters to his Son* (1843), *Punch's Complete Letter-writer* (1845), and the famous *Mrs Caudle's Curtain Lectures* (1846).

See W. B. Jerrold, *Life and Remains of Douglas Jerrold* (1859). A collected edition of his writings appeared in 1851–1854, and *The Works of Douglas Jerrold*, with a memoir by his son, W. B. Jerrold, in 1863–1864; but neither is complete. Among the numerous selections from his tales and witticisms are two edited by his grandson, Walter Jerrold, *Bons Mots of Charles Dickens and Douglas Jerrold* (new ed. 1904), and *The Essays of Douglas Jerrold* (1903), illustrated by H. M. Brock. See also *The Wit and Opinions of Douglas Jerrold* (1858), edited by W. B. Jerrold.

His eldest son, WILLIAM BLANCHARD JERROLD (1826–1884), English journalist and author, was born in London on the 23rd of December 1826, and abandoning the artistic career for which he was educated, began newspaper work at an early age there. He was appointed Crystal Palace commissioner to Sweden in 1853, and wrote *A Brage-Beaker with the Swedes* (1854) on his return. In 1855 he was sent to the Paris exhibition as correspondent for several London papers, and from that time he lived much in Paris. In 1857 he succeeded his father as editor of *Lloyd's Weekly Newspaper*, a post which he held for twenty-six years. During the Civil War in America he strongly supported the North, and several of his leading articles were reprinted and placarded in New York by the federal government. He was the founder and president of the English branch of the international literary association for the assimilation of copyright laws. Four of his plays were successfully produced on the London stage, the popular farce *Cool as a Cucumber* (Lyceum 1851) being the best known. His French experiences resulted in a number of books, most important of which is his *Life of Napoleon III.* (1874). He was occupied in writing the biography of Gustave Doré, who had illustrated several of his books, when he died on the 10th of March 1884.

Among his books are *A Story of Social Distinction* (1848), *Life and Remains of Douglas Jerrold* (1859), *Up and Down in the World* (1863), *The Children of Lutetia* (1864), *Cent per Cent* (1871), *At Home in Paris* (1871), *The Best of all Good Company* (1871–1873), and *The Life of George Cruikshank* (1882).

JERRY, a short form of the name Jeremiah, applied to various common objects, and more particularly to a machine for finishing cloth. The expression "jerry-built" is applied to houses built badly and of inferior materials, and run up by a speculative builder. There seems to be no foundation for the assertion that this expression was occasioned by the work of a firm of Liverpool builders named Jerry.

JERSEY, EARLS OF. Sir Edward Villiers (*c.* 1656–1711), son of Sir Edward Villiers (1620–1689), of Richmond, Surrey, was created Baron Villiers and Viscount Villiers in 1691 and earl of Jersey in 1697. His grandfather, Sir Edward Villiers (*c.* 1585–1626), master of the mint and president of Munster, was half-brother of George Villiers, 1st duke of Buckingham, and of Christopher Villiers, 1st earl of Anglesey; his sister was Elizabeth Villiers, the mistress of William III., and afterwards countess of Orkney. Villiers was knight-marshal of the royal household in succession to his father; master of the horse to Queen Mary; and lord chamberlain to William III. and Queen Anne. In 1696 he represented his country at the congress of Ryswick; he was ambassador at the Hague, and after becoming an earl was ambassador in Paris. In 1699 he was made secretary of state for the southern department, and on three occasions he was one of the lords justices of England. In 1704 he was dismissed from office by Anne, and after this event he was concerned in some of the Jacobite schemes. He died on the 25th of August 1711. The 2nd earl was his son William (*c.* 1682–1721), an adherent of the exiled house of Stuart, and the 3rd earl was the latter's son William (d. 1769), who succeeded his kinsman John Fitzgerald (*c.* 1692–1766) as 6th Viscount Grandison. The 3rd earl's son, George Bussy, the 4th earl (1735–1805), held several positions at the court of George III., and on account of his courtly manners was called the "prince of Maccaronies." The 4th earl's son, George, 5th earl of Jersey (1773–1859), one of the most celebrated fox-hunters of his time and a successful owner of racehorses, married Sarah Sophia (1785–1867), daughter of John Fane, 10th earl of Westmorland, and granddaughter of Robert Child, the banker. She inherited her grandfather's great wealth, including his interest in Child's bank, and with her husband took the name of Child-Villiers. Since this time the connexions of the earls of Jersey with Child's bank has been maintained. Victor Albert George Child-Villiers (b. 1845) succeeded his father George Augustus (1808–1859), 6th earl, who had only held the title for three weeks, as 7th earl of Jersey in 1859. This nobleman was governor of New South Wales from 1890 to 1893.

JERSEY, the largest of the Channel Islands, belonging to Great Britain. Its chief town, St Helier, on the south coast of the island, is in 49° 12′ N., 2° 7′ W., 105 m. S. by E. of Portland Bill on the English coast, and 24 m. from the French coast to the east. Jersey is the southernmost of the more important islands of the group. It is of oblong form with a length of 10 m. from east to west and an extreme breadth of 6¼ m. The area is 28,717 acres, or 45 sq. m. Pop. (1901), 52,576.

The island reaches its greatest elevation (nearly 500 ft.) in the north, the land rising sharply from the north coast, and displaying bold and picturesque cliffs towards the sea. The east, south and west coasts consist of a succession of large open bays, shallow and rocky, with marshy or sandy shores separated by rocky headlands. The principal bays are Grève au Lançons, Grève de Lecq, St John's and Bouley Bays on the north coast; St Catherine's and Grouville Bays on the east; St Clement's, St Aubin's and St Brelade's Bays on the south; and St Ouen's Bay, the wide sweep of which occupies nearly the whole of the west coast. The sea in many places has encroached greatly on the land, and sand drifts have been found troublesome, especially on the west coast. The surface of the country is broken by winding valleys having a general direction from north to south, and as they approach the south uniting so as to form small plains. The lofty hedges which bound the small enclosures into which Jersey is divided, the trees and shrubberies which line the roads and cluster round the uplands and in almost every nook of the valleys unutilized for pasturage or tillage, give the island a luxuriant appearance, neutralizing the bare effect of the few sandy plains and sand-covered hills. Fruits and flowers indigenous to warm climates grow freely in the open air. The land, under careful cultivation, is rich and productive, the soil being generally a deep loam, especially in the valleys, but in the west shallow, light and sandy. The subsoil is usually gravel, but in some parts an unfertile clay. Some two-thirds of the total area is under cultivation, great numbers of cattle being pastured, and much market gardening practised. The potato crop is very large. The peasants take advantage of every bit of wall and every isolated nook of ground for growing fruit trees. Grapes are ripened under glass; oranges can be grown in sheltered situations, but the most common fruits are apples, which are used for cider, and pears. A manure of burnt sea-weed (*vraic*) is generally used. The pasturage is very rich, and is much improved by the application of this manure to the surface. The breed of cattle is kept pure by stringent laws against the importation of foreign animals. The milk is used almost exclusively to manufacture butter. The cattle are always housed in winter, but remain out

at night from May till October. There was formerly a small black breed of horses peculiar to the island, but horses are now chiefly imported from France or England. Pigs are kept principally for local consumption, and only a few sheep are reared. Fish are not so plentiful as round the shores of Guernsey, but mackerel, turbot, cod, mullet and especially the conger eel are abundant at the Minquiers. There is a large oyster bed between Jersey and France, but partly on account of over-dredging the supply is not so abundant as formerly. There is a great variety of other shell fish. The fisheries, ship-building and boat-building employ many of the inhabitants. Kelp and iodine are manufactured from sea-weed. The principal exports are granite, fruit and vegetables (especially potatoes), butter and cattle; and the chief imports coal and articles of human consumption. Communications with England are maintained principally from Southampton and Weymouth, and there are regular steamship services from Granville and St Malo on the French coast. The Jersey railway runs west from St Helier round St Aubin's Bay to St Aubin, and continues to Corbière at the south-western extremity of the island; and the Jersey eastern railway follows the southern and eastern coasts to Gorey. The island is intersected with a network of good roads.

Jersey is under a distinct and in several respects different form of administrative government from Guernsey and the smaller islands included in the bailiwick of Guernsey. For its peculiar constitution, system of justice, ecclesiastical arrangements and finance, see CHANNEL ISLANDS. There are twelve parishes, namely St Helier, Grouville, St Brelade, St Clement, St John, St Laurence, St Martin, St Mary, St Ouen, St Peter, St Saviour and Trinity. The population of the island nearly doubled between 1821 and 1901, but decreased from 54,518 to 52,576 between 1891 and 1901.

The history of Jersey is treated under CHANNEL ISLANDS. Among objects of antiquarian interest, a cromlech near Mont Orgueil is the finest of several examples. St Brelade's church, probably the oldest in the island, dates from the 12th century; among the later churches St Helier's, of the 14th century, may be mentioned. There are also some very early chapels, considered to date from the 10th century or earlier; among these may be noted the Chapelle-ès-Pêcheurs at St Brelade's, and the picturesque chapel in the grounds of the manor of Rozel. The castle of Mont Orgueil, of which there are considerable remains, is believed to be founded upon the site of a Roman stronghold, and a " Caesar's fort " still forms a part of it.

JERSEY CITY, a city and the county-seat of Hudson county, New Jersey, U.S.A., on a peninsula between the Hudson and Hackensack rivers at the N. and between New York and Newark bays at the S., opposite lower Manhattan Island. Pop. (1890), 163,003; (1900), 206,433, of whom 58,424 were foreign-born (19,314 Irish, 17,375 German, 4642 English, 3832 Italian, 1694 Russian, 1690 Scottish, 1643 Russian Poles, 1445 Austrian) and 3704 were negroes; (1910 census) 267,779. It is the eastern terminus of the Pennsylvania, the Lehigh Valley, the West Shore, the Central of New Jersey, the Baltimore & Ohio, the Northern of New Jersey (operated by the Erie), the Erie, the New York, Susquehanna & Western, and the New Jersey & New York (controlled by the Erie) railways, the first three using the Pennsylvania station; and of the little-used Morris canal. Jersey City is served by several inter-urban electric railways and by the tunnels of the Hudson & Manhattan railroad company to Dey St. and to 33rd St. and 6th Ave., New York City, and it also has docks of several lines of Transatlantic and coast steamers. The city occupies a land area of 14·3 sq. m. and has a water-front of about 12 m. Bergen Hill, a southerly extension of the Palisades, extends longitudinally through it from north to south. At the north end this hill rises on the east side precipitously to a height of nearly 200 ft.; on the west and south sides the slope is gradual. On the crest of the hill is the fine Hudson County Boulevard, about 19 m. long and 100 ft. wide, extending through the city and county from north to south and passing through West Side Park, a splendid county park containing lakes and a 70-acre playground. The water-front, especially on the east side, is given up to manufacturing and shipping establishments. In the hill section are the better residences, most of which are wooden and detached.

The principal buildings are the city hall and the court house. There are nine small city parks with an aggregate area of 39·1 acres. The city has a public library containing (1907) 107,600 volumes and an historical museum. At the corner of Bergen Ave. and Forrest St. is the People's Palace, given in 1904 by Joseph Milbank to the First Congregational church and containing a library and reading-room, a gymnasium, bowling alleys, a billiard-room, a rifle-range, a roof-garden, and an auditorium and theatre; kindergarten classes are held and an employment bureau is maintained. Among the educational institutions are the German American school, Hasbrouck institute, St Aloysius academy (Roman Catholic) and St Peter's college (Roman Catholic); and there are good public schools. Grain is shipped to and from Jersey City in large quantities, and in general the city is an important shipping port; being included, however, in the port of New York, no separate statistics are available. There are large slaughtering establishments, and factories for the refining of sugar and for the manufacture of tobacco goods, soap and perfumery, lead pencils, iron and steel, railway cars, chemicals, rubber goods, silk goods, dressed lumber, and malt liquors. The value of the city's manufactured products increased from $37,376,322 in 1890 to $77,225,116 in 1900, or 106·6%; in 1905 the factory product alone was valued at $75,740,934, an increase of only 3·9 % over the factory product in 1900, this small rate of increase being due very largely to a decline in the value of the products of the sugar and molasses refining industry. The value of the wholesale slaughtering and meat-packing product decreased from $18,551,783 in 1880 and $11,356,511 in 1890 to $6,243,217 in 1900—of this $5,708,763 represented wholesale slaughtering alone; in 1905 the wholesale slaughtering product was valued at $7,568,739.

In 1908 the assessed valuation of the city was $267,039,754. The city is governed by a board of aldermen and a mayor (elected biennially), who appoints most of the officials, the street and water board being the principal exception.

Jersey City when first incorporated was a small sandy peninsula (an island at high tide) known as Paulus Hook, directly opposite the lower end of Manhattan Island. It had been a part of the Dutch patroonship of Pavonia granted to Michael Pauw in 1630. In 1633 the first buildings were erected, and for more than a century the Hook was occupied by a small agricultural and trading community. In 1764 a new post route between New York and Philadelphia passed through what is now the city, and direct ferry communication began with New York. Early in the War of Independence Paulus Hook was fortified by the Americans, but soon after the battle of Long Island they abandoned it, and on the 23rd of September 1776 it was occupied by the British. On the morning of the 19th of August 1779 the British garrison was surprised by Major Henry Lee (" Light Horse Harry "), who with about 500 men took 159 prisoners and lost only 2 killed and 3 wounded, one of the most brilliant exploits during the War of Independence. In 1804 Paulus Hook, containing 117 acres and having about 15 inhabitants, passed into the possession of three enterprising New York lawyers, who laid it out as a town and formed an association for its government, which was incorporated as the " associates of the Jersey company." In 1820 the town was incorporated as the City of Jersey, but it remained a part of the township of Bergen until 1838, when it was reincorporated as a distinct municipality. In 1851 the township of Van Vorst, founded in 1804 between Paulus Hook and Hoboken, was annexed. In 1870 there were two annexations: to the south, the town of Bergen, the county-seat, which was founded in 1660; to the north-west, Hudson City, which had been separated from the township of North Bergen in 1852 and incorporated as a city in 1855. The town of Greenville, to the south, was annexed in 1873.

JERUSALEM (Heb. יְרוּשָׁלַם, *Yerushalaïm*, pronounced as a dual), the chief city of Palestine. Letters found at Tell el-Amarna in Egypt, written by an early ruler of Jerusalem, show that the name existed under the form *Urusalim*, *i.e.* " City of Salim " or " City of Peace," many years before the Israelites under Joshua entered Canaan. The emperor Hadrian, when he rebuilt the city, changed the name to Aelia Capitolina. The Arabs usually designate Jerusalem by names expressive of

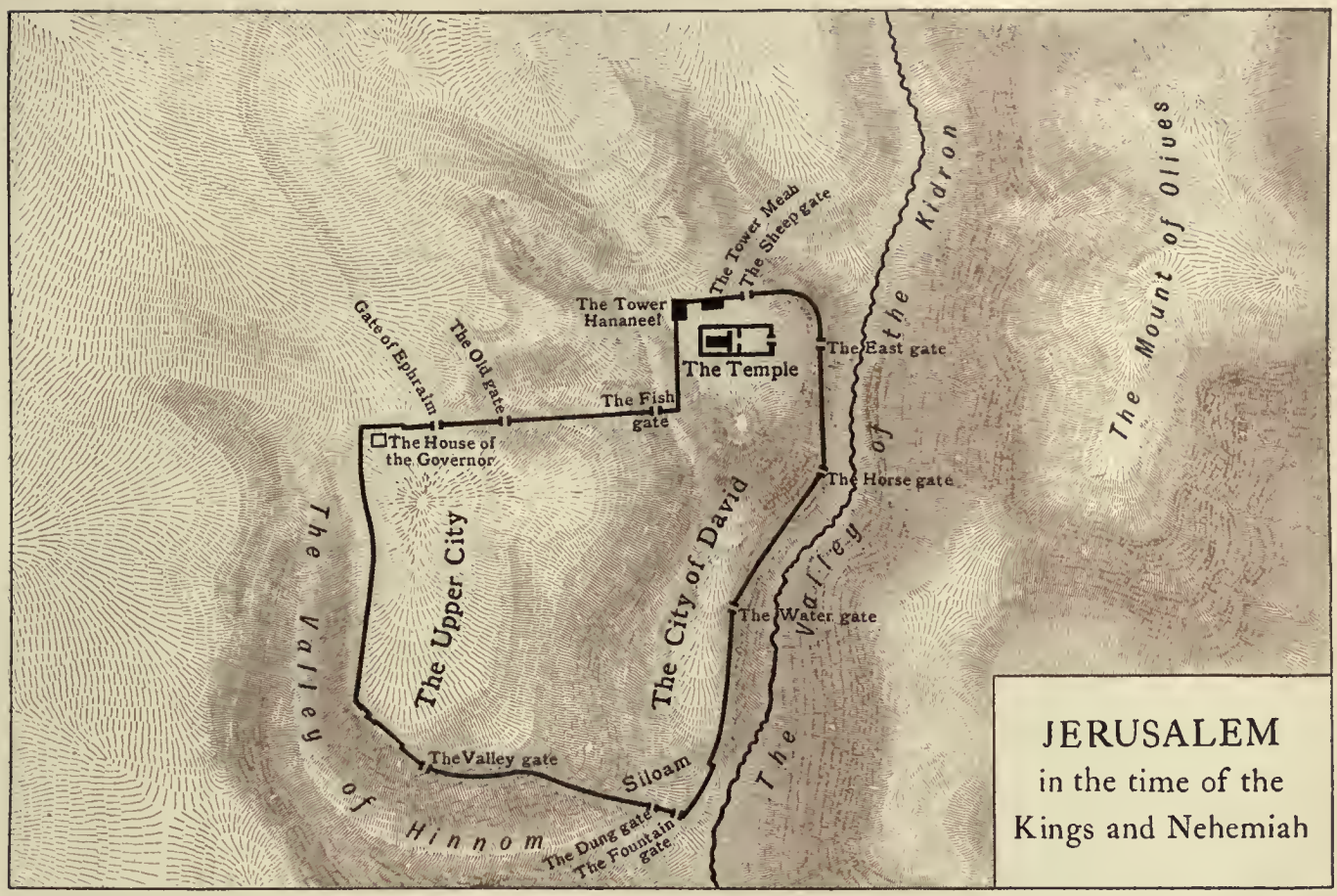
holiness, such as Beit el Maḳdis and El Muḳaddis or briefly El Ḳuds, *i.e.* the Sanctuary.

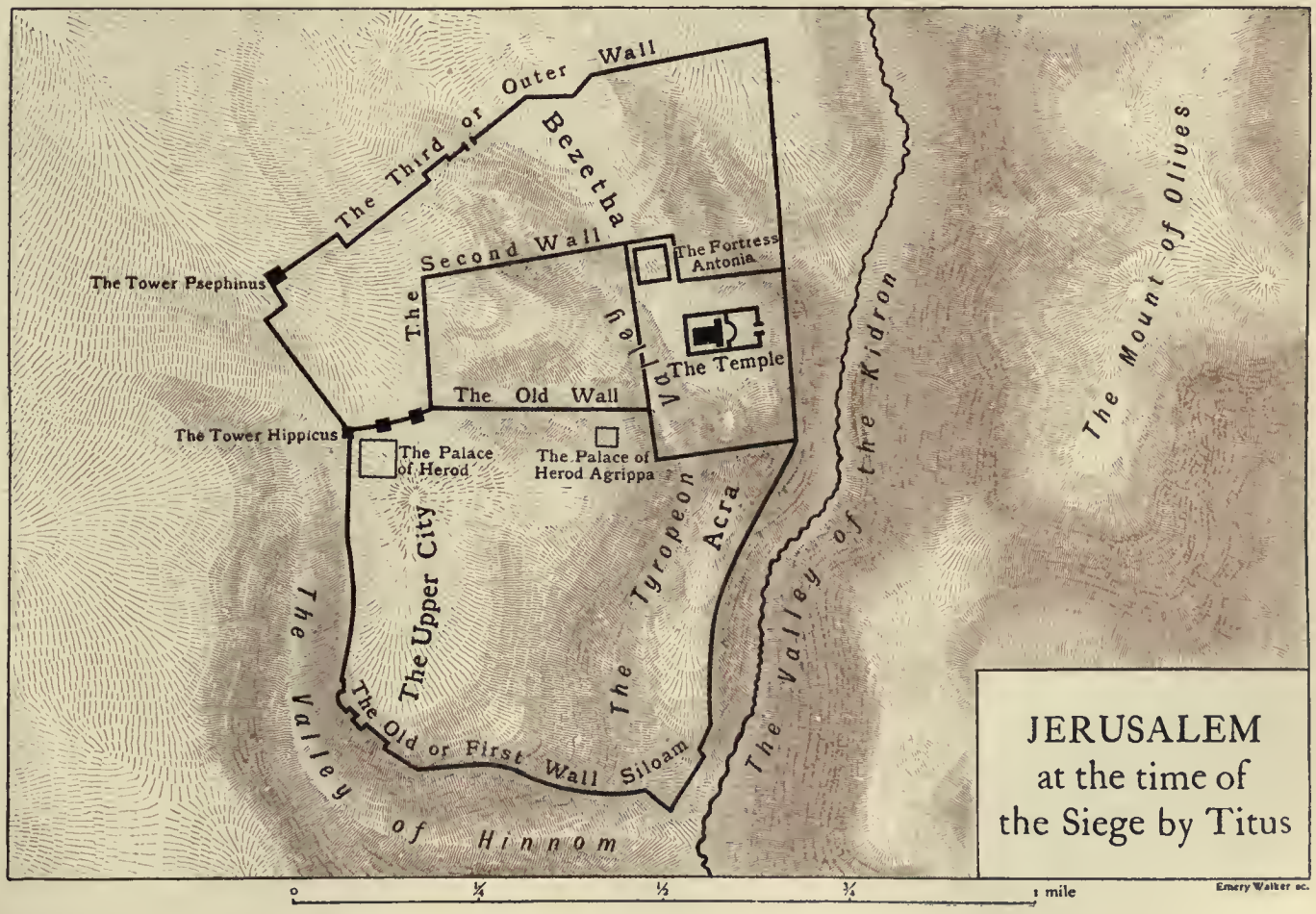
Natural Topography.—Jerusalem is situated in 31° 47′ N. and 35° 15′ E., in the hill country of southern Palestine, close to the watershed, at an average altitude of 2500 ft. above the Mediterranean, and 3800 ft. above the level of the Dead Sea. The city stands on a rocky plateau, which projects southwards from the main line of hills. On the east the valley of the Kidron separates this plateau from the ridge of the Mount of Olives, which is 100 to 200 ft. higher, while the Wadi Er Rababi bounds Jerusalem on the west and south, meeting the Valley of Kidron near the lower pool of Siloam. Both valleys fall rapidly as they approach the point of junction, which lies at a depth of more than 600 ft. below the general valley of the plateau. The latter, which covers an area of about 1000 acres, has at the present time a fairly uniform surface and slopes gradually from the north to the south and east. Originally, however, its formation was very different, as it was intersected by a deep valley, called Tyropoeon by Josephus, which, starting from a point N.W. of the Damascus gate, followed a course first south-east and then west of south, and joined the two main valleys of Kidron and Er Rababi at Siloam. Another shorter valley began near the present Jaffa gate and, taking an easterly direction, joined the Tyropoeon; while a third ravine passed across what is now the northern part of the Haram enclosure and fell into the valley of the Kidron. The exact form of these three interior valleys, which had an important influence on the construction and history of the city, is still imperfectly known, as they are to a great extent obliterated by vast accumulations of rubbish, which has filled them up in some places to a depth of more than 100 ft. Their approximate form was only arrived at by excavations made during the later years of the 19th century. The limited knowledge which we possess of the original features of the ground within the area of the city makes a reconstruction of the topographical history of the latter a difficult task; and, as a natural result, many irreconcilable theories have been suggested. The difficulty is increased by the fact that the geographical descriptions given in the Old Testament, the Apocrypha and the writings of Josephus are very short, and, having been written for those who were acquainted with the places, convey insufficient information to historians of the present day, when the sites are so greatly altered. All that can be done is to form a continuous account in accord with the ancient histories, and with the original formation of the ground, so far as this has been identified by modern exploration. But the progress of exploration and excavation may render this subject to further modification.

The geological formation of the plateau consists of thin beds of hard silicious chalk, locally called *misse*, which overlie a thick bed of soft white limestone, known by the name of *meleke*. Both descriptions of rock yielded good material for building; while in the soft *meleke* tanks, underground chambers, tombs, &c., were easily excavated. In ancient times a brook flowed down the valley of the Kidron, and it is possible that a stream flowed also through the Tyropoeon valley. The only known spring existing at present within the limits of the city is the "fountain of the Virgin," on the western side of the Kidron valley, but there may have been others which are now concealed by the accumulations of rubbish. Cisterns were also used for the storage of rain water, and aqueducts, of which the remains still exist (see AQUEDUCTS-*ad init.*), were constructed for the conveyance of water from a distance. Speaking generally, it is probable that the water supply of Jerusalem in ancient times was better than it is at present.

History.—The early history of Jerusalem is very obscure. The Tell el-Amarna letters show that, long before the invasion by Joshua, it was occupied by the Egyptians, and was probably a stronghold of considerable importance, as it formed a good strategical position in the hill country of southern Palestine. We do not know how the Egyptians were forced to abandon Jerusalem; but, at the time of the Israelite conquest, it was undoubtedly in the hands of the Jebusites, the native inhabitants of the country. The exact position of the Jebusite city is unknown; some authorities locate it on the western hill, now known as Zion; some on the eastern hill, afterwards occupied by the Temple and the city of David; while others consider it was a double settlement, one part being on the western, and the other on the eastern hill, separated from one another by the Tyropoeon valley. The latter view appears to be the most probable, as, according to the Biblical accounts, Jerusalem was partly in Judah and partly in Benjamin, the line of demarcation between the two tribes passing through the city. According to his theory, the part of Jerusalem known as Jebus was situated on the western hill, and the outlying fort of Zion on the eastern hill. The men of Judah and Benjamin did not succeed in getting full possession of the place, and the Jebusites still held it when David became king of Israel. Some years after his accession David succeeded after some difficulty in taking Jerusalem. He established his royal city on the eastern hill close to the site of the Jebusite Zion, while Jebus, the town on the western side of the Tyropoeon valley, became the civil city, of which Joab, David's leading general, was appointed governor. David surrounded the royal city with a wall and built a citadel, probably on the site of the Jebusite fort of Zion, while Joab fortified the western town. North of the city of David, the king, acting under divine guidance, chose a site for the Temple of Jehovah, which was erected with great magnificence by Solomon. The actual site occupied by this building has given rise to much controversy, though all authorities are agreed that it must have stood on some part of the area now known as the Haram. James Fergusson was of opinion that the Temple stood near the south-western corner. As, however, it was proved by the explorations of Sir Charles Warren in 1869–1870 that the Tyropoeon valley passed under this corner, and that the foundations must have been of enormous depth, Fergusson's theory must be regarded as untenable (see also SEPULCHRE, HOLY). On the whole it is most likely that the Temple was erected by Solomon on the same spot as is now occupied by the Dome of the Rock, commonly known as the Mosque of Omar, and, regard being had to the levels of the ground, it is possible that the Holy of Holies, the most sacred chamber of the Temple, stood over the rock which is still regarded with veneration by the Mahommedans. Solomon greatly strengthened the fortifications of Jerusalem, and was probably the builder of the line of defence, called by Josephus the first or old wall, which united the cities on the eastern and western hills. The kingdom reached its highest point of importance during the reign of Solomon, but, shortly after his death, it was broken up by the rebellion of Jeroboam, who founded the separate kingdom of Israel with its capital at Shechem. Two tribes only, Judah and Benjamin, with the descendants of Levi, remained faithful to Rehoboam, the son of Solomon. Jerusalem thus lost much of its importance, especially after it was forced to surrender to Shishak, king of Egypt, who carried off a great part of the riches which had been accumulated by Solomon. The history of Jerusalem during the succeeding three centuries consists for the most part of a succession of wars against the kingdom of Israel, the Moabites and the Syrians. Joash, king of Israel, captured the city from Amaziah, king of Judah, and destroyed part of the fortifications, but these were rebuilt by Uzziah, the son of Amaziah, who did much to restore the city to its original prosperity. In the reign of Hezekiah, the kingdom of Judah became tributary to the Assyrians, who attempted the capture of Jerusalem. Hezekiah improved the defences and arranged for a good water supply, preparatory to the siege by Sennacherib, the Assyrian general. The siege failed and the Assyrians retired. Some years later Syria was again invaded by the Egyptians, who reduced Judah to the position of a tributary state. In the reign of Zedekiah, the last of the line of kings, Jerusalem was captured by Nebuchadrezzar, king of Babylon, who pillaged the city, destroyed the Temple, and ruined the fortifications (see JEWS, § 17). A number of the principal inhabitants were carried captive to Babylon, and Jerusalem was reduced to the position of an insignificant town. Nebuchadrezzar placed in the city a garrison which appears to have been quartered on the western hill, while the eastern hill on which were the Temple and the city of David was left more or less desolate. We have no information regarding Jerusalem during the period of the captivity, but fortunately Nehemiah, who was permitted to return and rebuild the defences about 445 B.C., has given a fairly clear description of the line of the wall which enables us to obtain a good idea of the extent of the city at this period. The Temple had already been partially rebuilt by Zedekiah and his companions, but on a scale far inferior to the magnificent building of King Solomon, and Nehemiah devoted his attention to the reconstruction of the walls.. Before beginning the work, he made a preliminary reconnaissance of the fortifications on the south of the town from the Valley Gate, which was near the S.E. corner, to the pool of Siloam and valley of the Kidron. He then allotted the reconstruction of wall and gates to different parties of workmen, and

JERUSALEM


The Tower Meah
The Sheep gate
The Tower Hananeel
The East gate
The Temple
Gate of Ephraim
The Old gate
The Fish gate
The House of the Governor
The Horse gate
The Mount of Olives
The Valley of the Kidron
The Upper City
The City of David
The Water gate
The Valley of Hinnom
The Valley gate
Siloam
The Dung gate
The Fountain gate
JERUSALEM
in the time of the
Kings and Nehemiah


The Third or Outer Wall
Bezetha
The Second Wall
The Fortress Antonia
The Tower Psephinus
The Temple
The Old Wall
The Tower Hippicus
The Palace of Herod
The Palace of Herod Agrippa
The Mount of Olives
The Tyropeon Valley
Acra
The Upper City
The Valley of the Kidron
The Old or First Wall
Siloam
The Valley of Hinnom
JERUSALEM
at the time of
the Siege by Titus
0
¼
½
¾
1 mile
Emery Walker sc.

his narrative describes the portion of wall upon which each of these was employed.[1]

It is clear from his account that the lines of fortifications included both the eastern and western hills. North of the Temple enclosure there was a gate, known as the Sheep Gate, which must have opened into the third valley mentioned above, and stood somewhere near what is now the north side of the Haram enclosure, but considerably south of the present north wall of the latter. To the west of the Sheep Gate there were two important towers in the wall, called respectively Meah and Hananeel. The tower Hananeel is specially worthy of notice as it stood N.W. of the Temple and probably formed the basis of the citadel built by Simon Maccabaeus, which again was succeeded by the fortress of Antonia, constructed by Herod the Great, and one of the most important positions at the time of the siege by Titus. At or near the tower Hananeel the wall turned south along the east side of the Tyropoeon valley, and then again westward, crossing the valley at a point probably near the remarkable construction known as Wilson's arch. A gate in the valley, known as the Fish Gate, opened on a road which, leading from the north, went down the Tyropoeon valley to the southern part of the city. Westward of this gate the wall followed the south side of the valley which joined the Tyropoeon from the west as far as the north-western corner of the city at the site of the present Jaffa Gate and the so-called tower of David. In this part of the wall there were apparently two gates facing north, *i.e.* the Old Gate and the Gate of Ephraim, 400 cubits from the corner.[2] At the corner stood the residence of the Babylonian governor, near the site upon which King Herod afterwards built his magnificent palace. From the corner at the governor's house, the wall went in a southerly direction and turned south-east to the Valley Gate, remains of which were discovered by F. J. Bliss and fully described in his *Excavations in Jerusalem in 1894–1897*. From the Valley Gate the wall took an easterly course for a distance of 1000 cubits to the Dung Gate, near which on the east was the Fountain Gate, not far from the lower pool of Siloam. Here was the most southerly point of Jerusalem, and the wall turning hence to the north followed the west side of the valley of the Kidron, enclosing the city of David and the Temple enclosure, and finally turning west at some point near the site of the Golden Gate joined the wall, already described, at the Sheep Gate. Nehemiah mentions a number of places on the eastern hill, including the tomb of David, the positions of which cannot with our present knowledge be fixed with any certainty.

After the restoration of the walls of Jerusalem by Nehemiah, a considerable number of Jews returned to the city, but we know practically nothing of its history for more than a century until, in 332 B.C., Alexander the Great conquered Syria. The gates of Jerusalem were opened to him and he left the Jews in peaceful occupation. But his successors did not act with similar leniency; when the city was captured by Ptolemy I., king of Egypt, twelve years later, the fortifications were partially demolished and apparently not again restored until the period of the high priest Simon II., who repaired the defences and also the Temple buildings. In 168 B.C. Antiochus Epiphanes captured Jerusalem, destroyed the walls, and devastated the Temple, reducing the city to a worse position than it had occupied since the time of the captivity. He built a citadel called the Acra to dominate the town and placed in it a strong garrison of Greeks. The position of the Acra is doubtful, but it appears most probable that it stood on the eastern hill between the Temple and the city of David, both of which it commanded. Some writers place it north of the Temple on the site afterwards occupied by the fortress of Antonia, but such a position is not in accord with the descriptions either in Josephus or in the books of the Maccabees, which are quite consistent with each other. Other writers again have placed the Acra on the eastern side of the hill upon which the church of the Holy Sepulchre now stands, but as this point was probably quite outside the city at the time of Antiochus Epiphanes, and is at too great a distance from the Temple, it can hardly be accepted. But the site which has been already indicated at the N.E. corner of the present Mosque el Aksa meets the accounts of the ancient authorities better than any other. At this point in the Haram enclosure there is an enormous underground cistern, known as the Great Sea, and this may possibly have been the source of water supply for the Greek garrison. The oppression of Antiochus led to a revolt of the Jews under the leadership of the Maccabees, and Judas Maccabaeus succeeded in capturing Jerusalem after severe fighting, but could not get possession of the Acra, which caused much trouble to the Jews, who erected a wall between it and the Temple, and another wall to cut it off from the city. The Greeks held out for a considerable time, but had finally to surrender, probably from want of food, to Simon Maccabaeus, who demolished the Acra and cut down the hill upon which it stood so that it might no longer be higher than the Temple, and that there should be no separation between the latter and the city. Simon then constructed a new citadel, north of the Temple, to take the place of the Acra, and established in Judaea the Asmonean dynasty, which lasted for nearly a century, when the Roman republic began to make its influence felt in Syria. In 65 B.C. Jerusalem was captured by Pompey after a difficult siege. The Asmonean dynasty lasted a few years longer, but finally came to an end when Herod the Great, with the aid of the Romans, took possession of Jerusalem and became the first king of the Idumaean dynasty. Herod again raised the city to the position of an important capital, restoring the fortifications, and rebuilding the Temple from its foundations. He also built the great fortress of Antonia, N.W. of the Temple, on the site of the citadel of the Asmoneans, and constructed a magnificent palace for himself on the western hill, defended by three great towers, which he named Mariamne, Hippicus and Phasaelus. At some period between the time of the Maccabees and of Herod, a second or outer wall had been built outside and north of the first wall, but it is not possible to fix an accurate date to this line of defence, as the references to it in Josephus are obscure. Herod adorned the town with other buildings and constructed a theatre and gymnasium. He doubled the area of the enclosure round the Temple, and there can be little doubt that a great part of the walls of the Haram area date from the time of Herod, while probably the tower of David, which still exists near the Jaffa Gate, is on the same foundation as one of the towers adjoining his palace. Archelaus, Herod's successor, had far less authority than Herod, and the real power of government at Jerusalem was assumed by the Roman procurators, in the time of one of whom, Pontius Pilate, Jesus Christ was condemned to death and crucified outside Jerusalem. The places of his execution and burial are not certainly known (see SEPULCHRE, HOLY).

Herod Agrippa, who succeeded to the kingdom, built a third or outer wall on the north side of Jerusalem in order to enclose and defend the buildings which had gradually been constructed outside the old fortifications. The exact line of this third wall is not known with certainty, but it probably followed approximately the same line as the existing north wall of Jerusalem. Some writers have considered that it extended a considerable distance farther to the north, but of this there is no proof, and no remains have as yet been found which would support the opinion. The wall of Herod Agrippa was planned on a grand scale, but its execution was stopped by the Romans, so that it was not completed at the time of the siege of Jerusalem by Titus. The writings of Josephus give a good idea of the fortifications and buildings of Jerusalem at the time of the siege, and his accurate personal knowledge makes his account worthy of the most careful perusal. He explains clearly how Titus, beginning his attack from the north, captured the third or outer wall, then the second wall, and finally the fortress of Antonia, the Temple, and the upper city. After the capture, Titus ordered the Temple to be demolished and the fortifications to be levelled, with the exception of the three great towers at Herod's palace. It is, however, uncertain how far the order was carried out, and it is probable that the outer walls of the Temple enclosure were left partially standing and that the defences on the west and south of the city were not completely levelled. When Titus and his army withdrew from Jerusalem, the 10th legion was left as a permanent Roman garrison, and a fortified camp for their occupation was established on the western hill. We have no account of the size or position of this camp, but a consideration of the site, and a comparison with other Roman camps in various parts of Europe, make it probable that it occupied an area of about 50 acres, extending over what is now known as the Armenian quarter of the town, and that it was bounded on the north by the

[1] The sites shown on the plan are tentative, and cannot be regarded as certain; see Nehemiah ii. 12–15, iii. 1–32, xii. 37–39.

[2] See 2 Kings xiv. 13.

old or first wall, on the west also by the old wall, on the south by a line of defence somewhat in the same position as the present south wall where it passes the Zion Gate, and on the east by an entrenchment running north and south parallel to the existing thoroughfare known as David Street. For sixty years the Roman garrison were left in undisturbed occupation, but in 132 the Jews rose in revolt under the leadership of Bar-Cochebas or Barcochba, and took possession of Jerusalem. After a severe struggle, the revolt was suppressed by the Roman general, Julius Severus, and Jerusalem was recaptured and again destroyed. According to some writers, this devastation was even more complete than after the siege by Titus. About 130 the emperor Hadrian decided to rebuild Jerusalem, and make it a Roman colony. The new city was called Aelia Capitolina. The exact size of the city is not known, but it probably extended as far as the present north wall of Jerusalem and included the northern part of the western hill. A temple dedicated to Jupiter Capitolinus was erected on the site of the Temple, and other buildings were constructed, known as the Theatre, the Demosia, the Tetranymphon, the Dodecapylon and the Codra. The Jews were forbidden to reside in the city, but Christians were freely admitted. The history of Jerusalem during the period between the foundation of the city of Aelia by the emperor Hadrian and the accession of Constantine the Great in 306 is obscure, but no important change appears to have been made in the size or fortifications of the city, which continued as a Roman colony. In 326 Constantine, after his conversion to Christianity, issued orders to the bishop Macarius to recover the site of the crucifixion of Jesus Christ, and the tomb in which his body was laid (see SEPULCHRE, HOLY). After the holy sites had been determined, Constantine gave orders for the construction of two magnificent churches, the one over the tomb and the other over the place where the cross was discovered. The present church of the Holy Sepulchre stands on the site upon which one of the churches of Constantine was built, but the second church, the Basilica of the Cross, has completely disappeared. The next important epoch in building construction at Jerusalem was about 460, when the empress Eudocia visited Palestine and expended large sums on the improvement of the city. The walls were repaired by her orders, and the line of fortifications appears to have been extended on the south so as to include the pool of Siloam. A church was built above the pool, probably at the same time, and, after having completely disappeared for many centuries, it was recovered by F. J. Bliss when making his exploration of Jerusalem. The empress also erected a large church in honour of St Stephen north of the Damascus Gate, and is believed to have been buried therein. The site of this church was discovered in 1874, and it has since been rebuilt. In the 6th century the emperor Justinian erected a magnificent basilica at Jerusalem, in honour of the Virgin Mary, and attached to it two hospitals, one for the reception of pilgrims and one for the accommodation of the sick poor. The description given by Procopius does not indicate clearly where this church was situated. A theory frequently put forward is that it stood within the Haram area near the Mosque of el Aksa, but it is more probable that it was on Zion, near the traditional place of the Coenaculum or last supper, where the Mahommedan building known as the tomb of David now stands. In 614 Chosroes II., the king of Persia, captured Jerusalem, devastated many of the buildings, and massacred a great number of the inhabitants. The churches at the Holy Sepulchre were much damaged, but were partially restored by the monk Modestus, who devoted himself with great energy to the work. After a severe struggle the Persians were defeated by the emperor Heraclius, who entered Jerusalem in triumph in 629 bringing with him the holy cross, which had been carried off by Chosroes. At this period the religion of Mahomet was spreading over the east, and in 637 the caliph Omar marched on Jerusalem, which capitulated after a siege of four months. Omar behaved with great moderation, restraining his troops from pillage and leaving the Christians in possession of their churches. A wooden mosque was erected near the site of the Temple, which was replaced by the Mosque of Aksa, built by the amir Abdalmalik (Abd el Malek), who also constructed the Dome of the Rock, known as the Mosque of Omar, in 688. The Mahommedans held Jerusalem until 1099, when it was captured by the crusaders under Godfrey of Bouillon, and became the capital of the Latin Kingdom of Jerusalem (see CRUSADES, vol. viii. p. 401) until 1187, when Saladin reconquered it, and rebuilt the walls. Since that time, except from 1229 to 1239, and from 1243 to 1244, the city has been held by the Mahommedans. It was occupied by the Egyptian sultans until 1517, when the Turks under Selim I. occupied Syria. Selim's successor, Suleiman the Magnificent, restored the fortifications, which since that time have been little altered.

Modern Jerusalem.—Jerusalem is the chief town of a sanjak, governed by a *mutessarif*, who reports directly to the Porte. It has the usual executive and town councils, upon which the recognized religious communities, or *millets*, have representatives; and it is garrisoned by infantry of the V. army corps. The city is connected with its port, Jaffa, by a carriage road, 41 m., and by a metre-gauge railway, 54 m., which was completed in 1892, and is worked by a French company. There are also carriage roads to Bethlehem, Hebron and Jericho, and a road to Nablus was in course of construction in 1909. Prior to 1858, when the modern building period commenced, Jerusalem lay wholly within its 16th-century walls, and even as late as 1875 there were few private residences beyond their limits. At present Jerusalem without the walls covers a larger area than that within them. The growth has been chiefly towards the north and north-west; but there are large suburbs on the west, and on the south-west near the railway station on the plain of Rephaim. The village of Siloam has also increased in size, and the western slopes of Olivet are being covered with churches, monasteries and houses. Amongst the most marked features of the change that has taken place since 1875 are the growth of religious and philanthropic establishments; the settlement of Jewish colonies from Bokhara, Yemen and Europe; the migration of Europeans, old Moslem families, and Jews from the city to the suburbs; the increased vegetation, due to the numerous gardens and improved methods of cultivation; the substitution of timber and red tiles for the vaulted stone roofs which were so characteristic of the old city; the striking want of beauty, grandeur, and harmony with their environment exhibited by most of the new buildings; and the introduction of wheeled transport, which, cutting into the soft limestone, has produced mud and dust to an extent previously unknown. To facilitate communication between the city and its suburbs, the Bab ez-Zāhire, or Herod's Gate, and a new gate, near the north-west angle of the walls, have been opened; and a portion of the wall, adjoining the Jaffa Gate, has been thrown down, to allow free access for carriages. Within the city the principal streets have been roughly paved, and iron bars placed across the narrow alleys to prevent the passage of camels. Without the walls carriage roads have been made to the mount of Olives, the railway station, and various parts of the suburbs, but they are kept in bad repair. Little effort has been made to meet the increased sanitary requirements of the larger population and wider inhabited area. There is no municipal water-supply, and the main drain of the city discharges into the lower pool of Siloam, which has become an open cesspit. In several places the débris within the walls is saturated with sewage, and the water of the Fountain of the Virgin, and of many of the old cisterns, is unfit for drinking. Amongst the more important buildings for ecclesiastical and philanthropic purposes erected to the north of the city since 1860 are the Russian cathedral, hospice and hospital; the French hospital of St Louis, and hospice and church of St Augustine; the German schools, orphanages and hospitals; the new hospital and industrial school of the London mission to the Jews; the Abyssinian church; the church and schools of the Church missionary society; the Anglican church, college and bishop's house; the Dominican monastery, seminary and church of St Stephen; the Rothschild hospital and girls' school; and the industrial school and workshops of the Alliance Israélite. On the mount of Olives are the Russian church, tower and hospice, near the chapel of the Ascension; the French Paternoster church; the Carmelite nunnery; and the Russian church of St Mary Magdalene, near Gethsemane. South of the city are the Armenian monastery of Mount Zion and Bishop Gobat's school. On the west side are the institution of the sisters of St Vincent; the Ratisbon school; the Montefiore hospice; the British ophthalmic hospital of the knights of St John; the convent and church of the Clarisses; and the Moravian leper hospital. Within the city walls are the Latin Patriarchal church and residence; the school of the Frères de la Doctrine Chrétienne; the schools and printing house of the Franciscans; the Coptic monastery; the German church of the Redeemer, and hospice; the United Armenian church of the Spasm; the convent and school of the Sœurs de Zion; the Austrian hospice; the Turkish school and museum; the monastery and seminary of the Frères de la Mission Algérienne, with the restored church of St Anne, the church, schools and hospital of the London mission to the Jews; the Armenian seminary and Patriarchal buildings; the Rothschild hospital; and Jewish hospices and synagogues.

The climate is naturally good, but continued neglect of sanitary precautions has made the city unhealthy. During the summer months the heat is tempered by a fresh sea-breeze, and there is usually a sharp fall of temperature at night; but in spring and autumn the east and south-east winds, which blow across the heated depression of the Ghor, are enervating and oppressive. A dry season, which lasts from May to October, is followed by a rainy season, divided into the early winter and latter rains. Snow falls two years out of three, but soon melts. The mean annual temperature is 62·8° F., the maximum 112°, and the minimum 25°. The mean monthly temperature is lowest (47·2°) in February, and highest (76·3°) in August. The mean annual rainfall (1861 to 1899) is 26·06 in. The most unhealthy period is from 1st May to 31st October, when there are, from time to time, outbreaks of typhoid, small-pox, diphtheria and other epidemics. The unhealthiness of the city is chiefly due to want of proper drainage, impure drinking-water, miasma from the disturbed rubbish heaps, and contaminated dust from the uncleansed roads and streets. The only industry is the manufacture of olive-wood and mother-of-pearl goods for sale to pilgrims and for export. The imports (see JOPPA) are chiefly food, clothing and building material. The population in 1905 was about 60,000 (Moslems 7000, Christians 13,000, Jews 40,000). During the pilgrimage season it is increased by about 15,000 travellers and pilgrims.

AUTHORITIES.—Pal. Exp. Fund Publications—Sir C. Warren, *Jerusalem, Memoir* (1884); Clermont-Ganneau, *Archaeol. Researches* (vol. i., 1899); Bliss, *Excavns. at Jerusalem* (1898); Conder, *Latin Kingdom of Jerusalem* (1897), and *The City of Jerusalem* (1909), an historical survey over 4000 years; Le Strange, *Pal. under the Moslems* (1890); Fergusson, *Temples of the Jews* (1878); Hayter Lewis, *Holy Places of Jerusalem* (1888); *Churches of Constantine at Jerusalem* (1891); Guthe, "Ausgrabungen in Jer.," in *Zeitschrift d. D. Pal. Vereins* (vol. v.); Tobler, *Topographie von Jerusalem* (Berlin, 1854); Dritte Wanderung (1859); Sepp, *Jerusalem und das heilige Land* (1873); Röhricht, *Regesta Regni Hierosolymitani; Bibliotheca Geographica Palaestinae* (1890); De Vogüé, *Le Temple de Jérusalem* (1864); Sir C. W. Wilson, *Golgotha and the Holy Sepulchre* (1906); publications of the Pal. Pilgrims' Text Society and of the *Société de l'Orient latin*; papers in *Quarterly Statements* of the P. E. Fund, the *Zeitschrift d. D. Pal. Vereins*, Clermont-Ganneau's *Recueil d'archéologie orientale* and *Études d'arch. orientale*, and the *Revue Biblique*; Baedeker's *Handbook to Palestine and Syria* (1906); Mommert, *Die hl. Grabeskirche zu Jerusalem* (1898); *Golgotha und das hl. Grab zu Jerusalem* (1900); Couret, *La Prise de Jérusm. par les Perses, 614.* (Orléans, 1896—Plans, Ordnance Survey, revised ed.; Ordnance Survey revised by Dr Schick in *Z.D.P.V.* xviii., 1895). (C. W. W.; C. M. W.)

JERUSALEM, SYNOD OF (1672). By far the most important of the many synods held at Jerusalem (see Wetzer and Welte, *Kirchenlexikon*, 2nd ed., vi. 1357 sqq.) is that of 1672; and its confession is the most vital statement of faith made in the Greek Church during the past thousand years. It refutes article by article the confession of Cyril Lucaris, which appeared in Latin at Geneva in 1629, and in Greek, with the addition of four "questions," in 1633. Lucaris, who died in 1638 as patriarch of Constantinople, had corresponded with Western scholars and had imbibed Calvinistic views. The great opposition which arose during his lifetime continued after his death, and found classic expression in the highly venerated confession of Petrus Mogilas, metropolitan of Kiev (1643). Though this was intended as a barrier against Calvinistic influences, certain Reformed writers, as well as Roman Catholics, persisted in claiming the support of the Greek Church for sundry of their own positions. Against the Calvinists the synod of 1672 therefore aimed its rejection of unconditional predestination and of justification by faith alone, also its advocacy of what are substantially the Roman doctrines of transubstantiation and of purgatory; the Oriental hostility to Calvinism had been fanned by the Jesuits. Against the Church of Rome, however, there was directed the affirmation that the Holy Ghost proceeds from the Father and not from both Father and Son; this rejection of the *filioque* was not unwelcome to the Turks. Curiously enough, the synod refused to believe that the heretical confession it refuted was actually by a former patriarch of Constantinople; yet the proofs of its genuineness seem to most scholars overwhelming. In negotiations between Anglican and Russian churchmen the confession of Dositheus[1] usually comes to the front.

TEXTS.—The confession of Dositheus, or the eighteen decrees of the Synod of Jerusalem, appeared in 1676 at Paris as *Synodus Bethlehemitica*; a revised text in 1678 as *Synodus Jerosolymitana*; Hardouin, *Acta conciliorum*, vol. xi.; Kimmel, *Monumenta fidei ecclesiae orientalis* (Jena, 1850; critical edition); P. Schaff, *The Creeds of Christendom*, vol. ii. (text after Hardouin and Kimmel, with Latin translation); *The Acts and Decrees of the Synod of Jerusalem translated from the Greek, with notes*, by J. N. W. B. Robertson (London, 1899); J. Michalcescu, *Die Bekenntnisse und die wichtigsten Glaubenszeugnisse der griechisch-orientalischen Kirche* (Leipzig, 1904; Kimmel's text with introductions). LITERATURE.—*The Doctrine of the Russian Church* . . . translated by R. W. Blackmore (Aberdeen, 1845), p. xxv. sqq.; Schaff, i. § 17; Wetzer and Welte, *Kirchenlexikon* (2nd ed.) vi. 1359 seq.; Herzog-Hauck, *Realencyklopädie* (3rd ed.), viii. 703–705; Michalcescu, 123 sqq. (See COUNCILS.) (W. W. R.*)

[1] Patriarch of Jerusalem (1669–1707), who presided over the synod.

JESI (anc. *Aesis*), a town and episcopal see of the Marches, Italy, in the province of Ancona, from which it is 17 m. W. by S. by rail, 318 ft. above sea-level. Pop. (1901), 23,285. The place took its ancient name from the river Aesis (mod. Esino), upon the left bank of which it lies. It still retains its picturesque medieval town walls. The Palazzo del Comune is a fine, simple, early Renaissance building (1487–1503) by Francesco di Giorgio Martini; the walls are of brick and the window and door-frames of stone, with severely restrained ornamentation. The court-yard with its loggie was built by Andrea Sansovino in 1519. The library contains some good pictures by Lorenzo Lotto. The castle was built by Baccio Pontelli (1488), designer of the castle at Ostia (1483–1486). Jesi was the birthplace of the emperor Frederic II. (1194), and also of the musical composer, Giovanni Battista Pergolesi (1710–1736). The river Aesis formed the boundary of Italy proper from about 250 B.C. to the time of Sulla (*c.* 82 B.C.); and, in Augustus' division of Italy, that between Umbria (the 6th region) and Picenum (the 5th). The town itself was a colony, of little importance, except, apparently, as a recruiting ground for the Roman army.

JESSE, in the Bible, the father of David (*q.v.*), and as such often regarded as the first in the genealogy of Jesus Christ (cf. Isa. xi. 1, 10). Hence the phrase "tree of Jesse" is applied to a design representing the descent of Jesus from the royal line of David, formerly a favourite ecclesiastical ornament. From a recumbent figure of Jesse springs a tree bearing in its branches the chief figures in the line of descent, and terminating in the figure of Jesus, or of the Virgin and Child. There are remains of such a tree in the church of St Mary at Abergavenny, carved in wood, and supposed to have once stood behind the high altar. Jesse candelabra were also made. At Laon and Amiens there are sculptured Jesses over the central west doorways of the cathedrals. The design was chiefly used in windows. The great east window at Wells and the window at the west end of the nave at Chartres are fine examples. There is a 16th-century Jesse window from Mechlin in St George's, Hanover Square, London. The Jesse window in the choir of Dorchester Abbey, Oxfordshire, is remarkable in that the tree forms the central mullion, and many of the figures are represented as statuettes on the branches of the upper tracery; other figures are in the stained glass; the whole gives a beautiful example of the combination of glass and carved stonework in one design.

JESSE, EDWARD (1780–1868), English writer on natural history, was born on the 14th of January 1780, at Hutton Cranswick, Yorkshire, where his father was vicar of the parish. He became clerk in a government office in 1798, and for a time was secretary to Lord Dartmouth, when president of the Board of Control. In 1812 he was appointed commissioner of hackney coaches, and later he became deputy surveyor-general of the royal parks and palaces. On the abolition of this office he retired on a pension, and he died at Brighton on the 28th of March 1868.

The result of his interest in the habits and characteristics of animals was a series of pleasant and popular books on natural history, the principal of which are *Gleanings in Natural History* (1832–1835); *An Angler's Rambles* (1836); *Anecdotes of Dogs* (1846); and *Lectures on Natural History* (1863). He also edited Izaak Walton's *Compleat Angler*, Gilbert White's *Selborne*, and L. Ritchie's *Windsor Castle*, and wrote a number of handbooks to places of interest, including Windsor and Hampton Court.

JESSE, JOHN HENEAGE (1815–1874), English historian, son of Edward Jesse, was educated at Eton, and afterwards

became a clerk in the secretary's department of the admiralty. He died in London on the 7th of July 1874. His poem on Mary Queen of Scots was published about 1831, and was followed by a collection of poems entitled *Tales of the Dead*. He also wrote a drama, *Richard III.*, and a fragmentary poem entitled *London*. None of these ventures achieved any success, but his numerous historical works are written with vivacity and interest, and, in their own style, are an important contribution to the history of England. They include *Memoirs of the Court of England during the Reign of the Stuarts* (1840), *Memoirs of the Court of England from the Revolution of 1688 to the Death of George II.* (1843), *George Selwyn and his Contemporaries* (1843, new ed. 1882), *Memoirs of the Pretenders and their Adherents* (1845), *Memoirs of Richard the Third and his Contemporaries* (1861), and *Memoirs of the Life and Reign of King George the Third* (1867). The titles of these works are sufficiently indicative of their character. They are sketches of the principal personages and of the social details of various periods in the history of England rather than complete and comprehensive historical narratives. In addition to these works Jesse wrote *Literary and Historical Memorials of London* (1847), *London and its Celebrities* (1850), and a new edition of this work as *London: its Celebrated Characters and Remarkable Places* (1871). His *Memoirs of Celebrated Etonians* appeared in 1875.

A collected edition containing most of his works in thirty volumes was published in London in 1901.

JESSEL, SIR GEORGE (1824–1883), English judge, was born in London on the 13th of February 1824. He was the son of Zadok Aaron Jessel, a Jewish coral merchant. George Jessel was educated at a school for Jews at Kew, and being prevented by then existing religious disabilities from proceeding to Oxford or Cambridge, went to University College, London. He entered as a student at Lincoln's Inn in 1842, and a year later took his B.A. degree at the university of London, becoming M.A. and gold medallist in mathematics and natural philosophy in 1844. In 1846 he became a fellow of University College, and in 1847 he was called to the bar at Lincoln's Inn. His earnings during his first three years at the bar were 52,346, and 795 guineas, from which it will be seen that his rise to a tolerably large practice was rapid. His work, however, was mainly conveyancing, and for long his income remained almost stationary. By degrees, however, he got more work, and was called within the bar in 1865, becoming a bencher of his Inn in the same year and practising in the Rolls Court. Jessel entered parliament as Liberal member for Dover in 1868, and although neither his intellect nor his oratory was of a class likely to commend itself to his fellow-members, he attracted Gladstone's attention by two learned speeches on the Bankruptcy Bill which was before the house in 1869, with the result that in 1871 he was appointed solicitor-general. His reputation at this time stood high in the chancery courts; on the common law side he was unknown, and on the first occasion upon which he came into the court of Queen's bench to move on behalf of the Crown, there was very nearly a collision between him and the bench. His forceful and direct method of bringing his arguments home to the bench was not modified in his subsequent practice before it. His great powers were fully recognized; his business in addition to that on behalf of the Crown became very large, and his income for three years before he was raised to the bench amounted to nearly £25,000 per annum. In 1873 Jessel succeeded Lord Romilly as master of the rolls. From 1873 to 1881 Jessel sat as a judge of first instance in the rolls court, being also a member of the court of appeal. In November 1874 the first Judicature Act came into effect, and in 1881 the Judicature Act of that year made the master of the rolls the ordinary president of the first court of appeal, relieving him of his duties as a judge of first instance. In the court of appeal Jessel presided almost to the day of his death. For some time before 1883 he suffered from diabetes with chronic disorder of the heart and liver, but struggled against it; on the 16th of March 1883 he sat in court for the last time, and on the 21st of March he died at his residence in London, the immediate cause of death being cardiac syncope.

As a judge of first instance Jessel was a revelation to those accustomed to the proverbial slowness of the chancery courts and of the master of the rolls who preceded him. He disposed of the business before him with rapidity combined with correctness of judgment, and he not only had no arrears himself, but was frequently able to help other judges to clear their lists. His knowledge of law and equity was wide and accurate, and his memory for cases and command of the principles laid down in them extraordinary. In the rolls court he never reserved a judgment, not even in the Epping Forest case (*Commissioners of Sewers* v. *Glasse*, L.R. 19 Eq.; *The Times*, 11th November 1874), in which the evidence and arguments lasted twenty-two days (150 witnesses being examined in court, while the documents went back to the days of King John), and in the court of appeal he did so only twice, and then in deference to the wishes of his colleagues. The second of these two occasions was the case of *Roberts* v. *The Corporation of London* (49 *Law Times* 455; *The Times*, 10th March 1883), and those who may read Jessel's judgment should remember that, reviewing as it does the law and custom on the subject, and the records of the city with regard to the appointment of a remembrancer from the 16th century, together with the facts of the case before the court, it occupied nearly an hour to deliver, but was nevertheless delivered without notes—this, too, on the 9th of March 1883, when the judge who uttered it was within a fortnight of his death. Never during the 19th century was the business of any court performed so rapidly, punctually, and satisfactorily as it was when Jessel presided. He was master of the rolls at a momentous period of legal history. The Judicature Acts, completing the fusion of law and equity, were passed while he was judge of first instance, and were still new to the courts when he died. His knowledge and power of assimilating knowledge of all subjects, his mastery of every branch of law with which he had to concern himself, as well as of equity, together with his willingness to give effect to the new system, caused it to be said when he died that the success of the Judicature Acts would have been impossible without him. His faults as a judge lay in his disposition to be intolerant of those who, not able to follow the rapidity of his judgment, endeavoured to persist in argument after he had made up his mind; but though he was peremptory with the most eminent counsel, young men had no cause to complain of his treatment of them.

Jessel sat on the royal commission for the amendment of the Medical Acts, taking an active part in the preparation of its report. He actively interested himself in the management of London University, of which he was a fellow from 1861, and of which he was elected vice-chancellor in 1880. He was one of the commissioners of patents, and trustee of the British Museum. He was also chairman of the committee of judges which drafted the new rules rendered necessary by the Judicature Acts. He was treasurer of Lincoln's Inn in 1883, and vice-president of the council of legal education. He was also a fellow of the Royal Society. Jessel's career marks an epoch on the bench, owing to the active part taken by him in rendering the Judicature Acts effective, and also because he was the last judge capable of sitting in the House of Commons, a privilege of which he did not avail himself. He was the first Jew who, as solicitor-general, took a share in the executive government of his country, the first Jew who was sworn a regular member of the privy council, and the first Jew who took a seat on the judicial bench of Great Britain; he was also, for many years after being called to the bar, so situated that any one might have driven him from it, because, being a Jew, he was not qualified to be a member of the bar. In person Jessel was a stoutish, square-built man of middle height, with dark hair, somewhat heavy features, a fresh ruddy complexion, and a large mouth. He married in 1856 Amelia, daughter of Joseph Moses, who survived him together with three daughters and two sons, the elder of whom, Charles James (b. 1860), was made a baronet shortly after the death of his distinguished father and in recognition of his services.

See *The Times*, March 23, 1883; E. Manson, *Builders of our Law* (1904).

JESSORE, a town and district of British India, in the Presidency division of Bengal. The town is on the Bhairab river, with a railway station 75 m. N.E. of Calcutta. Pop. (1901), 8054.

The District of Jessore has an area of 2925 sq. m. Pop. (1901), 1,813,155, showing a decrease of 4% in the decade. The district forms the central portion of the delta between the Hugli and the united Ganges and Brahmaputra. It is a vast alluvial plain intersected by rivers and watercourses, which in the southern portion spread out into large marshes. The northern part is verdant, with extensive groves of date-palms; villages are numerous and large; and the people are prosperous. In the central portion the population is sparse, the only part suitable for dwellings being the high land on the banks of rivers. The principal rivers are the Madhumati or Haringhata (which forms the eastern boundary of the district), with its tributaries the Nabaganga, Chitra, and Bhairab; the Kumar, Kabadak, Katki, Harihar, Bhadra and Atharabanka. Within the last century the rivers in the interior of Jessore have ceased to be true deltaic rivers; and, whereas the northern portion of the district formerly lay under water for several months every year, it is now reached only by unusual inundations. The tide reaches as far north as the latitude of Jessore town. Jessore is the centre of sugar manufacture from date palms. The exports are sugar, rice, pulse, timber, honey, shells, &c.; the imports are salt, English goods, and cloth. The district is crossed by the Eastern Bengal railway, but the chief means of communication are waterways.

British administration was completely established in the district in 1781, when the governor-general ordered the opening of a court at Murali near Jessore. Before that, however, the fiscal administration had been in the hands of the English, having been transferred to the East India company with that of the rest of Bengal in 1765. The changes in jurisdiction in Jessore have been very numerous. After many transfers and rectifications, the district was in 1863 finally constituted as it at present stands. The rajas of Jessore or Chanchra trace their origin to Bhabeswar Rai, a soldier in the army of Khan-i-Azam, an imperial general, who deprived Raja Pratapaditya, the popular hero of the Sundarbans, of several fiscal divisions, and conferred them on Bhabeswar. But Manohar Rai (1649–1705) is regarded as the principal founder of the family. The estate when he inherited it was of moderate size, but he acquired one *pargana* after another, until, at his death, the property was by far the largest in the neighbourhood.

JESTER, a provider of "jests" or amusements, a buffoon, especially a professional fool at a royal court or in a nobleman's household (see Fool). The word "jest," from which "jester" is formed, is used from the 16th century for the earlier "gest," Lat. *gesta*, or *res gestae*, things done, from *gerere*, to do, hence deeds, exploits, especially as told in history, and so used of the metrical and prose romances and chronicles of the middle ages. The word became applied to satirical writings and to any long-winded empty tale, and thence to a joke or piece of fun, the current meaning of the word.

JESUATI, a religious order founded by Giovanni Colombini of Siena in 1360. Colombini had been a prosperous merchant and a senator in his native city, but, coming under ecstatic religious influences, abandoned secular affairs and his wife and daughter (after making provision for them), and with a friend of like temperament, Francesco Miani, gave himself to a life of apostolic poverty, penitential discipline, hospital service and public preaching. The name Jesuati was given to Colombini and his disciples from the habit of calling loudly on the name of Jesus at the beginning and end of their ecstatic sermons. The senate banished Colombini from Siena for imparting foolish ideas to the young men of the city, and he continued his mission in Arezzo and other places, only to be honourably recalled home on the outbreak of a devastating pestilence. He went out to meet Urban V. on his return from Avignon to Rome in 1367, and craved his sanction for the new order and a distinctive habit. Before this was granted Colombini had to clear the movement of a suspicion that it was connected with the heretical sect of Fraticelli, and he died on the 31st of July 1367, soon after the papal approval had been given. The guidance of the new order, whose members (all lay brothers) gave themselves entirely to works of mercy, devolved upon Miani. Their rule of life, originally a compound of Benedictine and Franciscan elements, was later modified on Augustinian lines, but traces of the early penitential idea persisted, *e.g.* the wearing of sandals and a daily flagellation. Paul V. in 1606 arranged for a small proportion of clerical members, and later in the 17th century the Jesuati became so secularized that the members were known as the Aquavitae Fathers, and the order was dissolved by Clement IX. in 1668. The female branch of the order, the Jesuati sisters, founded by Caterina Colombini (d. 1387) in Siena, and thence widely dispersed, more consistently maintained the primitive strictness of the society and survived the male branch by 200 years, existing until 1872 in small communities in Italy.

JESUITS, the name generally given to the members of the Society of Jesus, a religious order in the Roman Catholic Church, founded in 1539. This Society may be defined, in its original conception and well-avowed object, as a body of highly trained religious men of various degrees, bound by the three personal vows of poverty, chastity and obedience, together with, in some cases, a special vow to the pope's service, with the object of labouring for the spiritual good of themselves and their neighbours. They are declared to be mendicants and enjoy all the privileges of the other mendicant orders. They are governed and live by constitutions and rules, mostly drawn up by their founder, St Ignatius of Loyola, and approved by the popes. Their proper title is "Clerks Regulars of the Society of Jesus," the word *Societas* being taken as synonymous with the original Spanish term, *Compañia*; perhaps the military term *Cohors* might more fully have expressed the original idea of a band of spiritual soldiers living under martial law and discipline. The ordinary term "Jesuit" was given to the Society by its avowed opponents; it is first found in the writings of Calvin and in the registers of the Parlement of Paris as early as 1552.

Constitution and Character.—The formation of the Society was a masterpiece of genius on the part of a man (see Loyola) who was quick to realize the necessity of the moment. Just before Ignatius was experiencing the call to conversion, Luther had begun his revolt against the Roman Church by burning the papal bull of excommunication on the 10th of December 1520. But while Luther's most formidable opponent was thus being prepared in Spain, the actual formation of the Society was not to take place for eighteen years. Its conception seems to have developed very slowly in the mind of Ignatius. It introduced a new idea into the Church. Hitherto all regulars made a point of the choral office in choir. But as Ignatius conceived the Church to be in a state of war, what was desirable in days of peace ceased when the life of the cloister had to be exchanged for the discipline of the camp; so in the sketch of the new society which he laid before Paul III., Ignatius laid down the principle that the obligation of the breviary should be fulfilled privately and separately and not in choir. The other orders, too, were bound by the idea of a constitutional monarchy based on the democratic spirit. Not so with the Society. The founder placed the general for life in an almost uncontrolled position of authority, giving him the faculty of dispensing individuals from the decrees of the highest legislative body, the general congregations. Thus the principle of military obedience was exalted to a degree higher than that existing in the older orders, which preserved to their members certain constitutional rights.

The soldier-mind of Ignatius can be seen throughout the constitutions. Even in the spiritual labours which the Society shares with the other orders, its own ways of dealing with persons and things result from the system of training which succeeds in forming men to a type that is considered desirable. But it must not be thought that in practice the rule of the Society and the high degree of obedience demanded result in mere mechanism. By a system of check and counter check devised in the constitutions the power of local superiors is modified, so that in practice the working is smooth. Ignatius knew that while a high ideal was necessary for every society, his followers were flesh and blood, not machines. He made it clear from the first that the Society was everything and the individual nothing, except so far as he might prove a useful instrument for carrying out the Society's objects. Ignatius said to his

secretary Polanco that "in those who offered themselves he looked less to purely natural goodness than to firmness of character and ability for business, for he was of opinion that those who were not fit for public business were not adapted for filling offices in the Society." He further declared that even exceptional qualities and endowments in a candidate were valuable in his eyes only on the condition of their being brought into play, or held in abeyance, strictly at the command of a superior. Hence his teaching on obedience. His letter on this subject, addressed to the Jesuits of Coimbra in 1553, is still one of the standard formularies of the Society, ranking with those other products of his pen, the *Spiritual Exercises* and the *Constitutions*. In this letter Ignatius clothes the general with the powers of a commander-in-chief in time of war, giving him the absolute disposal of all members of the Society in every place and for every purpose. He pushes the claim even further, requiring, besides entire outward submission to command, also the complete identification of the inferior's will with that of the superior. He lays down that the superior is to be obeyed simply as such and as standing in the place of God, without reference to his personal wisdom, piety or discretion; that any obedience which falls short of making the superior's will one's own, in inward affection as well as in outward effect, is lax and imperfect; that going beyond the letter of command, even in things abstractly good and praiseworthy, is disobedience, and that the "sacrifice of the intellect" is the third and highest grade of obedience, well pleasing to God, when the inferior not only wills what the superior wills, but thinks what he thinks, submitting his judgment, so far as it is possible for the will to influence and lead the judgment. This *Letter on Obedience* was written for the guidance and formation of Ignatius's own followers; it was an entirely domestic affair. But when it became known beyond the Society the teaching met with great opposition, especially from members of other orders whose institutes represented the normal days of peace rather than those of war. The letter was condemned by the Inquisitions of Spain and Portugal; and it tasked all the skill and learning of Bellarmine as its apologist, together with the whole influence of the Society, to avert what seemed to be a probable condemnation at Rome.

The teaching of the *Letter* must be understood in the living spirit of the Society. Ignatius himself lays down the rule that an inferior is bound to make all necessary representations to his superior so as to guide him in imposing a precept of obedience. When a superior knows the views of his inferior and still commands, it is because he is aware of other sides of the question which appear of greater importance than those that the inferior has brought forward. Ignatius distinctly excepts the case where obedience in itself would be sinful: "In all things *except sin* I ought to do the will of my superior and not my own." There may be cases where an inferior judges that what is commanded is sinful. What is to be done? Ignatius says: "When it seems to me that I am commanded by my superior to do a thing against which my conscience revolts as sinful and my superior judges otherwise, it is my duty to yield my doubts to him unless I am otherwise constrained by evident reasons. . . . If submissions do not appease my conscience I must impart my doubts to two or three persons of discretion and abide by their decision." From this it is clear that only in *doubtful* cases concerning sin should an inferior try to submit his judgment to that of his superior, who *ex officio* is held to be not only one who would not order what is clearly sinful, but also a competent judge who knows and understands, better than the inferior, the nature and aspect of the command. As the Jesuit obedience is based on the law of God, it is clearly impossible that he should be bound to obey in what is directly opposed to the divine service. A Jesuit lives in obedience all his life, though the yoke is not galling nor always felt. He can accept no dignity or office which will make him independent of the Society; and even if ordered by the pope to accept the cardinalate or the episcopate, he is still bound, if not to obey, yet to listen to the advice of those whom the general deputes to counsel him in important matters.

The Jesuits had to find their principal work in the world and in direct and immediate contact with mankind. To seek spiritual perfection in a retired life of contemplation and prayer did not seem to Ignatius to be the best way of reforming the evils which had brought about the revolt from Rome. He withdrew his followers from this sort of retirement, except as a mere temporary preparation for later activity; he made habitual intercourse with the world a prime duty; and to this end he rigidly suppressed all such external peculiarities of dress or rule as tended to put obstacles in the way of his followers acting freely as emissaries, agents or missionaries in the most various places and circumstances. Another change he introduced even more completely than did the founders of the Friars. The Jesuit has no home: the whole world is his parish. Mobility and cosmopolitanism are of the very essence of the Society. As Ignatius said, the ancient monastic communities were the infantry of the Church, whose duty was to stand firmly in one place on the battlefield; the Jesuits were to be her light horse, capable of going anywhere at a moment's notice, but especially apt and designed for scouting and skirmishing. To carry out this view, it was one of his plans to send foreigners as superiors or officers to the Jesuit houses in each country, requiring of these envoys, however, invariably to use the language of their new place of residence and to study it both in speaking and writing till entire mastery of it had been acquired—thus by degrees making all the parts of his system mutually interchangeable, and so largely increasing the number of persons eligible to fill any given post without reference to locality. But subsequent experience has, in practice, modified this interchange, as far as local government goes, though the central government of the Society is always cosmopolitan.

Next we must consider the machinery by which the Society is constituted and governed so as to make its spirit a living energy and not a mere abstract theory. The Society is distributed into six grades: novices, scholastics, temporal coadjutors (lay brothers), spiritual coadjutors, professed of the three vows, and professed of the four vows. No one can become a postulant for admission to the Society until fourteen years old, unless by special dispensation. The novice is classified according as his destination is the priesthood or lay brotherhood, while a third class of "indifferents" receives such as are reserved for further inquiry before a decision of this kind is made. The novice has first to undergo a strict retreat, practically in solitary confinement, during which he receives from a director the *Spiritual Exercises* and makes a general confession of his whole life; after which the first novitiate of two years' duration begins. In this period of trial the real character of the man is discerned, his weak points are noted and his will is tested. Prayer and the practices of asceticism, as means to an end, are the chief occupations of the novice. He may leave or be dismissed at any time during the two years; but at the end of the period if he is approved and destined for the priesthood, he is advanced to the grade of scholastic and takes the following simple vows in the presence of certain witnesses, but not to any person:—

"Almighty Everlasting God, albeit everyway most unworthy in Thy holy sight, yet relying on Thine infinite kindness and mercy and impelled by the desire of serving Thee, before the Most Holy Virgin Mary and all Thy heavenly host, I, *N.*, vow to Thy divine Majesty Poverty, Chastity and Perpetual Obedience to the Society of Jesus, and promise that I will enter the same Society to live in it perpetually, understanding all things according to the Constitutions of the Society. I humbly pray from Thine immense goodness and clemency, through the Blood of Jesus Christ, that Thou wilt deign to accept this sacrifice in the odour of sweetness; and as Thou hast granted me to desire and to offer this, so wilt Thou bestow abundant grace to fulfil it."

The scholastic then follows the ordinary course of an undergraduate at a university. After passing five years in arts he has, while still keeping up his own studies, to devote five or six years more to teaching the junior classes in various Jesuit schools or colleges. About this period he takes his simple vows in the following terms:—

"I, *N.*, promise to Almighty God, before His Virgin Mother and the whole heavenly host, and to thee, Reverend Father General of the Society of Jesus, holding the place of God, and to thy successors (or to thee, Reverend Father *M.* in place of the General of the Society of Jesus and his successors holding the place of God), Perpetual Poverty, Chastity and Obedience; and according to it a peculiar care in the education of boys, according to the manner expressed in the Apostolic Letter and Constitutions of the said Society."

The lay brothers leave out the clause concerning education. The scholastic does not begin the study of theology until he is twenty-eight or thirty, and then passes through a four or six years' course. Only when he is thirty-four or thirty-six can he be ordained a priest and enter on the grade of a spiritual coadjutor. A lay brother, before he can become a temporal coadjutor for the discharge of domestic duties, must pass ten years before he is admitted to vows. Sometimes after ordination the priest, in the midst of his work, is again called away to a third year's novitiate, called the tertianship, as a preparation for his solemn profession of the three vows. His former vows were simple and the Society was at liberty to dismiss him for any canonical reason. The formula of the famous Jesuit vow is as follows:—

"I, *N.*, promise to Almighty God, before His Virgin Mother and the whole heavenly host, and to all standing by; and to thee, Reverend Father General of the Society of Jesus, holding the place of God, and to thy successors (or to thee, Reverend Father *M.* in place of the General of the Society of Jesus and his successors holding the place of God), Perpetual Poverty, Chastity and Obedience; and according to it a peculiar care in the education of boys according to

the form of life contained in the Apostolic Letters of the Society of Jesus and in its Constitutions."

Immediately after the vows the Jesuit adds the following simple vows: (1) that he will never act nor consent that the provisions in the constitutions concerning poverty should be changed; (2) that he will not directly nor indirectly procure election or promotion for himself to any prelacy or dignity in the Society; (3) that he will not accept or consent to his election to any dignity or prelacy outside the Society unless forced thereunto by obedience; (4) that if he knows of others doing these things he will denounce them to the superiors; (5) that if elected to a bishopric he will never refuse to hear such advice as the general may deign to send him and will follow it if he judges it is better than his own opinion. The professed is now eligible to certain offices in the Society, and he may remain as a professed father of the three vows for the rest of his life. The highest class, who constitute the real core of the Society, whence all its chief officers are taken, are the professed of the four vows. This grade can seldom be reached until the candidate is in his forty-fifth year, which involves a probation of thirty-one years in the case of those who have entered on the novitiate at the earliest legal age. The number of these select members is small in comparison with the whole Society; the exact proportion varies from time to time, the present tendency being to increase the number. The vows of this grade are the same as the last formula, with the addition of the following important clause:—

"Moreover I promise the special obedience to the Sovereign Pontiff concerning missions, as is contained in the same Apostolic Letter and Constitutions."

These various members of the Society are distributed in its novitiate houses, its colleges, its professed houses and its mission residences. The question has been hotly debated whether, in addition to these six grades, there be not a seventh answering in some degree to the tertiaries of the Franciscan and Dominican orders, but secretly affiliated to the Society and acting as its emissaries in various lay positions. This class was styled in France "Jesuits of the short robe," and there is some evidence in support of its actual existence under Louis XV. The Jesuits themselves deny the existence of any such body, and are able to adduce the negative disproof that no provision for it is to be found in their constitutions. On the other hand there are clauses therein which make the creation of such a class perfectly feasible if thought expedient. An admitted instance is the case of Francisco Borgia, who in 1548, while still duke of Gandia, was received into the Society. What has given colour to the idea is that certain persons have made vows of obedience to individual Jesuits; as Thomas Worthington, rector of the Douai seminary, to Father Robert Parsons; Ann Vaux to Fr. Henry Garnet, who told her that he was not indeed allowed to receive her vows, but that she might make them if she wished and then receive his direction. The archaeologist George Oliver of Exeter was, according to Foley's *Records of the English Province*, the last of the secular priests of England who vowed obedience to the Society before its suppression.

The general lives permanently at Rome and holds in his hands the right to appoint, not only to the office of provincial over each of the head districts into which the Society is mapped, but to the offices of each house in particular. There is no standard of electoral right in the Society except in the election of the general himself. By a minute and frequent system of official and private reports he is informed of the doings and progress of every member of the Society and of everything that concerns it throughout the world. Every Jesuit has not only the right but the duty in certain cases of communicating, directly and privately, with his general. While the general thus controls everything, he himself is not exempt from supervision on the part of the Society. A consultative council is imposed upon him by the general congregation, consisting of the assistants of the various nations, a *socius*, or adviser, to warn him of mistakes, and a confessor. These he cannot remove nor select; and he is bound, in certain circumstances, to listen to their advice, although he is not obliged to follow it. Once elected the general may not refuse the office, nor abdicate, nor accept any dignity or office outside of the Society; on the other hand, for certain definite reasons, he may be suspended or even deposed by the authority of the Society, which can thus preserve itself from destruction. No such instance has occurred, although steps were once taken in this direction in the case of a general who had set himself against the current feeling.

It is said that the general of the Jesuits is independent of the pope; and his popular name, "the black pope," has gone to confirm this idea. But it is based on an entirely wrong conception of the two offices. The suppression of the Society by Clement XIV. in 1773 was an object-lesson in the supremacy of the pope. The Society became very numerous and, from time to time, received extraordinary privileges from popes, who were warranted by the necessities of the times in granting them. A great number of influential friends, also, gathered round the fathers who, naturally, sought in every way to retain what had been granted. Popes who thought it well to bring about certain changes, or to withdraw privileges that were found to have passed their intentions or to interfere unduly with the rights of other bodies, often met with loyal resistances against their proposed measures. Resistance up to a certain point is lawful and is not disobedience, for every society has the right of self-preservation. In cases where the popes insisted, in spite of the representations of the Jesuits, their commands were obeyed. Many of the popes were distinctly unfavourable to the Society, while others were as friendly, and often what one pope did against them the next pope withdrew. Whatever was done in times when strong divergence of opinion existed, and whatever may have been the actions of individuals who, even in so highly organized a body as the Society of Jesus, cannot always be successfully controlled by their superiors, yet the ultimate result on the part of the Society has always been obedience to the pope, who authorized, protected and privileged them, and on whom they ultimately depend for their very existence.

Thus constituted, with a skilful union of strictness and freedom, of complex organization with a minimum of friction in working, the Society was admirably devised for its purpose of introducing a new power into the Church and the world. Its immediate services to the Church were great. The Society did much, single-handed, to roll back the tide of Protestant advance when half of Europe, which had not already shaken off its allegiance to the papacy, was threatening to do so. The honours of the reaction belong to the Jesuits, and the reactionary spirit has become their tradition. They had the wisdom to see and to admit, in their correspondence with their superiors, that the real cause of the Reformation was the ignorance, neglect and vicious lives of so many priests. They recognized, as most earnest men did, that the difficulty was in the higher places, and that these could best be touched by indirect methods. At a time when primary or even secondary education had in most places become a mere effete and pedantic adherence to obsolete methods, they were bold enough to innovate, both in system and material. Putting fresh spirit and devotion into the work, they not merely taught and catechized in a new, fresh and attractive manner, besides establishing free schools of good quality, but provided new school books for their pupils which were an enormous advance on those they found in use; so that for nearly three centuries the Jesuits were accounted the best schoolmasters in Europe, as they were, till their forcible suppression in 1901, confessedly the best in France. The Jesuit teachers conciliated the goodwill of their pupils by mingled firmness and gentleness. Although the method of the *Ratio Studiorum* has ceased to be acceptable, yet it played in its time as serious a part in the intellectual development of Europe as did the method of Frederick the Great in modern warfare. Bacon succinctly gives his opinion of the Jesuit teaching in these words: "As for the pedagogical part, the shortest rule would be, Consult the schools of the Jesuits; for nothing better has been put in practice" (*De Augmentis*, vi. 4). In instruction they were excellent; but in education, or formation of character, deficient. Again, when most of the continental clergy had sunk, more or less, into the moral and intellectual slough which is pictured for us in the writings of Erasmus and the *Epistolae obscurorum virorum* (see HUTTEN, ULRICH VON), the Jesuits won back respect for the clerical calling by their personal culture

and the unimpeachable purity of their lives. These qualities they have carefully maintained; and probably no large body of men in the world has been so free from the reproach of discreditable members or has kept up, on the whole, an equally high average of intelligence and conduct. As preachers, too, they delivered the pulpit from the bondage of an effete scholasticism and reached at once a clearness and simplicity of treatment such as the English pulpit scarcely begins to exhibit till after the days of Tillotson; while in literature and theology they count a far larger number of respectable writers than any other religious society can boast. It is in the mission field, however, that their achievements have been most remarkable. Whether toiling among the teeming millions in Hindustan and China, labouring amongst the Hurons and Iroquois of North America, governing and civilizing the natives of Brazil and Paraguay in the missions and "reductions," or ministering, at the hourly risk of his life to his fellow-Catholics in England under Elizabeth and the Stuarts, the Jesuit appears alike devoted, indefatigable, cheerful and worthy of hearty admiration and respect.

Nevertheless, two startling and indisputable facts meet the student who pursues the history of the Society. The first is the universal suspicion and hostility it has incurred—not merely from the Protestants whose avowed foe it has been, not yet from the enemies of all clericalism and dogma, but from every Catholic state and nation in the world. Its chief enemies have been those of the household of the Roman Catholic faith. The second fact is the ultimate failure which seems to dog all its most promising schemes and efforts. These two results are to be observed alike in the provinces of morals and politics. The first cause of the opposition indeed redounds to the Jesuits' credit, for it was largely due to their success. Their pulpits rang with a studied eloquence; their churches, sumptuous and attractive, were crowded; and in the confessional their advice was eagerly sought in all kinds of difficulties, for they were the fashionable professors of the art of direction. Full of enthusiasm and zeal, devoted wholly to their Society, they were able to bring in numbers of rich and influential persons to their ranks; for, with a clear understanding of the power of wealth, they became, of set purpose, the apostles of the rich and influential. The Jesuits felt that they were the new men, the men of the time; so with a perfect confidence in themselves they went out to set the Church to rights. It was no wonder that success, so well worked for and so well deserved, failed to win the approval or sympathy of those who found themselves supplanted. Old-fashioned men, to whom the apostles' advice to "do all to the glory of God" seemed sufficient, mistrusted those who professed to go beyond all others and adopted as their motto the famous *Ad majorem Dei gloriam*, "To the greater glory of God." But, besides this, the *esprit de corps* which is necessary for every body of men was, it was held, carried to an excess and made the Jesuits intolerant of any one or anything if not of "ours." The novelties too which they introduced into the conception of the religious life, naturally, were displeasing to the older orders, who felt like old aristocratic families towards a newly rich or purse-proud upstart. The Society, or rather its members, were too aggressive and self-assertive to be welcomed; and a certain characteristic, which soon began to manifest itself in an impatience of episcopal control, showed that the quality of "Jesuitry," usually associated with the Society, was singularly lacking in their dealings with opponents. Their political attitude also alienated many. Many of the Jesuits could not separate religion from politics. To say this is only to assert that they were not clearer-minded than most men of their age. But unfortunately they invariably took the wrong side and allowed themselves to be made the tools of men who saw farther and more clearly than they did. They had their share, direct or indirect, in the embroiling of states, in concocting conspiracies and in kindling wars. They were also responsible by their theoretical teachings in theological schools, where cases were considered and treated in the abstract, for not a few assassinations of the enemies of the cause. Weak minds heard tyrannicide discussed and defended in the abstract; and it was no wonder that, when opportunity served, the train that had been heedlessly laid by speculative professors was fired by rash hands. What professors like Suarez taught in the calm atmosphere of the lecture hall, what writers like Mariana upheld and praised, practical men took as justification for deeds of blood. There is no evidence that any Jesuit took a direct part in political assassinations; however, indirectly, they may have been morally responsible. They were playing with edged tools and often got wounded through their own carelessness. Other grievances were raised by their perpetual meddling in politics, *e.g.* their large share in fanning the flames of political hatred against the Huguenots under the last two Valois kings; their perpetual plotting against England in the reign of Elizabeth; their share in the Thirty Years' War and in the religious miseries of Bohemia; their decisive influence in causing the revocation of the edict of Nantes and the expulsion of the Protestants from France; the ruin of the Stuart cause under James II., and the establishment of the Protestant succession. In a number of cases where the evidence against them is defective, it is at least an unfortunate coincidence that there is always direct proof of some Jesuit having been in communication with the actual agents engaged. They were the stormy petrels of politics. Yet the Jesuits, as a body, should not be made responsible for the doings of men who, in their political intrigues, were going directly against the distinct law of the Society, which in strict terms, and under heavy penalties, forbade them to have anything to do with such matters. The politicians were comparatively few in number, though unfortunately they held high rank; and their disobedience to the rule besmirched the name of the society and destroyed the good work of the other Jesuits who were faithfully carrying out their own proper duties.

A far graver cause for uneasiness was given by the Jesuits' activity in the region of doctrine and morals. Here the charges against them are precise, early, numerous and weighty. Their founder himself was arrested, more than once, by the Inquisition and required to give account of his belief and conduct. But St Ignatius, with all his powerful gifts of intellect, was entirely practical and ethical in his range, and had no turn whatever for speculation, nor desire to discuss, much less to question, any of the received dogmas of the Church. He gives it as a rule of orthodoxy to be ready to say that black is white if the Church says so. He was therefore acquitted on every occasion, and applied each time for a formally attested certificate of his orthodoxy, knowing well that, in default of such documents, the fact of his arrest as a suspected heretic would be more distinctly recollected by opponents than that of his honourable dismissal from custody. His followers, however, have not been so fortunate. On doctrinal questions indeed, though their teaching on grace, especially in the form given to it by Molina (*q.v.*), ran contrary to the accepted teaching on the subject by the Augustinians, Dominicans and other representative schools; yet by their pertinacity they gained for their views a recognized and established position. A special congregation of cardinals and theologians known as *de auxiliis* was summoned by the pope to settle the dispute, for the *odium theologicum* had risen to a desperate height between the representatives of the old and the new theology; but after many years they failed to arrive at any satisfactory conclusion, and the pope, instead of settling the dispute, was only able to impose mutual silence on all opponents. Among those who held out stiffly against the Jesuits on the subject of grace were the Jansenists, who held that they were following the special teaching of St Augustine, known *par excellence* as the doctor of grace. The Jesuits and the Jansenists soon became deadly enemies; and in the ensuing conflict both parties accused each other of flinging scruples to the wind. (See JANSENISM.)

But the accusations against the Jesuit system of moral theology and their action as guides of conduct have had a more serious effect on their reputation. It is undeniable that some of their moral writers were lax in their teaching; and conscience was strained to the snapping point. The Society was trying to make itself all things to all men. Propositions extracted from

Jesuit moral theologians have again and again been condemned by the pope and declared untenable. Many of these can be found in Viva's *Condemned Propositions*. As early as 1554 the Jesuits were censured by the Sorbonne, chiefly at the instance of Eustache de Bellay, bishop of Paris, as being dangerous in matters of faith. Melchor Cano, a Dominican, one of the ablest divines of the 16th century, never ceased to lift up his testimony against them, from their first beginnings till his own death in 1560; and, unmollified by the bribe of the bishopric of the Canaries, which their interest procured for him, he succeeded in banishing them from the university of Salamanca. Carlo Borromeo, to whose original advocacy they owed much, especially in the council of Trent, found himself attacked in his own cathedral pulpit and interfered with in his jurisdiction. He withdrew his protection and expelled them from his colleges and churches; and he was followed in 1604 in this policy by his cousin and successor Cardinal Federigo Borromeo. St Theresa learnt, in after years, to mistrust their methods, although she was grateful to them for much assistance in the first years of her work. The credit of the Society was seriously damaged by the publication, at Cracow, in 1612, of the *Monita Secreta*. This book, which is undoubtedly a forgery, professes to contain the authoritative secret instructions drawn up by the general Acquaviva and given by the superiors of the Society to its various officers and members. A bold caricature of Jesuit methods, the book has been ascribed to John Zaorowsky or to Cambilone and Schloss, all ex-Jesuits, and it is stated to have been discovered in manuscript by Christian of Brunswick in the Jesuit college at Prague. It consists of suggestions and methods for extending the influence of the Jesuits in various ways, for securing a footing in fresh places, for acquiring wealth, for creeping into households and leading silly rich widows captive and so forth, all marked with ambition, craft and unscrupulousness. It had a wide success and popularity, passing through several editions, and even to this day it is used by controversialists as unscrupulous as the original writers. It may, perhaps, represent the actions of some individuals who allowed their zeal to outrun their discretion, but surely no society which exists for good and is marked by so many worthy men could systematically have conducted its operations in such a manner. Later on a formidable assault was made on Jesuit moral theology in the famous *Provincial Letters* of Blaise Pascal (*q.v.*), eighteen in number, issued under the pen-name of Louis de Montalte, from January 1656 to March 1657. Their wit, irony, eloquence and finished style have kept them alive as one of the great French classics—a destiny more fortunate than that of the kindred works by Antoine Arnauld, *Théologie morale des Jésuites*, consisting of extracts from writings of members of the Society, and *Morale pratique des Jésuites*, made up of narratives professing to set forth the manner in which they carried out their own maxims. But, like most controversial writers, the authors were not scrupulous in their quotations, and by giving passages divorced from their contexts often entirely misrepresented their opponents. The immediate reply on the part of the Jesuits, *The Discourses of Cleander and Eudoxus* by Père Daniel, could not compete with Pascal's work in brilliancy, wit or style; moreover, it was unfortunate enough to be put upon the Index of prohibited books in 1701. The reply on behalf of the Society to Pascal's charges of lax morality, apart from mere general denials, is broadly as follows:—

(1) St Ignatius himself, the founder of the Society, had a special aversion from untruthfulness in all its forms, from quibbling, equivocation or even studied obscurity of language, and it would be contrary to the spirit of conformity with his example and institutions for his followers to think and act otherwise. Hence, any who practised equivocation were, so far, unfaithful to the Society. (2) Several of the cases cited by Pascal are mere abstract hypotheses, many of them now obsolete, argued simply as intellectual exercises, but having no practical bearing whatever. (3) Even such as do belong to the sphere of actual life are of the nature of counsel to spiritual physicians, how to deal with exceptional maladies; and were never intended to fix the standard of moral obligation for the general public. (4) The theory that they were intended for this latter purpose and do represent the normal teaching of the Society becomes more untenable in exact proportion as this immorality is insisted on, because it is a matter of notoriety that the Jesuits themselves have been singularly free from personal, as distinguished from corporate, evil repute; and no one pretends that the large number of lay-folk whom they have educated or influenced exhibit greater moral inferiority than others.

The third of these replies is the most cogent as regards Pascal, but the real weakness of his attack lies in that nervous dread of appeal to first principles and their logical result which has been the besetting snare of Gallicanism. Pascal, at his best, has mistaken the part for the whole; he charges to the Society what, at the most, are the doings of individuals; and from these he asserts the degeneration of the body from its original standard; whereas the stronger the life and the more extensive the natural development, side by side will exist marks of degeneration; and a society like the Jesuits has no difficulty in asserting its life independently of such excrescences or, in time, in freeing itself from them.

A charge persistently made against the Society is that it teaches that the end justifies the means. And the words of Busembaum, whose *Medulla theologiae* has gone through more than fifty editions, are quoted in proof. True it is that Busembaum uses these words: *Cui licitus est finis etiam licent media.* But on turning to his work (ed. Paris 1729, p. 584, or Lib. vi. Tract vi. cap. ii., *De sacramentis*, dubium ii.) it will be found that the author is making no universal application of an old legal maxim; but is treating of a particular subject (concerning certain lawful liberties in the marital relation) beyond which his words cannot be forced. The sense in which other Jesuit theologians—*e.g.* Paul Laymann (1575–1635), in his *Theologia moralis* (Munich, 1625), and Ludwig Wagemann (1713–1792), in his *Synopsis theologiae moralis* (Innsbruck, 1762)—quote the axiom is an equally harmless piece of common sense. For instance, if it is lawful to go on a journey by railway it is lawful to take a ticket. No one who put forth that proposition would be thought to mean that it is lawful to defraud the company by stealing a ticket; for the *proviso* is always to be understood, that the means employed should, in themselves, not be bad but good or at least indifferent. So when Wagemann says tersely *Finis determinat probitatem actus* he is clearly referring to acts which in themselves are indifferent, *i.e.* indeterminate. For instance: shooting is an indifferent act, neither good nor bad in itself. The morality of any specified shooting depends upon what is shot, and the circumstances attending that act: shooting a man in self-defence is, as a moral act, on an entirely different plane to shooting a man in murder. It has never been proved, and never can be proved, although the attempt has frequently been made, that the Jesuits ever taught the nefarious proposition ascribed to them, which would be entirely subversive of all morality. Again, the doctrine of probabilism is utterly misunderstood. It is based on an accurate conception of law. Law to bind must be clear and definite; if it be not so, its obligation ceases and liberty of action remains. No probable opinion can stand against a clear and definite law; but when a law is doubtful in its application, in certain circumstances, so is the obligation of obedience: and as a doubtful law is, for practical purposes, no law at all, so it superinduces no obligation. Hence a probable opinion is one, founded on reason and held on serious grounds, that the law does not apply to certain specified cases; and that the law-giver therefore did not intend to bind. It is the principle of equity applied to law. In moral matters a probable opinion, that is one held on no trivial grounds but by unprejudiced and solid thinkers, has no place where the voice of conscience is clear, distinct and formed.

Two causes have been at work to produce the universal failure of the great Society in all its plans and efforts. First stands its lack of really great intellects. It has had its golden age. No society can keep up to its highest level. Nothing can be wider of the truth than the popular conception of the ordinary Jesuit as a being of almost superhuman abilities and universal knowledge. The Society, numbering as it does so many thousands, and with abundant means of devoting men to special branches of study, has, without doubt, produced men of great intelligence and solid learning. The average member, too, on account of his long and systematic training, is always equal and often superior to the average member of any other equally large body, besides being disciplined by a far more perfect drill. But it takes great men to carry out great plans; and of really great men, as the outside world knows and judges, the Society has been markedly barren from almost the first. Apart from its founder and his early companion, St Francis Xavier, there is none who stands in the very first rank. Laynez and Acquaviva were able administrators and politicians; the Bollandists (*q.v.*) were industrious workers and have developed a critical spirit from which much good can be expected; Francisco Suarez,

Leonhard Lessius and Cardinal Franzelin were some of the leading Jesuit theologians; Cornelius a Lapide (1567–1637) represents their old school of scriptural studies, while their new German writers are the most advanced of all orthodox higher critics; the French Louis Bourdaloue (*q.v.*), the Italian Paolo Segneri (1624–1694), and the Portuguese Antonio Vieyra (1608–1697) represent their best pulpit orators; while of the many mathematicians and astronomers produced by the Society Angelo Secchi, Ruggiero Giuseppe Boscovich and G.B. Beccaria are conspicuous, and in modern times Stephen Joseph Perry (1833–1889), director of the Stonyhurst College observatory, took a high rank among men of science. Their boldest and most original thinker, Denis Petau, so many years neglected, is now, by inspiring Cardinal Newman's *Essay on the Development of Christian Doctrine*, producing a permanent influence over the current of human thought. The Jesuits have produced no Aquinas, no Anselm, no Bacon, no Richelieu. Men whom they trained, and who broke loose from their teaching, Pascal, Descartes, Voltaire, have powerfully affected the philosophical and religious beliefs of great masses of mankind; but respectable mediocrity is the brand on the long list of Jesuit names in the catalogues of Alegambe and De Backer. This is doubtless due in great measure to the destructive process of scooping out the will of the Jesuit novice, to replace it with that of his superior (as a watchmaker might fit a new movement into a case), and thereby tending, in most cases, to annihilate those subtle qualities of individuality and originality which are essential to genius. Men of the higher stamp will either refuse to submit to the process and leave the Society, or run the danger of coming forth from the mill with their finest qualities pulverized and useless. In accordance with the spirit of its founder, who wished to secure uniformity in the judgment of his followers even in points left open by the Church ("Let us all think the same way, let us all speak in the same manner if possible"), the Society has shown itself to be impatient of those who think or write in a way different from what is current in its ranks.

Nor is this all. The *Ratio Studiorum*, devised by Acquaviva and still obligatory in the colleges of the Society, lays down rules which are incompatible with all breadth and progress in the higher forms of education. True to the anti-speculative and traditional side of the founder's mind, it prescribes that, even where religious topics are not in question, the teacher is not to permit any novel opinions or discussions to be mooted; nor to cite or allow others to cite the opinions of an author not of known repute; nor to teach or suffer to be taught anything contrary to the prevalent opinions of acknowledged doctors current in the schools. Obsolete and false opinions are not to be mentioned at all, even for refutation, nor are objections to received teaching to be dwelt on at any length. The result is that the Jesuit emerges from his schools without any real knowledge of any other method of thought than that which his professors have instilled into him. The professor of Biblical Literature is always to support and defend the Vulgate and can never prefer the marginal readings from the Hebrew and Greek. The Septuagint, as far as it is incorrupt, is to be held not less authentic than the Vulgate. In philosophy Aristotle is always to be followed, and St Thomas Aquinas generally, care being taken to speak respectfully of him even when abandoning his opinions, though now it is customary for the Jesuit teachers to explain him in their own sense. *De vera mente D. Thomas* is no unfamiliar expression in their books. It is not wonderful, under such a method of training, fixed as it has been in minute detail for more than three hundred years, that highly cultivated commonplaces should be the inevitable average result; and that in proportion as Jesuit power has become dominant in Christendom, especially in ecclesiastical circles, the same doom of intellectual sterility and consequent loss of influence with the higher and thoughtful classes, has separated the part from the whole. The initial mistake in the formation of character is that the Jesuits have aimed at educating lay boys in the same manner as they consider advisable for their own novices, for whom obedience and direction is the one thing necessary; whereas for lay people the right use of liberty and initiative are to be desired.

The second cause which has blighted the efforts of the Society is the lesson, too faithfully learnt and practised, of making its corporate interests the first object at all times and in all places. Men were quick to see that Jesuits did not aim at co-operation with the other members of the Church but directly or indirectly at mastery. The most brilliant exception to this rule is found in some of the missions of the Society and notably in that of St Francis Xavier (*q.v.*). But he quitted Europe in 1541 before the new society, especially under Laynez, had hardened into its final mould; and he never returned. His work, so far as can be gathered from contemporary accounts, was not done on true Jesuit lines as they afterwards developed, though the Society has reaped all the credit; and it is even possible that, had he succeeded the founder as general, the institute might not have received that political and self-seeking turn which Laynez, as second general, gave at the critical moment.

It would almost seem that careful selection was made of the men of the greatest piety and enthusiasm, whose unworldliness made them less apt for diplomatic intrigues, to break new ground in the various missions where their success would throw lustre on the Society and their scruples need never come into play. But such men are not to be found easily; and, as they died off, the tendency was to fill their places with more ordinary characters, whose aim was to increase the power and resources of the body. Hence the condescension to heathen rites in Hindustan and China, and the attempted subjugation of the English Catholic clergy. The first successes of the Indian mission were entirely among the lower classes; but when in Madura, in 1606, Robert de Nobili, a nephew of Bellarmine, to win the Brahmins, adopted their dress and mode of life—a step sanctioned by Gregory XV. in 1623 and by Clement XI. in 1707—the fathers who followed his example pushed the new caste-feeling so far as absolutely to refuse the ministrations and sacraments to the pariahs, lest the Brahmin converts should take offence—an attempt which was reported to Rome and was vainly censured by the breves of Innocent X. in 1645, Clement IX. in 1669, Clement XII. in 1734 and 1739, and Benedict XIV. in 1745. The Chinese rites, assailed with equal unsuccess by one pope after another, were not finally put down until 1744 by a bull of Benedict XIV. For Japan, where their side of the story is that best known, we have a remarkable letter, printed by Lucas Wadding in the *Annales minorum*, addressed to Paul V. by Soleto, a Franciscan missionary, who was martyred in 1624, in which he complains to the pope that the Jesuits systematically postponed the spiritual welfare of the native Christians to their own convenience and advantage; while as regards the test of martyrdom, no such result had followed on their teaching, but only on that of the other orders who had undertaken missionary work in Japan. Yet soon many Jesuit martyrs in Japan were to shed a new glory on the Society (see JAPAN: *Foreign Intercourse*). Again, even in Paraguay, the most promising of all Jesuit undertakings, the evidence shows that the fathers, though civilizing the Guarani population just sufficiently to make them useful and docile servants, happier no doubt than they were before or after, stopped there. While the mission was begun on the rational principle of governing races still in their childhood by methods adapted to that stage in their mental development, yet for one hundred and fifty years the "reductions" were conducted in the same manner, and when the hour of trial came the Jesuit civilization fell like a house of cards.

These examples are sufficient to explain the final collapse of so many promising efforts. The individual Jesuit might be, and often was, a hero, saint and martyr, but the system which he was obliged to administer was foredoomed to failure; and the suppression which came in 1773 was the natural result of forces and elements they had set in antagonism without the power of controlling.

The influence of the Society since its restoration in 1814 has not been marked with greater success than in its previous history. It was natural after the restoration that an attempt should be made to pick up again the threads that were dropped; but soon they came to realize the truth of the saying of St Ignatius: "The Society shall adapt itself to the times and not the times to the Society." The political conditions of Europe have completely changed, and constitutionalism is unfavourable to that personal influence which, in former times, the Jesuits were able to bring to bear upon the heads of states. In Europe they confine themselves mainly to educational and ecclesiastical politics, although both Germany and France have followed the example of Portugal and refuse, on political grounds, to allow them to be in these countries. It would appear as though some of the Jesuits had not, even yet, learnt the lesson that meddling with politics has always been their ruin. The main cause of any difficulty that may exist to-day with the Society is that the Jesuits are true to the teaching of that remarkable panegyric, the *Imago primi saeculi Societatis* (probably written by John Tollenarius in 1640), by identifying the Church with their own body, and being intolerant of all who will not share this view. Their power is still large in certain sections of the ecclesiastical

world, but in secular affairs it is small. Moreover within the church itself there is a strong and growing feeling that the interests of Catholicism may necessitate a second and final suppression of the Society. Cardinal Manning, a keen observer of times and influences, was wont to say:—"The work of 1773 was the work of God: and there is another 1773 coming." But, if this come, it will be due not to the pressure of secular governments, as in the 18th century, but to the action of the Church itself. The very nations which have cast out the Society have shown no disposition to accept its own estimate and identify it with the Church; while the Church itself is not conscious of depending upon the Society. To the Church the Jesuits have been what the Janissaries were to the Ottoman Empire, at first its defenders and its champions, but in the end its taskmasters.

History.—The separate article on Loyola tells of his early years, his conversion, and his first gathering of companions. It was not until November 1537, when all hope of going to the Holy Land was given up, that any outward steps were taken to form these companions into an organized body. It was on the eve of their going to Rome, for the second time, that the fathers met Ignatius at Vicenza and it was determined to adopt a common rule and, at the suggestion of Ignatius, the name of the Company of Jesus. Whatever may have been his private hopes and intentions, it was not until he, Laynez and Faber (Pierre Lefevre), in the name of their companions, were sent to lay their services at the feet of the pope that the history of the Society really begins.

On their arrival at Rome the three Jesuits were favourably received by Paul III., who at once appointed Faber to the chair of scripture and Laynez to that of scholastic theology in the university of the Sapienza. But they encountered much opposition and were even charged with heresy; when this accusation had been disposed of, there were still difficulties in the way of starting any new order. Despite the approval of Cardinal Contarini and the goodwill of the pope (who is said to have exclaimed on perusing the scheme of Ignatius, "The finger of God is here"), there was a strong and general feeling that the regular system had broken down and could not be wisely developed farther. Cardinal Guidiccioni, one of the commission of three appointed to examine the draft constitution, was known to advocate the abolition of all existing orders, save four which were to be remodelled and put under strict control. That very year, 1538, a commission of cardinals, including Reginald Pole, Contarini, Sadolet, Caraffa (afterwards Paul IV.), Fregoso and others, had reported that the conventual orders, which they had to deal with, had drifted into such a state that they should all be abolished. Not only so, but, when greater strictness of rule and of enclosure seemed the most needful reforms in communities that had become too secular in tone, the proposal of Ignatius, to make it a first principle that the members of his institute should mix freely in the world and be as little marked off as possible externally from secular clerical life and usages, ran counter to all tradition and prejudice, save that Caraffa's then recent order of Theatines, which had some analogy with the proposed Society, had taken some steps in the same direction.

Ignatius and his companions, however, had but little doubt of ultimate success, and so bound themselves, on the 15th of April 1539, to obey any superior chosen from amongst their body, and added on the 4th of May certain other rules, the most important of which was a vow of special allegiance to the pope for mission purposes to be taken by all the members of the society. But Guidiccioni, on a careful study of the papers, changed his mind; it is supposed that the cause of this change was in large measure the strong interest in the new scheme exhibited by John III., king of Portugal, who instructed his ambassador to press it on the pope and to ask Ignatius to send some priests of his Society for mission work in Portugal and its Indian possessions. Francis Xavier and Simon Rodriguez were sent to the king in March 1540. Obstacles being cleared away, Paul III., on the 27th of September 1540, issued his bull *Regimini militantis ecclesiae*, by which he confirmed the new Society (the term "order" does not belong to it), but limited the members to sixty, a restriction which was removed by the same pope in the bull *Injunctum nobis* of the 14th of March 1543. In the former bull, the pope gives the text of the formula submitted by Ignatius as the scheme of the proposed society, and in it we get the founder's own ideas: ". . . This Society, instituted to this special end, namely, to offer spiritual consolation for the advancement of souls in life and Christian doctrine, for the propagation of the faith by public preaching and the ministry of the word of God, spiritual exercises and works of charity and, especially, by the instruction of children and ignorant people in Christianity, and by the spiritual consolation of the faithful in Christ in hearing confessions. . . ." In this original scheme it is clearly marked out "that this entire Society and all its members fight for God under the faithful obedience of the most sacred lord, the pope, and the other Roman pontiffs his successors"; and Ignatius makes particular mention that each member should "be bound by a special vow," beyond that formal obligation under which all Christians are of obeying the pope, "so that whatsoever the present and other Roman pontiffs for the time being shall ordain, pertaining to the advancement of souls and the propagation of the faith, to whatever provinces he shall resolve to send us, we are straightway bound to obey, as far as in us lies, without any tergiversation or excuse, whether he send us among the Turks or to any other unbelievers in being, even to those parts called India, or to any heretics or schismatics or likewise to any believers." Obedience to the general is enjoined "in all things pertaining to the institute of the Society . . . and in him they shall acknowledge Christ as though present, and as far as is becoming shall venerate him"; poverty is enjoined, and this rule affects not only the individual but the common sustentation or care of the Society, except that in the case of colleges revenues are allowed "to be applied to the wants and necessities of the students"; and the private recitation of the Office is distinctly mentioned. On the other hand, the perpetuity of the general's office during his life was no part of the original scheme.

On the 7th of April 1541, Ignatius was unanimously chosen general. His refusal of this post was overruled, so he entered on his office on the 13th of April; and two days after, the newly constituted Society took its formal corporate vows in the basilica of San Paolo *fuori le mura*. Scarcely was the Society launched when its members dispersed in various directions to their new tasks. Alfonso Salmeron and Pasquier-Brouet, as papal delegates, were sent on a secret mission to Ireland to encourage the native clergy and people to resist the religious changes introduced by Henry VIII.; Nicholas Bobadilla went to Naples; Faber, first to the diet of Worms and then to Spain; Laynez and Claude le Jay to Germany, while Ignatius busied himself at Rome in good works and in drawing up the constitutions and completing the *Spiritual Exercises*. Success crowned these first efforts; and the Society began to win golden opinions. The first college was founded at Coimbra in 1542 by John III. of Portugal and put under the rectorship of Rodriguez. It was designed as a training school to feed the Indian mission of which Francis Xavier had already taken the oversight, while a seminary at Goa was the second institution founded outside Rome in connexion with the Society. Both from the original scheme and from the foundation at Coimbra it is clear that the original idea of the colleges was to provide for the education of future Jesuits. In Spain, national pride in the founder aided the Society's cause almost as much as royal patronage did in Portugal; and the third house was opened in Gandia under the protection of its duke, Francisco Borgia, a grandson of Alexander VI. In Germany, the Jesuits were eagerly welcomed as the only persons able to meet the Lutherans on equal terms. Only in France, among the countries which still were united with the Roman Church, was their advance checked, owing to political distrust of their Spanish origin, together with the hostility of the Sorbonne and the bishop of Paris. However, after many difficulties, they succeeded in getting a footing through the help of Guillaume du Prat, bishop of Clermont (d. 1560), who founded a college for them in 1545 in the town of Billom, besides making over to them his house at Paris, the hôtel de Clermont, which became the nucleus of the afterwards famous college of Louis-le-Grand, while a formal legalization was granted to them by the states-general at Poissy in 1561. In Rome, Paul III.'s favour did not lessen. He bestowed on them the church of St Andrea and conferred at the same time the valuable privilege of making and altering their own statutes; besides the other points, in 1546, which Ignatius had still more at heart, as touching the very essence of his institute, namely, exemption from ecclesiastical offices and dignities and from the task of acting as directors and confessors to convents of women. The former of these measures effectually stopped any drain of the best members away from the society and limited their hopes within its bounds, by putting them more freely at the general's disposal, especially as it was provided that the final vows could not be annulled, nor could a professed member be dismissed, save by the joint action of the general and the pope. The regulation as to convents seems partly due to a desire to avoid the worry and expenditure of time involved in the discharge of such offices

and partly to a conviction that penitents living in enclosure, as all religious persons then were, would be of no effective use to the Society; whereas the founder, against the wishes of several of his companions, laid much stress on the duty of accepting the post of confessor to kings, queens and women of high rank when opportunity presented itself. And the year 1546 is notable in the annals of the Society as that in which it embarked on its great educational career, especially by the annexation of free day-schools to all its colleges.

The council of Trent, in its first period, seemed to increase the reputation of the Society; for the pope chose Laynez, Faber and Salmeron to act as his theologians in that assembly, and in this capacity they had no little influence in framing its decrees. When the council reassembled under Pius IV., Laynez and Salmeron again attended in the same capacity. It is sometimes said that the council formally approved of the Society. This is impossible; for as the Society had received the papal approval, that of the council would have been impertinent as well as unnecessary. St Charles Borromeo wrote to the presiding cardinals, on the 11th of May 1562, saying that, as France was disaffected to the Jesuits whom the pope wished to see established in every country, Pius IV. desired, when the council was occupying itself about regulars, that it should make some honourable mention of the Society in order to recommend it. This was done in the twenty-fifth session (cap. XVI., d.r.) when the decree was passed that at the end of the time of probation novices should either be professed or dismissed; and the words of the council are: " By these things, however, the Synod does not intend to make any innovation or prohibition, so as to hinder the religious order of Clerks of the Society of Jesus from being able to serve God and His Church, in accordance with their pious institute approved of by the Holy Apostolic See."

In 1548 the Society received a valuable recruit in the person of Francisco Borgia, duke of Gandia, afterwards thrice general, while two important events marked 1550—the foundation of the Collegio Romano and a fresh confirmation of the Society by Julius III. The German college, for the children of poor nobles, was founded in 1552; and in the same year Ignatius firmly settled the discipline of the Society by putting down, with promptness and severity, some attempts at independent action on the part of Rodriguez at Coimbra— this being the occasion of the famous letter on obedience; while 1553 saw the despatch of a mission to Abyssinia with one of the fathers as patriarch, and the first rift within the lute when the pope thought that the Spanish Jesuits were taking part with the emperor against the Holy See. Paul IV. (whose election alarmed the Jesuits, for they had not found him very friendly as cardinal) was for a time managed with supreme tact by Ignatius, whom he respected personally. In 1556, the founder died and left the Society consisting of forty-five professed fathers and two thousand ordinary members, distributed over twelve provinces, with more than a hundred colleges and houses.

After the death of the first general there was an interregnum of two years, with Laynez as vicar. During this long period he occupied himself with completing the constitutions by incorporating certain declarations, said to be Ignatian, which explained and sometimes completely altered the meaning of the original text. Laynez was an astute politician and saw the vast capabilities of the Society over a far wider field than the founder contemplated; and he prepared to give it the direction that it has since followed. In some senses, this learned and consummately clever man may be looked upon as the real founder of the Society as history knows it. Having carefully prepared the way, he summoned the general congregation from which he emerged as second general in 1556. As soon as Ignatius had died Paul IV. announced his intention of instituting reforms in the Society, especially in two points: the public recitation of the office in choir and the limitation of the general's office to a term of three years. Despite all the protests and negotiations of Laynez, the pope remained obstinate; and there was nothing but to submit. On the 8th of September 1558, two points were added to the constitutions: that the generalship should be triennial and not perpetual, although after the three years the general might be confirmed; and that the canonical hours should be observed in choir after the manner of the other orders, but with that moderation which should seem expedient to the general. Taking advantage of this last clause, Laynez applied the new law to two houses only, namely, Rome and Lisbon, the other houses contenting themselves with singing vespers on feast days; and as soon as Paul IV. died, Laynez, acting on advice, quietly ignored for the future the orders of the late pope. He also succeeded in increasing further the already enormous powers of the general. Laynez took a leading part in the colloquy of Poissy in 1561 between the Catholics and Huguenots; and obtained a legal footing from the states-general for colleges of the Society in France. He died in 1564, leaving the Society increased to eighteen provinces with a hundred and thirty colleges, and was succeeded by Francisco Borgia. During the third generalate, Pius V. confirmed all the former privileges, and in the amplest form extended to the Society, as being a mendicant institute, all favours that had been or might afterwards be granted to such mendicant bodies. It was a trifling set-off that in 1567 the pope again enjoined the fathers to keep choir and to admit only the professed to priests' orders, especially as Gregory XIII. rescinded both these injunctions in 1573; and indeed, as regards the hours, all that Pius V. was able to obtain was the nominal concession that the breviary should be recited in choir in the professed houses only, and that not of necessity by more than two persons at a time. Everard Mercurian, a Fleming, and a subject of Spain, succeeded Borgia in 1573, being forced on the Society by the pope, in preference to Polanco, Ignatius's secretary and the vicar-general, who was rejected partly as a Spaniard and still more because he was a " New Christian " of Jewish origin and therefore objected to in Spain itself. During his term of office there took place the troubles in Rome concerning the English college and the subsequent Jesuit rule over that institution; and in 1580 the first Jesuit mission, headed by the redoubtable Robert Parsons and the saintly Edmund Campion, set out for England. This mission, on one side, carried on an active propaganda against Elizabeth in favour of Spain; and on the other, among the true missionaries, was marked with devoted zeal and heroism even to the ghastly death of traitors. Claude Acquaviva, the fifth general, held office from 1581 to 1615, a time almost coinciding with the high tide of the successful reaction, chiefly due to the Jesuits. He was an able, strong-willed man, and crushed what was tantamount to a rebellion in Spain. It was during this struggle that Mariana, the historian and the author of the famous *De rege* in which he defends tyrannicide, wrote his treatise *On the Defects in the Government of the Society*. He confessed freely that the Society had faults and that there was a great deal of unrest among the members; and he mentioned among the various points calling for reform the education of the novices and students; the state of the lay brother and the possessions of the Society; the spying system, which he declared to be carried so far that, if the general's archives at Rome should be searched, not one Jesuit's character would be found to escape; the monopoly of the higher offices by a small clique: and the absence of all encouragement and recompense for the best men of the Society.

It was chiefly during the generalship of Acquaviva that the Society began to gain an evil reputation which eclipsed its good report. In France the Jesuits joined, if they did not originate, the league against Henry of Navarre. Absolution was refused by them to those who would not join in the Guise rebellion, and Acquaviva is said to have tried to stop them, but in vain. The assassination of Henry III. in the interests of the league and the wounding of Henry IV. in 1594 by Chastel, a pupil of theirs, revealed the danger that the whole Society was running by the intrigues of a few men. The Jesuits were banished from France in 1594, but were allowed to return by Henry IV. under conditions; as Sully has recorded, the king declared his only motive to be the expediency of not driving them into a corner with possible disastrous results to his life, and because his only hope of tranquillity lay in appeasing them and their powerful friends. In England the political schemings of Parsons were no small factors in the odium which fell on the Society at large; and his determination to capture the English Catholics as an apanage of the Society, to the exclusion of all else, was an object lesson to the rest of Europe of a restless ambition and lust of domination which were to find many imitators. The political turn which was being given by some to the Society, to the detriment of its real spiritual work, evoked the fears of the wiser heads of the body; and in the fifth general congregation held in 1593–1594 it was decreed: " Whereas in these times of difficulty and danger it has happened through the fault of certain individuals, through ambition and intemperate zeal, that our institute has been ill spoken of in divers places and before divers sovereigns . . . it is severely and strictly forbidden to all members of the Society to interfere in any manner whatever in public affairs even though they be thereto invited; or to deviate from the institute through entreaty, persuasion or any other motive whatever." It would have been well had Acquaviva enforced this decree; but Parsons was allowed to keep on with his work, and other Jesuits in France for many years after directed, to the loss of religion, affairs of state. In 1605 took place in England the Gunpowder Plot, in which Henry Garnet, the superior of the Society in

England, was implicated. That the Jesuits were the instigators of the plot there is no evidence, but they were in close touch with the conspirators, of whose designs Garnet had a general knowledge. There is now no reasonable doubt that he and other Jesuits were legally accessories, and that the condemnation of Garnet as a traitor was substantially just (see GARNET, HENRY).

It was during Acquaviva's generalship that Philip II. of Spain complained bitterly of the Society to Sixtus V., and encouraged him in those plans of reform (even to changing the name) which were only cut short by the pope's death in 1590, and also that the long protracted discussions on grace, wherein the Dominicans contended against the Jesuits, were carried on at Rome with little practical result, by the Congregation *de auxiliis*, which sat from 1598 till 1607. The *Ratio Studiorum* took its shape during this time. The Jesuit influence at Rome was supported by the Spanish ambassador; but when Henry IV. "went to Mass," the balance inclined to the side of France, and the Spanish monopoly became a thing of the past. Acquaviva saw the expulsion of the Jesuits from Venice in 1606 for siding with Paul V. when he placed the republic under interdict, but did not live to see their recall, which took place at the intercession of Louis XIV. in 1657. He also had to banish Parsons from Rome, by order of Clement VIII., who was wearied with the perpetual complaints made against that intriguer. Gregory XIV., by the bull *Ecclesiae Christi* (July 28, 1591), again confirmed the Society, and granted that Jesuits might, for true cause, be expelled from the body without any form of trial or even documentary procedure, besides denouncing excommunications against every one, save the pope or his legates, who directly or indirectly infringed the constitutions of the Society or attempted to bring about any change therein.

Under Vitelleschi, the next general, the Society celebrated its first centenary on the 25th of September 1639, the hundredth anniversary of the verbal approbation given to the scheme by Paul III. During this hundred years the Society had grown to thirty-six provinces, with eight hundred houses containing some fifteen thousand members. In 1640 broke out the great Jansenist controversy, in which the Society took the leading part on one side and finally secured the victory. In this same year, considering themselves ill-used by Olivarez, prime minister of Philip IV. of Spain, the Jesuits powerfully aided the revolution which placed the duke of Braganza on the throne of Portugal; and their services were rewarded for nearly one hundred years with the practical control of ecclesiastical and almost of civil affairs in that kingdom.

The Society also gained ground steadily in France; for, though held in check by Richelieu and little more favoured by Mazarin, yet from the moment that Louis XIV. took the reins, their star was in the ascendant, and Jesuit confessors, the most celebrated of whom were François de La Chaise (*q.v.*) and Michel Le Tellier (1643–1719), guided the policy of the king, not hesitating to take his side in his quarrel with the Holy See, which nearly resulted in a schism, nor to sign the Gallican articles. Their hostility to the Huguenots forced on the revocation of the Edict of Nantes in 1685, and their war against their Jansenist opponents did not cease till the very walls of Port Royal were demolished in 1710, even to the very abbey church itself, and the bodies of the dead taken with every mark of insult from their graves and literally flung to the dogs to devour. But while thus gaining power in one direction, the Society was losing it in another. The Japanese mission had vanished in blood in 1651; and though many Jesuits died with their converts bravely as martyrs for the faith, yet it is impossible to acquit them of a large share in the causes of that overthrow. It was also about this same period that the grave scandal of the Chinese and Malabar rites began to attract attention in Europe, and to make thinking men ask seriously whether the Jesuit missionaries in those parts taught anything which could fairly be called Christianity at all. When it was remembered, too, that they had decided, at a council held at Lima, that it was inexpedient to impose any act of Christian devotion except baptism on the South American converts, without the greatest precautions, on the ground of intellectual difficulties, it is not wonderful that this doubt was not satisfactorily cleared up, notably in face of the charges brought against the Society by Bernardin de Cardonas, bishop of Paraguay, and the saintly Juan de Palafox (*q.v.*), bishop of Angelopolis in Mexico.

But "the terrible power in the universal church, the great riches and the extraordinary prestige" of the Society, which Palafox complained had raised it "above all dignities, laws, councils and apostolic constitutions," carried with them the seeds of rapid and inevitable decay. A succession of devout but incapable generals, after the death of Acquaviva, saw the gradual secularization of tone by the flocking in of recruits of rank and wealth desirous to share in the glories and influence of the Society, but not well adapted to increase them. The general's supremacy received a shock when the eleventh general congregation appointed Oliva as vicar, with the right of succession and powers that practically superseded those of the general Goswin Nickel, whose infirmities, it is said, did not permit him to govern with the necessary application and vigour; and an attempt was made to depose Tirso Gonzalez, the thirteenth general, whose views on probabilism diverged from those favoured by the rest of the Jesuits. Though the political weight of the Society continued to increase in the cabinets of Europe, it was being steadily weakened internally. The Jesuits abandoned the system of free education which had won them so much influence and honour; by attaching themselves exclusively to the interests of courts, they lost favour with the middle and lower classes; and above all, their monopoly of power and patronage in France, with the fatal use they had made of it, drew down the bitterest hostility upon them. It was to their credit, indeed, that the encyclopaedists attacked them as the foremost representatives of Christianity, but they are accountable in no small degree in France, as in England, for alienating the minds of men from the religion for which they professed to work.

But the most fatal part of the policy of the Society was its activity, wealth and importance as a great trading firm with branch houses scattered over the richest countries of the world. Its founder, with a wise instinct, had forbidden the accumulation of wealth; its own constitutions, as revised in the 84th decree of the sixth general congregation, had forbidden all pursuits of a commercial nature, as also had various popes; but nevertheless the trade went on unceasingly, necessarily with the full knowledge of the general, unless it be pleaded that the system of obligatory espionage had completely broken down. The first muttering of the storm which was soon to break was heard in a breve issued in 1741 by Benedict XIV., wherein he denounced the Jesuit offenders as "disobedient, contumacious, captious and reprobate persons," and enacted many stringent regulations for their better government. The first serious attack came from a country where they had been long dominant. In 1753 Spain and Portugal exchanged certain American provinces with each other, which involved a transfer of sovereign rights over Paraguay; but it was also provided that the populations should severally migrate also, that the subjects of each crown might remain the same as before. The inhabitants of the "reductions," whom the Jesuits had trained in the use of European arms and discipline, naturally rose in defence of their homes, and attacked the troops and authorities. Their previous docility and their entire submission to the Jesuits left no possible doubt as to the source of the rebellion, and gave the enemies of the Jesuits a handle against them that was not forgotten. In 1757 Carvalho, marquis of Pombal, prime minister of Joseph I. of Portugal, and an old pupil of the Jesuits at Coimbra, dismissed the three Jesuit chaplains of the king and named three secular priests in their stead. He next complained to Benedict XIV. that the trading operations of the Society hampered the commercial prosperity of the nation, and asked for remedial measures. The pope, who knew the situation, committed a visitation of the Society to Cardinal Saldanha, an intimate friend of Pombal, who issued a severe decree against the Jesuits and ordered the confiscation of all their merchandise. But at this juncture Benedict XIV., the most learned and able pope of the period, was succeeded by a pope strongly in favour of the Jesuits, Clement XIII. Pombal, finding no help from Rome, adopted other means. The king was fired at and wounded on returning from a visit to his mistress on the 3rd of September 1758. The duke of Aveiro and other high personages were tried and executed for conspiracy; while some of the Jesuits, who had undoubtedly been in communication with them, were charged, on doubtful evidence, with complicity in the attempted assassination. Pombal charged the whole Society with the possible guilt of a few, and, unwilling to wait the dubious issue of an application to the pope for licence to try them in the civil courts, whence they were exempt, issued on the 1st of September 1759 a decree ordering the immediate deportation of every Jesuit from Portugal and all its dependencies and their suppression by the bishops in the schools and universities. Those in Portugal were at once shipped, in great misery, to the papal states, and were soon followed by those in the colonies. In France, Madame de Pompadour was their enemy because they had refused her absolution while she remained the king's mistress; but the immediate cause of their ruin was the bankruptcy of Father Lavalette, the Jesuit superior in Martinique, a daring speculator, who failed, after trading for some years, for 2,400,000 francs and brought ruin upon some French commercial houses of note. Lorenzo Ricci, then general of the Society, repudiated the debt, alleging lack of authority on Lavalette's part to pledge

the credit of the Society, and he was sued by the creditors. Losing his cause, he appealed to the parlement of Paris, and it, to decide the issue raised by Ricci, required the constitutions of the Jesuits to be produced in evidence, and affirmed the judgment of the courts below. But the publicity given to a document scarcely known till then raised the utmost indignation against the Society. A royal commission, appointed by the duc de Choiseul to examine the constitutions, convoked a private assembly of fifty-one archbishops and bishops under the presidency of Cardinal de Luynes, all of whom except six voted that the unlimited authority of the general was incompatible with the laws of France, and that the appointment of a resident vicar, subject to those laws, was the only solution of the question fair on all sides. Ricci replied with the historical answer, *Sint ut sunt, aut non sint*; and after some further delay, during which much interest was exerted in their favour, the Jesuits were suppressed by an edict in November 1764, but suffered to remain on the footing of secular priests, a grace withdrawn in 1767, when they were expelled from the kingdom. In the very same year, Charles III. of Spain, a monarch known for personal devoutness, convinced, on evidence not now forthcoming, that the Jesuits were plotting against his authority, prepared, through his minister D'Aranda, a decree suppressing the Society in every part of his dominions. Sealed despatches were sent to every Spanish colony, to be opened on the same day, the 2nd of April 1767, when the measure was to take effect in Spain itself, and the expulsion was relentlessly carried out, nearly six thousand priests being deported from Spain alone, and sent to the Italian coast, whence, however, they were repelled by the orders of the pope and Ricci himself, finding a refuge at Corte in Corsica, after some months' suffering in overcrowded vessels at sea. The general's object may probably have been to accentuate the harshness with which the fathers had been treated, and so to increase public sympathy, but the actual result of his policy was blame for the cruelty with which he enhanced their misfortunes, for the poverty of Corsica made even a bare subsistence scarcely procurable for them there. The Bourbon courts of Naples and Parma followed the example of France and Spain; Clement XIII. retorted with a bull launched at the weakest adversary, and declaring the rank and title of the duke of Parma forfeit. The Bourbon sovereigns threatened to make war on the pope in return (France, indeed, seizing on the county of Avignon), and a joint note demanding a retractation, and the abolition of the Jesuits, was presented by the French ambassador at Rome on the 10th of December 1768 in the name of France, Spain and the two Sicilies. The pope, a man of eighty-two, died of apoplexy, brought on by the shock, early in 1769. Cardinal Lorenzo Ganganelli, a conventual Franciscan, was chosen to succeed him, and took the name of Clement XIV. He endeavoured to avert the decision forced upon him, but, as Portugal joined the Bourbon league, and Maria Theresa with her son the emperor Joseph II. ceased to protect the Jesuits, there remained only the petty kingdom of Sardinia in their favour, though the fall of Choiseul in France raised the hopes of the Society for a time. The pope began with some preliminary measures, permitting first the renewal of lawsuits against the Society, which had been suspended by papal authority, and which, indeed, had in no case been ever successful at Rome. He then closed the Collegio Romano, on the plea of its insolvency, seized the houses at Frascati and Tivoli, and broke up the establishments in Bologna and the Legations. Finally on the 21st of July 1773 the famous breve *Dominus ac Redemptor* appeared, suppressing the Society of Jesus. This remarkable document opens by citing a long series of precedents for the suppression of religious orders by the Holy See, amongst which occurs the ill-omened instance of the Templars. It then briefly sketches the objects and history of the Jesuits themselves. It speaks of their defiance of their own constitution, expressly revived by Paul V., forbidding them to meddle in politics; of the great ruin to souls caused by their quarrels with local ordinaries and the other religious orders, their condescension to heathen usages in the East, and the disturbances, resulting in persecutions of the Church, which they had stirred up even in Catholic countries, so that several popes had been obliged to punish them. Seeing then that the Catholic sovereigns had been forced to expel them, that many bishops and other eminent persons demanded their extinction, and that the Society had ceased to fulfil the intention of its institute, the pope declares it necessary for the peace of the Church that it should be suppressed, extinguished, abolished and abrogated for ever, with all its houses, colleges, schools and hospitals; transfers all the authority of its general or officers to the local ordinaries; forbids the reception of any more novices, directing that such as were actually in probation should be dismissed, and declaring that profession in the Society should not serve as a title to holy orders. Priests of the Society are given the option of either joining other orders or remaining as secular clergy, under obedience to the ordinaries, who are empowered to grant or withhold from them licences to hear confessions. Such of the fathers as are engaged in the work of education are permitted to continue, on condition of abstaining from lax and questionable doctrines apt to cause strife and trouble. The question of missions is reserved, and the relaxations granted to the Society in such matters as fasting, reciting the hours and reading heretical books, are withdrawn; while the breve ends with clauses carefully drawn to bar any legal exceptions that might be taken against its full validity and obligation. It has been necessary to cite these heads of the breve because the apologists of the Society allege that no motive influenced the pope save the desire of peace at any price, and that he did not believe in the culpability of the fathers. The categorical charges made in the document rebut this plea. The pope followed up this breve by appointing a congregation of cardinals to take possession of the temporalities of the Society, and armed it with summary powers against all who should attempt to retain or conceal any of the property. He also threw Lorenzo Ricci, the general, into prison, first in the English college and then in the castle of St Angelo, where he died in 1775, under the pontificate of Pius VI., who, though not unfavourable to the Society, and owing his own advancement to it, dared not release him, probably because his continued imprisonment was made a condition by the powers who enjoyed a right of veto in papal elections. In September 1774 Clement XIV. died after much suffering, and the question has been hotly debated ever since whether poison was the cause of his death. But the latest researches have shown that there is no evidence to support the theory of poison. Salicetti, the pope's physician, denied that the body showed signs of poisoning, and Tanucci, Neapolitan ambassador at Rome, who had a large share in procuring the breve of suppression, entirely acquits the Jesuits, while F. Theiner, no friend to the Society, does the like.

At the date of this suppression, the Society had 41 provinces and 22,589 members, of whom 11,295 were priests. Far from submitting to the papal breve, the ex-Jesuits, after some ineffectual attempts at direct resistance, withdrew into the territories of the free-thinking sovereigns of Russia and Prussia, Frederick II. and Catherine II., who became their active friends and protectors; and the fathers alleged as a principle, in so far as their theology is concerned, that no papal bull is binding in a state whose sovereign has not approved and authorized its publication and execution. Russia formed the headquarters of the Society, and two forged breves were speedily circulated, being dated June 9 and June 29, 1774, approving their establishment in Russia, and implying the repeal of the breve of suppression. But these are contradicted by the tenor of five genuine breves issued in September 1774 to the archbishop of Gnesen, and making certain assurances to the ex-Jesuits, on condition of their complete obedience to the injunctions already laid on them. The Jesuits also pleaded a verbal approbation by Pius VI., technically known as an *Oraculum vivae vocis*, but this is invalid for purposes of law unless reduced to writing and duly authenticated.

They elected three Poles successively as generals, taking, however, only the title of vicars, till on the 7th of March 1801 Pius VII. granted them liberty to reconstitute themselves in north Russia, and permitted Kareu, then vicar, to exercise full authority as general. On the 30th of July 1804 a similar breve restored the Jesuits in the Two Sicilies, at the express desire of Ferdinand IV.,

the pope thus anticipating the further action of 1814, when, by the constitution *Sollicitudo omnium Ecclesiarum*, he revoked the action of Clement XIV., and formally restored the Society to corporate legal existence, yet not only omitted any censure of his predecessor's conduct, but all vindication of the Jesuits from the heavy charges in the breve *Dominus ac Redemptor*. In France, even after their expulsion in 1765, they had maintained a precarious footing in the country under the partial disguise and names of "Fathers of the Faith" or "Clerks of the Sacred Heart," but were obliged by Napoleon I. to retire in 1804. They reappeared under their true name in 1814, and obtained formal licence in 1822, but became the objects of so much hostility that Charles X. deprived them by ordinance of the right of instruction, and obliged all applicants for licences as teachers to make oath that they did not belong to any community unrecognized by the laws. They were dispersed again by the revolution of July 1830, but soon reappeared and, though put to much inconvenience during the latter years of Louis Philippe's reign, notably in 1845, maintained their footing, recovered the right to teach freely after the revolution of 1848, and gradually became the leading educational and ecclesiastical power in France, notably under the Second Empire, till they were once more expelled by the Ferry laws of 1880, though they quietly returned since the execution of those measures. They were again expelled by the Law of Associations of 1901. In Spain they came back with Ferdinand VII., but were expelled at the constitutional rising in 1820, returning in 1823, when the duke of Angoulême's army replaced Ferdinand on his throne; they were driven out once more by Espartero in 1835, and have had no legal position since, though their presence is openly tolerated. In Portugal, ranging themselves on the side of Dom Miguel, they fell with his cause, and were exiled in 1834. There are some to this day in Lisbon under the name of "Fathers of the Faith." Russia, which had been their warmest patron, drove them from St Petersburg and Moscow in 1813, and from the whole empire in 1820, mainly on the plea of attempted proselytizing in the imperial army. Holland drove them out in 1816, and, by giving them thus a valid excuse for aiding the Belgian revolution of 1830, secured them the strong position they have ever since held in Belgium; but they have succeeded in returning to Holland. They were expelled from Switzerland in 1847–1848 for the part they were charged with in exciting the war of the Sonderbund. In south Germany, inclusive of Austria and Bavaria, their annals since their restoration have been uneventful; but in north Germany, owing to the footing Frederick II. had given them in Prussia, they became very powerful, especially in the Rhine provinces, and, gradually moulding the younger generation of clergy after the close of the War of Liberation, succeeded in spreading Ultramontane views amongst them, and so leading up to the difficulties with the civil government which issued in the Falk laws, and their own expulsion by decree of the German parliament (June 19, 1872). Since then many attempts have been made to procure the recall of the Society to the German Empire, but without success, although as individuals they are now allowed in the country. In Great Britain, whither they began to straggle over during the revolutionary troubles at the close of the 18th century, and where, practically unaffected by the clause directed against them in the Emancipation Act of 1829, their chief settlement has been at Stonyhurst in Lancashire, an estate conferred on them by Thomas Weld in 1795, they have been unmolested; but there has been little affinity to the order in the British temperament, and the English province has consequently never risen to numerical or intellectual importance in the Society. In Rome itself, its progress after the restoration was at first slow, and it was not till the reign of Leo XII. (1823–1829) that it recovered its place as the chief educational body there. It advanced steadily under Gregory XVI., and, though it was at first shunned by Pius IX., it secured his entire confidence after his return from Gaeta in 1849, and obtained from him a special breve erecting the staff of its literary journal, the *Civiltà Cattolica*, into a perpetual college under the general of the Jesuits, for the purpose of teaching and propagating the faith in its pages. How, with this pope's support throughout his long reign, the gradual filling of nearly all the sees of Latin Christendom with bishops of their own selection, and their practical capture, directly or indirectly, of the education of the clergy in seminaries, they contrived to stamp out the last remains of independence everywhere, and to crown the Ultramontane triumph with the Vatican Decrees, is matter of familiar knowledge. Leo XIII., while favouring them somewhat, never gave them his full confidence; and by his adhesion to the Thomist philosophy and theology, and his active work for the regeneration and progress of the older orders, he made another suppression possible by destroying much of their prestige. But the usual sequence has been observed under Pius X., who appeared to be greatly in favour of the Society and to rely upon them for many of the measures of his pontificate.

The Society has been ruled by twenty-five generals and four vicars from its foundation to the present day (1910). Of all the various nationalities represented in the Society, neither France, its original cradle, nor England, has ever given it a head, while Spain, Italy, Holland, Belgium, Germany and Poland, were all represented. The numbers of the Society are not accurately known, but are estimated at about 20,000, in all parts of the world; and of these the English, Irish and American Jesuits are under 3000.

The generals of the Jesuits have been as follow:—

1.	Ignatius de Loyola (Spaniard)	1541–1556
2.	Diego Laynez (Spaniard)	1558–1565
3.	Francisco Borgia (Spaniard)	1565–1572
4.	Everard Mercurian (Belgian)	1573–1580
5.	Claudio Acquaviva (Neapolitan)	1581–1615
6.	Mutio Vitelleschi (Roman)	1615–1645
7.	Vincenzio Caraffa (Neapolitan)	1646–1649
8.	Francesco Piccolomini (Florentine)	1649–1651
9.	Alessandro Gottofredi (Roman)	1652
10.	Goswin Nickel (German)	1652–1664
11.	Giovanni Paolo Oliva (Genoese) vicar-general and coadjutor, 1661; general	1664–1681
12.	Charles de Noyelle (Belgian)	1682–1686
13.	Tirso Gonzalez (Spaniard)	1687–1705
14.	Michele Angelo Tamburini (Modenese)	1706–1730
15.	Franz Retz (Bohemian)	1730–1750
16.	Ignazio Visconti (Milanese)	1751–1755
17.	Alessandro Centurioni (Genoese)	1755–1757
18.	Lorenzo Ricci (Florentine)	1758–1775
	a. Stanislaus Czerniewicz (Pole), vicar-general	1782–1785
	b. Gabriel Lienkiewicz (Pole), ,,	1785–1798
	c. Franciscus Xavier Kareu (Pole), (general in Russia, 7th March 1801)	1799–1802
	d. Gabriel Gruber (German)	1802–1805
19.	Thaddaeus Brzozowski (Pole)	1805–1820
20.	Aloysio Fortis (Veronese)	1820–1829
21.	Johannes Roothaan (Dutchman)	1829–1853
22.	Peter Johannes Beckx (Belgian)	1853–1884
23.	Antoine Anderledy (Swiss)	1884–1892
24.	Luis Martin (Spanish)	1892–1906
25.	Francis Xavier Wernz (German)	1906–

The bibliography of Jesuitism is of enormous extent, and it is impracticable to cite more than a few of the most important works. They are as follows: *Institutum Societatis Jesu* (7 vols., Avignon, 1830–1838); Orlandini, *Historia Societatis Jesu* (Antwerp, 1620); *Imago primi saeculi Societatis Jesu* (Antwerp, 1640); Nieremberg, *Vida de San Ignacio de Loyola* (9 vols., fol., Madrid, 1645–1736); Genelli, *Life of St Ignatius of Loyola* (London, 1872); Backer, *Bibliothèque des écrivains de la Compagnie de Jésus* (7 vols., Paris, 1853–1861); Crétineau Joly, *Histoire de la Compagnie de Jésus* (6 vols., Paris, 1844); Guettée, *Histoire des Jésuites* (3 vols., Paris, 1858–1859); Wolff, *Allgemeine Geschichte der Jesuiten* (4 vols., Zurich, 1789–1792); Gioberti, *Il Gesuita moderno* (Lausanne, 1846); F. Parkman, *Pioneers of France in the New World* and *The Jesuits in North America* (Boston, 1868); *Lettres édifiantes et curieuses, écrites des missions étrangères, avec les Annales de la propagation de la foi* (40 vols., Lyons, 1819–1854); Saint-Priest, *Histoire de la chute des Jésuites au XVIIIe Siècle* (Paris, 1844); Ranke, *Römische Päpste* (3 vols., Berlin, 1838); E. Taunton, *History of the Jesuits in England* (London, 1901); Thomas Hughes, S.J., *History of the Society of Jesus in North America* (London and New York, 1907); R. G. Thwaites, *Jesuit Relations and Allied Documents* (73 vols. Cleveland, 1896–1901).

(R. F. L.; E. Tn.)

JESUP, MORRIS KETCHUM (1830–1908), American banker and philanthropist, was born at Westport, Connecticut, on the 21st of June 1830. In 1842 he went to New York City, where after some experience in business he established a banking house

in 1852. In 1856 he organized the banking firm of M. K. Jesup & Company, which after two reorganizations became Cuyler, Morgan & Jesup. He became widely known as a financier, retiring from active business in 1884. He was best known, however, as a munificent patron of scientific research, a large contributor to the needs of education, and a public-spirited citizen of wide interests, who did much for the betterment of social conditions in New York. He contributed largely to the funds for the Arctic expeditions of Commander Robert E. Peary, becoming president of the Peary Arctic Club in 1899. To the American museum of natural history, in New York City, he gave large sums in his lifetime and bequeathed $1,000,000. He was president of the New York chamber of commerce from 1899 until 1907, and was the largest subscriber to its new building. To his native town he gave a fine public library. He died in New York City on the 22nd of January 1908.

JESUS CHRIST. To write a summary account of the life of Christ, though always involving a grave responsibility, was until recent years a comparatively straightforward task; for it was assumed that all that was needed, or could be offered, was a chronological outline based on a harmony of the four canonical Gospels. But to-day history is not satisfied by this simple procedure. Literary criticism has analysed the documents, and has already established some important results; and many questions are still in debate, the answers to which must affect our judgment of the historical value of the existing narratives. It seems therefore consonant alike with prudence and reverence to refrain from attempting to combine afresh into a single picture the materials derivable from the various documents, and to endeavour instead to describe the main contents of the sources from which our knowledge of the Lord Jesus Christ as an historical personage is ultimately drawn, and to observe the picture of Him which each writer in turn has offered to us.

The chief elements of the evidence with which we shall deal are the following:—

1. First, because earliest in point of time, the references to the Lord Jesus Christ in the earliest Epistles of St Paul.
2. The Gospel according to St Mark.
3. A document, no longer extant, which was partially incorporated into the Gospels of St Matthew and St Luke.
4. Further information added by St Matthew's Gospel.
5. Further information added by St Luke's Gospel.
6. The Gospel according to St John.

With regard to traditional sayings or doings of our Lord, which were only written down at a later period, it will suffice to say that those which have any claim to be genuine are very scanty, and that their genuineness has to be tested by their correspondence with the great bulk of information which is derived from the sources already enumerated. The fictitious literature of the second and third centuries, known as the Apocryphal Gospels, offers no direct evidence of any historical value at all: it is chiefly valuable for the contrast which it presents to the grave simplicity of the canonical Gospels, and as showing how incapable a later age was of adding anything to the Gospel history which was not palpably absurd.

1. *Letters of St Paul.*—In the order of chronology we must give the first place to the earliest letters of St Paul. The first piece of Christian literature which has an independent existence and to which we can fix a date is St Paul's first Epistle to the Thessalonians. Lightfoot dates it in 52 or 53; Harnack places it five years earlier. We may say, then, that it was written some twenty years after the Crucifixion. St Paul is not an historian; he is not attempting to describe what Jesus Christ said or did. He is writing a letter to encourage a little Christian society which he, a Jew, had founded in a distant Greek city; and he reminds his readers of many things which he had told them when he was with them. The evidence to be collected from his epistles generally must not detain us here, but we may glance for a moment at this one letter, because it contains what appears to be the first mention of Jesus Christ in the literature of the world. Those who would get a true history cannot afford to neglect their earliest documents. Now the opening sentence of this letter is as follows: "Paul and Silvanus and Timothy to the Church of the Thessalonians in God the Father and the Lord Jesus Christ: Grace to you, and peace." Three men with Greek or Latin names are writing to some kind of assembly in a city of Macedonia. The writers are Jews, to judge by their salutation of "peace," and by their mention of "God the Father," and of the assembly or society as being "in" Him. But what is this new name which is placed side by side with the Divine Name—"in God the Father and the Lord Jesus Christ"? An educated Greek, who knew something (as many at that time did) of the Greek translation of the ancient Hebrew Scriptures, if he had picked up this letter before he had ever heard the name of Jesus Christ, would have been deeply interested in these opening words. He would have known that "Jesus" was the Greek form of Joshua; that "Christ" was the Greek rendering of Messiah, or Anointed, the title of the great King for whom the Jews were looking; he might further have remembered that "the Lord" is the expression which the Greek Old Testament constantly uses instead of the ineffable name of God, which we now call "Jehovah" (*q.v.*). Who, then, he might well ask is this Jesus Christ who is lifted to this unexampled height? For it is plain that Jesus Christ stands in some close relation to "God the Father," and that on the ground of that relation a society has been built up, apparently by Jews, in a Greek city far distant from Palestine. He would learn something as he read on; for the letter makes a passing reference to the foundation of the society, and to the expansion of its influence in other parts of Greece; to the conversion of its members from heathenism, and to the consequent sufferings at the hands of their heathen neighbours. The writers speak of themselves as "apostles," or messengers, of Christ; they refer to similar societies "in Christ Jesus," which they call "churches of God," in Judaea, and they say that these also suffer from the Jews there, who had "killed the Lord Jesus" some time before. But they further speak of Jesus as "raised from the dead," and they refer to the belief which they had led the society to entertain, that He would come again "from heaven to deliver them from the coming wrath." Moreover, they urge them not to grieve for certain members of the society who have already died, saying that, "if we believe that Jesus died and rose again," we may also be assured that "the dead in Christ will rise" and will live for ever with Him. Thus the letter assumes that its readers already have considerable knowledge as to "the Lord Jesus Christ," and as to His relation to "God the Father," a knowledge derived from teaching given in person on a former visit. The purpose of the letter is not to give information as to the past, but to stimulate its readers to perseverance by giving fresh teaching as to the future. Historically it is of great value as showing how widely within twenty or twenty-five years of the Crucifixion a religion which proclaimed developed theological teaching as to "the Lord Jesus Christ" had spread in the Roman Empire. We may draw a further conclusion from this and other letters of St Paul before we go on. St Paul's missionary work must have created a demand. Those who had heard him and read his letters would want to know more than he had told them of the earthly life of the Lord Jesus. They would wish to be able to picture Him to their minds; and especially to understand what could have led to His being put to death by the Romans at the requisition of the Jews. St Paul had not been one of his personal disciples in Galilee or Jerusalem; he had no memories to relate of His miracles and teaching. Some written account of these was an obvious need. And we may be sure that any such narrative concerning One who was so deeply reverenced would be most carefully scrutinized at a time when many were still living whose memories went back to the period of Our Lord's public ministry. One such narrative we now proceed to describe.

2. *St Mark's Gospel.*—The Gospel according to St Mark was written within fifteen years of the first letter of St Paul to the Thessalonians—*i.e.* about 65. It seems designed to meet the requirements of Christians living far away from Palestine. The author was not an eye-witness of what he relates, but he writes with the firm security of a man who has the best authority behind him. The characteristics of his work confirm the early belief that St Mark wrote this Gospel for the Christians of Rome under the guidance of St Peter. It is of the first importance that

we should endeavour to see this book as a whole; to gain the total impression which it makes on the mind; to look at the picture of Jesus Christ which it offers. That picture must inevitably be an incomplete representation of Him; it will need to be supplemented by other pictures which other writers have drawn. But it is important to consider it by itself, as showing us what impress the Master had made on the memory of one disciple who had been almost constantly by His side.

Beginning of Christ's Mission.

The book opens thus: "The beginning of the Gospel of Jesus Christ." This "beginning" is shown to be itself rooted in the past. Hebrew prophets had foretold that God would send a "messenger"; that a voice would be heard saying, "Prepare the way of the Lord." And so, in fact, John came, baptizing in the wilderness and turning the heart of the nation back to God. But John was only a forerunner. He was himself a prophet, and his prophecy was this, "He that is stronger than I am is coming after me." Then, we read, "Jesus came." St Mark introduces Him quite abruptly, just as he had introduced John; for he is writing for those who already know the outlines of the story. "Jesus came from Nazareth of Galilee." He was baptized by John, and as He came out of the water He had a vision of the opened heavens and the Holy Spirit, like a dove, descending upon Him; and He heard a Voice saying, "Thou art My Son, the Beloved: in Thee I am well pleased." He then passed away into the wilderness, where He was tempted by Satan and fed by angels. Then He begins His work; and from the very first we feel that He fulfils John's sign: He is strong. His first words are words of strength; "the time is fulfilled"—that is to say, all the past has been leading up to this great moment; "the kingdom of God is at hand"—that is to say, all your best hopes are on the point of being fulfilled; "repent, and believe the Gospel"—that is to say, turn from your sins and accept the tidings which I bring you. It is but a brief summary of what He must have said; but we feel its strength. He does not hesitate to fix all eyes upon Himself. Then we see Him call two brothers who are fishermen. "Come after Me," He says, "and I will make you fishers of men." They dropped their nets and went after Him, and so did two other brothers, their partners; for they all felt the power of this Master of men: He was strong. He began to teach in the synagogue; they were astonished at His teaching, for he spoke with authority. He was interrupted by a demoniac, but He quelled the evil spirit by a word; He was stronger than the power of evil. When the sun set the Sabbath was at an end, and the people could carry out their sick into the street where He was; and He came forth and healed them all. The demoniacs showed a strange faculty of recognition, and cried that He was "the holy one of God," and "the Christ," but He silenced them at once. The next morning He was gone. He had sought a quiet spot for prayer. Peter, one of those fishermen whom He had called, whose wife's mother had been healed the day before, found Him and tried to bring Him back. "All men are seeking Thee," he pleaded. "Let us go elsewhere" was the quiet reply of one who could not be moved by popular enthusiasm. Once again, we observe, He fulfils John's sign: He is strong. This is our first sight of Jesus Christ. The next shows us that this great strength is united to a most tender sympathy. To touch a leper was forbidden, and the offence involved ceremonial defilement. Yet when a leper declared that Jesus could heal him, if only He would, "He put forth His hand and touched him." The act perfected the leper's faith, and he was healed immediately. But he disobeyed the command to be silent about the matter, and the result was that Jesus could not openly enter into the town, but remained outside in the country. It is the first shadow that falls across His path; His power finds a check in human wilfulness. Presently He is in Capernaum again. He heals a paralysed man, but not until He has come into touch, as we say, with him also, by reaching his deepest need and declaring the forgiveness of his sins. This declaration disturbs the rabbis, who regard it as a blasphemous usurpation of Divine authority. But He claims that "the Son of Man hath authority on earth to forgive sins." The title which He thus adopts must be considered later.

Attitude towards Religious Tradition.

We may note, as we pass on, that He has again, in the exercise of His power and His sympathy, come into conflict with the established religious tradition. This freedom from the trammels of convention appears yet again when he claims as a new disciple a publican, a man whose calling as a tax-gatherer for the Roman government made him odious to every patriotic Jew. Publicans were classed with open sinners; and when Jesus went to this man's house and met a company of his fellows the rabbis were scandalized: "Why eateth your Master with publicans and sinners?" The gentle answer of Jesus showed His sympathy even with those who opposed Him: "The doctor," He said, "must go to the sick." And again, when they challenged His disciples for not observing the regular fasts, He gently reminded them that they themselves relaxed the discipline of fasting for a bridegroom's friends. And He added, in picturesque and pregnant sayings, that an old garment could not bear a new patch, and that old wine-skins could not take new wine. Such language was at once gentle and strong; without condemning the old, it claimed liberty for the new. To what lengths would this liberty go? The sacred badge of the Jews' religion, which marked them off from other men all the world over, was their observance of the Sabbath. It was a national emblem, the test of religion and patriotism. The rabbis had fenced the Sabbath round with minute commands, lest any Jews should even seem to work on the Sabbath day. Thus, plucking and rubbing the ears of corn was counted a form of reaping and threshing. The hungry disciples had so transgressed as they walked through the fields of ripe corn. Jesus defended them by the example of David, who had eaten the shewbread, which only priests might eat, and had given it to his hungry men. Necessity absolves from ritual restrictions. And he went farther, and proclaimed a principle: "The Sabbath was made for man, and not man for the Sabbath, so that the Son of Man is lord even of the Sabbath." For a second time, in justifying His position, He used the expression "the Son of Man." The words might sound to Jewish ears merely as a synonym for "man." For Himself, and possibly for some others, they involved a reference, as appears later, to the "one like to a son of man" in Daniel's prophecy of the coming kingdom. They emphasized His relation to humanity as a whole, in contrast to such narrower titles as "Son of Abraham" or "Son of David." They were fitted to express a wider mission than that of a merely Jewish Messiah: He stood and spoke for mankind. The controversy was renewed when a man with a withered hand appeared in the synagogue on the Sabbath, and the rabbis watched to see whether Jesus would heal him. For the first time, we read that Jesus was angry. They were wilfully blind, and they would rather not see good done than see it done in a way that contradicted their teachings and undermined their influence. After a sharp remonstrance, He healed the man by a mere word. And they went out to make a compact with the followers of the worldly Herod to kill Him, and so to stave off a religious revolution which might easily have been followed by political trouble.

Recapitulation.

Up to this point what have we seen? On the stage of Palestine, an outlying district of the Roman Empire, the home of the Jewish nation, now subject but still fired with the hope of freedom and even of universal domination under the leadership of a divinely anointed King, a new figure has appeared. His appearance has been announced by a reforming prophet, who has summoned the nation to return to its God, and promised that a stronger than himself is to follow. In fulfilment of this promise, who is it that has come? Not a rough prophet in the desert like John, not a leader striking for political freedom, not a pretender aiming at the petty throne of the Herods, not even a great rabbi, building on the patriotic foundation of the Pharisees who had secured the national life by a new devotion to the ancient law. None of these, but, on the contrary, an unknown figure from the remote hills of Galilee, standing on the populous shores of its lake, proclaiming as

a message from God that the highest hopes were about to be fulfilled, fastening attention on Himself by speaking with authority and attaching a few followers to His person, exhibiting wonderful powers of healing as a sign that He has come to fulfil all needs, manifesting at the same time an unparalleled sympathy, and setting quietly aside every religious convention which limited the outflow of this sympathy; and as the result of all this arousing the enthusiasm of astonished multitudes and evoking the opposition and even the murderous resentment of the religious guides of the nation. Of His teaching we have heard nothing, except in the occasional sentences by which He justified some of His unexpected actions. No party is formed, no programme is announced, no doctrine is formulated; without assuming the title of Messiah, He offers Himself as the centre of expectation, and seems to invite an unlimited confidence in His person. This, then, in brief summary, is what we have seen: the natural development of an historical situation, a march of events leading rapidly to a climax; an unexampled strength and an unexampled sympathy issuing inevitably in an unexampled liberty; and then the forces of orthodox religion combining with the forces of worldly indifference in order to suppress a dangerous innovator. Yet the writer who in a few pages presents us with so remarkable a representation shows no consciousness at all of artistic treatment. He tells a simple tale in the plainest words: he never stops to offer a comment or to point a moral. The wonder of it all is not in the writing, but in the subject itself. We feel that we have here no skilful composition, but a bare transcript of what occurred. And we feel besides that such a narrative as this is the worthy commencement of an answer to the question with which its readers would have come to it: What was the beginning of the Gospel? How did the Lord Jesus speak and act? and why did He arouse such malignant enmity amongst His own people?

We have followed St Mark's narrative up to the point at which it became clear that conciliatory argument could have no effect upon the Jewish religious leaders. The controversy about the Sabbath had brought their dissatisfaction to a climax. Henceforth Jesus was to them a revolutionary, who must, by any means, be suppressed. After this decisive breach a new period opens. Jesus leaves Capernaum, never again, it would seem, to appear in its synagogue. Henceforward He was to be found, with His disciples, on the shore of the lake, where vast multitudes gathered round Him, drawn not only from Galilee and Judaea, but also from the farther districts north and east of these. He would take refuge from the crowds in a boat, which carried Him from shore to shore; and His healing activity was now at its height. Yet in the midst of this popular enthusiasm He knew that the time had come to prepare for a very different future, and accordingly a fresh departure was made when He selected twelve of His disciples for a more intimate companionship, with a view to a special mission: "He appointed twelve that they might be with Him, and that He might send them forth to preach and to have power to cast out the devils." The excitement and pressure of the crowds was at this time almost overwhelming, and the relatives of Jesus endeavoured to restrain Him; "for they said, He is mad." The scribes from Jerusalem offered a more sinister explanation, saying that He was possessed by the prince of the devils, and that this was why He was able to control all the evil spirits. He answered them first in figurative language, speaking of the certain downfall of a kingdom or a family divided against itself, and of the strong man's house which could not be looted unless the strong man were first bound. Then followed the tremendous warning, that to assign His work to Satan, and so to call good evil, was to blaspheme against the Holy Spirit—the one sin which admitted of no forgiveness. Presently, when He was told that His mother and brethren were calling for Him, He disclaimed their interference by pointing to a new circle of family relationship, consisting of all those who "do the will of God."

Again we find Him teaching by the lake, and the pressure of the multitude is still so great that He sits in a boat while they line the shore. For the first time we are allowed to hear how He taught them. He gives them a parable from nature—the sower's three kinds of failure, compensated by the rich produce of the good soil. At the close He utters the pregnant saying: "He that hath ears to hear let him hear." When His disciples afterwards asked for an explanation, He prefaced it by saying that the inner circle only were intended to understand. The disciples might learn that the message would often prove fruitless, but that nevertheless an abundant harvest would result. For the light was intended to shine, and the hidden was meant to be revealed. Another parable compared the kingdom of God to seed which, when once planted, must inevitably germinate; the process was secret and slow, but the harvest was certain. Again, it was like the tiny mustard-seed which grew out of all proportion to its original size, till the birds could shelter in its great branches. These enigmatic speeches were all that the multitudes got, but the disciples in private were taught their lesson of hope. As we review this teaching it is very remarkable. The world of common things is seen to be a lesson-book of the kingdom of God to those who have eyes to read it. What that kingdom is to be we are not told; we are only taught that its coming is secret, slow and certain. If nature in its ordinary processes was thus seen to be full of significance, the disciples were also to learn that it was under His control. As the boat from which He had been teaching passed to the other side, the tired Teacher slept. A sudden storm terrified the disciples, and they roused Him in alarm. He stilled the storm with a word and rebuked their want of faith. "Who then is this," they whispered with awe, "that even the wind and the sea obey Him?" On the opposite hills a solitary spectator had watched the rise and the lull of the tempest, a fierce demoniac who dwelt among the tombs on the mountain-side. He believed himself to be possessed by a regiment of demons. When Jesus bade them go forth, he begged that they might be allowed to enter into a herd of swine which was hard by. His request was granted, and the swine rushed over a steep place into the lake. It is worth while to note that while most of the cures which Jesus had performed appear to have belonged to this class, this particular case is described as an exceptionally severe one, and the visible effect of the removal of his tormentors may have greatly helped to restore the man's shattered personality.

Christ's Teaching.

We must not attempt to trace in detail the whole of St Mark's story. We have followed it long enough to see its directness and simplicity, to observe the naturalness with which one incident succeeds another, and to watch the gradual manifestation of a personality at once strong and sympathetic, wielding extraordinary powers, which are placed wholly at the service of others, and refusing to be hindered from helping men by the ordinary restrictions of social or religious custom. And we have seen as the consequence of all this the development of an historical situation in which the leaders of current orthodoxy ally themselves with the indifferentism which accepts existing political conditions in order to put down a disturber of the peace. We must now be content with a broader survey of the course of events.

Two notable cures were wrought on the western side of the lake—the healing of the woman with the issue and the raising of Jairus's daughter. In each of these cures prominence is given to the requirement and the reward of faith—that is to say, of personal confidence in the Healer: "Thy faith hath made thee whole." "Fear not, only believe." After this Jesus passed away from the enthusiastic crowds by the lake to visit His own Nazareth, and to find there a strange incredulity in regard to one whom the villagers knew as the carpenter. Once more we come across a mysterious limitation of His powers: "He could not do there any miracle," save the cure of a few sick folk; and He marvelled because of their want of faith. The moment had now come when the twelve disciples were to be entrusted with a share of His healing power and with the proclamation of repentance. While they are journeying two and two in various directions St Mark takes occasion to tell us the current conjectures as to who Jesus really was. Some

Healing Powers.

thought him Elijah or one of the ancient prophets returned to earth—a suggestion based on popular tradition; others said He was John the Baptist risen from the dead—the superstition of Herod who had put him to death. When the disciples returned, Jesus took them apart for rest; but the crowds reassembled when they found Him again near the lake, and His yearning compassion for these shepherdless sheep led Him to give them an impressive sign that He had indeed come to supply all human needs. Hitherto His power had gone forth to individuals, but now He fed five thousand men from the scanty stock of five loaves and two fishes. That night He came to His disciples walking upon the waters, and in the period which immediately followed there was once more a great manifestation of healing power.

We have heard nothing for some time of any opposition; but now a fresh conflict arose with certain scribes who had come down from Jerusalem, and who complained that the disciples neglected the ceremonial washing of their hands before meals. Jesus replied with a stern rebuke, addressing the questioners as hypocrites, and exposing the falsity of a system which allowed the breach of fundamental commandments in order that traditional regulations might be observed. He then turned from them to the multitude, and uttered a saying which in effect annulled the Jewish distinction between clean and unclean meats. This was a direct attack on the whole Pharisaic position. The controversy was plainly irreconcilable, and Jesus withdrew to the north, actually passing outside the limits of the Holy Land. He desired to remain unknown, and not to extend His mission to the heathen population, but the extraordinary faith and the modest importunity of a Syrophenician woman induced Him to heal her daughter. Then He returned by a circuitous route to the Sea of Galilee. His return was marked by another miraculous feeding of the multitude, and also by two healing miracles which present unusual features. In both the patient was withdrawn from the multitude and the cure was wrought with the accompaniment of symbolic actions. Moreover, in one case Jesus is described as groaning before He spoke; in the other the cure was at first incomplete; and both of the men were strictly charged to observe silence afterwards. It cannot be a mere coincidence that these are the last cures which St Mark records as performed in Galilee.

Opposition of the Scribes.

In fact the Galilean ministry is now closed. Jesus retires northwards to Caesarea Philippi, and appears henceforth to devote Himself entirely to the instruction of his disciples, who needed to be prepared for the fatal issue which could not long be delayed. He begins by asking them the popular opinion as to His Person. The suggestions are still the same—John the Baptist, or Elijah, or some other of the prophets. But when He asked their own belief, Peter replied, "Thou art the Christ." He warned them not to make this known; and He proceeded to give them the wholly new teaching that the Son of Man must suffer and be killed, adding that after three days He must rise again. Peter took Him aside and urged Him not to speak so. But He turned to the other disciples and openly rebuked Peter. And then, addressing a yet wider circle, He demanded of those who should follow Him a self-sacrifice like His own. He even used the metaphor of the cross which was carried by the sufferer to the place of execution. Life, he declared, could only be saved by voluntary death. He went on to demand an unswerving loyalty to Himself and His teaching in the face of a threatening world; and then He promised that some of those who were present should not die before they had seen the coming of the kingdom of God. We have had no hint of such teaching as this in the whole of the Galilean ministry. Jesus had stood forth as the strong healer and helper of men; it was bewildering to hear Him speak of dying. He had promised to fulfil men's highest expectations, if only they would not doubt His willingness and power. He had been enthusiastically reverenced by the common people, though suspected and attacked by the religious leaders. He had spoken of "the will of God" as supreme, and had set aside ceremonial traditions. He had announced the nearness of the kingdom of God, but had described it only in parables from nature. He had adopted the vague title of the "Son of Man," but had refrained from proclaiming Himself as the expected Messiah. At last the disciples had expressed their conviction that He was the Christ, and immediately He tells them that He goes to meet humiliation and death as the necessary steps to a resurrection and a coming of the Son of Man in the glory of His Father. It was an amazing announcement and He plainly added that their path like His own lay through death to life. The dark shadows of this picture of the future alone could impress their minds, but a week later three of them were allowed a momentary vision of the light which should overcome the darkness. They saw Jesus transfigured in a radiance of glory: Elijah appeared with Moses, and they talked with Jesus. A cloud came over them, and a Voice, like that of the Baptism, proclaimed "This is My Son, the Beloved: hear ye Him." They were bidden to keep the vision secret till the Son of Man should have risen from the dead. It was in itself a foretaste of resurrection, and the puzzled disciples remembered that the scribes declared that before the resurrection Elijah would appear. Their minds were confused as to what resurrection was meant. Jesus told them that Elijah had in fact come; and He also said that the Scriptures foretold the sufferings of the Son of Man. But the situation was wholly beyond their grasp, and the very language of St Mark at this point seems to reflect the confusion of their minds.

Messianic Teaching.

The other disciples, in the meantime, had been vainly endeavouring to cure a peculiarly violent case of demoniacal possession. Jesus Himself cast out the demon, but not before the suffering child had been rendered seemingly lifeless by a final assault. Then they journeyed secretly through Galilee towards Judaea and the eastern side of the Jordan. On the way Jesus reinforced the new lesson of self-renunciation. He offered the little children as the type of those to whom the kingdom of God belonged; and He disappointed a young and wealthy aspirant to His favour, amazing His disciples by saying that the kingdom of God could hardly be entered by the rich; he who forsook all should have all, and more than all; the world's estimates were to be reversed—the first should be last and the last first. They were now journeying towards Jerusalem, and the prediction of the Passion was repeated. James and John, who had witnessed the Transfiguration, and who were confident of the coming glory, asked for the places nearest to their Master, and professed their readiness to share His sufferings. When the other ten were aggrieved Jesus declared that greatness was measured by service, not by rank; and that the Son of Man had come not to be served but to serve, and to give His life to ransom many other lives. As they came up from the Jordan valley and passed through Jericho, an incident occurred which signalized the beginning of the final period. A blind man appealed to Jesus as "the Son of David," and was answered by the restoration of his sight; and when, a little later, Jesus fulfilled an ancient prophecy by mounting an ass and riding into Jerusalem, the multitudes shouted their welcome to the returning "kingdom of David." Hitherto He had not permitted any public recognition of His Messiahship, but now He entered David's city in lowly but significant pomp as David's promised heir.

Entry into Jerusalem.

Two incidents illustrate the spirit of judgment with which He approached the splendid but apostate city. On His arrival He had carefully observed the condition of the Temple, and had retired to sleep outside the city. On the following morning, finding no fruit on a fig-tree in full leaf, He said, "Let no man eat fruit of thee henceforth for ever." It was a parable of impending doom. Then, when He entered the Temple, He swept away with a fiery zeal the merchants and merchandise which had turned God's House into "a robbers' den." The act was at once an assertion of commanding authority and an open condemnation of the religious rulers who had permitted the desecration. Its immediate effect was to make new and powerful enemies; for the chief priests, as well as their rivals the scribes, were now inflamed against Him. At the moment they could do nothing, but the next day they formally

demanded whence He derived His right so to act. When they refused to answer His question as to the authority of John the Baptist He in turn refused to tell them His own. But He uttered a parable which more than answered them. The owner of the vineyard, who had sent his servants and last of all his only son, would visit their rejection and murder on the wicked husbandmen. He added a reminder that the stone which the builders refused was, after all, the Divine choice. They were restrained from arresting Him by fear of the people, to whom the meaning of the parable was plain. They therefore sent a joint deputation of Pharisees and Herodians to entrap Him with a question as to the Roman tribute, in answering which He must either lose His influence with the people or else lay Himself open to a charge of treason. When they were baffled, the Sadducees, to whose party the chief priests belonged, sought in vain to pose Him with a problem as to the resurrection of the dead; and after that a more honest scribe confessed the truth of His teaching as to the supremacy of love to God and man over all the sacrificial worship of the Temple, and was told in reply that he was not far from the kingdom of God. Jesus Himself now put a question as to the teaching of the scribes which identified the Messiah with "the Son of David"; and then He denounced those scribes whose pride and extortion and hypocrisy were preparing for them a terrible doom. Before He left the Temple, never to return, one incident gave Him pure satisfaction. His own teaching that all must be given for God was illustrated by the devotion of a poor widow who cast into the treasury the two tiny coins which were all that she had. As He passed out He foretold, in words which corresponded to the doom of the fig-tree, the utter demolition of the imposing but profitless Temple; and presently He opened up to four of His disciples a vision of the future, warning them against false Christs, bidding them expect great sorrows, national and personal, declaring that the gospel must be proclaimed to all the nations, and that after a great tribulation the Son of Man should appear, "coming with the clouds of heaven." The day and the hour none knew, neither the angels nor the Son, but only the Father: it was the duty of all to watch.

Final Scenes.

We now come to the final scenes. The passover was approaching, and plots were being laid for His destruction. He Himself spoke mysteriously of His burial, when a woman poured a vase of costly ointment upon His head. To some this seemed a wasteful act; but He accepted it as a token of the love which gave all that was in its power, and He promised that it should never cease to illustrate His Gospel. Two of the disciples were sent into Jerusalem to prepare the Passover meal. During the meal Jesus declared that He should be betrayed by one of their number. Later in the evening He gave them bread and wine, proclaiming that these were His body and His blood—the tokens of His giving Himself to them, and of a new covenant with God through His death. As they withdrew to the Mount of Olives He foretold their general flight, but promised that when He was risen He would go before them into Galilee. Peter protested faithfulness unto death, but was told that he would deny his Master three times that very night. Then coming to a place called Gethsemane, He bade the disciples wait while He should pray; and taking the three who had been with Him at the Transfiguration He told them to tarry near Him and to watch. He went forward, and fell on the ground, praying that "the cup might be taken away" from Him, but resigning Himself to His Father's will. Presently Judas arrived with a band of armed men, and greeted his Master with a kiss—the signal for His arrest. The disciples fled in panic, after one of them had wounded the high priest's servant. Only a nameless young man tried to follow, but he too fled when hands were laid upon him. Before the high priest Jesus was charged, among other accusations, with threatening to destroy the Temple; but the matter was brought to an issue when He was plainly asked if He were "the Christ, the Son of the Blessed One." He answered that He was, and He predicted that they should see the fulfilment of Daniel's vision of the Son of Man sitting on the right hand of power. Thereupon He was condemned to death for manifest blasphemy, and a scene of cruel mockery followed. Meanwhile Peter in the court below had been sitting with the servants, and in his anxiety to escape recognition had thrice declared that he did not know Jesus. Thus the night passed, and in the morning Jesus was taken to Pilate, for the Jewish council had no power to execute their decree of death. Pilate's question, "Art Thou the King of the Jews?" shows the nature of the accusation which was thought likely to tell with the Roman governor. He had already in bonds one leader of revolution, whose hands were stained with blood—a striking contrast to the calm and silent figure who stood before him. At this moment a crowd came up to ask the fulfilment of his annual act of grace, the pardon of a prisoner at the Passover. Pilate, discerning that it was the envy of the rulers which sought to destroy an inconvenient rival, offered "the King of the Jews" as the prisoner to be released. But the chief priests succeeded in making the people ask for Barabbas and demand the crucifixion of Jesus. Pilate fulfilled his pledge by giving them the man of their choice, and Jesus, whom he had vainly hoped to release on a satisfactory pretext, he now condemned to the shameful punishments of scourging and crucifixion; for the cross, as Jesus had foreseen, was the inevitable fate of a Jewish pretender to sovereignty. The Roman soldiers mocked "the King of the Jews" with a purple robe and a crown of thorns. As they led Him out they forced the cross, which the sufferer commonly carried, upon the shoulders of one Simon of Cyrene, whose sons Alexander and Rufus are here mentioned—probably as being known to St Mark's readers; at any rate, it is interesting to note that, in writing to the Christians at Rome, St Paul a few years earlier had sent a greeting to "Rufus and his mother." Over the cross, which stood between two others, was the condemnatory inscription, "The King of the Jews." This was the Roman designation of Him whom the Jewish rulers tauntingly addressed as "the King of Israel." The same revilers, with a deeper truth than they knew, summed up the mystery of His life and death when they said, "He saved others, Himself He cannot save."

A great darkness shrouded the scene for three hours, and then, in His native Aramaic, Jesus cried in the words of the Psalm, "My God, My God, why has Thou forsaken Me?" One other cry He uttered, and the end came, and at that moment the veil of the Temple was rent from top to bottom—an omen of fearful import to those who had mocked Him, even on the cross, as the destroyer of the Temple, who in three days should build it anew. The disciples of Jesus do not appear as spectators of the end, but only a group of women who had ministered to His needs in Galilee, and had followed Him up to Jerusalem. These women watched His burial, which was performed by a Jewish councillor, to whom Pilate had granted the body after the centurion had certified the reality of the unexpectedly early death. The body was placed in a rock-hewn tomb, and a great stone was rolled against the entrance. Sunset brought on the Jewish sabbath, but the next evening the women brought spices to anoint the body, and at sunrise on the third day they arrived at the tomb, and saw that the stone was rolled away. They entered and found a young man in a white robe, who said, "He is risen, He is not here," and bade them say to His disciples and Peter, "He goeth before you into Galilee; there ye shall see Him, as He said unto you." In terror they fled from the tomb, "and they said nothing to any man, for they feared . . ."

So with a broken sentence the narrative ends. The document is imperfect, owing probably to the accidental loss of its last leaf. In very early times attempts were made to furnish it with a fitting close; but neither of the supplements which we find in manuscripts can be regarded as coming from the original writer. If we ask what must, on grounds of literary probability, have been added before the record was closed, we may content ourselves here with saying that some incident must certainly have been narrated which should have realized the twice-repeated promise that Jesus would be seen by His disciples in Galilee.

3. *Document used by St Matthew and St Luke.*—We pass on now to compare with this narrative of St Mark another very early

document which no longer exists in an independent form, but which can be partially reconstructed from the portions of it which have been embodied in the Gospels of St Matthew and St Luke.

When we review St Mark's narrative as a whole we are struck, first of all, with its directness and simplicity. It moves straightforward upon a well-defined path. It shows us the Lord Jesus entering on the mission predicted by the Baptist without declaring Himself to be the Messiah; attracting the multitudes in Galilee by His healing power and His unbounded sympathy, and at the same time awakening the envy and suspicion of the leaders of religion; training a few disciples till they reach the conviction that He is the Christ, and then, but not till then, admitting them into the secret of His coming sufferings, and preparing them for a mission in which they also must sacrifice themselves; then journeying to Jerusalem to fulfil the destiny which He foresaw, accepting the responsibility of the Messianic title, only to be condemned by the religious authorities as a blasphemer and handed over to the Roman power as a pretender to the Jewish throne. That is the story in its barest outline. It is adequate to its presumed purpose of offering to distant Gentile converts a clear account of their Master's earthly work, and of the causes which led to His rejection by His own people and to His death by Roman crucifixion. The writer makes no comment on the wonderful story which he tells. Allusions to Jewish customs are, indeed, explained as they occur, but apart from this the narrative appears to be a mere transcript of remembered facts. The actors are never characterized; their actions are simply noted down; there is no praise and no blame. To this simplicity and directness of narrative we may in large measure attribute the fact that when two later evangelists desired to give fuller accounts of our Lord's life they both made this early book the basis of their work. In those days there was no sense of unfairness in using up existing materials in order to make a more complete treatise. Accordingly so much of St Mark's Gospel has been taken over word for word in the Gospels of St Luke and St Matthew that, if every copy of it had perished, we could still reconstruct large portions of it by carefully comparing their narratives. They did not hesitate, however, to alter St Mark's language where it seemed to them rough or obscure, for each of them had a distinctive style of his own, and St Luke was a literary artist of a high order. Moreover, though they both accepted the general scheme of St Mark's narrative, each of them was obliged to omit many incidents in order to find room for other material which was at their disposal, by which they were able to supplement the deficiencies of the earlier book. The most conspicuous deficiency was in regard to our Lord's teaching, of which, as we have seen, St Mark had given surprisingly little. Here they were happily in a position to make a very important contribution.

For side by side with St Mark's Gospel there was current in the earliest times another account of the doings and sayings of Jesus Christ. Our knowledge of it to-day is entirely derived from a comparison of the two later evangelists who embodied large portions of it, working it in and out of the general scheme which they derived from St Mark, according as each of them thought most appropriate. St Luke appears to have taken it over in sections for the most part without much modification; but in St Matthew's Gospel its incidents seldom find an independent place; the sayings to which they gave rise are often detached from their context and grouped with sayings of a similar character so as to form considerable discourses, or else they are linked on to sayings which were uttered on other occasions recorded by St Mark. It is probable that many passages of St Luke's Gospel which have no parallel in St Matthew were also derived from this early source; but this is not easily capable of distinct proof; and, therefore, in order to gain a secure conception of the document we must confine ourselves at first to those parts of it which were borrowed by both writers. We shall, however, look to St Luke in the main as preserving for us the more nearly its original form.

We proceed now to give an outline of the contents of this document. To begin with, it contained a fuller account of the teaching of John the Baptist. St Mark tells us only his message of hope; but here we read the severer language with which he called men to repentance. We hear his warning of "the coming wrath": his mighty Successor will baptize with fire; the fruitless tree will be cast into the fire; the chaff will be separated from the wheat and burned with unquenchable fire; the claim to be children of Abraham will not avail, for God can raise up other children to Abraham, if it be from the stones of the desert. Next, we have a narrative of the Temptation, of which St Mark had but recorded the bare fact. It was grounded on the Divine sonship, which we already know was proclaimed at the Baptism. In a threefold vision Jesus is invited to enter upon His inheritance at once; to satisfy His own needs, to accept of earthly dominion, to presume on the Divine protection. The passage stands almost alone as a revelation of inner conflict in a life which outwardly was marked by unusual calm.

Not far from the beginning of the document there stood a remarkable discourse delivered among the hills above the lake. It opens with a startling reversal of the common estimates of happiness and misery. In the light of the coming kingdom it proclaims the blessedness of the poor, the hungry, the sad and the maligned; and the wofulness of the rich, the full, the merry and the popular. It goes on to reverse the ordinary maxims of conduct. Enemies are to be loved, helped, blessed, prayed for. No blow is to be returned; every demand, just or unjust, is to be granted: in short, "as ye desire that men should do to you, do in like manner to them." Then the motive and the model of this conduct are adduced: "Love your enemies . . . and ye shall be sons of the Highest; for He is kind to the thankless and wicked. Be merciful, as your Father is merciful; and judge not, and ye shall not be judged." We note in passing that this is the first introduction of our Lord's teaching of the fatherhood of God. God is your Father, He says in effect; you will be His sons if like Him you will refuse to make distinctions, loving without looking for a return, sure that in the end love will not be wholly lost. Then follow grave warnings—generous towards others, you must be strict with yourselves; only the good can truly do good; hearers of these words must be doers also, if they would build on the rock and not on the sand. So, with the parable of the two builders, the discourse reached its formal close. ***The Sermon on the Mount.***

It was followed by the entry of Jesus into Capernaum, where He was asked to heal the servant of a Roman officer. This man's unusual faith, based on his soldierly sense of discipline, surprised the Lord, who declared that it had no equal in Israel itself. Somewhat later messengers arrived from the imprisoned Baptist, who asked if Jesus were indeed "the coming One" of whom he had spoken. Jesus pointed to His acts of healing the sick, raising the dead and proclaiming good news for the poor; thereby suggesting to those who could understand that He fulfilled the ancient prophecy of the Messiah. He then declared the greatness of John in exalted terms, adding, however, that the least in the kingdom of God was John's superior. Then He complained of the unreasonableness of an age which refused John as too austere and Himself as too lax and as being "the friend of publicans and sinners." This narrative clearly presupposes a series of miracles already performed, and also such a conflict with the Pharisees as we have seen recorded by St Mark. Presently we find an offer of discipleship met by the warning that "the Son of Man" is a homeless wanderer; and then the stern refusal of a request for leave to perform a father's funeral rites.

Close upon these incidents follows a special mission of disciples, introduced by the saying: "The harvest is great, but the labourers are few." The disciples as they journey are to take no provisions, but to throw themselves on the bounty of their hearers; they are to heal the sick and to proclaim the nearness of the kingdom of God. The city that rejects them shall have a less lenient judgment than Sodom; Tyre and Sidon shall be better off than cities like Chorazin and Bethsaida which have seen His miracles; ***Other Sayings of Jesus.***

Capernaum, favoured above all, shall sink to the deepest depth. If words could be sterner than these, they are those which follow: "He that heareth you heareth Me; and he that rejecteth you rejecteth Me; but He that rejecteth Me rejecteth Him that sent Me." This reference to His own personal mission is strikingly expanded in words which He uttered on the return of the disciples. After thanking the Father for revealing to babes what He hides from the wise, He continued in mysterious language: "All things are delivered to Me by My Father; and none knoweth who the Son is but the Father; and who the Father is but the Son, and he to whom the Son chooseth to reveal Him." Happy were the disciples in seeing and hearing what prophets and kings had looked for in vain.

When His disciples, having watched Him at prayer, desired to be taught how to pray, they were bidden to address God as "Father"; to ask first for the hallowing of the Father's name, and the coming of His kingdom; then for their daily food, for the pardon of their sins and for freedom from temptation. It was the prayer of a family—that the sons might be true to the Father, and the Father true to the sons; and they were further encouraged by a parable of the family: "Ask and ye shall receive. . . . Every one that asketh receiveth": for the heavenly Father will do more, not less, than an earthly father would do for his children. After He had cast out a dumb demon, some said that His power was due to Beelzebub. He accordingly asked them by whom the Jews themselves cast out demons; and He claimed that His power was a sign that the kingdom of God was come. But He warned them that demons cast out once might return in greater force. When they asked for a sign from heaven, He would give them no more than the sign of Jonah, explaining that the repentant Ninevites should condemn the present generation: so, too, should the queen of Sheba; for that which they were now rejecting was more than Jonah and more than Solomon. Yet further warnings were given when a Pharisee invited Him to his table, and expressed surprise that He did not wash His hands before the meal. The cleansing of externals and the tithing of garden-produce, He declares, have usurped the place of judgment and the love of God. Woe is pronounced upon the Pharisees: they are successors to the murderers of the prophets. Then citing from Genesis and 2 Chronicles, the first and last books in the order of the Jewish Bible, He declared that all righteous blood from that of Abel to that of Zachariah should be required of that generation. After this the disciples are encouraged not to fear their murderous opponents. The very sparrows are God's care—much more shall they be; the hairs of their head are all counted. In the end the Son of Man will openly own those who have owned Him before men. For earthly needs no thought is to be taken: the birds and the flowers make no provision for their life and beauty. God will give food and raiment to those who are seeking His kingdom. Earthly goods should be given away in exchange for the imperishable treasures. Suddenly will the Son of Man come: happy the servant whom His Master finds at his appointed task. In brief parables the kingdom of God is likened to a mustard-seed and to leaven. When Jesus is asked if the saved shall be few, He replies that the door is a narrow one. Then, changing His illustration, He says that many shall seek entrance in vain; for the master of the house will refuse to recognize them. But while they are excluded, a multitude from all quarters of the earth shall sit down with Abraham, Isaac and Jacob, and the prophets in the kingdom of God.

His eyes are now fixed on Jerusalem, where, like the prophets, He must die. "Jerusalem, Jerusalem, how often have I desired to gather thy children together, as a bird her brood beneath her wings, but ye refused." "Ye shall not see Me, until ye shall say, Blessed is He that cometh in the name of the Lord." After this we have the healing of a dropsical man on the Sabbath, with a reply to the murmuring Pharisees; and then a parable of the failure of invited guests and the filling of their places from the streets. A few fragmentary passages remain, of which it will be sufficient to cite a word or two to call them to remembrance. There is a warning that he who forsakes not father and mother cannot be a disciple, nor he who does not bear his cross. Savourless salt is fit for nothing. The lost sheep is brought home with a special joy. "Ye cannot serve God and Mammon." Scandals must arise, but woe to him through whom they arise. The Son of Man will come with the suddenness of lightning; the days of Noah and the days of Lot will find a parallel in their blind gaiety and their inevitable disaster. He who seeks to gain his life will lose it. "One shall be taken, and the other left." "Where the carcase is, the vultures will gather." Then, lastly, we have a parable of the servant who failed to employ the money entrusted to him; and a promise that the disciples shall sit on twelve thrones to judge the twelve tribes of Israel. We cannot say by our present method of determination, how this document closed; for in the narratives of the Passion and the Resurrection St Matthew and St Luke only coincide in passages which they have taken from St Mark.

Now that we have reconstructed in outline this early account of the Lord Jesus, so far as it has been used by both the later evangelists, we may attempt to compare the picture which it presents to us with that which was offered by St Mark. But in doing so we must remember that we know it only in fragments. There can be little doubt that much more of it is embedded in St Luke's Gospel, and something more also in St Matthew's; but in order to stand on firm ground we have considered thus far only those portions which both of these writers elected to use in composing their later narratives. To go beyond this is a work of delicate discrimination. It can only be effected by a close examination of the style and language of the document, which may enable us in some instances to identify with comparative security certain passages which are found in St Luke, but which St Matthew did not regard as suitable for his purpose. Among these we may venture, quite tentatively, to mention the sermon at Nazareth which opened with a passage from the Book of Isaiah, the raising of the widow's son at Nain, and the parable of the good Samaritan. These are found in St Luke, but not in St Matthew. On the other hand, it is not improbable that the wonderful words which begin, "Come unto Me all ye that labour," were drawn by St Matthew from the same document, though they are not recorded by St Luke. But here we have entered upon a region of less certainty, in which critical scholarship has still much to do; and these passages are mentioned here only as a reminder that the document must have contained more than what St Matthew and St Luke each independently determined to borrow from it. Looking, then, at the portions which we have indicated as having this two-fold testimony, we see that in their fragmentary condition we cannot trace the clear historical development which was so conspicuous a feature of St Mark's Gospel; yet we need not conclude that in its complete form it failed to present an orderly narrative. Next, we see that wherever we are able to observe its method of relating an incident, as in the case of the healing of the centurion's servant, we have the same characteristics of brevity and simplicity which we admired in St Mark. No comment is made by the narrator; he tells his tale in the fewest words and passes on. Again, we note that it supplies just what we feel we most need when we have reached the end of St Mark's story, a fuller account of the teaching which Jesus gave to His disciples and to the people at large. And we see that the substance of that teaching is in complete harmony with the scattered hints that we found in St Mark. If the fatherhood of God stands out clearly, we may remember a passage of St Mark also which speaks of "the Heavenly Father" as forgiving those who forgive. If prayer is encouraged, we may also remember that the same passage of St Mark records the saying: "All things whatsoever ye pray for and ask, believe that ye have received them and ye shall have them." If in one mysterious passage Jesus speaks of "the Father" and "the Son"—terms with which the Gospel of St John has made us familiar—St Mark also in one passage uses the same impressive terms—"the Son" and "the Father." There are, of course, many other parallels with St Mark, and at some points the two documents seem to overlap and to relate the same incidents in

Comparison with St Mark.

somewhat different forms. There is the same use of parables from nature, the same incisiveness of speech and employment of paradox, the same demand to sacrifice all to Him and for His cause, the same importunate claim made by Him on the human soul.

But the contrast between the two writers is even more important for our purpose. No one can read through the passages to which we have pointed without feeling the solemn sternness of the great Teacher, a sternness which can indeed be traced here and there in St Mark, but which does not give its tone to the whole of his picture. Here we see Christ standing forth in solitary grandeur, looking with the eyes of another world on a society which is blindly hastening to its dissolution. It may be that if this document had come down to us in its entirety, we should have gathered from it an exaggerated idea of the severity of our Lord's character. Certain it is that as we read over these fragments we are somewhat startled by the predominance of the element of warning, and by the assertion of rules of conduct which seem almost inconsistent with a normal condition of settled social life. The warning to the nation sounded by the Baptist, that God could raise up a new family for Abraham, is heard again and again in our Lord's teaching. Gentile faith puts Israel to shame. The sons of the kingdom will be left outside, while strangers feast with Abraham. Capernaum shall go to perdition; Jerusalem shall be a desolate ruin. The doom of the nation is pronounced; its fate is imminent; there is no ray of hope for the existing constitution of religion and society. As to individuals within the nation, the despised publicans and sinners will find God's favour before the self-satisfied representatives of the national religion. In such a condition of affairs it is hardly surprising to find that the great and stern Teacher congratulates the poor and has nothing but pity for the rich; that He has no interest at all in comfort or property. If a man asks you for anything, give it him; if he takes it without asking, do not seek to recover it. Nothing material is worth a thought; anxiety is folly; your Father, who feeds His birds and clothes His flowers, will feed and clothe you. Rise to the height of your sonship to God; love your enemies even as God loves His; and if they kill you, God will care for you still; fear them not, fear only Him who loves you all.

The Element of Warning.

Here is a new philosophy of life, offering solid consolation amid the ruin of a world. We have no idea who the disciple may have been who thus seized upon the sadder elements of the teaching of Jesus; but we may well think of him as one of those who were living in Palestine in the dark and threatening years of internecine strife, when the Roman eagles were gathering round their prey, and the first thunder was muttering of the storm which was to leave Jerusalem a heap of stones. At such a moment the warnings of our Lord would claim a large place in a record of His teaching, and the strange comfort which He had offered would be the only hope which it would seem possible to entertain.

4. *Additions by the Gospel according to St Matthew.*—We have now examined in turn the two earliest pictures which have been preserved to us of the life of Jesus Christ. The first portrays Him chiefly by a record of His actions, and illustrates His strength, His sympathy, and His freedom from conventional restraints. It shows the disturbing forces of these characteristics, which aroused the envy and apprehension of the leaders of religion. The first bright days of welcome and popularity are soon clouded: the storm begins to lower. More and more the Master devotes Himself to the little circle of His disciples, who are taught that they, as well as He, can only triumph through defeat, succeed by failure, and find their life in giving it away. At length, in fear of religious innovations and pretending that He is a political usurper, the Jews deliver Him up to die on a Roman cross. The last page of the story is torn away, just at the point when it has been declared that He is alive again and about to show Himself to His disciples. The second picture has a somewhat different tone. It is mainly a record of teaching, and the teaching is for the most part stern and paradoxical. It might be described as revolutionary. It is good tidings to the poor: it sets no store on property and material comfort: it pities the wealthy and congratulates the needy. It reverses ordinary judgments and conventional maxims of conduct. It proclaims the downfall of institutions, and compares the present blind security to the days of Noah and of Lot: a few only shall escape the coming overthrow. Yet even in this sterner setting the figure portrayed is unmistakably the same. There is the same strength, the same tender sympathy, the same freedom from convention: there is the same promise to fulfil the highest hopes, the same surrender of life, and the same imperious demand on the lives of others. No thoughtful man who examines and compares these pictures can doubt that they are genuine historical portraits of a figure wholly different from any which had hitherto appeared on the world's stage. They are beyond the power of human invention. They are drawn with a simplicity which is their own guarantee. If we had these, and these only, we should have an adequate explanation of the beginnings of Christianity. There would still be a great gap to be filled before we reached the earliest letters of St Paul; but yet we should know what the Apostle meant when he wrote to "the Church of the Thessalonians in God the Father and the Lord Jesus Christ," and reminded them how they had "turned from idols to serve the living and true God, and to wait for His Son from heaven, whom He raised from the dead, even Jesus who delivereth us from the wrath to come."

The Earlier Narratives.

If these two narratives served the first needs of Christian believers, it is easy to see that they would presently stimulate further activity in the same direction. For, to begin with, they were obviously incomplete: many incidents and teachings known to the earliest disciples found no place in them; and they contained no account of the life of Jesus Christ before His public ministry, no record of His pedigree, His birth or His childhood. Secondly, their form left much to be desired; for one of them at least was rude in style, sometimes needlessly repetitive and sometimes brief to obscurity. Moreover the very fact that there were two challenged a new and combined work which perhaps should supersede both.

Accordingly, some years after the fall of Jerusalem—we cannot tell the exact date or the author's name—the book which we call the Gospel according to St Matthew was written to give the Palestinian Christians a full account of Jesus Christ, which should present Him as the promised Messiah, fulfilling the ancient Hebrew prophecies, proclaiming the kingdom of heaven, and founding the Christian society. The writer takes St Mark as his basis, but he incorporates into the story large portions of the teaching which he has found in the other document. He groups his materials with small regard to chronological order; and he fashions out of the many scattered sayings of our Lord continuous discourses, everywhere bringing like to like, with considerable literary art. A wide knowledge of the Old Testament supplies him with a text to illustrate one incident after another; and so deeply is he impressed with the correspondence between the life of Christ and the words of ancient prophecy, that he does not hesitate to introduce his quotations by the formula "that it might be fulfilled which was spoken by the prophet."

The Gospel of St Matthew.

His Hebrew instinct leads him to begin with a table of genealogy, artificially constructed in groups of fourteen generations—from Abraham to David, from David to the Captivity, and from the Captivity to the Christ. The royal descent of the Messiah is thus declared, and from the outset His figure is set against the background of the Old Testament. He then proceeds to show that, though His lineage is traced through Joseph's ancestors, He was but the adopted son of Joseph, and he tells the story of the Virgin-birth. The coming of the Child draws Eastern sages to his cradle and fills the court of Herod with suspicious fears. The cruel tyrant kills the babes of Bethlehem, but the Child has been withdrawn by a secret flight into Egypt, whence he presently returns to the family home at Nazareth in Galilee. All this is necessarily fresh material, for the other records had dealt only with the period of public ministry. We have no knowledge of the source from which it was drawn. From the historical standpoint

its value must be appraised by the estimate which is formed of the writer's general trustworthiness as a narrator, and by the extent to which the incidents receive confirmation from other quarters. The central fact of the Virgin-birth, as we shall presently see, has high attestation from another early writer.

Discourses and Parables.

The next addition which St Matthew's Gospel makes to our knowledge is of a different kind. It consists of various important sayings of our Lord, which are combined with discourses found in the second document and are worked up into the great utterance which we call the Sermon on the Mount. Such grouping of materials is a feature of this Gospel, and was possibly designed for purposes of public instruction; so that continuous passages might be read aloud in the services of the Church, just as passages from the Old Testament were read in the Jewish synagogues. This motive would account not only for the arrangement of the material, but also for certain changes in the language which seem intended to remove difficulties, and to interpret what is ambiguous or obscure. An example of such interpretation meets us at the outset. The startling saying, "Blessed are ye poor," followed by the woe pronounced upon the rich, might seem like a condemnation of the very principle of property; and when the Christian Church had come to be organized as a society containing rich and poor, the heart of the saying was felt to be more truly and clearly expressed in the words, "Blessed are the poor in spirit." This interpretative process may be traced again and again in this Gospel, which frequently seems to reflect the definite tradition of a settled Church.

Apart from the important parables of the tares, the pearl and the net, the writer adds little to his sources until we come to the remarkable passage in ch. xvi., in which Peter the Rock is declared to be the foundation of the future Church, and is entrusted with the keys of the kingdom of heaven. The function of "binding and loosing," here assigned to him, is in identical terms assigned to the disciples generally in a passage in ch. xviii. in which for the second time we meet with the word "Church"—a word not found elsewhere in the Gospels. There is no sufficient ground for denying that these sayings were uttered by our Lord, but the fact that they were now first placed upon record harmonizes with what has been said already as to the more settled condition of the Christian society which this Gospel appears to reflect.

The parables of the two debtors, the labourers in the vineyard, the two sons, the ten virgins, the sheep and goats, are recorded only by this evangelist. But by way of incident he has almost nothing to add till we come to the closing scenes. The earthquake at the moment of our Lord's death and the subsequent appearance of departed saints are strange traditions unattested by other writers. The same is to be said of the soldiers placed to guard the tomb, and of the story that they had been bribed to say that the sacred body had been stolen while they slept. On the other hand, the appearance of the risen Christ to the women may have been taken from the lost pages of St Mark, being the sequel to the narrative which is broken off abruptly in this Gospel: and it is not improbable that St Mark's Gospel was the source of the great commission to preach and baptize with which St Matthew closes, though the wording of it has probably been modified in accordance with a settled tradition.

The work which the writer of this Gospel thus performed received the immediate sanction of a wide acceptance. It met a definite spiritual need. It presented the Gospel in a suitable form for the edification of the Church; and it confirmed its truth by constant appeals to the Old Testament scriptures, thus manifesting its intimate relation with the past as the outcome of a long preparation and as the fulfilment of a Divine purpose. No Gospel is so frequently quoted by the early post-apostolic writers: none has exercised a greater influence upon Christianity, and consequently upon the history of the world.

Yet from the purely historical point of view its evidential value is not the same as that of St Mark. Its facts for the most part are simply taken over from the earlier evangelist, and the historian must obviously prefer the primary source. Its true importance lies in its attestation of the genuineness of the earlier portraits to which it has so little to add, in its recognition of the relation of Christ to the whole purpose of God as revealed in the Old Testament, and in its interpretation of the Gospel message in its bearing on the living Church of the primitive days.

5. *Additions by St Luke.*—While the needs of Jewish believers were amply met by St Matthew's Gospel, a like service was rendered to Gentile converts by a very different writer. St Luke was a physician who had accompanied St Paul on his missionary journeys. He undertook a history of the beginnings of Christianity, two volumes of which have come down to us, entitled the Gospel and the Acts of the Apostles. His Gospel, like St Matthew's, is founded on St Mark, with the incorporation of large portions of the second document of which we have spoken above. But the way in which the two writers have used the same materials is strikingly different. In St Matthew's Gospel the original sources are frequently blended: the incidents of St Mark are rearranged and often grouped afresh according to subject matter: harsh and ambiguous sentences of both documents are toned down or interpreted. St Luke, on the contrary, chooses between parallel stories of his two sources, preferring neither to duplicate nor to combine: he incorporates St Mark in continuous sections, following him alone for a time, then leaving him entirely, and then returning to introduce a new block of his narrative. He modifies St Mark's style very freely, but he makes less change in the recorded words of our Lord, and he adheres more closely to the original language of the second document.

In his first two chapters he gives an account of the birth and childhood of St John the Baptist and of our Lord Himself, gathered perhaps directly from the traditions of the Holy Family, and written in close imitation of the sacred stories of the Old Testament which were familiar to him in their Greek translation. The whole series of incidents differ from that which we find in St Matthew's Gospel, but there is no direct variance between them. The two narratives are in agreement as to the central fact of the Virgin-birth. St Luke gives a table of genealogy which is irreconcilable with the artificial table of St Matthew's Gospel, and which traces our Lord's ancestry up to Adam, "which was the son of God."

The opening scene of the Galilean ministry is the discourse at Nazareth, in which our Lord claims to fulfil Isaiah's prophecy of the proclamation of good tidings to the poor. The same prophecy is alluded to in His reply to the Baptist's messengers which is incorporated subsequently from the second document. The scene ends with the rejection of Christ by His own townsfolk, as in the parallel story of St Mark which St Luke does not give. It is probable that St Luke found this narrative in the second document, and chose it after his manner in preference to the less instructive story in St Mark. He similarly omits the Marcan account of the call of the fishermen, substituting the story of the miraculous draught. After that he follows St Mark alone, until he introduces after the call of the twelve apostles the sermon which begins with the beatitudes and woes. This is from the second document, which he continues to use, and that without interruption (if we may venture to assign to it the raising of the widow's son at Nain and the anointing by the sinful woman in the Pharisee's house), until he returns to incorporate another section from St Mark.

Characteristic Section of St Luke's Gospel.

This in turn is followed by the most characteristic section of his Gospel (ix. 51–xviii. 14), a long series of incidents wholly independent of St Mark, and introduced as belonging to the period of the final journey from Galilee to Jerusalem. Much of this material is demonstrably derived from the second document; and it is quite possible that the whole of it may come from that source. There are special reasons for thinking so in regard to certain passages, as for example the mission of the seventy disciples and the parable of the good Samaritan, although they are not contained in St Matthew's Gospel.

For the closing scenes at Jerusalem St Luke makes considerable additions to St Mark's narrative: he gives a different account of the Last Supper, and he adds the trial before Herod and the

incident of the penitent robber. He appears to have had no information as to the appearance of the risen Lord in Galilee, and he accordingly omits from his reproduction of St Mark's narrative the twice-repeated promise of a meeting with the disciples there. He supplies, however, an account of the appearance to the two disciples at Emmaus and to the whole body of the apostles in Jerusalem.

St Luke's use of his two main sources has preserved the characteristics of both of them. The sternness of certain passages, which has led some critics to imagine that he was an Ebionite, is mainly, if not entirely, due to his faithful reproduction of the language of the second document. The key-note of his Gospel is universality: the mission of the Christ embraces the poor, the weak, the despised, the heretic and the sinful: it is good tidings to all mankind. He tells of the devotion of Mary and Martha, and of the band of women who ministered to our Lord's needs and followed Him to Jerusalem: he tells also of His kindness to more than one sinful woman. Zacchaeus the publican and the grateful Samaritan leper further illustrate this characteristic. Writing as he does for Gentile believers he omits many details which from their strongly Jewish cast might be unintelligible or uninteresting. He also modifies the harshness of St Mark's style, and frequently recasts his language in reference to diseases. From an historical point of view his Gospel is of high value. The proved accuracy of detail elsewhere, as in his narration of events which he witnessed in company with St Paul, enhances our general estimation of his work. A trustworthy observer and a literary artist, the one non-Jewish evangelist has given us—to use M. Renan's words—"the most beautiful book in the world."

6. *Additions by St John.*—We come lastly to consider what addition to our knowledge of Christ's life and work is made by the Fourth Gospel. St Mark's narrative of our Lord's ministry and passion is so simple and straightforward that it satisfies our historical sense. We trace a natural development in it: we seem to see why with such power and such sympathy He necessarily came into conflict with the religious leaders of the people, who were jealous of the influence which He gained and were scandalized by His refusal to be hindered in His mission of mercy by rules and conventions to which they attached the highest importance. The issue is fought out in Galilee, and when our Lord finally journeys to Jerusalem He knows that He goes there to die. The story is so plain and convincing in itself that it gives at first sight an impression of completeness. This impression is confirmed by the Gospels of St Matthew and St Luke, which though they add much fresh material do not disturb the general scheme presented by St Mark. But on reflection we are led to question the sufficiency of the account thus offered to us. Is it probable, we ask, that our Lord should have neglected the sacred custom in accordance with which the pious Jew visited Jerusalem several times each year for the observance of the divinely appointed feasts? It is true that St Mark does not break his narrative of the Galilean ministry to record such visits: but this does not prove that such visits were not made. Again, is it probable that He should have so far neglected Jerusalem as to give it no opportunity of seeing Him and hearing His message until the last week of His life? If the writers of the other two Gospels had no means at their disposal for enlarging the narrow framework of St Mark's narrative by recording definite visits to Jerusalem, at least they preserve to us words from the second document which seem to imply such visits: for how else are we to explain the pathetic complaint, "Jerusalem, Jerusalem, how often would I have gathered thee, as a hen gathereth her chickens under her wings; but ye would not"?

St John's Gospel meets our questionings by a wholly new series of incidents and by an account of a ministry which is concerned mainly not with Galileans but with Judaeans, and which centres in Jerusalem. It is carried on to a large extent concurrently with the Galilean ministry: it is not continuous, but is taken up from feast to feast as our Lord visits the sacred city at the times of its greatest religious activity. It differs in character from the Galilean ministry: for among the simple, unsophisticated folk of Galilee Jesus presents Himself as a healer and helper and teacher, keeping in the background as far as possible His claim to be the Messiah; whereas in Jerusalem His authority is challenged at His first appearance, the element of controversy is never absent, His relation to God is from the outset the vital issue, and consequently His Divine claim is of necessity made explicit. Time after time His life is threatened before the feast is ended, and when the last passover has come we can well understand, what was not made sufficiently clear in the brief Marcan narrative, why Jerusalem proved so fatally hostile to His Messianic claim.

The Purpose of St John's Gospel.

The Fourth Gospel thus offers us a most important supplement to the limited sketch of our Lord's life which we find in the Synoptic Gospels. Yet this was not the purpose which led to its composition. That purpose is plainly stated by the author himself: "These things have been written that ye may believe that Jesus Christ is the Son of God, and that believing ye may have life in His name." His avowed aim is, not to write history, but to produce conviction. He desires to interpret the coming of Jesus Christ into the world, to declare whence and why He came, and to explain how His coming, as light in the midst of darkness, brought a crisis into the lives of all with whom He came in contact. The issue of this crisis in His rejection by the Jews at Jerusalem is the main theme of the book.

St John's prologue prepares us to find that he is not writing for persons who require a succinct narrative of facts, but for those who having such already in familiar use are asking deep questions as to our Lord's mission. It goes back far behind human birth or lines of ancestry. It begins, like the sacred story of creation, "In the beginning." The Book of Genesis had told how all things were called into existence by a Divine utterance: "God said, Let there be . . . and there was." The creative Word had been long personified by Jewish thought, especially in connexion with the prophets to whom "the Word of the Lord" came. "In the beginning," then, St John tells us, the Word was—was with God—yea, was God. He was the medium of creation, the source of its light and its life—especially of that higher life which finds its manifestation in men. So He was in the world, and the world was made by Him, and yet the world knew Him not. At length He came, came to the home which had been prepared for Him, but His own people rejected Him. But such as did receive Him found a new birth, beyond their birth of flesh and blood: they became children of God, were born of God. In order thus to manifest Himself He had undergone a human birth: "the Word was made flesh, and dwelt among us, and we beheld His glory"—the glory, as the evangelist has learned to see, of the Father's only-begotten Son, who has come into the world to reveal to men that God whom "no man hath ever seen." In these opening words we are invited to study the life of Christ from a new point of view, to observe His self-manifestation and its issue. The evangelist looks back across a period of half a century, and writes of Christ not merely as he saw Him in those far-off days, but as he has come by long experience to think and speak of Him. The past is now filled with a glory which could not be so fully perceived at the time, but which, as St John tells, it was the function of the Holy Spirit to reveal to Christ's disciples.

The first name which occurs in this Gospel is that of John the Baptist. He is even introduced into the prologue which sketches in general terms the manifestation of the Divine Word: "There was a man sent from God, whose name was John: he came for witness, to witness to the Light, that through him all might believe." This witness of John holds a position of high importance in this Gospel. His mission is described as running on for a while concurrently with that of our Lord, whereas in the other Gospels we have no record of our Lord's work until John is cast into prison. It is among the disciples of the Baptist on the banks of the Jordan that Jesus finds His first disciples. The Baptist has pointed Him out to them in striking language, which recalls at once the symbolic ritual of the law and the spiritual lessons of the prophets: "Behold, the Lamb of God, which taketh away the sin of the world."

Soon afterwards at Cana of Galilee Jesus gives His first "sign," as the evangelist calls it, in the change of water into wine to supply the deficiency at a marriage feast. This scene has all the happy brightness of the early Galilean ministry which St Mark records. It stands in sharp contrast with the subsequent appearance of Jesus in Jerusalem at the Passover, when His first act is to drive the traders from the Temple courts. In this He seems to be carrying the Baptist's stern mission of purification from the desert into the heart of the sacred city, and so fulfilling, perhaps consciously, the solemn prophecy of Malachi which opens with the words: "Behold, I will send My Messenger, and He shall prepare the way before Me; and the Lord whom ye seek shall suddenly come to His Temple" (Mal. iii. 1–5). This significant action provokes a challenge of His authority, which is answered by a mysterious saying, not understood at the time, but interpreted afterwards as referring to the Resurrection. After this our Lord was visited secretly by a Pharisee named Nicodemus, whose advances were severely met by the words, "Except a man be born again, he cannot see the kingdom of God." When Nicodemus objected that this was to demand a physical impossibility, he was answered that the new birth was "of water and spirit"—words which doubtless contained a reference to the mission of the Baptist and to his prophecy of One who should baptize with the Holy Spirit. Towards the end of this conversation the evangelist passes imperceptibly from reporting the words of the Lord into an interpretation or amplification of them, and in language which recalls the prologue he unfolds the meaning of Christ's mission and indicates the crisis of self-judgment which necessarily accompanies the manifestation of the Light to each individual. When he resumes his narrative the Lord has left Jerusalem, and is found baptizing disciples, in even greater numbers than the Baptist himself. Though Jesus did not personally perform the rite, it is plain once again that in this early period He closely linked His own mission with that of John the Baptist. When men hinted at a rivalry between them, John plainly declared "He must increase, and I must decrease": and the reply of Jesus was to leave Judaea for Galilee.

Away from the atmosphere of contention we find Him manifesting the same broad sympathy and freedom from convention which we have noted in the other Gospels, especially in that of St Luke. He converses with a woman, with a woman moreover who is a Samaritan, and who is of unchaste life. He offers her the "living water" which shall supply all her needs: she readily accepts Him as the expected Messiah, and He receives a welcome from the Samaritans. He passes on to Galilee, where also He is welcomed, and where He performs His second "sign," healing the son of one of Herod's courtiers.

But St John's interest does not lie in Galilee, and he soon brings our Lord back to Jerusalem on the occasion of a feast. The Baptist's work is now ended; and, though Jesus still appeals to the testimony of John, the new conflict with the Jewish authorities shows that He is moving now on His own independent and characteristic lines. In cleansing the Temple He had given offence by what might seem an excess of rigour: now, by healing a sick man and bidding him carry his bed on the Sabbath, He offended by His laxity. He answered His accusers by the brief but pregnant sentence: "My Father worketh even until now, and I work." They at once understood that He thus claimed a unique relation to God, and their antagonism became the more intense: "the Jews therefore sought the more to kill Him, because He had not only broken the Sabbath, but had also said that God was His own Father, making Himself equal to God." His first reply is then expanded to cover the whole region of life. The Son beholds the Father at work, and works concurrently, doing nothing of Himself. He does the Father's will. The very principle of life is entrusted to Him. He quickens, and He judges. As Son of Man He judges man.

The Ministry at Jerusalem.

The next incident is the feeding of the five thousand, which belongs to the Galilean ministry and is recorded by the three other evangelists. St John's purpose in introducing it is not historical but didactic. It is made the occasion of instruction as to the heavenly food, the flesh and blood of Him who came down from heaven. This teaching leads to a conflict with certain Judaeans who seem to have come from Jerusalem, and it proves a severe test even to the faith of disciples.

The feast of tabernacles brings fresh disputes in Jerusalem, and an attempt is made to arrest Jesus. A climax of indignation is reached when a blind man is healed at the pool of Siloam on the sabbath day. At the feast of the dedication a fresh effort at arrest was made, and Jesus then withdrew beyond the Jordan. Here He learned of the sickness of Lazarus, and presently He returned and came to Bethany to raise him from the dead. The excitement produced by this miracle led to yet another attack, destined this time to be successful, on the life of Jesus. The Passover was at hand, and the last supper of our Lord with His disciples on the evening before the Passover lamb was killed is made the occasion of the most inspiring consolations. Our Lord interprets His relation to the disciples by the figure of a tree and its branches—He is the whole of which they are the parts; He promises the mission of the Holy Spirit to continue His work in the world; and He solemnly commends to His Father the disciples whom He is about to leave.

The account of the trial and the crucifixion differs considerably from the accounts given in the other Gospels. St John's narratives are in large part personal memories, and in more than one incident he himself figures as the unnamed disciple "whom Jesus loved." In the Resurrection scenes he also gives incidents in which he has played a part; and the appearances of the risen Lord are not confined either to Jerusalem or to Galilee, but occur in both localities.

If we ask what is the special contribution to history, apart from theology, which St John's Gospel makes, the answer would seem to be this—that beside the Galilean ministry reported by St Mark there was a ministry to "Jews" (Judaeans) in Jerusalem, not continuous, but occasional, taken up from time to time as the great feasts came round; that its teaching was widely different from that which was given to Galileans, and that the situation created was wholly unlike that which arose out of the Galilean ministry. The Galilean ministry opens with enthusiasm, ripening into a popularity which even endangers a satisfactory result. Where opposition manifests itself, it is not native opposition, but comes from religious teachers who are parts of a system which centres in Jerusalem, and who are sometimes expressly noted as having come from Jerusalem. The Jerusalem ministry on the contrary is never welcomed with enthusiasm. It has to do with those who challenge it from the first. There is no atmosphere of simplicity and teachableness which rejoices in the manifestation of power and sympathy and liberty. It is a witness delivered to a hostile audience, whether they will hear or no. Ultimate issues are quickly raised: keen critics see at once the claims which underlie deeds and words, and the claims in consequence become explicit: the relation of the teacher to God Himself is the vital interest. The conflict which thus arose explains what St Mark's succinct narrative had left unexplained—the fatal hostility of Jerusalem. It may have been a part of St John's purpose to give this explanation, and to make other supplements or corrections where earlier narratives appeared to him incomplete or misleading. But he says nothing to indicate this, while on the other hand he distinctly proclaims that his purpose is to produce and confirm conviction of the divine claims of Jesus Christ.

For bibliography see BIBLE; CHRISTIANITY; CHURCH HISTORY; and the articles on the separate Gospels. (J. A. R.)

JET (Fr. *jais*, Ger. *Gagat*), a substance which seems to be a peculiar kind of lignite or anthracite; often cut and polished for ornaments. The word "jet" probably comes, through O. Fr. *jaiet*, from the classical *gagates*, a word which was derived, according to Pliny, from Gagas, in Lycia, where jet, or a similar substance, was originally found. Jet was used in Britain in prehistoric times; many round barrows of the Bronze age have yielded jet beads, buttons, rings, armlets and other ornaments. The abundance of jet in Britain is alluded to by Caius Julius

Solinus (*fl.* 3rd century) and jet ornaments are found with Roman relics in Britain. Probably the supply was obtained from the coast of Yorkshire, especially near Whitby, where nodules of jet were formerly picked up on the shore. Caedmon refers to this jet, and at a later date it was used for rosary beads by the monks of Whitby Abbey.

The Whitby jet occurs in irregular masses, often of lenticular shape, embedded in hard shales known as jet-rock. The jet-rock series belongs to that division of the Upper Lias which is termed the zone of *Ammonites serpentinus*. Microscopic examination of jet occasionally reveals the structure of coniferous wood, which A. C. Seward has shown to be araucarian. Probably masses of wood were brought down by a river, and drifted out to sea, where becoming water-logged they sank, and became gradually buried in a deposit of fine mud, which eventually hardened into shale. Under pressure, perhaps assisted by heat, and with exclusion of air, the wood suffered a peculiar kind of decomposition, probably modified by the presence of salt water, as suggested by Percy E. Spielmann. Scales of fish and other fossils of the jet-rock are frequently impregnated with bituminous products, which may replace the original tissues. Drops of liquid bitumen occur in the cavities of some fossils, whilst inflammable gas is not uncommon in the jet-workings, and petroleum may be detected by its smell. Iron pyrites is often associated with the jet.

Formerly sufficient jet was found in loose pieces on the shore, set free by the disintegration of the cliffs, or washed up from a submarine source. When this supply became insufficient, the rock was attacked by the jet-workers; ultimately the workings took the form of true mines, levels being driven into the shales not only at their outcrop in the cliffs but in some of the inland dales of the Yorkshire moorlands, such as Eskdale. The best jet has a uniform black colour, and is hard, compact and homogeneous in texture, breaking with a conchoidal fracture. It must be tough enough to be readily carved or turned on the lathe, and sufficiently compact in texture to receive a high polish. The final polish was formerly given by means of rouge, which produces a beautiful velvety surface, but rotten-stone and lampblack are often employed instead. The softer kinds, not capable of being freely worked, are known as bastard jet. A soft jet is obtained from the estuarine series of the Lower Oolites of Yorkshire.

Much jet is imported from Spain, but it is generally less hard and lustrous than true Whitby jet. In Spain the chief locality is Villaviciosa, in the province of Asturias. France furnishes jet, especially in the department of the Aude. Much jet, too, occurs in the Lias of Württemberg, and works have been established for its utilization. In the United States jet is known at many localities but is not systematically worked. Pennsylvanian anthracite, however, has been occasionally employed as a substitute. In like manner Scotch cannel coal has been sometimes used at Whitby. Imitations of jet, or substitutes for it, are furnished by vulcanite, glass, black obsidian and black onyx, or stained chalcedony. Jet is sometimes improperly termed black amber, because like amber, though in less degree, it becomes electric by friction.

See P. E. Spielmann, "On the Origin of Jet," *Chemical News* (Dec. 14, 1906); C. Fox-Strangways, "The Jurassic Rocks of Britain, Vol. I. Yorkshire," *Mem. Geol. Surv.* (1892); J. A. Bower, "Whitby Jet and its Manufacture," *Journ. Soc. Arts* (1874, vol. xxii. p. 80).

JETHRO (or JETHER, Exod. iv. 18), the priest of Midian, in the Bible, whose daughter Zipporah became the wife of Moses. He is known as Hobab the son of Reuel the Kenite (Num. x. 29; Judg. iv. 11), and once as Reuel (Exod. ii. 18); and if Zipporah is the wife of Moses referred to in Num. xii. 1, the family could be regarded as Cushite (see CUSH). Jethro was the priest of Yahweh, and resided at the sacred mountain where the deity commissioned Moses to deliver the Israelites from Egypt. Subsequently Jethro came to Moses (probably at Kadesh), a great sacrificial feast was held, and the priest instructed Moses in legislative procedure; Exod. xviii. 27 (see EXODUS) and Num. x. 30 imply that the scene was not Sinai. Jethro was invited to accompany the people into the promised land, and later, we find his clan settling in the south of Judah (Judg. i. 16); see KENITES. The traditions agree in representing the kin of Moses as related to the mixed tribes of the south of Palestine (see EDOM) and in ascribing to the family an important share in the early development of the worship of Yahweh. Cheyne suggests that the names of Hobab and of Jonadab the father of the Rechabites (*q.v.*) were originally identical (*Ency. Bib.* ii. col. 2101).

JETTY. The term jetty, derived from Fr. *jetée*, and therefore signifying something "thrown out," is applied to a variety of structures employed in river, dock and maritime works, which are generally carried out in pairs from river banks, or in continuation of river channels at their outlets into deep water; or out into docks, and outside their entrances; or for forming basins along the sea-coast for ports in tideless seas. The forms and construction of these jetties are as varied as their uses; for though they invariably extend out into water, and serve either for directing a current or for accommodating vessels, they are sometimes formed of high open timber-work, sometimes of low solid projections, and occasionally only differ from breakwaters in their object.

Jetties for regulating Rivers.—Formerly jetties of timber-work were very commonly extended out, opposite one another, from each bank of a river, at intervals, to contract a wide channel, and by concentration of the current to produce a deepening of the central channel; or sometimes mounds of rubble stone, stretching down the foreshore from each bank, served the same purpose. As, however, this system occasioned a greater scour between the ends of the jetties than in the intervening channels, and consequently produced an irregular depth, it has to a great extent been superseded by longitudinal training works, or by dipping cross dikes pointing somewhat upstream (see RIVER ENGINEERING).

Jetties at Docks.—Where docks are given sloping sides, openwork timber jetties are generally carried across the slope, at the ends of which vessels can lie in deep water (fig. 1); or more solid structures

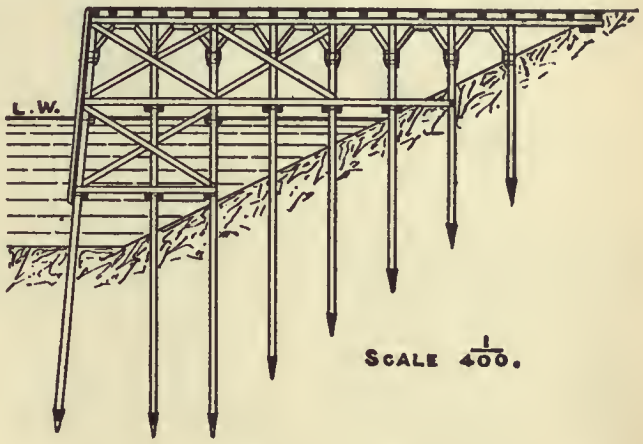


FIG. 1.—Timber Jetty across Dock Slope.

are erected over the slope for supporting coal-tips. Pilework jetties are also constructed in the water outside the entrances to docks on each side, so as to form an enlarging trumpet-shaped channel between the entrance, lock or tidal basin and the approach channel, in order to guide vessels in entering or leaving the docks. Solid jetties, moreover, lined with quay walls, are sometimes carried out into a wide dock, at right angles to the line of quays at the side, to enlarge the accommodation; and they also serve, when extended on a large scale from the coast of a tideless sea under shelter of an outlying breakwater, to form the basins in which vessels lie when discharging and taking in cargoes in such a port as Marseilles (see DOCK).

Jetties at Entrances to Jetty Harbours.—The approach channel to some ports situated on sandy coasts is guided and protected across the beach by parallel jetties, made solid up to a little above low water of neap tides, on which open timber-work is erected, provided with a planked platform at the top raised above the highest tides. The channel between the jetties was originally maintained by tidal scour from low-lying areas close to the coast, and subsequently by the current from sluicing basins; but it is now often considerably deepened by sand-pump dredging. It is protected to some extent by the solid portion of the jetties from the inroad of sand from the adjacent beach, and from the levelling action of the waves; whilst the upper open portion serves to indicate the channel, and to guide the vessels if necessary (see HARBOUR). The bottom part of the older jetties, in such long-established jetty ports as Calais, Dunkirk and Ostend, was composed of clay or rubble stone, covered on the top by fascine-work or pitching; but the deepening of the jetty channel by dredging, and the need which arose for its enlargement, led to the reconstruction of the jetties at these ports. The new jetties at Dunkirk were founded in the sandy beach, by the aid of compressed air, at a depth of 22¾ ft. below low water of spring tides; and their solid masonry portion, on a concrete foundation, was raised 5⅜ ft. above low water of neap tides (fig. 2).

Jetties at Lagoon Outlets.—A small tidal rise spreading tidal water over a large expanse of lagoon or inland back-water causes the influx and efflux of the tide to maintain a deep channel through a narrow outlet; but the issuing current on emerging from the outlet, being

no longer confined by a bank on each side, becomes dispersed, and owing to the reduction of its scouring force, is no longer able at a moderate distance from the shore effectually to resist the action of the waves and littoral currents tending to form a continuous beach in front of the outlet. Hence a bar is produced which diminishes the available depth in the approach channel. By carrying out a solid jetty over the bar, however, on each side of the outlet, the tidal currents are concentrated in the channel across the bar, and lower it by scour. Thus the available depth of the approach channels to Venice through the Malamocco and Lido outlets from the Venetian lagoon have been deepened several feet over their bars by jetties of rubble stone surmounted by a small superstructure (fig. 3), carried out across the foreshore into deep water on both sides of the channel. Other examples are provided by the long jetties extended into the sea in front of the entrance to Charleston harbour, formerly constructed of fascines, weighted with stone and logs, but subsequently of rubble stone, and by the two converging rubble jetties carried out from each shore of Dublin bay for deepening the approach to Dublin harbour.

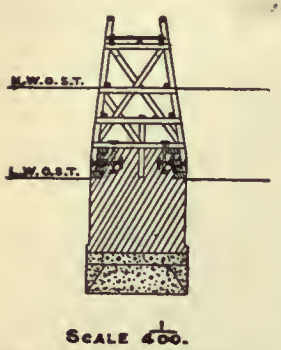


FIG. 2.—Dunkirk East Jetty.

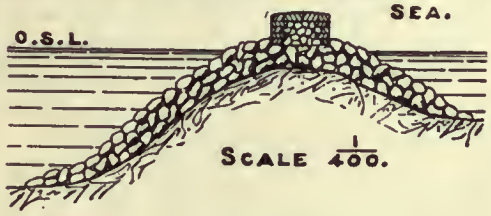


FIG. 3.—Lido Outlet Jetty, Venice.

Jetties at the Outlet of Tideless Rivers.—Jetties have been constructed on each side of the outlet of some of the rivers flowing into the Baltic, with the objects of prolonging the scour of the river and protecting the channel from being shoaled by the littoral drift along the shore. The most interesting application of parallel jetties is in lowering the bar in front of one of the mouths of a deltaic river flowing into a tideless sea, by extending the scour of the river out to the bar by a virtual prolongation of its banks. Jetties prolonging the Sulina branch of the Danube into the Black Sea, and the south pass of the Mississippi into the Gulf of Mexico (fig. 4), formed of rubble stone and concrete blocks, and fascine mattresses weighted with stone and surmounted with large concrete blocks respectively, have enabled the discharge of these rivers to scour away the bars obstructing the access to them; and they have also carried the sediment-bearing waters sufficiently far out to come under the influence of littoral currents, which, by conveying away some of the sediment, postpone the eventual formation of a fresh bar farther out (see RIVER ENGINEERING).

FIG. 4.—Mississippi South Pass Outlet Jetty.

Jetties at the Mouth of Tidal Rivers.—Where a river is narrow near its mouth, and its discharge is generally feeble, the sea is liable on an exposed coast, when the tidal range is small, to block up its outlet during severe storms. The river is thus forced to seek another exit at a weak spot of the beach, which along a low coast may be at some distance off; and this new outlet in its turn may be blocked up, so that the river from time to time shifts the position of its mouth. This inconvenient cycle of changes may be stopped by fixing the outlet of the river at a suitable site, by carrying a jetty on each side of this outlet across the beach, thereby concentrating its discharge in a definite channel and protecting the mouth from being blocked up by littoral drift. This system was long ago applied to the shifting outlet of the river Yare to the south of Yarmouth, and has also been successfully employed for fixing the wandering mouth of the Adur near Shoreham, and of the Adour flowing into the Bay of Biscay below Bayonne. When a new channel was cut across the Hook of Holland to provide a straighter and deeper outlet channel for the river Maas, forming the approach channel to Rotterdam, low, broad, parallel jetties, composed of fascine mattresses weighted with stone (fig. 5), were carried across the foreshore into the sea on either side of the new mouth of the river, to protect the jetty channel from littoral drift, and cause the discharge of the river to maintain it out to deep water (see RIVER ENGINEERING). The channel, also, beyond the outlet of the river Nervion into the Bay of Biscay has been regulated by jetties; and by extending the south-west jetty out for nearly half a mile with a curve concave towards the channel the outlet has not only been protected to some extent from the easterly drift, but the bar in front has been lowered by the scour produced by the discharge of the river following the concave bend of the south-west jetty. As the outer portion of this jetty was exposed to westerly storms from the Bay of Biscay before the outer harbour was constructed, it has been given the form and strength of a breakwater situated in shallow water (fig. 6). (L. F. V.-H.)

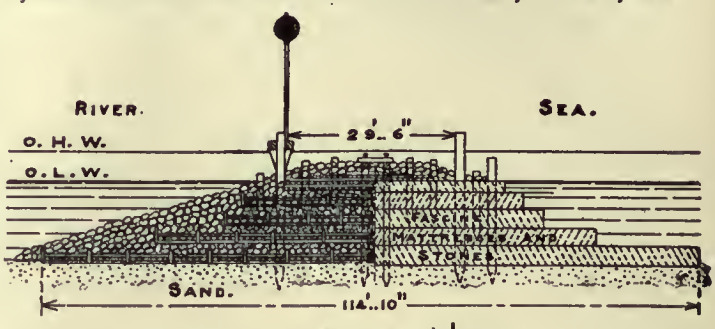


FIG. 5.—River Maas Outlet, North Jetty.

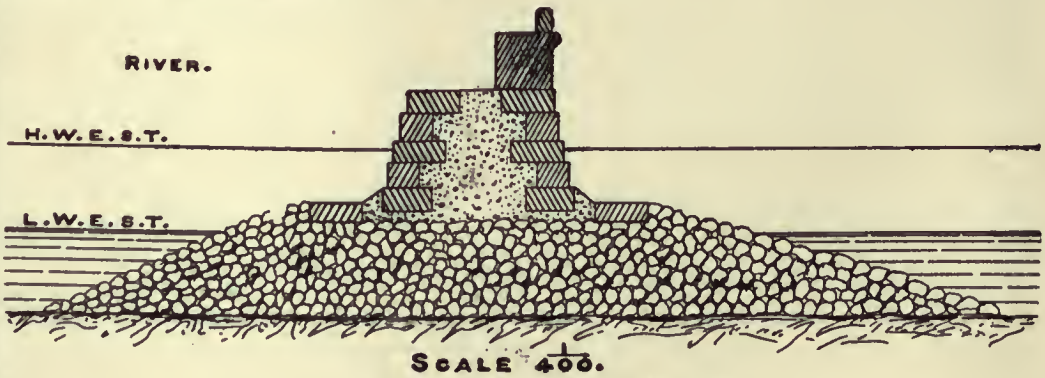


FIG. 6.—River Nervion Outlet, Western Jetty.

JEVER, a town of Germany, in the grand-duchy of Oldenburg, 13 m. by rail N.W. of Wilhelmshaven, and connected with the North Sea by a navigable canal. Pop. (1901), 5486. The chief industries are weaving, spinning, dyeing, brewing and milling; there is also a trade in horses and cattle. The fathers (*Die Getreuen*) of the town used to send an annual birthday present of 101 plovers' eggs to Bismarck, with a dedication in verse.

The castle of Jever was built by Prince Edo Wiemken (d. 1410), the ruler of Jeverland, a populous district which in 1575 came under the rule of the dukes of Oldenburg. In 1603 it passed to the house of Anhalt and was later the property of the empress Catherine II. of Russia, a member of this family. In 1814 it came again into the possession of Oldenburg.

See D. Hohnholz, *Aus Jevers Vorgangenheit* (Jever, 1886); Hagena, *Jeverland bis zum Jahr* 1500 (Oldenburg, 1902); and F. W. Riemann, *Geschichte des Jeverlandes* (Jever, 1896).

JEVEROS (JEBEROS, JIBAROS, JIVAROS or GIVAROS), a tribe of South American Indians on the upper Marañon, Peru, where they wander in the forests. The tribe has many branches and there are frequent tribal wars, but they have always united against a common enemy. Juan de Velasco declares them to be faithful, noble and amiable. They are brave and warlike, and

though upon the conquest of Peru they temporarily submitted, a general insurrection in 1599 won them back their liberty. Curious dried human heads, supposed to have been objects of worship, have been found among the Jeveros (see *Ethnol. Soc. Trans.* 1862, W. Bollaert).

JEVONS, WILLIAM STANLEY (1835–1882), English economist and logician, was born at Liverpool on the 1st of September 1835. His father, Thomas Jevons, a man of strong scientific tastes and a writer on legal and economic subjects, was an iron merchant. His mother was the daughter of William Roscoe. At the age of fifteen he was sent to London to attend University College school. He appears at this time to have already formed the belief that important achievements as a thinker were possible to him, and at more than one critical period in his career this belief was the decisive factor in determining his conduct. Towards the end of 1853, after having spent two years at University College, where his favourite subjects were chemistry and botany, he unexpectedly received the offer of the assayership to the new mint in Australia. The idea of leaving England was distasteful, but pecuniary considerations had, in consequence of the failure of his father's firm in 1847, become of vital importance, and he accepted the post. He left England for Sydney in June 1854, and remained there for five years. At the end of that period he resigned his appointment, and in the autumn of 1859 entered again as a student at University College, London, proceeding in due course to the B.A. and M.A. degrees of the university of London. He now gave his principal attention to the moral sciences, but his interest in natural science was by no means exhausted: throughout his life he continued to write occasional papers on scientific subjects, and his intimate knowledge of the physical sciences greatly contributed to the success of his chief logical work, *The Principles of Science.* Not long after taking his M.A. degree Jevons obtained a post as tutor at Owens College, Manchester. In 1866 he was elected professor of logic and mental and moral philosophy and Cobden professor of political economy in Owens college. Next year he married Harriet Ann Taylor, whose father had been the founder and proprietor of the *Manchester Guardian.* Jevons suffered a good deal from ill health and sleeplessness, and found the delivery of lectures covering so wide a range of subjects very burdensome. In 1876 he was glad to exchange the Owens professorship for the professorship of political economy in University College, London. Travelling and music were the principal recreations of his life; but his health continued bad, and he suffered from depression. He found his professorial duties increasingly irksome, and feeling that the pressure of literary work left him no spare energy, he decided in 1880 to resign the post. On the 13th of August 1882 he was drowned whilst bathing near Hastings. Throughout his life he had pursued with devotion and industry the ideals with which he had set out, and his journal and letters display a noble simplicity of disposition and an unswerving honesty of purpose. He was a prolific writer, and at the time of his death he occupied the foremost position in England both as a logician and as an economist. Professor Marshall has said of his work in economics that it "will probably be found to have more constructive force than any, save that of Ricardo, that has been done during the last hundred years." At the time of his death he was engaged upon an economic work that promised to be at least as important as any that he had previously undertaken. It would be difficult to exaggerate the loss which logic and political economy sustained through the accident by which his life was prematurely cut short.

Jevons arrived quite early in his career at the doctrines that constituted his most characteristic and original contributions to economics and logic. The theory of utility, which became the keynote of his general theory of political economy, was practically formulated in a letter written in 1860; and the germ of his logical principles of the substitution of similars may be found in the view which he propounded in another letter written in 1861, that "philosophy would be found to consist solely in pointing out the likeness of things." The theory of utility above referred to, namely, that the degree of utility of a commodity is some continuous mathematical function of the quantity of the commodity available, together with the implied doctrine that economics is essentially a mathematical science, took more definite form in a paper on "A General Mathematical Theory of Political Economy," written for the British Association in 1862. This paper does not appear to have attracted much attention either in 1862 or on its publication four years later in the *Journal of the Statistical Society*; and it was not till 1871, when the *Theory of Political Economy* appeared, that Jevons set forth his doctrines in a fully developed form. It was not till after the publication of this work that Jevons became acquainted with the applications of mathematics to political economy made by earlier writers, notably Antoine Augustin Cournot and H. H. Gossen. The theory of utility was about 1870 being independently developed on somewhat similar lines by Carl Menger in Austria and M.E.L. Walras in Switzerland. As regards the discovery of the connexion between value in exchange and final (or marginal) utility, the priority belongs to Gossen, but this in no way detracts from the great importance of the service which Jevons rendered to English economics by his fresh discovery of the principle, and by the way in which he ultimately forced it into notice. In his reaction from the prevailing view he sometimes expressed himself without due qualification: the declaration, for instance, made at the commencement of the *Theory of Political Economy*, that "value depends entirely upon utility," lent itself to misinterpretation. But a certain exaggeration of emphasis may be pardoned in a writer seeking to attract the attention of an indifferent public. It was not, however, as a theorist dealing with the fundamental data of economic science, but as a brilliant writer on practical economic questions, that Jevons first received general recognition. *A Serious Fall in the Value of Gold* (1863) and *The Coal Question* (1865) placed him in the front rank as a writer on applied economics and statistics; and he would be remembered as one of the leading economists of the 19th century even had his *Theory of Political Economy* never been written. Amongst his economic works may be mentioned *Money and the Mechanism of Exchange* (1875), written in a popular style, and descriptive rather than theoretical, but wonderfully fresh and original in treatment and full of suggestiveness, a *Primer on Political Economy* (1878), *The State in Relation to Labour* (1882), and two works published after his death, namely, *Methods of Social Reform* and *Investigations in Currency and Finance*, containing papers that had appeared separately during his lifetime. The last-named volume contains Jevons's interesting speculations on the connexion between commercial crises and sun-spots. He was engaged at the time of his death upon the preparation of a large treatise on economics and had drawn up a table of contents and completed some chapters and parts of chapters. This fragment was published in 1905 under the title of *The Principles of Economics: a Fragment of a Treatise on the Industrial Mechanism of Society, and other Papers.*

Jevons's work in logic went on *pari passu* with his work in political economy. In 1864 he published a small volume, entitled *Pure Logic; or, the Logic of Quality apart from Quantity*, which was based on Boole's system of logic, but freed from what he considered the false mathematical dress of that system. In the years immediately following he devoted considerable attention to the construction of a logical machine, exhibited before the Royal Society in 1870, by means of which the conclusion derivable from any given set of premisses could be mechanically obtained. In 1866 what he regarded as the great and universal principle of all reasoning dawned upon him; and in 1869 he published a sketch of this fundamental doctrine under the title of *The Substitution of Similars.* He expressed the principle in its simplest form as follows: "Whatever is true of a thing is true of its like," and he worked out in detail its various applications. In the following year appeared the *Elementary Lessons on Logic*, which soon became the most widely read elementary textbook on logic in the English language. In the meantime he was engaged upon a much more important logical treatise, which appeared in 1874 under the title of *The Principles of Science.* In this work Jevons embodied the substance of his earlier works on pure logic and the substitution of similars; he also enunciated

and developed the view that induction is simply an inverse employment of deduction; he treated in a luminous manner the general theory of probability, and the relation between probability and induction; and his knowledge of the various natural sciences enabled him throughout to relieve the abstract character of logical doctrine by concrete scientific illustrations, often worked out in great detail. Jevons's general theory of induction was a revival of the theory laid down by Whewell and criticized by Mill; but it was put in a new form, and was free from some of the non-essential adjuncts which rendered Whewell's exposition open to attack. The work as a whole was one of the most notable contributions to logical doctrine that appeared in Great Britain in the 19th century. His *Studies in Deductive Logic*, consisting mainly of exercises and problems for the use of students, was published in 1880. In 1877 and the following years Jevons contributed to the *Contemporary Review* some articles on J. S. Mill, which he had intended to supplement by further articles, and eventually publish in a volume as a criticism of Mill's philosophy. These articles and one other were republished after Jevons's death, together with his earlier logical treatises, in a volume, entitled *Pure Logic, and other Minor Works*. The criticisms on Mill contain much that is ingenious and much that is forcible, but on the whole they cannot be regarded as taking rank with Jevons's other work. His strength lay in his power as an original thinker rather than as a critic; and he will be remembered by his constructive work as logician, economist and statistician.

See *Letters and Journal of W. Stanley Jevons*, edited by his wife (1886). This work contains a bibliography of Jevons's writings. See also LOGIC: *History*. (J. N. K.)

JEW, THE WANDERING, a legendary Jew (see JEWS) doomed to wander till the second coming of Christ because he had taunted Jesus as he passed bearing the cross, saying, "Go on quicker." Jesus is said to have replied, "I go, but thou shalt wait till I return." The legend in this form first appeared in a pamphlet of four leaves alleged to have been printed at Leiden in 1602. This pamphlet relates that Paulus von Eizen (d. 1598), bishop of Schleswig, had met at Hamburg in 1542 a Jew named Ahasuerus (Ahasverus), who declared he was "eternal" and was the same who had been punished in the above-mentioned manner by Jesus at the time of the crucifixion. The pamphlet is supposed to have been written by Chrysostomus Dudulaeus of Westphalia and printed by one Christoff Crutzer, but as no such author or printer is known at this time—the latter name indeed refers directly to the legend—it has been conjectured that the whole story is a myth invented to support the Protestant contention of a continuous witness to the truth of Holy Writ in the person of this "eternal" Jew; he was to form, in his way, a counterpart to the apostolic tradition of the Catholic Church.

The story met with ready acceptance and popularity. Eight editions of the pamphlet appeared in 1602, and the fortieth edition before the end of the following century. It was translated into Dutch and Flemish with almost equal success. The first French edition appeared in 1609, and the story was known in England before 1625, when a parody was produced. Denmark and Sweden followed suit with translations, and the expression "eternal Jew" passed as a current term into Czech. In other words, the story in its usual form spread wherever there was a tincture of Protestantism. In southern Europe little is heard of it in this version, though Rudolph Botoreus, parliamentary advocate of Paris (*Comm. histor.*, 1604), writing in Paris two years after its first appearance, speaks contemptuously of the popular belief in the Wandering Jew in Germany, Spain and Italy.

The popularity of the pamphlet and its translations soon led to reports of the appearance of this mysterious being in almost all parts of the civilized world. Besides the original meeting of the bishop and Ahasuerus in 1542 and others referred back to 1575 in Spain and 1599 at Vienna, the Wandering Jew was stated to have appeared at Prague (1602), at Lübeck (1603), in Bavaria 1604), at Ypres (1623), Brussels (1640), Leipzig (1642), Paris (1644, by the "Turkish Spy"), Stamford (1658), Astrakhan (1672), and Frankenstein (1678). In the next century the Wandering Jew was seen at Munich (1721), Altbach (1766), Brussels (1774), Newcastle (1790, see Brand, *Pop. Antiquities*, *s.v.*), and on the streets of London between 1818 and 1830 (see *Athenaeum*, 1866, ii. 561). So far as can be ascertained, the latest report of his appearance was in the neighbourhood of Salt Lake City in 1868, when he is said to have made himself known to a Mormon named O'Grady. It is difficult to tell in any one of these cases how far the story is an entire fiction and how far some ingenious impostor took advantage of the existence of the myth.

The reiterated reports of the actual existence of a wandering being, who retained in his memory the details of the crucifixion, show how the idea had fixed itself in popular imagination and found its way into the 19th-century collections of German legends. The two ideas combined in the story of the restless fugitive akin to Cain and wandering for ever are separately represented in the current names given to this figure in different countries. In most Teutonic languages the stress is laid on the perpetual character of his punishment and he is known as the "everlasting," or "eternal" Jew (Ger. "Ewige Jude"). In the lands speaking a Romance tongue, the usual form has reference to the wanderings (Fr. "le Juif errant"). The English form follows the Romance analogy, possibly because derived directly from France. The actual name given to the mysterious Jew varies in the different versions: the original pamphlet calls him Ahasver, and this has been followed in most of the literary versions, though it is difficult to imagine any Jew being called by the name of the typical anti-Semitic king of the Book of Esther. In one of his appearances at Brussels his name is given as Isaac Laquedem, implying an imperfect knowledge of Hebrew in an attempt to represent Isaac "from of old." Alexandre Dumas also made use of this title. In the *Turkish Spy* the Wandering Jew is called Paul Marrane and is supposed to have suffered persecution at the hands of the Inquisition, which was mainly occupied in dealing with the Marranos, *i.e.* the secret Jews of the Iberian peninsula. In the few references to the legend in Spanish writings the Wandering Jew is called Juan Espera en Dios, which gives a more hopeful turn to the legend.

Under other names, a story very similar to that given in the pamphlet of 1602 occurs nearly 400 years earlier on English soil. According to Roger of Wendover in his *Flores historiarum* under the year 1228, an Armenian archbishop, then visiting England, was asked by the monks of St Albans about the well-known Joseph of Arimathaea, who had spoken to Jesus and was said to be still alive. The archbishop claimed to have seen him in Armenia under the name of Carthaphilus or Cartaphilus, who had confessed that he had taunted Jesus in the manner above related. This Carthaphilus had afterwards been baptized by the name of Joseph. Matthew Paris, in repeating the passage from Roger of Wendover, reported that other Armenians had confirmed the story on visiting St Albans in 1252, and regarded it as a great proof of the Christian religion. A similar account is given in the chronicles of Philippe Mouskès (d. 1243). A variant of the same story was known to Guido Bonati, an astronomer quoted by Dante, who calls his hero or villain Butta Deus because he struck Jesus. Under this name he is said to have appeared at Mugello in 1413 and at Bologna in 1415 (in the garb of a Franciscan of the third order).

The source of all these reports of an ever-living witness of the crucifixion is probably Matthew xvi. 28: "There be some of them that stand here which shall in no wise taste of death till they see the Son of Man coming in his kingdom." As the kingdom had not come, it was assumed that there must be persons living who had been present at the crucifixion; the same reasoning is at the root of the Anglo-Israel belief. These words are indeed quoted in the pamphlet of 1602. Again, a legend was based on John xxi. 20 that the beloved disciple would not die before the second coming; while another legend (current in the 16th century) condemned Malchus, whose ear Peter cut off in the garden of Gethsemane (John xvii. 10), to wander perpetually till the second coming. The legend alleges that he had been so condemned for having scoffed at Jesus. These legends and the

utterance of Matt. xvi. 28 became "contaminated" by the legend of St Joseph of Arimathaea and the Holy Grail, and took the form given in Roger of Wendover and Matthew Paris. But there is nothing to show the spread of this story among the people before the pamphlet of 1602, and it is difficult to see how this Carthaphilus could have given rise to the legend of the Wandering Jew, since he is not a Jew nor does he wander. The author of 1602 was probably acquainted either directly or indirectly with the story as given by Matthew Paris, since he gives almost the same account. But he gives a new name to his hero and directly connects his fate with Matt. xvi. 28.

Moncure D. Conway (*Ency. Brit.*, 9th ed., xiii. 673) attempted to connect the legend of the Wandering Jew with a whole series of myths relating to never-dying heroes like King Arthur, Frederick Barbarossa, the Seven Sleepers, and Thomas the Rhymer, not to speak of Rip Van Winkle. He goes even farther and connects our legend with mortals visiting earth, as the Yima in Parsism, and the "Ancient of Days" in the Books of Daniel and Enoch, and further connects the legend with the whole medieval tendency to regard the Jew as something uncanny and mysterious. But all these mythological explanations are supererogatory, since the actual legend in question can be definitely traced to the pamphlet of 1602. The same remark applies to the identification with the Mahommedan legend of the "eternal" Chadhir proposed by M. Lidzbarski (*Zeit. f. Assyr.* vii. 116) and I. Friedländer (*Arch. f. Religionswiss.* xiii. 110).

This combination of eternal punishment with restless wandering has attracted the imagination of innumerable writers in almost all European tongues. The Wandering Jew has been regarded as a symbolic figure representing the wanderings and sufferings of his race. The Germans have been especially attracted by the legend, which has been made the subject of poems by Schubart, Schreiber, W. Müller, Lenau, Chamisso, Schlegel, Mosen and Koehler, from which enumeration it will be seen that it was a particularly favourite subject with the Romantic school. They were perhaps influenced by the example of Goethe, who in his *Autobiography* describes, at considerable length, the plan of a poem he had designed on the Wandering Jew. More recently poems have been composed on the subject in German by Adolf Wilbrandt, Fritz Lienhard and others; in English by Robert Buchanan, and in Dutch by H. Heijermans. German novels also exist on the subject, by Franz Horn, Oeklers, Laun and Schucking, tragedies by Klinemann, Haushofer and Zedlitz. Sigismund Heller wrote three cantos on the wanderings of Ahasuerus, while Hans Andersen made of him an "Angel of Doubt." Robert Hamerling even identifies Nero with the Wandering Jew. In France, E. Quinet published a prose epic on the subject in 1833, and Eugène Sue, in his best-known work, *Le Juif errant* (1844), introduces the Wandering Jew in the prologues of its different sections and associates him with the legend of Herodias. In modern times the subject has been made still more popular by Gustave Doré's elaborate designs (1856), containing some of his most striking and imaginative work. Thus, probably, he suggested Grenier's poem on the subject (1857).

In England, besides the ballads in Percy's *Reliques*, William Godwin introduced the idea of an eternal witness of the course of civilization in his *St Leon* (1799), and his son-in-law Shelley introduces Ahasuerus in his *Queen Mab*. It is doubtful how far Swift derived his idea of the immortal Struldbrugs from the notion of the Wandering Jew. George Croly's *Salathiel*, which appeared anonymously in 1828, gave a highly elaborate turn to the legend; this has been re-published under the title *Tarry Thou Till I Come*.

BIBLIOGRAPHY.—J. G. Th. Graesse, *Die Sage vom ewigen Juden* (1844); F. Helbig, *Die Sage vom ewigen Juden* (1874); G. Paris, *Le Juif errant* (1881); M. D. Conway, *The Wandering Jew* (1881); S. Morpugo, *L' Ebreo errante in Italia* (1891); L. Neubaur, *Die Sage vom ewigen Juden* (2nd ed., 1893). The recent literary handling of the subject has been dealt with by J. Prost, *Die Sage vom ewigen Juden in der neueren deutschen Literatur* (1905); T. Kappstein, *Ahasver in der Weltpoesie* (1905). (J. JA.)

JEWEL, JOHN (1522–1571), bishop of Salisbury, son of John Jewel of Buden, Devonshire, was born on the 24th of May 1522, and educated under his uncle John Bellamy, rector of Hampton, and other private tutors until his matriculation at Merton college, Oxford, in July 1535. There he was taught by John Parkhurst, afterwards bishop of Norwich; but on the 19th of August 1539 he was elected scholar of Corpus Christi college. He graduated B.A. in 1540, and M.A. in 1545, having been elected fellow of his college in 1542. He made some mark as a teacher at Oxford, and became after 1547 one of the chief disciples of Peter Martyr. He graduated B.D. in 1552, and was made vicar of Sunningwell, and public orator of the university, in which capacity he had to compose a congratulatory epistle to Mary on her accession. In April 1554 he acted as notary to Cranmer and Ridley at their disputation, but in the autumn he signed a series of Catholic articles. He was, nevertheless, suspected, fled to London, and thence to Frankfort, which he reached in March 1555. There he sided with Coxe against Knox, but soon joined Martyr at Strassburg, accompanied him to Zurich, and then paid a visit to Padua.

Under Elizabeth's succession he returned to England, and made earnest efforts to secure what would now be called a low-church settlement of religion. Indeed, his attitude was hardly distinguishable from that of the Elizabethan Puritans, but he gradually modified it under the stress of office and responsibility. He was one of the disputants selected to confute the Romanists at the conference of Westminster after Easter 1559; he was select preacher at St Paul's cross on the 15th of June; and in the autumn was engaged as one of the royal visitors of the western counties. His *congé d'élire* as bishop of Salisbury had been made out on the 27th of July, but he was not consecrated until the 21st of January 1560. He now constituted himself the literary apologist of the Elizabethan settlement. He had on the 26th of November 1559, in a sermon at St Paul's Cross, challenged all comers to prove the Roman case out of the Scriptures, or the councils or Fathers for the first six hundred years after Christ. He repeated his challenge in 1560, and Dr Henry Cole took it up. The chief result was Jewel's *Apologia ecclesiae Anglicanae*, published in 1562, which in Bishop Creighton's words is "the first methodical statement of the position of the Church of England against the Church of Rome, and forms the groundwork of all subsequent controversy." A more formidable antagonist than Cole now entered the lists in the person of Thomas Harding, an Oxford contemporary whom Jewel had deprived of his prebend in Salisbury Cathedral for recusancy. He published an elaborate and bitter *Answer* in 1564, to which Jewel issued a *Reply* in 1565. Harding followed with a *Confutation*, and Jewel with a *Defence*, of the *Apology* in 1566 and 1567; the combatants ranged over the whole field of the Anglo-Roman controversy, and Jewel's theology was officially enjoined upon the Church by Archbishop Bancroft in the reign of James I. Latterly Jewel had been confronted with criticism from a different quarter. The arguments that had weaned him from his Zwinglian simplicity did not satisfy his unpromoted brethren, and Jewel had to refuse admission to a benefice to his friend Laurence Humphrey (*q.v.*), who would not wear a surplice. He was consulted a good deal by the government on such questions as England's attitude towards the council of Trent, and political considerations made him more and more hostile to Puritan demands with which he had previously sympathized. He wrote an attack on Cartwright, which was published after his death by Whitgift. He died on the 23rd of September 1571, and was buried in Salisbury Cathedral, where he had built a library. Hooker, who speaks of Jewel as "the worthiest divine that Christendom hath bred for some hundreds of years," was one of the boys whom Jewel prepared in his house for the university; and his *Ecclesiastical Polity* owes much to Jewel's training.

Jewel's works were published in a folio in 1609 under the direction of Bancroft, who ordered the *Apology* to be placed in churches, in some of which it may still be seen chained to the lectern; other editions appeared at Oxford (1848, 8 vols.) and Cambridge (Parker Soc., 4 vols.). See also Gough's *Index to Parker Soc. Publ.*; Strype's *Works* (General Index); *Acts of the Privy Council*; *Calendars of Domestic and Spanish State Papers*; Dixon's and Frere's *Church Histories*; and *Dictionary of National Biography* (art. by Bishop Creighton). (A. F. P.)

JEWELRY (O. Fr. *jouel*, Fr. *joyau*, perhaps from *joie*, joy; Lat. *gaudium*; retranslated into Low Lat. *jocale*, a toy, from *jocus*, by misapprehension of the origin of the word), a collective term for jewels, or the art connected with them—jewels being personal ornaments, usually made of gems, precious stones, &c., with a setting of precious metal; in a restricted sense it is also common to speak of a gem-stone itself as a jewel, when utilized in this way. Personal ornaments appear to have been among the very first objects on which the invention and ingenuity of man were exercised; and there is no record of any people so rude as not to employ some kind of personal decoration. Natural objects, such as small shells, dried berries, small perforated stones, feathers of variegated colours, were combined by stringing or tying together to ornament the head, neck, arms and legs, the fingers, and even the toes, whilst the cartilages of the nose and ears were frequently perforated for the more ready suspension of suitable ornaments.

Amongst modern Oriental nations we find almost every kind of personal decoration, from the simple caste mark on the forehead of the Hindu to the gorgeous examples of beaten gold and silver work of the various cities and provinces of India. Nor are such decorations mere ornaments without use or meaning. The hook with its corresponding perforation or eye, the clasp, the buckle, the button, grew step by step into a special ornament, according to the rank, means, taste and wants of the wearer, or became an evidence of the dignity of office. Nor was the jewel deemed to have served its purpose with the death of its owner, for it is to the tombs of ancient peoples that we must look for evidence of the early existence of the jeweller's art.

The jewelry of the ancient Egyptians has been preserved for us in their tombs, sometimes in, and sometimes near the sarcophagi which contained the embalmed bodies of the wearers. An amazing series of finds of the intact jewels of five princesses of the XIIth Dynasty (*c.* 2400 B.C.) was the result of the excavations of J. de Morgan at Dāhshur in 1894–1895. The treasure of Princess Hathor-Set contained jewels with the names of Senwosri (Usertesen) II. and III., one of whom was probably her father. The treasure of Princess Merit contained the names of the same two monarchs, and also that of Amenemhē III., to whose family Princess Nebhotp may have belonged. The two remaining princesses were Ita and Khnumit.

FIG. 1.

The art of the nameless Memphite jewellers of the XIIth Dynasty is marked by perfect accuracy of execution, by sureness of intention, by decorative instinct and sobriety in design, and by the serviceable nature of the jewels for actual wear. All forms of work are represented—including chiselling, soldering, inlaying with coloured stones, moulding and working with twisted wires and filigree. Here also occurs the earliest instance of granulated work, with small grains of gold, soldered on a flat surface (fig. 1). The principal items in this dazzling group are the following: Three gold pectorals (fig. 2 and Plate I. figs. 35, 36) worked *à jour* (with the interstices left open); on the front side they are inlaid with coloured stones, the fine *cloisons* being the only portion of the gold that is visible; on the back, the gold surfaces are most delicately carved, in low relief. Two gold crowns (Plate I. figs. 32, 34), found together, are curiously contrasted in character. The one (fig. 32) is of a formal design, of gold, inlaid (the plume, Plate I. fig 33, was attached to it); the other (fig. 34) has a multitude of star-like flowers, embodied in a filigree of daintily twisted wires. A dagger with inlaid patterns on the handle shows extraordinary perfection of finish.

FIG. 2.

Nearly a thousand years later we have another remarkable collection of Egyptian art in the jewelry taken from the coffin of Queen Aah-hotp, discovered in 1859 by Mariette in the entrance to the valley of the tombs of the kings and now preserved in the Cairo museum. Compared with the Dāhshur treasure the jewelry of Aah-hotp is in parts rough and coarse, but none the less it is marked by the ingenuity and mastery of the materials that characterize all the work of the Egyptians. Hammered work, incised and chased work, the evidence of soldering, the combinations of layers of gold plates, together with coloured stones, are all present, and the handicraft is complete in every respect.

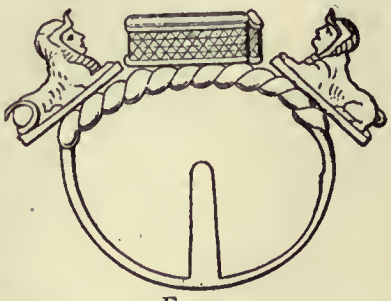


FIG. 3.

A diadem of gold and enamel, found at the back of the head of the mummy of the queen (fig. 3), was fixed in the back hair, showing the cartouche in front. The box holding this cartouche has on the upper surface the titles of the king, "the son of the sun, Aahmes, living for ever and ever," in gold on a ground of lapis lazuli, with a chequered ornament in blue and red pastes, and a sphinx couchant on each side. A necklace with three pendant flies (fig. 4) is entirely of gold, having a hook and loop to fasten it round the neck. Fig. 5 is a gold drop, inlaid with turquoise or blue paste, in the shape of a fig. A gold

FIG. 4.

FIG. 5.

chain (fig. 6) is formed of wires closely plaited and very flexible, the ends terminating in the heads of water fowl, and having small rings to secure the collar behind. To the centre is suspended by a

FIG. 6.

small ring a scarabaeus of solid gold inlaid with lapis lazuli. We have an example of a bracelet, similar to those in modern use (fig. 7),

FIG. 7.

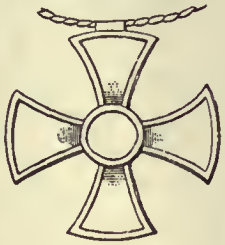


FIG. 8.

and worn by all persons of rank. It is formed of two pieces joined by a hinge, and is decorated with figures in repoussé on a ground inlaid with lapis lazuli.

That the Assyrians used personal decorations of a very distinct character, and no doubt made of precious materials, is proved by the bas-reliefs from which a considerable collection of jewels could be gathered, such as bracelets, ear-rings and necklaces. Thus, for example, in the British Museum we have representations of Assur-nazir-pal, king of Assyria (*c.* 885–860 B.C.), wearing a cross (fig. 8) very similar to the Maltese cross of modern times. It happens, however, that the excavations have not hitherto been fertile in actual remains of gold work from Assyria. Chance also has so far ordained that the excavations in Crete should not be particularly rich in ornaments of gold. A few isolated objects have been found, such as a duck and other pendants, and also several necklaces with beads of the Argonaut shell-fish pattern. More striking than these is a short bronze sword. The handle has an agate pommel, and is covered with gold plates, engraved with spirited scenes of lions and wild goats (fig. 9, A. J. Evans in *Archaeologia*, 59, 447). In general, however, the gold jewelry of the later Minoan periods is more brilliantly represented by the finds made on the mainland of Greece and at Enkomi in Cyprus. Among the former the gold ornaments found by Heinrich Schliemann in the graves of Mycenae are pre-eminent.

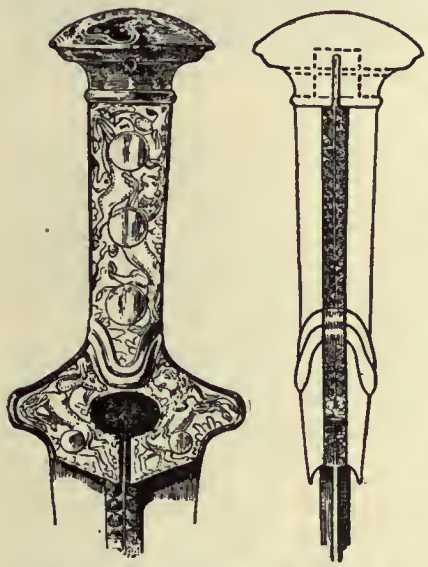


FIG. 9.—From *Archaeologia*, vol. 59, p. 447, by permission of the Society of Antiquaries of London.

The objects found ranged over most of the personal ornaments still in use; necklaces with gold beads and pendants, butterflies (fig. 10), cuttlefish (fig. 11), single and concentric circles, rosettes and leafage, with perforations for attachment to clothing, crosses and stars formed of combined crosses, with crosses in the centre forming spikes—all elaborately ornamented in detail. The spiral forms an incessant decoration from its facile production and repetition by means of twisted gold wire. Grasshoppers or tree crickets in gold repoussé suspended by chains and probably used for the

FIG. 10.

FIG. 11.

decoration of the hair, and a griffin (fig. 12), having the upper part of the body of an eagle and the lower parts of a lion, with wings decorated with spirals, are among the more remarkable examples of perforated ornaments for attachment to the clothing. There are also perforated ornaments belonging to necklaces, with intaglio engravings of such subjects as a contest of a man and lion, and a duel of two warriors, one of whom stabs his antagonist in the throat. There are also pinheads and brooches formed of two stags lying down (fig. 13), the bodies and necks crossing each other, and the horns meeting symmetrically above the heads, forming a finial. The heads of these ornaments were of gold, with silver blades or pointed pins inserted for use. The bodies of the two stags rest on fronds of the date-palm growing out of the stem which receives the pin. Another remarkable series is composed of figures of women with doves. Some have one dove resting on the head; others have three doves, one on the head and the others resting on arms. The arms in both instances are extended to the elbow, the hands being placed on the breasts. These ornaments are also perforated, and were evidently sewed on the dresses, although there is some evidence that an example with three doves has been fastened with a pin.

FIG. 12.

FIG. 13.

An extraordinary diadem was found upon the head of one of the bodies discovered in the same tomb with many objects similar to those noticed above. It is 25 in. in length, covered with shield-like or rosette ornaments in repoussé, the relief being very low but perfectly distinct, and further ornamented by thirty-six large leaves of repoussé gold attached to it. As an example of design and perfection of detail, another smaller diadem found in another tomb may be noted (fig. 14). It is of gold plate, so thick as to require no "piping" at the back to sustain it; but in general the repoussé examples have a piping of copper wire.

FIG. 14.

The admirable inlaid daggers of the IVth grave at Mycenae are unique in their kind, with their subjects of a lion hunt, of a lion chasing a herd of antelopes, of running lions, of cats hunting wild duck, of inlaid lilies, and of geometric patterns. The subjects are inlaid in gold of various tints, and silver, in bronze plates which are inserted in the flat surfaces of the dagger-blades. In part also the subjects are rendered in relief and gilded. The whole is executed with marvellous precision and vivid representation of motion. To a certain limited extent these daggers are paralleled by a dagger and hatchet found in the treasure of Queen Aah-hotp mentioned above, but in their most characteristic features there is little resemblance. The gold ornaments found by Schliemann at Hissarlik, the supposed site of Troy, divide themselves, generally speaking, into two groups, one being the "great treasure" of diadems, ear-rings, beads, bracelets, &c., which seem the product of a local and uncultured art. The other group, which were found in smaller "treasures," have spirals and rosettes similar to those of Mycenae. The discovery, however, of the gold treasures of the Artemision at Ephesus has brought out points of affinity between the Hissarlik treasures and those of Ephesus, and has made any reasoning difficult, in view of the uncertainties surrounding the Hissarlik finds. The group with

Mycenaean affinities (fig. 15) includes necklaces, brooches, bracelets (*g*), hair-pins (*a*), ear-rings (*c*, *d*, *e*, *f*), with and without pendants, beads and twisted wire drops. The majority of these are ornamented with spirals of twisted wire, or small rosettes, with fragments of stones in the centres. The twisted wire ornaments were evidently portions of necklaces. A circular plaque decorated with a rosette

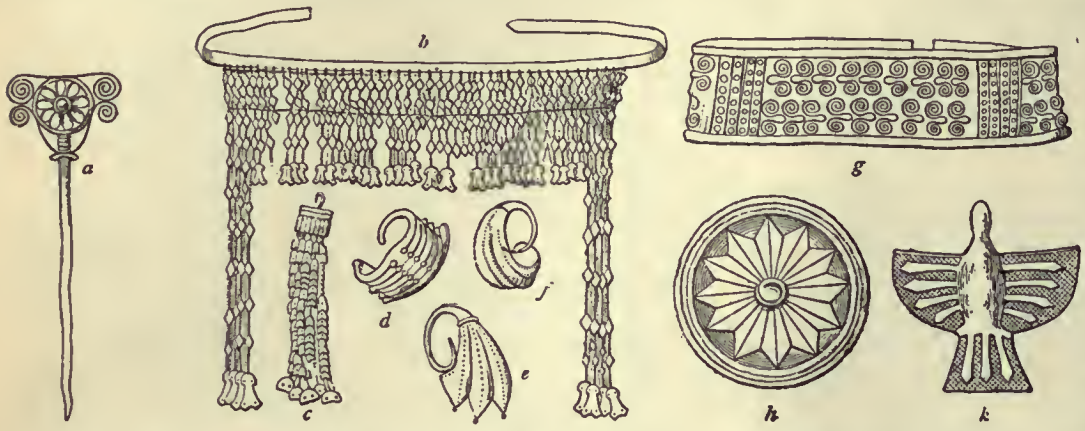


FIG. 15.

(*h*) is very similar to those found at Mycenae, and a conventionalized eagle (*k*) is characteristic of much of the detail found at that place as well as at Hissarlik. They were all of pure gold, and the wire must have been drawn through a plate of harder metal—probably bronze. The principal ornaments differing from those found at Mycenae are diadems or head fillets of pure hammered gold (*b*) cut into thin plates, attached to rings by double gold wires, and fastened together at the back with thin twisted wire. To these pendants (of which those at the two ends are nearly three times the length of those forming the central portions) are attached small figures, probably of idols. It has been assumed that these were worn across the forehead by women, the long pendants falling on each side of the face.

The jewelry of the close of the Mycenaean period is best represented by the rich finds of the cemetery of Enkomi near Salamis, in Cyprus. This field was excavated by the British Museum in 1896, and a considerable portion of the finds is now at Bloomsbury. It was rich in all forms of jewelry, but especially in pins, rings and diadems with patterns in relief. In its geometric patterns the art of Enkomi is entirely Mycenaean, but special stress is laid on the mythical forms that were inherited by Greek art, such as the sphinx and the gryphon.

Figs. 37–48 (Plate I.) are examples of the late Mycenaean treasures from Enkomi.
,, 37, 38 ,, Ear-rings.
,, 39 ,, Diadem, to be tied on the forehead. The impressed figure of a sphinx is repeated twelve times.
,, 40, 41, 46 ,, Ear-rings, originally in bull's head form (fig. 40). Later, the same general form is retained, but decorative patterns (figs. 41, 46) take the place of the bull's head.
,, 42 ,, Pin, probably connected by a chain with a fellow, to be used as a cloak fastening.
,, 43 ,, Pomegranate pendant, with fine granulated work.
,, 44, 45 ,, Pins as No. 42. The heads are of vitreous paste.
,, 46 (See above.)
,, 47 ,, Pendant ornament, in lotus-form, of a pectoral, inlaid with coloured pastes.
,, 48 ,, Small slate cylinder, set in filigree.

Another find of importance was that of a collection of gold ornaments from one of the Greek islands (said to be Aegina) which also found its way to the British Museum. Here we find the themes of archaic Greek art, such as a figure holding up two water-birds, in immediate connexion with Mycenaean gold patterns.

Figs. 49–53 (Plate I.) are specimens from this treasure.
,, 49 ,, Plate with repoussé ornament for sewing on a dress.
,, 50 ,, Pendant. Figure with two water-birds, on a lotus base, and having serpents issuing from near his middle, modified from Egyptian forms.
Fig. 51 (Plate I.) Ring, with cut blue glass-pastes in the grooves.
,, 52 ,, Pendant ornament, repoussé, and originally inlaid with pieces of cut glass-paste.
,, 53 ,, Pendant ornament, with dogs and apes, modified from Egyptian forms.

For the beginnings of Greek art proper, the most striking series of personal jewels is the great deposit of ornaments which was found in 1905 by D. G. Hogarth in the soil beneath the central basis of the archaic temple of Artemis of Ephesus. The gold ornaments in question (amounting in all to about 1000 pieces) were mingled with the closely packed earth, and must necessarily, it would seem, have been in the nature of votive offerings, made at the end of the 7th or the beginning of the 6th century B.C. The hoard was rich in pins, brooches, beads and stamped disks of gold. The greater part of the find is at Constantinople, but a portion was assigned to the British Museum, which had undertaken the excavations.

Figs. 54–58 (Plate II.) Examples of the Ephesus hoard.
,, 54 ,, Electrum pin, with pomegranate head.
,, 55 ,, Hawk ornament.
,, 56 ,, Electrum pin.
,, 57, 58 ,, Electrum ornaments for sewing on drapery.

The cemeteries of Cyprus have yielded a rich harvest of jewelry of Graeco-Phoenician style of the 7th and following centuries B.C. Figs. 16 and 17 are typical examples of a ring and ear-ring from Cyprus.

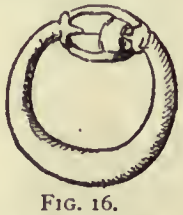


FIG. 16.

FIG. 17.

Greek, Etruscan and Roman ornaments partake of very similar characteristics. Of course there is variety in design and sometimes in treatment, but it does not rise to any special individuality. Fretwork is a distinguishing feature of all, together with the wave ornament, the guilloche, and the occasional use of the human figure. The workmanship is often of a character which modern gold-workers can only rival with their best skill, and can never surpass.

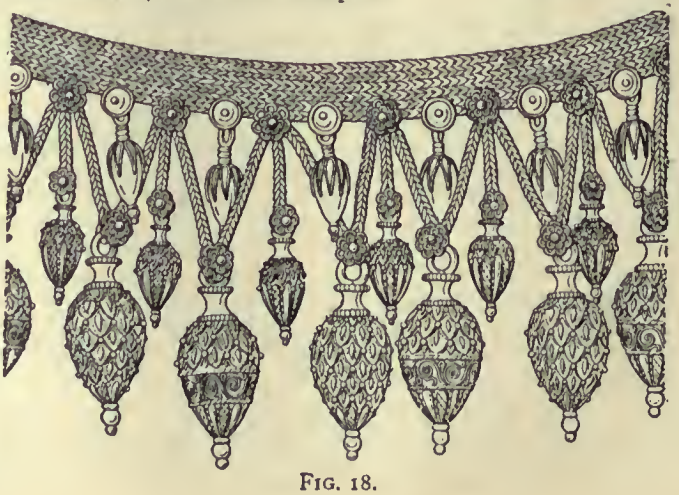
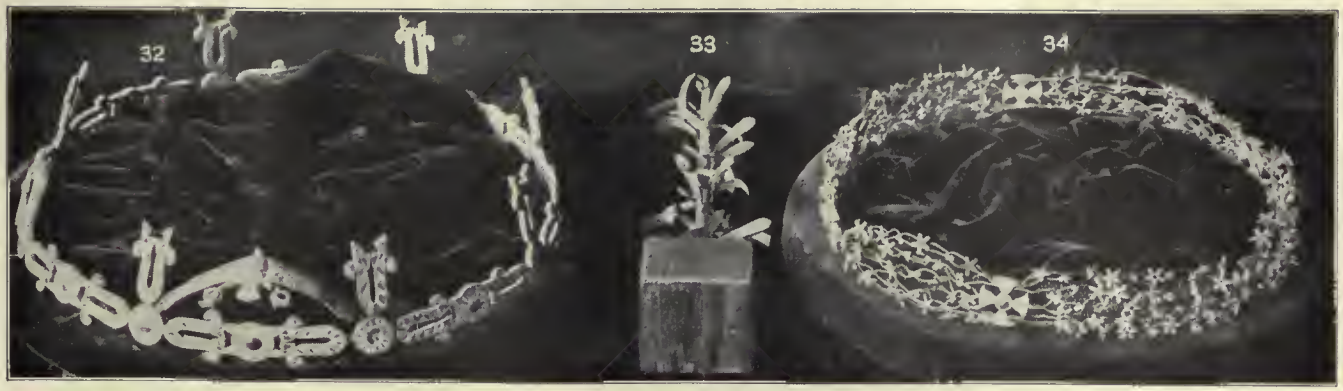
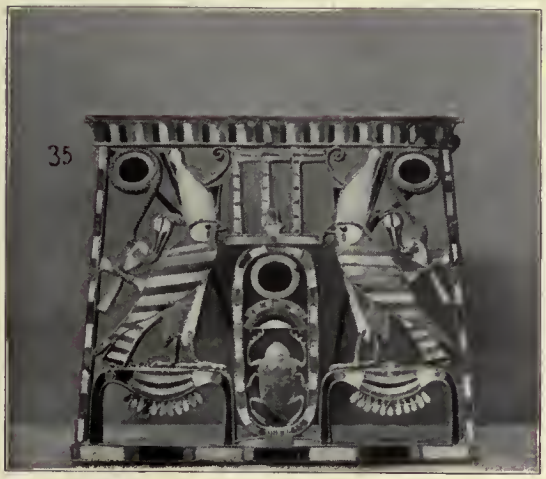
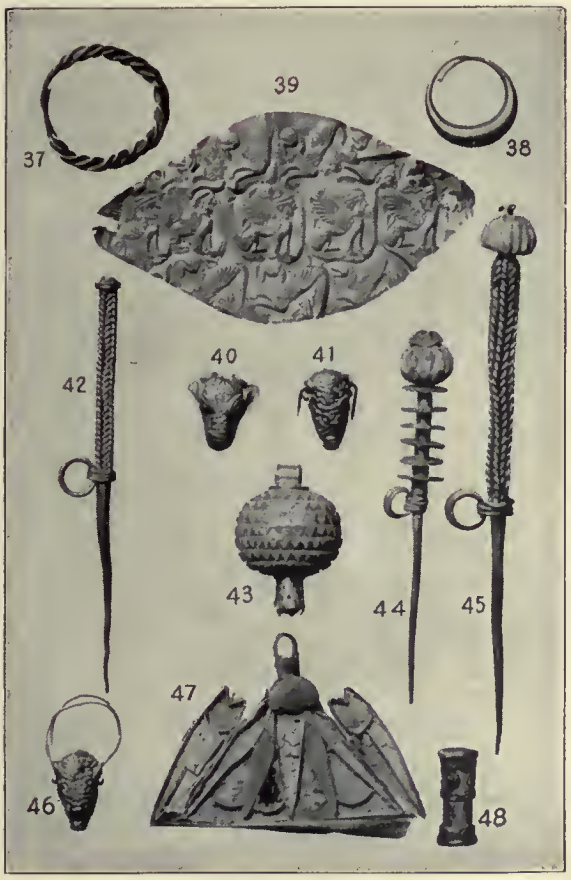


FIG. 18.

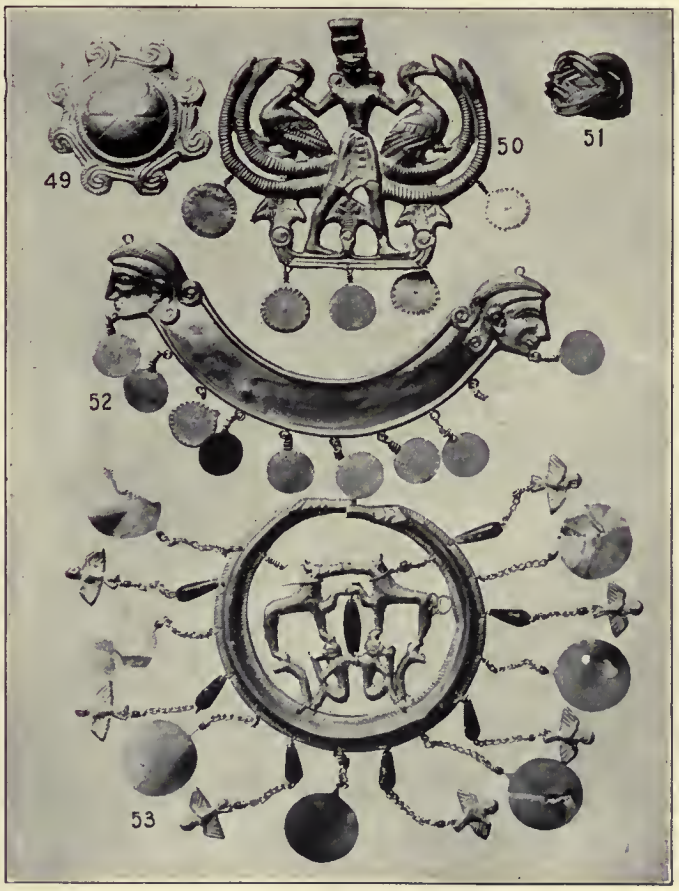




EARLY EGYPTIAN.

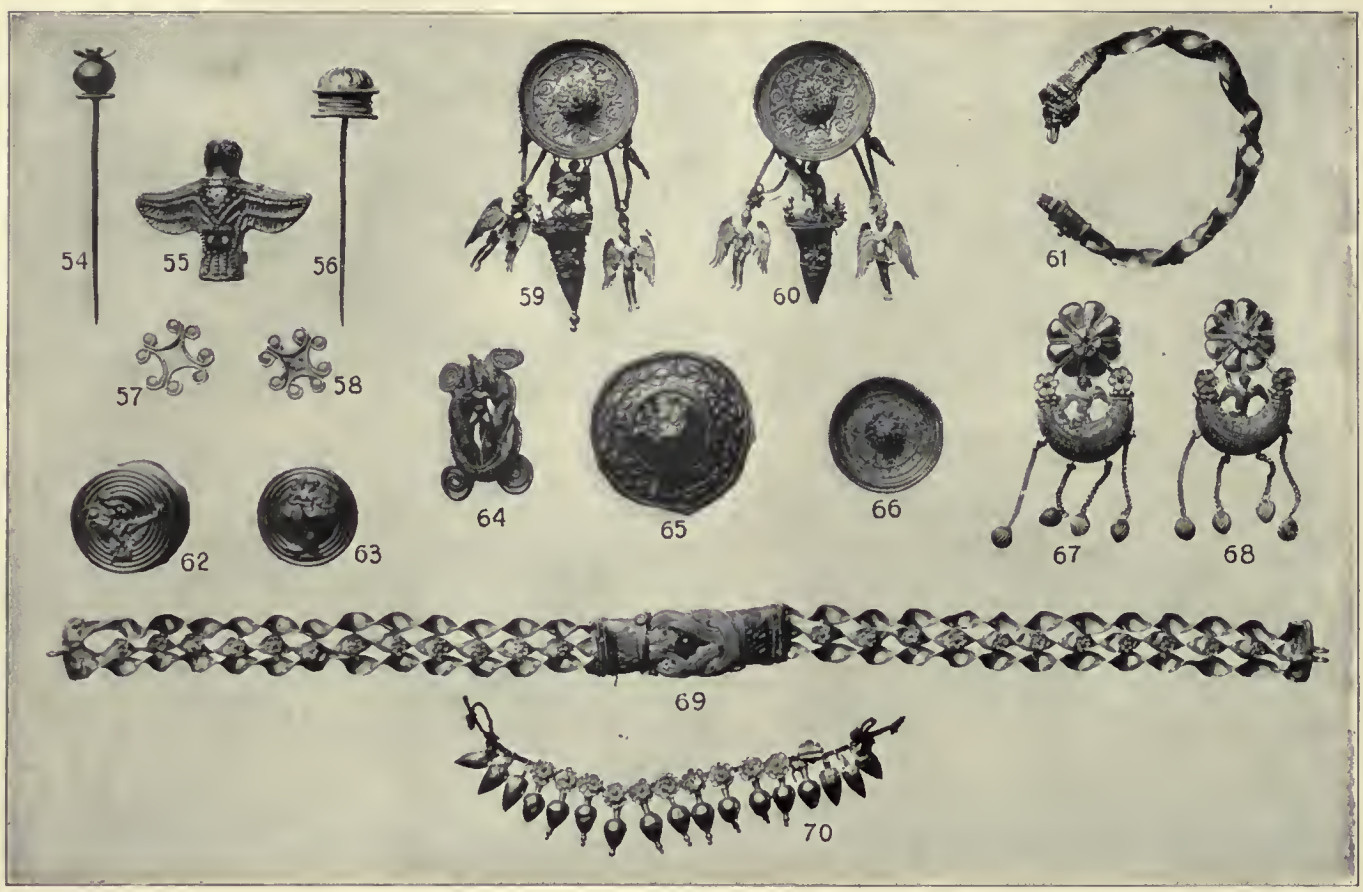


(FROM ENKOMI.)



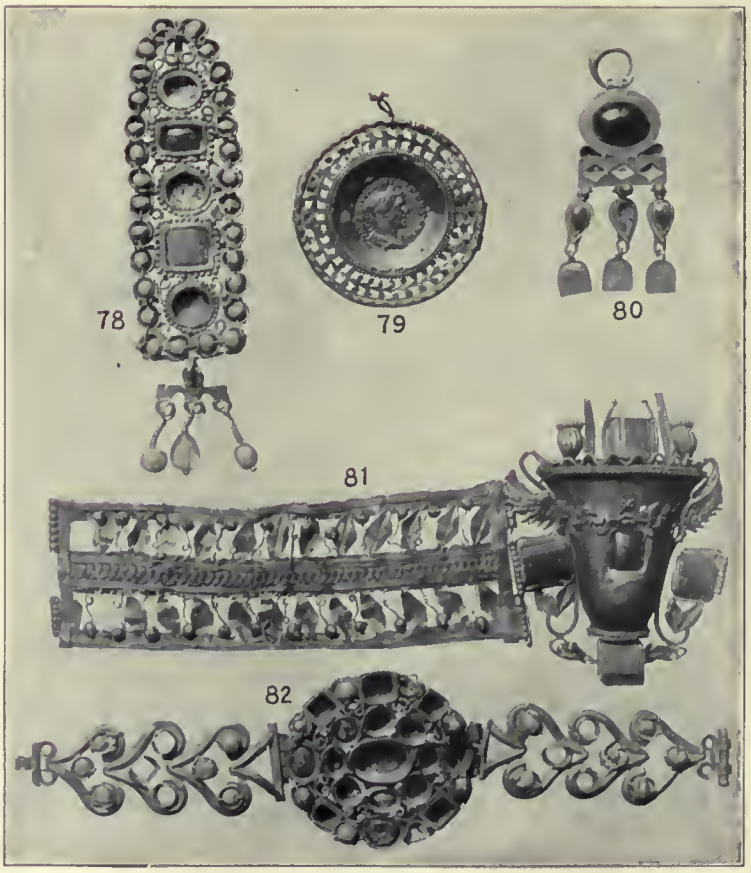
LATE MYCENAEAN. (FROM THE GREEK ISLANDS.)

JEWELRY



GREEK.

ETRUSCAN.



ROMAN.

The Greek jewelry of the best period is of extraordinary delicacy and beauty. Fine examples are shown in the British Museum from Melos and elsewhere. Undoubtedly, however, the most brilliant collection of such ornaments is that of the Hermitage, which was derived from the tombs of Kerch and the Crimea. It contains examples of the purest Greek work, together with objects which must have been of local origin, as is shown by the themes which the artist has chosen for his reliefs. Fig. 18 illustrates the jewelry of the Hermitage (see also EAR-RING).

As further examples of Greek jewelry see the pendant oblong ornament for containing a scroll (fig. 19).

FIG. 19.

FIG. 20.

FIG. 21.

The ear-rings (figs. 20, 21) are also characteristic.

Figs. 59–70 (Plate II.) Examples of fine Greek jewelry, in the British Museum.
,, 59–60 ,, Pair of ear-rings, from a grave at Cyme in Aeolis, with filigree work and pendant Erotes.
,, 61 ,, Small bracelet.
,, 62–63 ,, Small gold reel with repoussé figures of Nereid with helmet of Achilles, and Eros. From Cameiros (Rhodes).
,, 64 ,, Filigree ornament (ear-ring?) with Eros in centre. From Syria.
,, 65 ,, Medallion ornament with repoussé head of Dionysos and filigree work. (Blacas coll.)
,, 66 ,, Stud, with filigree work.
,, 67–68 ,, Pair of ear-rings, of gold, with filigree and enamel, from Eretria.
,, 69 ,, Diadem, with filigree, and enamel scales, from Tarquinii.
,, 70 ,, Necklace pendants.

Etruscan jewlery at its best is not easily distinguished from the Greek, but it tends in its later forms to become florid and diffuse, without precision of design. The granulation of surfaces practised with the highest degree of refinement by the Etruscans was long a puzzle and a problem to the modern jeweller, until Castellani of Rome discovered gold-workers in the Abruzzi to whom the method had descended through many generations. He induced some of these men to go to Naples, and so revived the art, of which he contributed examples to the London Exhibition of 1872 (see FILIGREE).

Figs. 71–77 (Plate II.) are well-marked examples of Etruscan work, in the British Museum.
,, 71 ,, Pair of sirens, repoussé, forming a hook and eye fastening. From Chiusi (?).
,, 72 ,, Early fibula. Horse and chimaera. (Blacas coll.)
,, 74 ,, Medallion-shaped fibula, of fine granulated work, with figures of sirens in relief, and set with dark blue pastes. (Bale coll.)
,, 73, 75 ,, Pair of late Etruscan ear-rings.
,, 76, 77 ,, Pair of late Etruscan ear-rings, in the florid style.

The jewels of the Roman empire are marked by a greater use of large cut stones in combination with the gold, and by larger surfaces of plain and undecorated metal. The adaptation of imperial gold coins to the purposes of the jeweller is also not uncommon.

Figs. 78–82 (Plate II.) Late Roman imperial jewelry, in the British Museum.
,, 78 ,, Large pendant ear-ring, set with stones and pearls. From Tunis, 4th century.
,, 79 ,, Pierced-work pendant, set with a coin of the emperor Philip.
,, 80 ,, Ear-ring, roughly set with garnets.
,, 81 ,, Bracelet, with a winged cornucopia as central ornament, set with plasmas, and with filigree and leaf work.
,, 82 ,, Bracelet, roughly set with pearls and stones. From Tunis, 4th century.

With the decay of the Roman empire, and the approach of the barbarian tribes, a new Teutonic style was developed. An important example of this style is the remarkable gold treasure, discovered at Pétrossa in Transylvanian Alps in 1837, and now preserved, as far as it survives, in the museum of Bucharest. A runic inscription shows that it belonged to the Goths. Its style is in part the classical tradition, debased and modified; in part it is a singularly rude and vigorous form of barbaric art. Its chief characteristics are a free use of strongly conventionalized animal forms, such as great bird-shaped fibulae, and an ornamentation consisting of pierced gold work, combined with a free use of stones cut to special shapes, and inlaid either cloisonné-fashion or in a perforated gold plate. This part of the hoard has its affinities in objects found over a wide field from Siberia to Spain. Its rudest and most naturalistic forms occur in the East in uncouth objects from Siberian tombs, whose lineage however has been traced to Persepolis, Assyria and Egypt. In its later and more refined forms the style is known by the name, now somewhat out of favour (except as applied to a limited number of finds), of Merovingian.

The so-called Merovingian jewelry of the 5th century, and the Anglo-Saxon of a later date, have as their distinctive feature thin plates of gold, decorated with thin slabs of garnet, set in walls of gold soldered vertically like the lines of cloisonné enamel, with the addition of very decorative details of filigree work, beading and twisted gold. The typical group are the contents of the tomb of King Childeric (A.D. 481) now in the Bibliothèque Nationale at Paris. In Figs. 22 and 23 we have examples of Anglo-Saxon fibulae, the first being decorated with a species

FIG. 22.

FIG. 23.

FIG. 24.

of cloisonné, in which garnets are inserted, while the other is in hammered work in relief. A pendant (fig. 24) is also set with garnets. The buckles (figs. 25, 26, 27) are remarkably charac-

FIG. 25.

FIG. 26.

FIG. 27.

teristic examples, and very elegant in design. A girdle ornament in gold, set with garnets (fig. 28), is an example of Carolingian design of a high class. Another remarkable group of barbaric jewelry, dated by coins as of the beginning of the 7th century, was excavated at Castel Trosino near the Picenian Ascoli, and is attributed to the Lombards. See *Monumenti antichi* (*Accademia dei Lincei*), xii. 145.

FIG. 28.

We turn now to the Celtic group of jewelled ornaments, which has an equally long and independent line of descent. The characteristic Celtic ornaments are of hammered work with details in repoussé, having fillings-in of vitreous paste, coloured enamels, amber, and in the later examples rock crystal with a smooth rounded surface cut *en cabochon*. The

whole group is a special development within the British Isles of the art of the mid-European Early Iron age, which in its turn had been considerably influenced by early Mediterranean culture. In its early stages its special marks are combinations of curves, with peculiar central thickenings which give a quasi-naturalistic effect; a skilful use of inlaid enamels, and the chased line. After the introduction of Christianity, a continuous tradition combined the old system with the interlaced winding scrolls and other new forms of decoration, and so led up to the extreme complexity of early Irish illumination and metal work.

A remarkable group of gold ornaments of the pre-Christian time (probably of the 1st century) was discovered about 1896, in the north-west of Ireland, and acquired by the British Museum. It was subsequently claimed by the Crown as treasure trove, and after litigation was transferred to Dublin (see *Archaeologia*, lv., pl. 22).

Figs. 29 and 30 are illustrations of two brooches of the latest

FIG. 29.

period in this class of work. The first is 13th century; the latter is probably 12th century, and is set with paste, amber and blue.

Rings are the chief specimens now seen of medieval jewelry from the 10th to the 13th century. They are generally massive and simple. Through the 16th century a variety of changes arose; in the traditions and designs of the *cinquecento* we have plenty of evidence that the workmen used their own designs, and the results culminated in the triumphs of Albert Dürer, Benvenuto Cellini and Hans Holbein. The goldsmiths of the

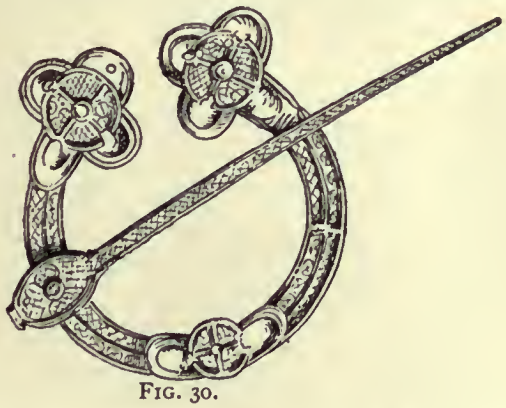


FIG. 30.

Italian republics must have produced works of surpassing excellence in workmanship, and reaching the highest point in design as applied to handicrafts of any kind. The use of enamels, precious stones, niello work and engraving, in combination with skilful execution of the human figure and animal life, produced effects which modern art in this direction is not likely to approach, still less to rival.

In fig. 31 illustrations are given of various characteristic specimens of the Renaissance and later forms of jewelry. A crystal cross set in enamelled gold (*a*) is German work of the 16th century. The pendant reliquary (*b*), enamelled and jewelled, is of 16th century Italian work, and so probably is the jewel (*c*) of gold set with diamonds and rubies. The Darnley or Lennox jewel (*d*), now in the possession of the king, was made about 1576–1577 for Lady Margaret Douglas, countess of Lennox, the mother of Henry Darnley. It is a pendant golden heart set with a heart-shaped sapphire, richly jewelled and enamelled with emblematic figures and devices. It also has Scottish mottoes around and within it. The ear-ring (*e*) of gold, enamelled, hung with small pearls, is an example of 17th century Russian work, and another (*f*) is Italian of the same period, being of gold and filigree with enamel, also with pendant pearls. A Spanish ear-ring, of 18th century work (*g*), is a combination of ribbon, cord and filigree in gold; and another (*h*) is Flemish, of probably the same period; it is of gold open work set with diamonds in projecting collets. The old French-Normandy pendant cross and locket (*l*) presents a characteristic example of peasant jewelry; it is of branched open work set with bosses and ridged ornaments of crystal. The ear-ring (*j*) is French of 17th century, also of gold open work set with crystals. A small pendant locket (*k*) is of rock crystal, with the cross of Santiago in gold and translucent crimson enamel; it is 16th or 17th century Spanish work. A pretty ear-ring of gold open scroll work (*m*), set with minute diamonds and three pendant pearls, is Portuguese of 17th century, and another ear-ring (*n*) of gold circular open work, set also with minute diamonds, is Portuguese work of 18th century. These examples fairly illustrate the general features of the most characteristic jewelry of the dates quoted.

During the 17th and 18th centuries we see only a mechanical kind of excellence, the results of the mere tradition of the workshop—the lingering of the power which when wisely directed had done so much and so well, but now simply living on traditional forms, often combined in a most incongruous fashion. Gorgeous effects were aimed at by massing the gold, and introducing stones elaborately cut in themselves or clustered in groups. Thus diamonds were clustered in rosettes and bouquets; rubies, pearls, emeralds and other coloured special stones were brought together for little other purpose than to get them into a given space in conjunction with a certain quantity of gold. The question was not of design in its relation to use as personal decoration, but of the value which could be got into a given space to produce the most striking effect.

The traditions of Oriental design as they had come down through the various periods quoted, were comparatively lost in the wretched results of the *rococo* of Louis XIV. and the inanities of what modern revivalists of the Anglo-Dutch call "Queen Anne." In the London exhibition of 1851, the extravagances of modern jewelry had to stand comparison with the Oriental examples contributed from India. Since then we have learnt more about these works, and have been compelled to acknowledge, in spite of what is sometimes called inferiority of workmanship, how completely the Oriental jeweller understood his work, and with what singular simplicity of method he carried it out. The combinations are always harmonious, the result aimed at is always achieved; and if in attempting to work to European ideas the jeweller failed, this was rather the fault of the forms he had to follow, than due to any want of skill in making the most of a subject in which half the thought and the intended use were foreign to his experience.

A collection of peasant jewelry got together by Castellani for the Paris exhibition of 1867, and now in the Victoria and Albert Museum, illustrates in an admirable manner the traditional jewelry and personal ornaments of a wide range of peoples in Europe. This collection, and the additions made to it since its acquisition by the nation, show the forms in which these objects existed over several generations among the peasantry of France (chiefly Normandy), Spain, Portugal, Holland, Denmark, Germany and Switzerland, and also show how the forms popular in one country are followed and adopted in another, almost invariably because of their perfect adaptation to the purpose for which they were designed.

Apart from these humbler branches of the subject, in the middle of the 19th century the production of jewelry, regarded as a personal art, and not as a commercial and anonymous industry, was almost extinct. Its revival must be associated with the artistic movement which marked the close of that century, and which found emphatic expression in the Paris international exhibition of 1900. For many years before 1895 this industry, though prosperous from the commercial point of view, and always remarkable from that of technical finish, remained stationary as an art. French jewelry rested on its

reputation. The traditions were maintained of either the 17th and 18th centuries or the style affected at the close of the second empire—light pierced work and design borrowed from natural flowers. The last type, introduced by Massin, had exercised, indeed, a revolutionary influence on the treatment of jewelry. This clever artist, not less skilful as a craftsman, produced a new *genre* by copying the grace and lightness of living blossoms, thus introducing a perfectly fresh element into the limited variety of traditional style, and by the use of filigree gold work altering its character and giving it greater elegance. Massin still held the first rank in the exhibition of 1878; he had a marked influence on his contemporaries, and his name will be remembered in the history of the goldsmith's art to designate a style

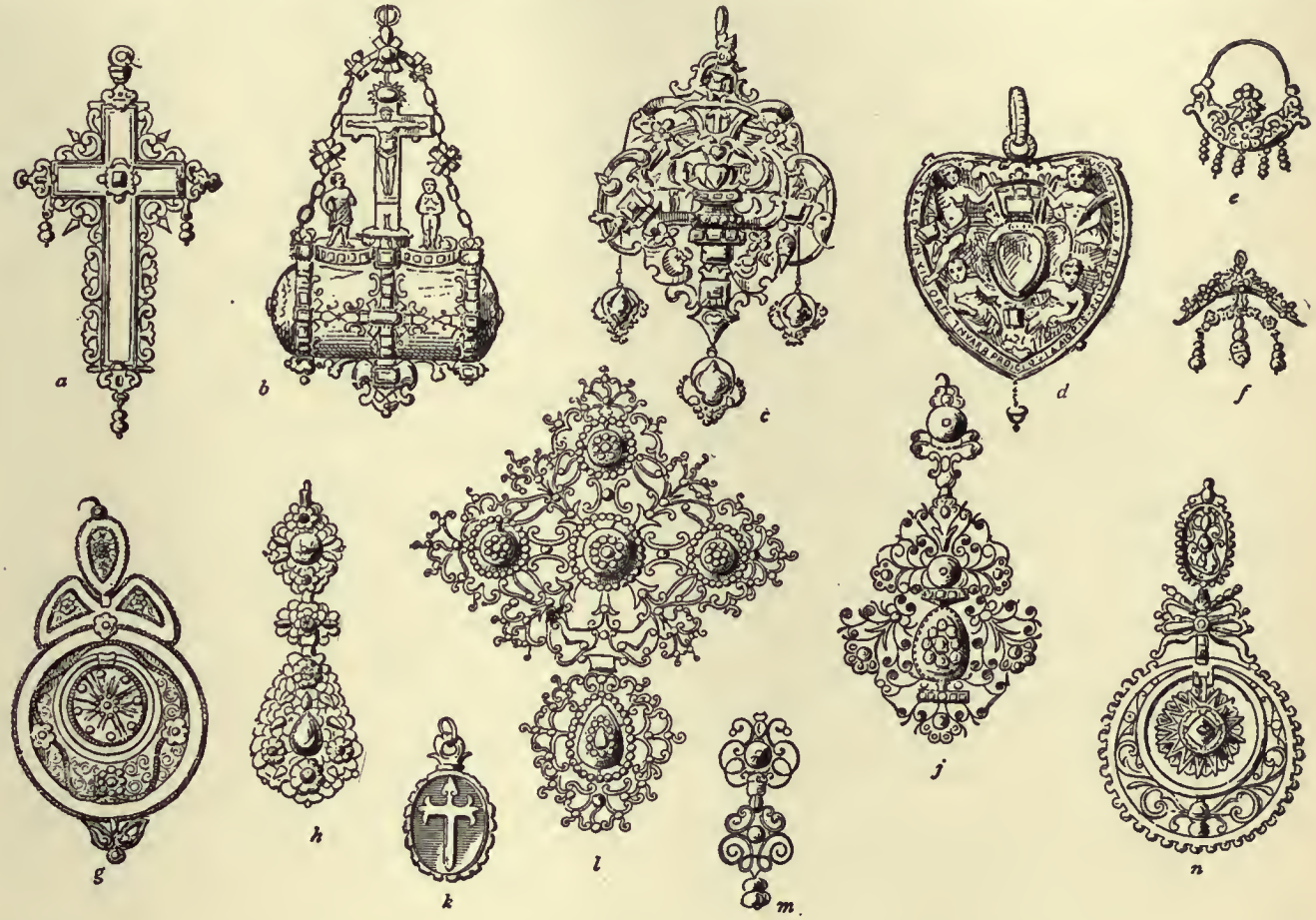


FIG. 31.

and a period. Throughout these years the craft was exclusively devoted to perfection of workmanship. The utmost finish was aimed at in the mounting and setting of gems; jewelry was, in fact, not so much an art as a high-class industry; individual effort and purpose were absent.

Up to that time precious stones had been of such intrinsic value that the jeweller's chief skill lay in displaying these costly stones to the best advantage; the mounting was a secondary consideration. The settings were seldom long preserved in their original condition, but in the case of family jewels were renewed with each generation and each change of fashion, a state of things which could not be favourable to any truly artistic development of taste, since the work was doomed, sooner or later, to destruction. However, the evil led to its own remedy. As soon as diamonds fell in value they lost at the same time their overwhelming prestige, and refined taste could give a preference to trinkets which derived their value and character from artistic design. This revolutionized the jeweller's craft, and revived the simple ornament of gold or silver, which came forward but timidly at first, till, in the Salon of 1895, it burst upon the world in the exhibits of René Lalique, an artist who was further confirmed in his remarkable position by the exhibition of 1900. What specially stamps the works of Lalique is their striking originality. His work may be considered from the point of view of design and from that of execution. As an artist he has completely reconstructed from the foundation the scheme of design which had fed the poverty-stricken imagination of the last generation of goldsmiths. He had recourse to the art of the past, but to the spirit rather than the letter, and to nature for many new elements of design—free double curves, suave or soft; opalescent harmonies of colouring; reminiscences, with quite a new feeling, of Egypt, Chaldea, Greece and the East, or of the art of the Renaissance; and infinite variety of floral forms even of the humblest. He introduces also the female nude in the form of sirens and sphinxes. As a craftsman he has effected a radical change, breaking through old routine, combining all the processes of the goldsmith, the chaser, the enameller and the gem-setter, and freeing himself from the narrow lines in which the art had been confined. He ignores the hierarchy of gems, caring no more on occasion for a diamond than for a flint, since, in his view, no stone, whatever its original estimation, has any value beyond the characteristic expression he lends it as a means to his end. Thus, while he sometimes uses diamonds, rubies, sapphires or emeralds as a background, he will, on the other hand, give a conspicuous position to common stones—carnelian, agate, malachite, jasper, coral, and even materials of no intrinsic value, such as horn. One of his favourite stones is the opal, which lends itself to his arrangements of colour, and which has in consequence become a fashionable stone in French jewelry.

In criticism of the art of Lalique and his school it should be observed that the works of the school are apt to be unsuited to the wear and tear of actual use, and inconveniently eccentric in their details. Moreover, the preciousness of the material is an almost inevitable consideration in the jeweller's craft, and cannot be set at naught by the artist without violating the canons of his art.

The movement which took its rise in France spread in due course to other countries. In England the movement conveniently described as the " arts and crafts movement " affected the design of jewelry. A group of designers has aimed at purging the jeweller's craft of its character of mere gem-mounting in conventional forms (of which the more unimaginative, representing stars, bows, flowers and the like, are varied by such absurdities as insects, birds, animals, figures of men and objects made up simply of stones clustered together). Their work is often excellently and fancifully designed, but it lacks that exquisite perfection of execution achieved by the incomparable craftsmen of France. At the same time English sculptor-decorators—such as Alfred Gilbert, R.A., and George J. Frampton, A.R.A.—have produced objects of a still higher class, but it is usually the work of the goldsmith rather than of the jeweller. Examples may be seen in the badge executed by Gilbert for the president of the Institute of Painters in Water Colours and in the mayoral chain for Preston. Symbolism here enters into the design, which has not only an ornamental but a didactic purpose.

The movement was represented in other countries also. In the United States it was led by L. C. Tiffany, in Belgium by Philippe Wolfers, who occupies in Belgium the position which in France is held by René Lalique. If his design is a little heavier, it is not less beautiful in imagination or less masterly in execution. Graceful, ingenious, fanciful, elegant, fantastic by turns, his objects of jewelry and goldsmithery have a solid claim to be considered *créations d'art.* It has also been felt in Germany, Austria, Russia and Switzerland. It must be admitted that many of the best artists who have devoted themselves to jewelry have been more successful in design than in securing the lightness and strength which are required by the wearer, and which were a characteristic in the works of the Italian craftsmen of the Renaissance. For this reason many of their masterpieces are more beautiful in the case than upon the person.

Modern Jewelry.—So far we have gone over the progress and results of the jeweller's art. We have now to speak of the production of jewelry as a modern art industry, in which large numbers of men and women are employed in the larger cities of Europe. Paris, Vienna, London and Birmingham are the most important centres. An illustration of the manufacture as carried on in London and Birmingham will be sufficient to give an insight into the technique and artistic manipulation of this branch of art industry; but, by way of contrast, it may be interesting to give in the first place a description of the native working jeweller of Hindustan.

He travels very much after the fashion of a tinker in England; his budget contains tools, materials, fire pots, and all the requisites of his handicraft. The gold to be used is generally supplied by the patron or employer, and is frequently in gold coin, which the travelling jeweller undertakes to convert into the ornaments required. He squats down in the corner of a courtyard, or under cover of a veranda, lights his fire, cuts up the gold pieces entrusted to him, hammers, cuts, shapes, drills, solders with the blow-pipe, files, scrapes and burnishes until he has produced the desired effect. If he has stones to set or coloured enamels to introduce, he never seems to make a mistake; his instinct for harmony of colour, like that of his brother craftsman the weaver, is as unerring as that of the bird in the construction of its nest. Whether the materials are common or rich and rare, he invariably does the very best possible with them, according to native ideas of beauty in design and combination. It is only when he is interfered with by European dictation that he ever vulgarizes his art or makes a mistake. The result may appear rude in its finish, but the design and the thought are invariably right. We thus see how a trade in the working of which the " plant " is so simple and wants are so readily met could spread itself, as in years past it did at Clerkenwell and at Birmingham before gigantic factories were invented for producing everything under the sun.

It is impossible to find any date at which the systematic production of jewelry was introduced into England. Probably the Clerkenwell trade dates its origin from the revocation of the edict of Nantes, as the skilled artisans in the jewelry, clock and watch, and trinket trades appear to have been descendants of the emigrant Huguenots. The Birmingham trade would appear to have had its origin in the skill to which the workers in fine steel had attained towards the middle and end of the 18th century, a branch of industry which collapsed after the French Revolution.

Modern jewelry may be classified under three heads: (1) objects in which gems and stones form the principal portions, and in which the work in silver, platinum or gold is really only a means for carrying out the design by fixing the gems or stones in the position arranged by the designer, the metal employed being visible only as a setting; (2) when gold work plays an important part in the development of the design, being itself ornamented by engraving (now rarely used) or enamelling or both, the stones and gems being arranged in subordination to the gold work in such positions as to give a decorative effect to the whole; (3) when gold or other metal is alone used, the design being wrought out by hammering in repoussé, casting, engraving, chasing or by the addition of filigree work (see FILIGREE), or when the surfaces are left absolutely plain but polished and highly finished.

Of course the most ancient and primitive methods are those wholly dependent upon the craft of the workman; but gradually various ingenious processes were invented, by which greater accuracy in the portions to be repeated in a design could be produced with certainty and economy: hence the various methods of stamping used in the production of hand-made jewelry, which are in themselves as much mechanical in relation to the end in view as if the whole object were stamped out at a blow, twisted into its proper position as regards the detail, or the various stamped portions fitted into each other for the mechanical completion of the work. It is therefore rather difficult to draw an absolute line between hand-made and machine-made jewelry, except in extreme cases of hand-made, when everything is worked, so to speak, from the solid, or of machine-made, when the hand has only to give the ornament a few touches of a tool, or fit the parts together if of more than one piece.

The best and most costly hand-made jewelry produced in England, whether as regards gold work, gems, enamelling or engraving, is made in London, and chiefly at Clerkenwell. A design is first made with pencil, sepia or water colour, and when needful with separate enlargement of details, everything in short to make the drawing thoroughly intelligible to the working jeweller. According to the nature and purpose of the design, he cuts out, hammers, files and brings into shape the constructive portions of the work as a basis. Upon this, as each detail is wrought out, he solders, or (more rarely) fixes by rivets, &c., the ornamentation necessary to the effect. The human figure, representations of animal life, leaves, fruit, &c., are modelled in wax, moulded and cast in gold, to be chased up and finished. As the hammering goes on the metal becomes brittle and hard, and then it is passed though the fire to anneal or soften it. In the case of elaborate examples of repoussé, after the general forms are beaten up, the interior is filled with a resinous compound, pitch mixed with fire-brick dust; and this, forming a solid but pliable body underneath the metal, allows of the finished details being wrought out on the front of the design, and being finally completed by chasing. When stones are to be set, or when they form the principal portions of the design, the gold or other metal has to be wrought by hand so as to receive them in little cup-like orifices, these walls of gold enclosing the stone and allowing the edges to be bent over to secure it. Setting is never effected by cement in well-made jewelry. Machine-made settings have in recent years been made, but these are simply cheap imitations of the true hand-made setting. Even strips of gold have been used, serrated at the edges to allow of being easily bent over, for the retention of the stones, true or false.

Great skill and experience are necessary in the proper setting of stones and gems of high value, in order to bring out the greatest amount of brilliancy and colour, and the angle at which a diamond (say) shall be set, in order that the light shall penetrate at the proper point to bring out the " spark " or " flash," is a subject of grave consideration to the setter. Stones set in a haphazard, slovenly manner, however brilliant in themselves, will look commonplace by the side of skilfully set gems of much less fine quality and water. Enamelling (see ENAMEL) has of late years largely taken the place of " paste " or false stones.

Engraving is a simple process in itself, and diversity of effect can be produced by skilful manipulation. An interesting variety in the effect of a single ornament may be produced by the combination of coloured gold of various tints. This colouring is a process requiring skill and experience in the manipulation of the materials according to the quality of the gold and the amount of silver alloy in it. The objects to be coloured are dipped in a boiling mixture of salt, alum and saltpetre. Of general colouring it may be said that the object aimed at is to enhance the appearance of the gold by removing the particles of alloy on the surface, and thus allowing the pure gold only to remain visible to the eye. The process has, however, gone much out of fashion. It is apt to rot the solder, and repairs to gold work can be better finished by electro-gilding.

The application of machinery to the economical production of certain classes of jewelry, not necessarily imitations, but as much " real gold " work, to use a trade phrase, as the best hand-made, has been on the increase for many years. Nearly every kind of gold chain now made is manufactured by machinery, and nothing like

the beauty of design or perfection of workmanship could be obtained by hand at, probably, any cost. The question therefore in relation to chains is not the mode of manufacture, but the quality of the metal. Eighteen carat gold is of course preferred by those who wear chains, but this is only gold in the proportion of 18 to 24, pure gold being represented by 24. The gold coin of the realm is 22 carat; that is, it contains one-twelfth of alloy to harden it to stand wear and tear. Thus 18 carat gold has one-fourth of alloy, and so on with lower qualities down to 12, which is in reality only gold by courtesy. It must be remembered that the alloys are made by weight, and as gold is nearly twice as heavy as the metal it is mixed with, it only forms a third of the bulk of a 12 carat mixture.

The application of machinery to the production of personal ornaments in gold and silver can only be economically and successfully carried on when there is a large demand for similar objects, that is to say, objects of precisely the same design and decoration throughout. In machine-made jewelry everything is stereotyped, so to speak, and the only work required for the hand is to fit the parts together—in some instances scarcely that. A design is made, and from it steel dies are sunk for stamping out as rapidly as possible from a plate of rolled metal the portion represented by each die. It is in these steel dies that the skill of the artist die-sinker is manifested. Brooches, ear-rings, pinheads, bracelets, lockets, pendants, &c., are struck out by the gross. This is more especially the case in silver and in plated work—that is, imitation jewelry—the base of which is an alloy, afterwards gilt by electro-plating. With these ornaments imitation stones in paste and glass, pearls, &c., are used, and it is remarkable that of late years some of the best designs, the most simple, appropriate and artistic, have appeared in imitation jewelry. It is only just to those engaged in this manufacture to state distinctly that their work is never sold wholesale for anything else than what it is. The worker in gold only makes gold or real jewelry, and he only makes of a quality well known to his customers. The producer of silver work only manufactures silver ornaments, and so on throughout the whole class of plated goods.

It is the retailer who, if he is unprincipled, takes advantage of the ignorance of the buyer and sells for gold that which is in reality an imitation, and which he bought as such. The imitations of old styles of jewelry which are largely sold in curiosity shops at foreign places of fashionable resort are said to be made in Germany, especially at Munich.

BIBLIOGRAPHY.—For the Dāhshur jewels, see J. de Morgan and others; *Fouilles à Dahchour, Mars-Juin 1894* (Vienna, 1895) and *Fouilles à Dahchour en 1894–1895* (Vienna, 1903). For the Aah-hotp jewels, see Mariette, *Album de Musée de Boulaq*, pls. 29–31; Birch, *Facsimiles of the Egyptian Relics discovered in the Tomb of Queen Aah-hotep* (1863). For Cretan excavations, see A. J. Evans, in *Annual of the British School at Athens*, Nos. 7 to 11; *Archaeologia*, vol. lix. For excavations at Enkomi, see *Excavations in Cyprus*, by A. S. Murray and others (1900). For Schliemann's excavations, see Schliemann's works; also Schuchhardt, *Schliemann's Excavations*; Perrot & Chipiez, *Histoire de l'Art*, vi. For the Greek Island treasure, see A. J. Evans, *Journal of Hellenic Studies*, xiii. For Ephesus gold treasure, see D. G. Hogarth, *British Museum Excavations at Ephesus*; *The Archaic Artemisia*. For the Hermitage Collection from South Russia, see Gillé, *Antiquités du Bosphore Cimmérien* (reissued by S. Reinach), and the *Comptes rendus* of the Russian Archaeological Commission (St Petersburg). For later jewelry, Pollak, *Goldschmiedearbeit*. For Treasure of Pétrossa, A. Odobesco, *Le Trésor de Pétrossa*. For the European and west Asiatic barbaric jewelry, see O. M. Dalton, in *Archaeologia*, lviii. 237, and the *Treasure of the Oxus* (British Museum, 1905). For the whole history, G. Fontenay, *Les Bijoux anciens et modernes* (Paris [Quantin], 1887). For the recent movement, Léonce Bénédite, "La Bijouterie et la joaillerie, à l'exposition universelle; René Lalique," in the *Revue des arts décoratifs*, 1900 (July, August). (A. H. Sm.)

JEWETT, SARAH ORNE (1849–1909), American novelist, was born in South Berwick, Maine, on the 3rd of September 1849. She was a daughter of the physician Theodore H. Jewett (1815–1878), by whom she was greatly influenced, and whom she has drawn in *A Country Doctor* (1884). She studied at the Berwick Academy, and began her literary career in 1869, when she contributed her first story to the *Atlantic Monthly*. Her best work consists of short stories and sketches, such as those in *The Country of the Pointed Firs* (1896). The People of Maine, with their characteristic speech, manners and traditions, she describes with peculiar charm and realism, often recalling the work of Hawthorne. She died at South Berwick, Maine, on the 24th of June 1909.

Among her publications are: *Deephaven* (1877), a series of sketches; *Old Friends and New* (1879); *Country By-ways* (1881); *A Country Doctor* (1884), a novel; *A Marsh Island* (1885), a novel; *A White Heron and other Stories* (1886); *The King of Folly Island and other People* (1888); *Strangers and Wayfarers* (1890); *A Native of Winby and other Tales* (1893); *The Queen's Twin and other Stories* (1899), and *The Tory Lover* (1901), an historical novel.

JEWS (Heb. *Yĕhūdī*, man of Judah; Gr. Ἰουδαῖοι; Lat. *Judaei*), the general name for the Semitic people which inhabited Palestine from early times, and is known in various connexions as "the Hebrews," "the Jews," and "Israel" (see §5 below). Their history may be divided into three great periods: (1) That covered by the Old Testament to the foundation of Judaism in the Persian age, (2) that of the Greek and Roman domination to the destruction of Jerusalem, and (3) that of the Diaspora or Dispersion to the present day.

I.—Old Testament History

1. *The Land and the People.*—For the first two periods the history of the Jews is mainly that of Palestine. It begins among those peoples which occupied the area lying between the Nile on the one side and the Tigris and the Euphrates on the other. Surrounded by ancient seats of culture in Egypt and Babylonia, by the mysterious deserts of Arabia, and by the highlands of Asia Minor, Palestine, with Syria on the north, was the high road of civilization, trade and warlike enterprise, and the meeting-place of religions. Its small principalities were entirely dominated by the great Powers, whose weakness or acquiescence alone enabled them to rise above dependence or vassalage. The land was traversed by old-established trade routes and possessed important harbours on the Gulf of 'Akaba and on the Mediterranean coast, the latter exposing it to the influence of the Levantine culture. It was "the physical centre of those movements of history from which the world has grown." The portion of this district abutting upon the Mediterranean may be divided into two main parts:—Syria (from the Taurus to Hermon) and Palestine (southward to the desert bordering upon Egypt). The latter is about 150 m. from north to south (the proverbial "Dan to Beersheba"), with a breadth varying from 25 to 80 m., *i.e.* about 6040 sq. m. This excludes the land east of the Jordan, on which see Palestine.

From time to time streams of migration swept into Palestine and Syria. Semitic tribes wandered northwards from their home in Arabia to seek sustenance in its more fertile fields, to plunder, or to escape the pressure of tribes in the rear. The course leads naturally into either Palestine or Babylonia, and, following the Euphrates, northern Syria is eventually reached. Tribes also moved down from the north: nomads, or offshoots from the powerful states which stretch into Asia Minor. Such frequently recurring movements introduced new blood. Tribes, chiefly of pastoral habits, settled down among others who were so nearly of their own type that a complete amalgamation could be effected, and this without any marked modification of the general characteristics of the earlier inhabitants. It is from such a fusion as this that the ancestors of the Jews were descended, and both the history and the genius of this people can be properly understood only by taking into account the physical features of their land and the characteristics of the Semitic races in general (see Palestine, Semitic Languages).

2. *Society and Religion.*—The similarity uniting the peoples of the East in respect of racial and social characteristics is accompanied by a striking similarity of mental outlook which has survived to modern times. Palestine, in spite of the numerous vicissitudes to which it has been subjected, has not lost its fundamental characteristics. The political changes involved in the Babylonian, Assyrian, Egyptian or Persian conquests surely affected it as little as the subsequent waves of Greek, Roman and other European invasions. Even during the temporary Hellenization in the second great period the character of the people as a whole was untouched by the various external influences which produced so great an effect on the upper classes. When the foreign civilization perished, the old culture once more came to the surface. Hence it is possible, by a comprehensive comparative study of Eastern peoples, in both ancient and modern times, to supplement and illustrate within certain limits our direct knowledge of the early Jewish people, and thus to understand more clearly those characteristics which were

peculiar to them, in relation to those which they shared with other Oriental peoples.

Even before authentic history begins, the elements of religion and society had already crystallized into a solid coherent structure which was to persist without essential modification. Religion was inseparable from ordinary life, and, like that of all peoples who are dependent on the fruits of the earth, was a nature-worship. The tie between deities and worshippers was regarded as physical and entailed mutual obligations. The study of the clan-group as an organization is as instructive here as in other fields. The members of each group lived on terms of equality, the families forming a society of worship the rites of which were conducted by the head. Such groups (each with its local deity) would combine for definite purposes under the impulse of external needs, but owing to inevitable internal jealousies and the incessant feuds among a people averse from discipline and authority, the unions were not necessarily lasting. The elders of these groups possessed some influence, and tended to form an aristocracy, which took the lead in social life, although their authority generally depended merely upon custom. Individual leaders in times of stress acquired a recognized supremacy, and, once a tribe outstripped the rest, the opportunities for continued advance gave further scope to their authority. "The interminable feuds of tribes, conducted on the theory of blood-revenge, . . . can seldom be durably healed without the intervention of a third party who is called in as arbiter, and in this way an impartial and wise power acquires of necessity a great and beneficent influence over all around it" (W. R. Smith). In time, notwithstanding a certain inherent individualism and impatience of control, veritable despotisms arose in the Semitic world, although such organizations were invariably liable to sudden collapse as the old forms of life broke down with changing conditions.[1]

3. *Early History.*[2]—Already in the 15th century B.C. Palestine was inhabited by a settled people whose language, thought and religion were not radically different several hundred years later. Small native princes ruled as vassals of Egypt which, after expelling the Hyksos from its borders, had entered upon a series of conquests as far as the Euphrates. Some centuries previously, however, Babylonia had laid claim to the western states, and the Babylonian (*i.e.* Assyrian) script and language were now used, not merely in the diplomatic correspondence between Egypt and Asia, but also for matters of private and everyday life among the Palestinian princes themselves. To what extent specific Babylonian influence showed itself in other directions is not completely known. Canaan (Palestine and the south Phoenician coast land) and Amor (Lebanon district and beyond) were under the constant supervision of Egypt, and Egyptian officials journeyed round to collect tribute, to attend to complaints, and to assure themselves of the allegiance of the vassals. The Amarna tablets and those more recently found at Taannek (bibl. Taanach), together with the contemporary archaeological evidence (from Lachish, Gezer, Megiddo, Jericho, &c.), represent advanced conditions of life and culture, the precise chronological limits of which cannot be determined with certainty. This age, with its regular maritime intercourse between the Aegean settlements, Phoenicia and the Delta, and with lines of caravans connecting Babylonia, North Syria, Arabia and Egypt, presents a remarkable picture of life and activity, in the centre of which lies Palestine, with here and there Egyptian colonies and some traces of Egyptian cults. The history of this, the "Amarna" age, reveals a state of anarchy in Palestine for which the weakness of Egypt and the downward pressure of north Syrian peoples were responsible. Subdivided into a number of little local principalities, Palestine was suffering both from internal intrigues and from the designs of this northern power. It is now that we find the restless Ḫabiru, a name which is commonly identified with that of the "Hebrews" (*'ibrīm*). They offer themselves where necessary to either party, and some at least perhaps belonged to the settled population. The growing prominence of the new northern group of "Hittite" states continued to occupy the energies of Egypt, and when again we have more external light upon Palestinian history, the Hittites (*q.v.*) are found strongly entrenched in the land. But by the end of the first quarter of the 13th century B.C. Egypt had recovered its province (precise boundary uncertain), leaving its rivals in possession of Syria. Towards the close of the 13th century the Egyptian king Merneptah (Mineptah) records a successful campaign in Palestine, and alludes to the defeat of Canaan, Ascalon, Gezer, Yenuam (in Lebanon) and (the people or tribe) Israel.[3] Bodies of aliens from the Levantine coast had previously threatened Egypt and Syria, and at the beginning of the 12th century they formed a coalition on land and sea which taxed all the resources of Rameses III. In the Purasati, apparently the most influential of these peoples, may be recognized the origin of the name "Philistine." The Hittite power became weaker, and the invaders, in spite of defeat, appear to have succeeded in maintaining themselves on the sea coast. External history, however, is very fragmentary just at the age when its evidence would be most welcome. For a time the fate of Syria and Palestine seems to have been no longer controlled by the great powers. When the curtain rises again we enter upon the historical traditions of the Old Testament.

4. *Biblical History.*—For the rest of the first period the Old Testament forms the main source. It contains in fact the history itself in two forms: (*a*) from the creation of man to the fall of Judah (Genesis–2 Kings), which is supplemented and continued further—(*b*) to the foundation of Judaism in the 5th century B.C. (Chronicles—Ezra-Nehemiah). In the light of contemporary monuments, archaeological evidence, the progress of scientific knowledge and the recognized methods of modern historical criticism, the representation of the origin of mankind and of the history of the Jews in the Old Testament can no longer be implicitly accepted. Written by an Oriental people and clothed in an Oriental dress, the Old Testament does not contain objective records, but subjective history written and incorporated for specific purposes. Like many Oriental works it is a compilation, as may be illustrated from a comparison of Chronicles with Samuel–Kings, and the representation of the past in the light of the present (as exemplified in Chronicles) is a frequently recurring phenomenon. The critical examination of the nature and growth of this compilation has removed much that had formerly caused insuperable difficulties and had quite unnecessarily been made an integral or a relevant part of practical religion. On the other hand, criticism has given a deeper meaning to the Old Testament history, and has brought into relief the central truths which really are vital; it may be said to have replaced a divine account of man by man's account of the divine. Scholars are now almost unanimously agreed that the internal features are best explained by the Graf-Wellhausen hypothesis. This involves the view that the historical traditions are mainly due to two characteristic though very complicated recensions, one under the influence of the teaching of Deuteronomy (Joshua to Kings, see § 20), the other, of a more priestly character (akin to Leviticus), of somewhat later date (Genesis to Joshua, with traces in Judges to Kings, see § 23). There are, of course, numerous problems relating to the nature, limits and dates of the two recensions, of the incorporated sources, and of other sources (whether early or late) of independent origin; and here there is naturally room for much divergence of opinion. Older material (often of composite origin) has been used, not so much for the purpose of providing historical information, as with the object of showing the religious significance of past history;

[1] On the homogeneity of the population, see further, W. R. Smith, *Religion of the Semites* (2nd ed., chaps. i.–iii.); T. Nöldeke, *Sketches from Eastern History*, pp. 1–20 (on "Some Characteristics of the Semitic Race"); and especially E. Meyer, *Gesch. d. Altertums* (2nd ed., i. §§ 330, sqq.). For the relation between the geographical characteristics and the political history, see G. A. Smith, *Historical Geography of the Holy Land.*

[2] For fuller information on this section see PALESTINE: *History*, and the related portions of BABYLONIA AND ASSYRIA, EGYPT, HITTITES, SYRIA.

[3] Or *land* Israel, W. Spiegelberg, *Orient. Lit. Zeit.* xi. (1908), cols. 403–405.

and the series Joshua–Kings is actually included among the "prophets" in Jewish reckoning (see MIDRASH). In general, one may often observe that freedom which is characteristic of early and unscientific historians. Thus one may note the reshaping of older material to agree with later thought, the building up of past periods from the records of other periods, and a frequent loss of perspective. The historical traditions are to be supplemented by the great body of prophetic, legal and poetic literature which reveal contemporary conditions in various internal literary, theological or sociological features. The investigation of their true historical background and of the trustworthiness of their external setting (*e.g.* titles of psalms, dates and headings of prophecies) involves a criticism of the historical traditions themselves, and thus the two major classes of material must be constantly examined both separately and in their bearing on one another. In a word, the study of biblical history, which is dependent in the first instance upon the written sources, demands constant attention to the text (which has had an interesting history) and to the literary features; and it requires a sympathetic acquaintance with Oriental life and thought, both ancient and modern, an appreciation of the necessity of employing the methods of scientific research, and (from the theological side) a reasoned estimate of the dependence of individual religious convictions upon the letter of the Old Testament.[1]

In view of the numerous articles in this work dealing with biblical subjects,[2] the present sketch is limited to the outlines of the traditional history; the religious aspect in its bearing upon biblical theology (which is closely bound up with the traditions) is handled separately under HEBREW RELIGION. The related literature is enormous (see the bibliographies to the special articles); it is indexed annually in *Orientalische Bibliographie* (Berlin), and is usefully summarized in the *Theologische Jahresbericht* (Berlin). On the development of the study of biblical history see C. A. Briggs, *Study of Holy Scripture* (1899), especially ch. xx. The first scientific historical work was by H. Ewald, *Gesch. d. Volkes Israel* (1843; 3rd ed., 1864–1868; Eng. trans., 1869–1883), popularized by Arthur Penrhyn Stanley in his *Hist. of the Jewish Church* (1863–1879). The works of J. Wellhausen (especially *Prolegomena to the Hist. of Israel*, Eng. trans., 1885, also the brilliant article "Israel" in the 9th ed. of the *Ency. Brit.*, 1879) were epoch-making; his position was interpreted to English readers by W. Robertson Smith (*Old Test. in Jewish Church*, 1881, 2nd ed., 1892; *Prophets of Israel*, 1882, 2nd ed. by T. K. Cheyne, 1902). The historical (and related) works of T. K. Cheyne, H. Graetz, H. Guthe, F. C. Kent, A. Kittel, W. H. Kosters, A. Kuenen, C. Piepenbring, and especially B. Stade, although varying greatly in standpoint, are among the most valuable by recent scholars; H. P. Smith's *Old Test. Hist.* ("International Theological Library," Edinburgh, 1903) is in many respects the most serviceable and complete study; a modern and more critical "Ewald" is a desideratum. For the works of numerous other scholars who have furthered Old Testament research in the past it must suffice to refer to the annotated list by J. M. P. Smith, *Books for O.T. Study* (Chicago, 1908).

For the external history, E. Schrader, *Cuneiform Inscr. and the Old Testament* (Eng. trans. by O. C. Whitehouse, 1885–1888) is still helpful; among the less technical works are J. F. McCurdy, *History, Prophecy and the Monuments*; B. Paton, *Syria and Palestine* (1902); G. Maspero, *Hist. ancienne* (6th ed., 1904); A. Jeremias, *Alte Test. im Lichte d. Alten Orients* (2nd ed., 1906); and especially *Altoriental. Texte u. Bilder zum Alten Test.*, ed. by H. Gressman, with A. Ungnad and H. Ranke (1909). The most complete is that of Ed. Meyer, *Gesch. d. Alterthums* (2nd ed., 1907 sqq.). That of Jeremias follows upon the lines of H. Winckler, whose works depart from the somewhat narrow limits of purely "Israelite" histories, emphasize the necessity of observing the characteristics of Oriental thought and policy, and are invaluable for discriminating students. Winckler's own views are condensed in the 3rd edition—a re-writing—of Schrader's work (*Keilinschr. u. d. Alte Testament*, 1903), and, with an instructive account of the history of "ancient nearer Asia," in H. F. Helmolt's *World's History*, iii. 1–252 (1903). All modern histories of any value are necessarily compromises between the biblical traditions and the results of recent investigation, and those studies which appear to depart most widely from the biblical or canonical representation often do greater justice to the evidence as a whole than the slighter or more conservative and apologetic reconstructions.[3] Scientific biblical historical study, nevertheless, is still in a relatively backward condition; and although the labours of scholars since Ewald constitute a distinct epoch, the trend of research points to the recognition of the fact that the purely subjective literary material requires a more historical treatment in the light of our increasing knowledge of external and internal conditions in the old Oriental world. But an inductive and deductive treatment, both comprehensive and in due proportion, does not as yet (1910) exist, and awaits fuller external evidence.[4]

5. *Traditions of Origin.*—The Old Testament preserves the remains of an extensive literature, representing different standpoints, which passed through several hands before it reached its present form. Surrounded by ancient civilizations where writing had long been known, and enjoying, as excavation has proved, a considerable amount of material culture, Palestine could look back upon a lengthy and stirring history which, however, has rarely left its mark upon our records. Whatever ancient sources may have been accessible, whatever trustworthy traditions were in circulation, and whatever a knowledge of the ancient Oriental world might lead one to expect, one is naturally restricted in the first instance to those undated records which have survived in the form which the last editors gave to them. The critical investigation of these records is the indispensable prelude to all serious biblical study, and hasty or sweeping deductions from monumental or archaeological evidence, or versions compiled promiscuously from materials of distinct origin, are alike hazardous. A glimpse at Palestine in the latter half of the second millennium B.C. (§ 3) prepares us for busy scenes and active intercourse, but it is not a history of this kind which the biblical historians themselves transmit. At an age when—on literary-critical grounds—the Old Testament writings were assuming their present form, it was possible to divide the immediately preceding centuries into three distinct periods. (*a*) The first, that of the two rival kingdoms: Israel (Ephraim or Samaria) in the northern half of Palestine, and Judah in the south. Then (*b*) the former lost its independence towards the close of the 8th century B.C., when a number of its inhabitants were carried away; and the latter shared the fate of exile at the beginning of the 6th, but succeeded in making a fresh reconstruction some fifty or sixty years later. Finally (*c*), in the so-called "post-exilic" period, religion and life were reorganized under the influence of a new spirit; relations with Samaria were broken off, and Judaism took its definite character, perhaps about the middle or close of the 5th century. Throughout these vicissitudes there were important political and religious changes which render the study of the composite sources a work of unique difficulty. In addition to this it should be noticed that the term "Jew" (originally *Yehudi*), in spite of its wider application, means properly "man of Judah," *i.e.* of that small district which, with Jerusalem as its capital, became the centre of Judaism. The favourite name "Israel" with all its religious and national associations is somewhat ambiguous in an historical sketch, since, although it is used as opposed to Judah (*a*), it ultimately came to designate the true nucleus of the worshippers of the national god Yahweh as opposed to the Samaritans, the later inhabitants of Israelite territory (*c*). A more general term is "Hebrew" (see HEBREW LANGUAGE), which, whether originally identical with the Ḫabiru or not (§ 3), is used in contrast to foreigners, and this non-committal ethnic

[1] It is useful to compare the critical study of the Koran (*q.v.*), where, however, the investigation of its various "revelations" is simpler than that of the biblical "prophecies" on account of the greater wealth of independent historical tradition. See also G. B. Gray, *Contemporary Review* (July 1907); A. A. Bevan, *Cambridge Biblical Essays* (ed. Swete, 1909), pp. 1–19.

[2] See primarily BIBLE: *Old Testament*; the articles on the contents and literary structure of the several books; the various biographical, topographical and ethnical articles, and the separate treatment of the more important subjects (*e.g.* LEVITES, PROPHET, SACRIFICE).

[3] On the bearing of external evidence upon the internal biblical records, see especially S. R. Driver's essay in Hogarth's *Authority and Archaeology*; cf. also A. A. Bevan, *Critical Review* (1897), p. 406 sqq., 1898, pp. 131 sqq.); G. B. Gray, *Expositor*, May 1898; W. G. Jordan, *Bib. Crit. and Modern Thought* (1909), pp. 42 sqq.

[4] For the sections which follow the present writer may be permitted to refer to his introductory contributions in the *Expositor* (June, 1906; "The Criticism of the O.T."); the *Jewish Quarterly Review* (July 1905–January 1907 = *Critical Notes on O.T. History*, especially sections vii.–ix.); July and October 1907, April 1908; *Amer. Journ. Theol.* (July 1909, "Simeon and Levi: the Problem of the Old Testament"); and Swete's *Cambridge Bib. Essays*, pp. 54–89 ("The Present Stage of O.T. Research").

deserves preference where precise distinction is unnecessary or impossible.

The traditions which prevailed among the Hebrews concerning their origin belong to a time when Judah and Israel were regarded as a unit. Twelve divisions or tribes, of which Judah was one, held together by a traditional sentiment, were traced back to the sons of Jacob (otherwise known as Israel), the son of Isaac and grandson of Abraham. Their names vary in origin and probably also in point of age, and where they represent fixed territorial limits, the districts so described were in some cases certainly peopled by groups of non-Israelite ancestry. But as tribal names they invited explanation, and of the many characteristic traditions which were doubtless current a number have been preserved, though not in any very early dress. Close relationship was recognized with the Aramaeans, with Edom, Moab and Ammon. This is characteristically expressed when Esau, the ancestor of Edom, is represented as the brother of Jacob, or when Moab and Ammon are the children of Lot, Abraham's nephew (see GENEALOGY: *Biblical*). Abraham, it was believed, came from Harran (Carrhae), primarily from Babylonia, and Jacob re-enters from Gilead in the north-east with his Aramaean wives and concubines and their families (Benjamin excepted). It is on this occasion that Jacob's name is changed to Israel. These traditions of migration and kinship are in themselves entirely credible, but the detailed accounts of the ancestors Abraham, Isaac and Jacob, as given in Genesis, are inherently doubtful as regards both the internal conditions, which the (late) chronological scheme ascribes to the first half of the second millennium B.C., and the general circumstances of the life of these strangers in a foreign land. From a variety of independent reasons one is forced to conclude that, whatever historical elements they may contain, the stories of this remote past represent the form which tradition had taken in a very much later age.

Opinion is at variance regarding the patriarchal narratives as a whole. To deny their historical character is to reject them as trustworthy accounts of the age to which they are ascribed, and even those scholars who claim that they are essentially historical already go so far as to concede idealization and the possibility or probability of later revision. The failure to apprehend historical method has often led to the fallacious argument that the trustworthiness of individual features justifies our accepting the whole, or that the elimination of unhistorical elements will leave an historical residuum. Here and frequently elsewhere in biblical history it is necessary to allow that a genuine historical tradition may be clothed in an unhistorical dress, but since many diverse motives are often concentrated upon one narrative (*e.g.* Gen. xxxii. 22–32, xxxiv., xxxviii.), the work of internal historical criticism (in view of the scantiness of the evidence) can rarely claim finality. The patriarchal narratives themselves belong to the popular stock of tradition of which only a portion has been preserved. Many of the elements lie outside questions of time and place and are almost immemorial. Some appear written for the first time in the book of Jubilees, in "the Testament of the Twelve Patriarchs" (both perhaps 2nd century B.C.) and in later sources; and although in Genesis the stories are now in a post-exilic setting (a stage earlier than Jubilees), the older portions may well belong to the 7th or 6th cent. This question, however, will rest upon those criteria alone which are of true chronological validity (see further GENESIS).

The story of the settlement of the national and tribal ancestors in Palestine is interrupted by an account of the southward movement of Jacob (or Israel) and his sons into a district under the immediate influence of the kings of Egypt. After an interval of uncertain duration we find in Exodus a numerous people subjected to rigorous oppression. No longer individual sons of Jacob or Israel, united tribes were led out by Moses and Aaron; and, after a series of incidents extending over forty years, the "children of Israel" invaded the land in which their ancestors had lived. The traditions embodied in the books Exodus-Joshua are considerably later than the apparent date of the events themselves, and amid the diverse and often conflicting data it is possible to recognize distinct groups due to some extent to distinct historical conditions. The story of the "exodus" is that of the religious birth of "Israel," joined by covenant with the national god Yahweh[1] whose aid in times of peril and need proved his supremacy. In Moses (*q.v.*) was seen the founder of Israel's religion and laws; in Aaron (*q.v.*) the prototype of the Israelite priesthood. Although it is difficult to determine the true historical kernel, two features are most prominent in the narratives which the post-exilic compiler has incorporated: the revelation of Yahweh, and the movement into Palestine. Yahweh had admittedly been the God of Israel's ancestors, but his name was only now made known (Exod. iii. 13 sqq., vi. 2 seq.), and this conception of a new era in Yahweh's relations with the people is associated with the family of Moses and with small groups from the south of Palestine which reappear in religious movements in later history (see KENITES). Amid a great variety of motives the prominence of Kadesh in south Palestine is to be recognized, but it is uncertain what clans or tribes were at Kadesh, and it is possible that traditions, originally confined to those with whom the new conception of Yahweh is connected, were subsequently adopted by others who came to regard themselves as the worshippers of the only true Yahweh. At all events, two quite distinct views seem to underlie the opening books of the Old Testament. The one associates itself with the ancestors of the Hebrews and has an ethnic character. The other, part of the religious history of "Israel," is essentially bound up with the religious genius of the people, and is partly connected with clans from the south of Palestine whose influence appears in later times. Other factors in the literary growth of the present narratives are not excluded (see further § 8, and EXODUS, THE).[2]

6. *The Monarchy of Israel.*—The book of Joshua continues the fortunes of the "children of Israel" and describes a successful occupation of Palestine by the united tribes. This stands in striking contrast to other records of the partial successes of individual groups (Judg. i.). The former, however, is based upon the account of victories by the Ephraimite Joshua over confederations of petty kings to the south and north of central Palestine, apparently the specific traditions of the people of Ephraim describing from their standpoint the entire conquest of Palestine.[3] The book of Judges represents a period of unrest after the settlement of the people. External oppression and internal rivalries rent the Israelites, and in the religious philosophy of a later (Deuteronomic) age the period is represented as one of alternate apostasy from and of penitent return to the Yahweh of the "exodus." Some vague recollection of known historical events (§ 3 end) might be claimed among the traditions ascribed to the closing centuries of the second millennium, but the view that the prelude to the monarchy was an era when individual leaders "judged" all Israel finds no support in the older narratives, where the heroes of the age (whose correct sequence is uncertain) enjoy only a local fame. The best historical narratives belong to Israel and Gilead; Judah scarcely appears, and in a relatively old poetical account of a great fight of the united tribes against a northern adversary lies outside the writer's horizon or interest (Judg. v., see DEBORAH). Stories of successful warfare and of temporary leaders (see ABIMELECH; EHUD; GIDEON; JEPHTHAH) form an introduction to the institution of the Israelite monarchy, an epoch of supreme importance in biblical history. The heroic figure who stands at the head is Saul ("asked"), and two accounts of his rise are recorded. (1) The Philistines, a foreign people whose presence in Palestine

[1] On the name see JEHOVAH, TETRAGRAMMATON.

[2] The story of Joseph has distinctive internal features of its own, and appears to be from an independent cycle, which has been used to form a connecting link between the Settlement and the Exodus; see also Ed. Meyer, *Die Israeliten u. ihre Nachbarstämme* (1906), pp. 228, 433; B. Luther, ibid. pp. 108 seq., 142 sqq. Neither of the poems in Deut. xxxii. seq. alludes to an escape from Egypt; Israel is merely a desert tribe inspired to settle in Palestine. Apparently even the older accounts of the exodus are not of very great antiquity; according to Jeremiah ii. 2, 7 (cf. Hos. ii. 15) some traditions of the wilderness must have represented Israel in a very favourable light; for the "canonical" view, see Ezekiel xvi., xx., xxiii.

[3] The capture of central Palestine itself is not recorded; according to its own traditions the district had been seized by Jacob (Gen. xlviii. 22; cf. the late form of the tradition in Jubilees xxxiv.). This conception of a conquering hero is entirely distinct from the narratives of the descent of Jacob into Egypt, &c. (see Meyer and Luther, *op. cit.* pp. 110, 227 seq., 415, 433).

has already been noticed, had oppressed Israel (cf. SAMSON) until a brilliant victory was gained by the prophet Samuel, some account of whose early history is recorded. He himself held supreme sway over all Israel as the last of the "judges" until compelled to accede to the popular demand for a king. The young Saul was chosen by lot and gained unanimous recognition by delivering Jabesh in Gilead from the Ammonites. (2) But other traditions represent the people scattered and in hiding; Israel is groaning under the Philistine yoke, and the unknown Saul is raised up by Yahweh to save his people. This he accomplishes with the help of his son Jonathan. The first account, although now essential to the canonical history, clearly gives a less authentic account of the change from the "judges" to the monarchy, while the second is fragmentary and can hardly be fitted into the present historical thread (see SAUL). At all events the first of a series of annalistic notices of the kings of Israel ascribes to Saul conquests over the surrounding peoples to an extent which implies that the district of Judah formed part of his kingdom (1 Sam. xiv. 47 seq). His might is attested also by the fine elegy (2 Sam. i. 19 sqq.) over the death of two great Israelite heroes, Saul and Jonathan, knit together by mutual love, inseparable in life and death, whose unhappy end after a career of success was a national misfortune. Disaster had come upon the north, and the plain of Jezreel saw the total defeat of the king and the rout of his army. The court was hastily removed across the Jordan to Mahanaim, where Saul's son Ishbaal (Ish-bosheth), thanks to his general Abner, recovered some of the lost prestige. In circumstances which are not detailed, the kingdom seems to have regained its strength, and Ishbaal is credited with a reign of two years over Israel and Gilead (2 Sam. ii. 8–10; contrast *v.* 11). But at this point the scanty annals are suspended and the history of the age is given in more popular sources. Both Israel and Judah had their own annals, brief excerpts from which appear in the books of Samuel, Kings and Chronicles, and they are supplemented by fuller narratives of distinct and more popular origin. The writings are the result of a continued literary process, and the Israelite national history has come down to us through Judaean hands, with the result that much of it has been coloured by late Judaean feeling. It is precisely in Saul's time that the account of the Judaean monarchy, or perhaps of the monarchy from the Judaean standpoint, now begins.

7. *The Monarchy of Judah.*—Certain traditions of Judah and Jerusalem appear to have looked back upon a movement from the south, traces of which underlie the present account of the "exodus." The land was full of "sons of Anak," giants who had terrified the scouts sent from Kadesh. Caleb (*q.v.*) alone had distinguished himself by his fearlessness, and the clan Caleb drove them out from Hebron in south Judah (Josh. xv. 14 sqq.; cf. also xi. 21 seq.). David and his followers are found in the south of Hebron, and as they advanced northwards they encountered wondrous heroes between Gath and Jerusalem (2 Sam. xxi. 15 sqq.; xxiii. 8 sqq.). After strenuous fighting the district was cleared, and Jerusalem, taken by the sword, became the capital. History saw in David the head of a lengthy line of kings, the founder of the Judaean monarchy, the psalmist and the priest-king who inaugurated religious institutions now recognized to be of a distinctly later character. As a result of this backward projection of later conceptions, the recovery of the true historical nucleus is difficult. The prominence of Jerusalem, the centre of post-exilic Judaism, necessarily invited reflection. Israelite tradition had ascribed the conquest of Jerusalem, Hebron and other cities of Judah to the Ephraimite Joshua; Judaean tradition, on the other hand, relates the capture of the sacred city from a strange and hostile people (2 Sam. v.). The famous city, within easy reach of the southern desert and central Palestine (to Hebron and to Samaria the distances are about 18 and 35 miles respectively), had already entered into Palestinian history in the "Amarna" age (§ 3). Anathoth, a few miles to the north-east, points to the cult of the goddess Anath, the near-lying Nob has suggested the name of the Babylonian Nebo, and the neighbouring, though unidentified, Beth-Ninib of the Amarna tablets may indicate the worship of a Babylonian war and astral god (cf. the solar name Beth-Shemesh). Such was the religious environment of the ancient city which was destined to become the centre of Judaism. Judaean tradition dated the sanctity of Jerusalem from the installation of the ark, a sacred movable object which symbolized the presence of Yahweh. It is associated with the half-nomad clans in the south of Palestine, or with the wanderings of David and his own priest Abiathar; it is ultimately placed within the newly captured city. Quite another body of tradition associates it with the invasion of all the tribes of Israel from beyond the Jordan (see ARK). To combine the heterogeneous narratives and isolated statements into a consecutive account is impossible; to ignore those which conflict with the now predominating views would be unmethodical. When the narratives describe the life of the young David at the court of the first king of the northern kingdom, when the scenes cover the district which he took with the sword, and when the brave Saul is represented in an unfavourable light, one must allow for the popular tendency to idealize great figures, and for the Judaean origin of the compilation. To David is ascribed the sovereignty over a united people. But the stages in his progress are not clear. After being the popular favourite of Israel in the little district of Benjamin, he was driven away by the jealousy and animosity of Saul. Gradually strengthening his position by alliance with Judaean clans, he became king at Hebron at the time when Israel suffered defeat in the north. His subsequent advance to the kingship over Judah and Israel at Jerusalem is represented as due to the weak condition of Israel, facilitated by the compliance of Abner; partly, also, to the long-expressed wish of the Israelites that their old hero should reign over them. Yet again, Saul had been chosen by Yahweh to free his people from the Philistines; he had been rejected for his sins, and had suffered continuously from this enemy; Israel at his death was left in the unhappy state in which he had found it; it was the Judaean David, the faithful servant of Yahweh, who was now chosen to deliver Israel, and to the last the people gratefully remembered their debt. David accomplished the conquests of Saul but on a grander scale; "Saul hath slain his thousands and David his tens of thousands" is the popular couplet comparing the relative merits of the rival dynasts. A series of campaigns against Edom, Moab, Ammon and the Aramaean states, friendly relations with Hiram of Tyre, and the recognition of his sovereignty by the king of Hamath on the Orontes, combine to portray a monarchy which was the ideal.

But in passing from the books of Samuel, with their many rich and vivid narratives, to the books of Kings, we enter upon another phase of literature; it is a different atmosphere, due to the character of the material and the aims of other compilers (see § 9 beginning). David, the conqueror, was followed by his son Solomon, famous for his wealth, wisdom and piety, above all for the magnificent Temple which he built at Jerusalem. Phoenician artificers were enlisted for the purpose, and with Phoenician sailors successful trading-journeys were regularly undertaken. Commercial intercourse with Asia Minor, Arabia, Tarshish (probably in Spain) and Ophir (*q.v.*) filled his coffers, and his realm extended from the Euphrates to the border of Egypt. Tradition depicts him as a worthy successor to his father, and represents a state of luxury and riches impressive to all who were familiar with the great Oriental courts. The commercial activity of the king and the picture of intercourse and wealth are quite in accordance with what is known of the ancient monarchies, and could already be illustrated from the Amarna age. Judah and Israel dwelt at ease, or held the superior position of military officials, while the earlier inhabitants of the land were put to forced labour. But another side of the picture shows the domestic intrigues which darkened the last days of David. The accession of Solomon had not been without bloodshed, and Judah, together with David's old general Joab and his faithful priest Abiathar, were opposed to the son of a woman who had been the wife of a Hittite warrior. The era of the Temple of Jerusalem starts with a new régime, another captain of the army

and another priest. Nevertheless, the enmity of Judah is passed over, and when the kingdom is divided for administrative purposes into twelve districts, which ignore the tribal divisions, the centre of David's early power is exempt from the duty of providing supplies (1 Kings iv.). Yet again, the approach of the divided monarchy is foreshadowed. The employment of Judaeans and Israelites for Solomon's palatial buildings, and the heavy taxation for the upkeep of a court which was the wonder of the world, caused grave internal discontent. External relations, too, were unsatisfactory. The Edomites, who had been almost extirpated by David in the valley of Salt, south of the Dead Sea, were now strong enough to seek revenge; and the powerful kingdom of Damascus, whose foundation is ascribed to this period, began to threaten Israel on the north and north-east. These troubles, we learn, had affected all Solomon's reign, and even Hiram appears to have acquired a portion of Galilee. In the approaching disruption writers saw the punishment for the king's apostasy, and they condemn the sanctuaries in Jerusalem which he erected to the gods of his heathen wives. Nevertheless, these places of cult remained some 300 years until almost the close of the monarchy, when their destruction is attributed to Josiah (§ 16). When at length Solomon died the opportunity was at once seized to request from his son Rehoboam a more generous treatment. The reply is memorable: "My little finger is thicker than my father's loins; my father chastised you with whips, but I will chastise you with scorpions." These words were calculated to inflame a people whom history proves to have been haughty and high-spirited, and the great Israel renounced its union with the small district of Judah. Jeroboam (*q.v.*), once one of Solomon's officers, became king over the north, and thus the history of the divided monarchy begins (about 930 B.C.) with the Israelite power on both sides of the Jordan and with Judah extending southwards from a point a few miles north of Jerusalem.

8. *Problems of the Earliest History.*—Biblical history previous to the separation of Judah and Israel holds a prominent place in current ideas, since over two-fifths of the entire Old Testament deals with these early ages. The historical sources for the crucial period, from the separation to the fall of Jerusalem (586 B.C.), occupy only about one-twelfth, and even of this about one-third is spread over some fifteen years (see below, § 11). From the flourishing days of the later monarchy and onwards, different writers handled the early history of their land from different standpoints. The feeling of national unity between north and south would require historical treatment, the existence of rival monarchies would demand an explanation. But the surviving material is extremely uneven; vital events in these centuries are treated with a slightness in striking contrast to the relatively detailed evidence for the preceding period—evidence, however, which is far from being contemporary. Where the material is fuller, serious discrepancies are found; and where external evidence is fortunately available, the independent character of the biblical history is vividly illustrated. The varied traditions up to this stage cannot be regarded as objective history. It is naturally impossible to treat them from any modern standpoint as fiction; they are honest even where they are most untrustworthy. But the recovery of successive historical nuclei does not furnish a continuous thread, and if one is to be guided by the historical context of events the true background to each nucleus must be sought. The northern kingdom cherished the institution of a monarchy, and in this, as in all great political events, the prophets took part. The precise part these figures play is often idealized and expresses the later views of their prominence. It was only after a bitter experience that the kingship was no longer regarded as a divine gift, and traditions have been revised in order to illustrate the opposition to secular authority. In this and in many other respects the records of the first monarchy have been elaborated and now reveal traces of differing conceptions of the events (see DAN; DAVID; ELI; SAMUEL; SAUL; SOLOMON). The oldest narratives are not in their original contexts, and they contain features which render it questionable whether a very trustworthy recollection of the period was retained. Although the rise of the Hebrew state, at an age when the great powers were quiescent and when such a people as the Philistines is known to have appeared upon the scene, is entirely intelligible, it is not improbable that legends of Saul and David, the heroic founders of the two kingdoms, have been put in a historical setting with the help of later historical tradition. It is at least necessary to distinguish provisionally between a possibly historical framework and narratives which may be of later growth—between the general outlines which only external evidence can test and details which cannot be tested and appear isolated without any cause or devoid of any effect.

Many attempts have been made to present a satisfactory sketch of the early history and to do justice to (*a*) the patriarchal narratives, (*b*) the exodus from Egypt and the Israelite invasion, and (*c*) the rise of the monarchy. As regards (*b*), external evidence has already suggested to scholars that there were Israelites in Palestine before the invasion; internal historical criticism is against the view that all the tribes entered under Joshua; and in (*a*) there are traces of an actual settlement in the land, entirely distinct from the cycle of narratives which prepare the way for (*b*). The various reconstructions and compromises by modern apologetic and critical writers alike involve without exception an extremely free treatment of the biblical sources and the rejection of many important and circumstantial data.[1] On the one hand, a sweeping invasion of all the tribes of Israel moved by a common zeal may, like the conquests of Islam, have produced permanent results. According to this view the enervating luxury of Palestinian culture almost destroyed the lofty ideal monotheism inculcated in the desert, and after the fall of the northern tribes (latter part of the 8th cent.) Judah is naturally regarded as the sole heir. But such a conquest, and all that it signifies, conflict both with external evidence (*e.g.* the results of excavation), and with any careful inspection of the narratives themselves. On the other hand, the reconstructions which allow a gradual settlement (perhaps of distinct groups), and an intermingling with the earlier inhabitants, certainly find support in biblical evidence, and they have been ingeniously built up with the help of tribal and other data (*e.g.* Gen. xxxiv., xxxviii.; Judg. i. ix.). But they imply political, sociological and religious developments which do not do justice either to the biblical evidence as a whole or to a comprehensive survey of contemporary conditions.[2] Thus, one of the important questions is the relation between those who had taken part in the exodus and the invasion and those who had not. This inquiry is further complicated by (*c*), where the history of Israel and Judah, as related in Judges and 1 Samuel, has caused endless perplexity. The traditions of the Ephraimite Joshua and of Saul the first king of (north) Israel virtually treat Judah as part of Israel and are related to the underlying representations in (*a*). But the specific independent Judaean standpoint treats the unification of the two divisions as the work of David who leaves the heritage to Solomon. The varied narratives, now due to Judaean editors, preserve distinct points of view, and it is extremely difficult to unravel the threads and to determine their relative position in the history. Finally, the consciousness that the people as a religious body owed everything to the desert clans (*b*) (see § 5) subsequently leaves its mark upon (north) Israelite history (§ 14), but has not the profound significance which it has in the records of Judah and Jerusalem. Without sufficient external and independent evidence wherewith to interpret in the light of history the internal features of the intricate narratives, any reconstruction would naturally be hazardous, and all attempts must invariably be considered in the light of the biblical evidence itself, the date of the Israelite exodus, and the external conditions. Biblical criticism is concerned with a composite (Judaean) history based upon other histories (partly of non-Judaean origin), and the relation between native written sources and external contemporary evidence (monumental and archaeological) distinctly forbids any haphazard selection from accessible sources. The true nature of this relation can be readily observed in other fields (ancient Britain, Greece, Egypt, &c.), where, however, the native documents and sources have not that complexity which characterizes the composite biblical history. (For the period under review, as it appears in the light of existing external evidence, see PALESTINE: *History.*)

9. *The Rival Kingdoms.*—The Palestine of the Hebrews was but part of a great area breathing the same atmosphere, and there was little to distinguish Judah from Israel except when they were distinct political entities. The history of the two kingdoms is contained in Kings and the later and relatively less trustworthy Chronicles, which deals with Judah alone. In the former a separate history of the northern kingdom has been combined with Judaean history by means of synchronisms in accordance with a definite scheme. The 480 years from the foundation of the temple of Jerusalem back to the date of the exodus (1 Kings vi. 1) corresponds to the period forward to the return from the exile (§ 20). This falls into three equal divisions, of which the first ends with Jehoash's temple-reforms and the second with Hezekiah's death. The kingdom of Israel lasts exactly half the time.

[1] This is especially true of the various ingenious attempts to combine the invasion of the Israelites with the movements of the Ḫabiru in the Amarna period (§ 3).

[2] cf. Winckler, *Keil. u. das Alte Test.* p. 212 seq.; also his "Der alte Orient und die Geschichtsforschung" in *Mitteilungen der Vorderasiat. Gesellschaft* (Berlin, 1906) and *Religionsgeschichtlicher u. gesch. Orient* (Leipzig, 1906); A. Jeremias, *Alte Test.* (p. 464 seq.); B. Baentsch, *Altorient. u. israel. Monotheismus* (pp. 53, 79, 105, &c.); also *Theolog. Lit. Blatt* (1907) No. 19. On the reconstructions of the tribal history, see especially T. K. Cheyne, *Ency. Bib.* art. "Tribes." The most suggestive study of the pre-monarchical narratives is that of E. Meyer and B. Luther (above; see the former's criticisms on the reconstructions, pp. 50, 251 sqq., 422, n. 1 and *passim*).

Of the 240 years from Jeroboam I., 80 elapse before the Syrian wars in Ahab's reign, these cover another 80; the famous king Jeroboam II. reigns 40 years, and 40 years of decline bring the kingdom to an end. These figures speak for themselves, and the present chronology can be accepted only where it is independently proved to be trustworthy (see further W. R. Smith, *Prophets of Israel*, pp. 144–149). Next, the Judaean compiler regularly finds in Israel's troubles the punishment for its schismatic idolatry; nor does he spare Judah, but judges its kings by a standard which agrees with the standpoint of Deuteronomy and is scarcely earlier than the end of the 7th century B.C. (§§ 16, 20). But the history of (north) Israel had naturally its own independent political backgrounds and the literary sources contain the same internal features as the annals and prophetic narratives which are already met with in 1 Samuel. Similarly the thread of the Judaean annals in Kings is also found in 2 Samuel, although the supplementary narratives in Kings are not so rich or varied as the more popular records in the preceding books. The striking differences between Samuel and Kings are due to differences in the writing of the history; independent Israelite records having been incorporated with those of Judah and supplemented (with revision) from the Judaean standpoint (see CHRONICLES; KINGS; SAMUEL).

The Judaean compiler, with his history of the two kingdoms, looks back upon the time when each laid the foundation of its subsequent fortunes. His small kingdom of Judah enjoyed an unbroken dynasty which survived the most serious crises, a temple which grew in splendour and wealth under royal patronage, and a legitimate priesthood which owed its origin to Zadok, the successful rival of David's priest Abiathar. Israel, on the other hand, had signed its death-warrant by the institution of calf-cult, a cult which, however, was scarcely recognized as contrary to the worship of Yahweh before the denunciations of Hosea. The scantiness of political information and the distinctive arrangement of material preclude the attempt to trace the relative position of the two rivals. Judah had natural connexions with Edom and southern Palestine; Israel was more closely associated with Gilead and the Aramaeans of the north. That Israel was the stronger may be suggested by the acquiescence of Judah in the new situation. A diversion was caused by Shishak's invasion, but of this reappearance of Egypt after nearly three centuries of inactivity little is preserved in biblical history. Only the Temple records recall the spoliation of the sanctuary of Jerusalem, and traditions of Jeroboam I. show that Shishak's prominence was well known.[1] Although both kingdoms suffered, common misfortune did not throw them together. On the contrary, the statement that there was continual warfare is supplemented in Chronicles by the story of a victory over Israel by Abijah the son of Rehoboam. Jeroboam's son Nadab perished in a conspiracy whilst besieging the Philistine city of Gibbethon, and Baasha of (north) Israel seized the throne. His reign is noteworthy for the entrance of Damascus into Palestinian politics. Its natural fertility and its commanding position at the meeting-place of trade-routes from every quarter made it a dominant factor until its overthrow. In the absence of its native records its relations with Palestine are not always clear, but it may be supposed that amid varying political changes it was able to play a double game. According to the annals, incessant war prevailed between Baasha and Abijah's successor, Asa. It is understood that the former was in league with Damascus, which had once been hostile to Solomon (1 Kings xi. 24 seq.)—it is not stated upon whom Asa could rely. However, Baasha at length seized Ramah about five miles north of Jerusalem, and the very existence of Judah was threatened. Asa utilized the treasure of the Temple and palace to induce the Syrians to break off their relations with Baasha. These sent troops to harry north Israel, and Baasha was compelled to retire. Asa, it is evident, was too weak to achieve the remarkable victory ascribed to him in 2 Chron. xiv. (see ASA). As for Baasha, his short-lived dynasty resembles that of his predecessors. His son Elah had reigned only two years (like Ishbaal and Nadab) when he was slain in the midst of a drunken carousal by his captain Zimri. Meanwhile the Israelite army was again besieging the Philistines at Gibbethon, and the recurrence of these conflicts points to a critical situation in a Danite locality in which Judah itself (although ignored by the writers), must have been vitally concerned. The army preferred their general Omri, and marching upon Zimri at Tirzah burnt the palace over his head. A fresh rival immediately appeared, the otherwise unknown Tibni, son of Ginath. Israel was divided into two camps, until, on the death of Tibni and his brother Joram, Omri became sole king (*c.* 887 B.C.). The scanty details of these important events must naturally be contrasted with the comparatively full accounts of earlier Philistine wars and internal conflicts in narratives which date from this or even a later age.

10. *The Dynasty of Omri.*—Omri (*q.v.*), the founder of one of the greatest dynasties of Israel, was contemporary with the revival of Tyre under Ithobaal, and the relationship between the states is seen in the marriage of Omri's son Ahab to Jezebel, the priest-king's daughter. His most notable recorded achievement was the subjugation of Moab and the seizure of part of its territory. The discovery of the inscription of a later king of Moab (*q.v.*) has proved that the east-Jordanic tribes were no uncivilized or barbaric folk; material wealth, a considerable religious and political organization, and the cultivation of letters (as exemplified in the style of the inscription) portray conditions which allow us to form some conception of life in Israel itself. Moreover, Judah (now under Jehoshaphat) enjoyed intimate relations with Israel during Omri's dynasty, and the traditions of intermarriage, and of co-operation in commerce and war, imply what was practically a united Palestine. Alliance with Phoenicia gave the impulse to extended intercourse; trading expeditions were undertaken from the Gulf of Akaba, and Ahab built himself a palace decorated with ivory. The cult of the Baal of Tyre followed Jezebel to the royal city Samaria and even found its way into Jerusalem. This, the natural result of matrimonial and political alliance, already met with under Solomon, receives the usual denunciation. The conflict between Yahweh and Baal and the defeat of the latter are the characteristic notes of the religious history of the period, and they leave their impression upon the records, which are now more abundant. Although little is preserved of Omri's history, the fact that the northern kingdom long continued to be called by the Assyrians after his name is a significant indication of his great reputation. Assyria[2] was now making itself felt in the west for the first time since the days of Tiglath-Pileser I. (*c.* 1100 B.C.), and external sources come to our aid. Assur-nazir-pal III. had exacted tribute from north Syria (*c.* 870 B.C.), and his successor Shalmaneser II., in the course of a series of expeditions, succeeded in gaining the greater part of that land. A defensive coalition was formed in which the kings of Cilicia, Hamath, the Phoenician coast, Damascus and Ammon, the Arabs of the Syrian desert, and "Ahabbu Sirlai" were concerned. In the last, we must recognize the Israelite Ahab. His own contribution of 10,000 men and 12,000 chariots perhaps included levies from Judah and Moab (cf. for the number 1 Kings x. 26). In 854 the allies at least maintained themselves at the battle of Karkar (perhaps Apamea to the north of Hamath). In 849 and 846 other indecisive battles were fought, but the precise constitution of the coalition is not recorded. In 842 Shalmaneser records a campaign against Hazael of Damascus; no coalition is mentioned, although a battle was fought at Sanir (Hermon, Deut. iii. 9), and the cities of Hauran to the south of Damascus were spoiled. Tribute was received from Tyre and Sidon; and Jehu, who was now king of Israel, sent his gifts of gold, silver, &c., to the conqueror. The Assyrian inscription (the so-called "Black Obelisk" now in the British Museum), which records the submission of the petty kings, gives an interesting representation of the humble Israelite emissaries with their long fringed robes and strongly marked physiognomy (see COSTUME, fig. 9). Yet another expedition in 839 would seem to

[1] 2 Chron. xii. 8, which is independent of the chronicler's artificial treatment of his material, apparently points to some tradition of Egyptian suzerainty.

[2] See for chronology, BABYLONIA AND ASSYRIA, §§ v. and viii.

show that Damascus was neither crushed nor helpless, but thenceforth for a number of years Assyria was fully occupied elsewhere and the west was left to itself. The value of this external evidence for the history of Israel is enhanced by the fact that biblical tradition associates the changes in the thrones of Israel and Damascus with the work of the prophets Elijah and Elisha, but handles the period without a single reference to the Assyrian Empire. Ahab, it seems, had aroused popular resentment by encroaching upon the rights of the people to their landed possessions; had it not been for Jezebel (*q.v.*) the tragedy of Naboth would not have occurred. The worship of Baal of Tyre roused a small circle of zealots, and again the Phoenician marriage was the cause of the evil. We read the history from the point of view of prophets. Elijah of Gilead led the revolt. To one who favoured simplicity of cult the new worship was a desecration of Yahweh, and, braving the anger of the king and queen, he foreshadowed their fate. Hostility towards the dynasty culminated a few years later in a conspiracy which placed on the throne the general Jehu, the son of one Jehoshaphat (or, otherwise, of Nimshi). The work which Elijah began was completed by Elisha, who supported Jehu and the new dynasty. A massacre ensued in which the royal families of Israel and Judah perished. While the extirpation of the cult of Baal was furthered in Israel by Jonadab the Rechabite, it was the "people of the land" who undertook a similar reform in Judah. Jehu (*q.v.*) became king as the champion of the purer worship of Yahweh. The descendants of the detested Phoenician marriage were rooted out, and unless the close intercourse between Israel and Judah had been suddenly broken, it would be supposed that the new king at least laid claim to the south. The events form one of the fundamental problems of biblical history.

11. *Damascus, Israel and Judah.*—The appearance of Assyria in the Mediterranean coast-lands had produced the results which inevitably follow when a great empire comes into contact with minor states. It awakened fresh possibilities—successful combination against a common foe, the sinking of petty rivalries, the chance of gaining favour by a neutrality which was scarcely benevolent. The alliances, counter-alliances and far-reaching political combinations which spring up at every advance of the greater powers are often perplexing in the absence of records of the states concerned. Even the biblical traditions alone do not always represent the same attitude, and our present sources preserve the work of several hands. Hazael of Damascus, Jehu of Israel and Elisha the prophet are the three men of the new age linked together in the words of one writer as though commissioned for like ends (1 Kings xix. 15–17). Hostility to Phoenicia (*i.e.* the Baal of Tyre) is as intelligible as a tendency to look to Aramaean neighbours. Though Elisha sent to anoint Jehu as king, he was none the less on most intimate terms with Bar-hadad (Old. Test. Ben-hadad) of Damascus and recognized Hazael as its future ruler. It is a natural assumption that Damascus could still count upon Israel as an ally in 842; not until the withdrawal of Assyria and the accession of Jehu did the situation change. "In those days Yahweh began to cut short" (or, altering the text, "to be angry with") "Israel." This brief notice heralds the commencement of Hazael's attack upon Israelite territory east of the Jordan (2 Kings x. 32). The origin of the outbreak is uncertain. It has been assumed that Israel had withdrawn from the great coalition, that Jehu sent tribute to Shalmaneser to obtain that monarch's recognition, and that Hazael consequently seized the first opportunity to retaliate. Certain traditions, it is true, indicate that Israel had been at war with the Aramaeans from before 854 to 842, and that Hazael was attacking Gilead at the time when Jehu revolted; but in the midst of these are other traditions of the close and friendly relations between Israel and Damascus! With these perplexing data the position of Judah is inextricably involved.

The special points which have to be noticed in the records for this brief period (1 Kings xvii.–2 Kings xi.) concern both literary and historical criticism.[1] A number of narratives illustrate the work of the prophets, and sometimes purely political records appear to have been used for the purpose (see ELIJAH; ELISHA). If Elijah is the prophet of the fall of Omri's dynasty, Elisha is no less the prophet of Jehu and his successors; and it is extremely probable that his lifework was confined to the dynasty which he inaugurated.[2] In the present narratives, however, the stories in which he possesses influence with king and court are placed before the rise of Jehu, and some of them point to a state of hostility with Damascus before he foresees the atrocities which Hazael will perpetrate. But Ahab's wars with Syria can with difficulty be reconciled with the Assyrian evidence (see AHAB), and the narratives, largely anonymous, agree in a singular manner with what is known of the serious conflicts which, it is said, began in Jehu's time. Moreover, the account of the joint undertaking by Judah (under Jehoshaphat) and Israel against Syria at Ramoth-Gilead at the time of Ahab's death, and again (under Ahaziah) when Jehoram was wounded, shortly before the accession of Jehu, are historical doublets, and they can hardly be harmonized either with the known events of 854 and 842 or with the course of the intervening years. Further, all the traditions point clearly to the very close union of Israel and Judah at this period, a union which is apt to be obscured by the fact that the annalistic summaries of each kingdom are mainly independent. Thus we may contrast the favourable Judaean view of Jehoshaphat with the condemnation passed upon Ahab and Jezebel, whose daughter Athaliah married Jehoram, son of Jehoshaphat. It is noteworthy, also, that an Ahaziah and a Jehoram appear as kings of Israel, and (in the reverse order) of Judah, and somewhat similar incidents recur in the now separate histories of the two kingdoms. The most striking is a great revolt in south Palestine. The alliance between Jehoshaphat and Ahab doubtless continued when the latter was succeeded by his son Ahaziah, and some disaster befell their trading fleet in the Gulf of Akaba (1 Kings xxii. 48 seq.; 2 Chron. xx. 35–37). Next came the revolt of Moab (2 Kings i. 1), and Ahaziah, after the briefest of reigns, was followed by Jehoram, whose Judaean contemporary was Jehoshaphat (ch. iii.), or perhaps rather his own namesake (i. 17). The popular story of Jehoram's campaign against Moab, with which Edom was probably allied (see MOAB), hints at a disastrous ending, and the Judaean annals, in their turn, record the revolt of Edom and the Philistine Libnah (see PHILISTINES), and allude obscurely to a defeat of the Judaean Jehoram (2 Kings viii. 20–22). Further details in 2 Chron. xxi.–xxii. 1 even record an invasion of Philistines and Arabians (? Edomites), an attack upon Jerusalem, the removal of the palace treasures and of all the royal sons with the sole exception of Jehoahaz, *i.e.* Ahaziah (see JEHORAM; JEHOSHAPHAT). Had the two kingdoms been under a single head, these features might find an explanation, but it must be allowed that it is extremely difficult to fit the general situation into our present history, and to determine where the line is to be drawn between trustworthy and untrustworthy details. Moreover, of the various accounts of the massacre of the princes of Judah, the Judaean ascribes it not to Jehu and the reforming party (2 Kings x. 13 seq.) but to Athaliah (*q.v.*). Only the babe Jehoash was saved, and he remained hidden in the Temple adjoining the palace itself. The queen, Athaliah, despite the weak state of Judah after the revolt in Philistia and Edom, actually appears to have maintained herself for six years, until the priests slew her in a conspiracy, overthrew the cult of Baal, and crowned the young child. It is a new source which is here suddenly introduced, belonging apparently to a history of the Temple; it throws no light upon the relations between Judah with its priests and Israel with its prophets, the circumstances of the regency under the priest Jehoiada are ignored, and the Temple reforms occupy the first place in the compiler's interest. The Judaean annals then relate Hazael's advance to Gath; the city was captured and Jerusalem was saved only by using the Temple and palace treasure as a bribe. On the other hand, Chronicles has a different story with a novel prelude. Jehoash, it is said, turned away from Yahweh after the death of Jehoiada and gave heed to the Judaean nobles, "wrath came upon Judah and Jerusalem for their guilt," prophets were sent to bring them back but they turned a deaf ear. The climax of iniquity was the murder of Jehoiada's son Zechariah. Soon after, a small band of Syrians entered Judah, destroyed its princes, and sent the spoil to the king of Damascus; the disaster is regarded as a prompt retribution (2 Chron. xxiv.). The inferiority of Chronicles as a historical source and its varied examples of "tendency-writing" must be set against its possible access to traditions

[1] See *Jew. Quart. Rev.* (1908), pp. 597–630. The independent Israelite traditions which here become more numerous have points of contact with those of Saul in 1 Samuel, and the relation is highly suggestive for the study of their growth, as also for the perspective of the various writers.

[2] See W. R. Smith (after Kuenen), *Ency. Bib.*, col. 2670; also W. E. Addis, ib., 1276, the commentaries of Benzinger (p. 130) and Kittel (pp. 153 seq.) on Kings; J. S. Strachan, Hastings's *Dict. Bible*, i. 694; G. A. Smith, *Hist. Geog. of Holy Land*, p. 582; König and Hirsch, *Jew. Ency.* v. 137 seq. ("legend ... as indifferent to accuracy in dates as it is to definiteness of places and names"); W. R. Harper, *Amos and Hosea*, p. xli. seq. ("the lack of chronological order .... the result is to create a wrong impression of Elisha's career"). The bearing of this displacement upon the literary and historical criticism of the narratives has never been worked out.

as trustworthy as those in Kings.[1] In the present instance the novel details cannot be lightly brushed aside. The position of Judah at this period must be estimated (*a*) from the preceding years of intimate relationship with Israel to the accession of Jehu, and (*b*) from the calamity about half a century later when Jerusalem was sacked by Israel. The Judaean narratives do not allow us to fill the gap or to determine whether Judaean policy under the regent Jehoiada would be friendly or hostile to Israel, or whether Judaean nobles may have severed the earlier bond of union. If the latter actually occurred, the hostility of the Israelite prophets is only to be expected. But it is to be presumed that the punishment came from Israel—the use of Syrian mercenaries not excluded—and if, instead of using his treasure to ward off the invasion of Syria, Jehoash bribed Damascus to break off relations with Israel, an alternative explanation of the origin of the Aramaean wars may be found.[2]

12. *The Aramaean Wars.*—If the records leave it uncertain (*a*) whether Jehu (like Tyre and Sidon) sent tribute to Shalmaneser as a sign of submission or, while severing relations with Hazael, sought the favour of Assyria, and (*b*) whether Judah only escaped Hazael's vengeance by a timely bribe or, in freeing itself from Israel, had bribed Hazael to create a diversion, it appears that the southern kingdom suffered little in the disastrous wars between Damascus and Israel. There were, indeed, internal troubles, and Jehoash perished in a conspiracy. His son Amaziah had some difficulty in gaining the kingdom and showed unwonted leniency in sparing the children of his father's murderers. This was a departure from the customs of the age, and was perhaps influenced less by generosity than by expediency. Israel, on the other hand, was almost annihilated. The Syrians seized Gilead, crossed over into Palestine, and occupied the land. Jehu's son Jehoahaz saw his army made "like the dust in threshing," and the desperate condition of the country recalls the straits in the time of Saul (1 Sam. xiii. 6, 7, 19–22), and the days before the great overthrow of the northern power as described in Judges v. 6–8. The impression left by the horrors of the age is clear from the allusions to the barbarities committed by Damascus and its Ammonite allies upon Gilead (Amos i. 3, 13), and in the account of the interview between Elisha and Hazael (2 Kings viii. 12). Several of the situations can be more vividly realized from the narratives of Syrian wars ascribed to the time of Omri's dynasty, even if these did not originally refer to the later period. Under Joash, son of Jehoahaz, the tide turned. Elisha was apparently the champion, and posterity told of his exploits when Samaria was visited with the sword. Thrice Joash smote the Syrians—in accordance with the last words of the dying prophet—and Aphek in the Sharon plain, famous in history for Israel's disasters, now witnessed three victories. The enemy under Hazael's son Ben-hadad (properly Bar-hadad) was driven out and Joash regained the territory which his father had lost (2 Kings xiii. 25); it may reasonably be supposed that a treaty was concluded (cf. 1 Kings xx. 34). But the peace does not seem to have been popular. The story of the last scene in Elisha's life implies in Joash an easily contented disposition which hindered him from completing his successes. Syria had not been crushed, and the failure to utilize the opportunity was an act of impolitic leniency for which Israel was bound to suffer (2 Kings xiii. 19). Elisha's indignation can be illustrated by the denunciation passed upon an anonymous king by the prophetic party on a similar occasion (1 Kings xx. 35–43).

At this stage it is necessary to notice the fresh invasion of Syria by Hadad (Adad)-nirari, who besieged Mari, king of Damascus, and exacted a heavy tribute (*c.* 800 B.C.). A diversion of this kind may explain the Israelite victories; the subsequent withdrawal of Assyria may have afforded the occasion for retaliation. Those in Israel who remembered the previous war between Assyria and Damascus would realize the recuperative power of the latter, and would perceive the danger of the short-sighted policy of Joash. It is interesting to find that Hadad-nirari claims tribute from Tyre, Sidon and Beth-Omri (Israel), also from Edom and Palaštu (Philistia). There are no signs of an extensive coalition as in the days of Shalmaneser; Ammon is probably included under Damascus; the position of Moab—which had freed itself from Jehoram of Israel—can hardly be calculated. But the absence of Judah is surprising. Both Jehoash (of Judah) and his son Amaziah left behind them a great name; and the latter was comparable only to David (2 Kings xiv. 3). He defeated Edom in the Valley of Salt, and hence it is conceivable that Amaziah's kingdom extended over both Edom and Philistia. A vaunting challenge to Joash (of Israel) gave rise to one of the two fables that are preserved in the Old Testament (Judg. ix. 8 sqq.; see ABIMELECH). It was followed by a battle at Beth-shemesh; the scene would suggest that Philistia also was involved. The result was the route of Judah, the capture of Amaziah, the destruction of the northern wall of Jerusalem, the sacking of the temple and palace, and the removal of hostages to Samaria (2 Kings xiv. 12 sqq.). Only a few words are preserved, but the details, when carefully weighed, are extremely significant. This momentous event for the southern kingdom was scarcely the outcome of a challenge to a trial of strength; it was rather the sequel to a period of smouldering jealousy and hostility.

The Judaean records have obscured the history since the days of Omri's dynasty, when Israel and Judah were as one, when they were moved by common aims and by a single reforming zeal, and only Israel's vengeance gives the measure of the injuries she had received. That the Judaean compiler has not given fuller information is not surprising; the wonder is that he should have given so much. It is one of those epoch-making facts in the light of which the course of the history of the preceding and following years must be estimated. It is taken, strangely enough, from an Israelite source, but the tone of the whole is quite dispassionate and objective. It needs little reflection to perceive that the position of Jerusalem and Judah was now hardly one of independence, and the conflicting chronological notices betray the attempt to maintain intact the thread of Judaean history. So, on the one hand, the year of the disaster sees the death of the Israelite king, and Amaziah survives for fifteen years, while, on the other, twenty-seven years elapse between the battle and the accession of Uzziah, the next king of Judah.[3]

The importance of the historical questions regarding relations between Damascus, Israel and Judah is clear. The defeat of Syria by Joash (of Israel) was not final. The decisive victories were gained by Jeroboam II. He saved Israel from being blotted out, and through his successes "the children of Israel dwelt in their tents as of old" (2 Kings xiii. 5, xiv. 26 seq.). Syria must have resumed warfare with redoubled energy, and a state of affairs is presupposed which can be pictured with the help of narratives that deal with similar historical situations. In particular, the overthrow of Israel as foreshadowed in 1 Kings xxii. implies an Aramaean invasion (cf. *vv.* 17, 25), after a treaty (xx. 35 sqq.), although this can scarcely be justified by the events which followed the death of Ahab, in whose time they are now placed.

For the understanding of these great wars between Syria and Israel (which the traditional chronology spreads over eighty years), for the significance of the crushing defeats and inspiring victories, and for the alternations of despair and hope, a careful study of all the records of relations between Israel and the north is at least instructive, and it is important to remember that, although the present historical outlines are scanty and incomplete, some—if not all—of the analogous descriptions in their present form are certainly later than the second half of the 9th century B.C., the period in which these great events fall.[4]

13. *Political Development.*—Under Jeroboam II. the borders of Israel were restored, and in this political revival the prophets again took part.[5] The defeat of Ben-hadad by the king of

[1] Careful examination shows that no a priori distinction can be drawn between "trustworthy" books of Kings and "untrustworthy books" of Chronicles. Although the latter have special late and unreliable features, they agree with the former in presenting the same general trend of past history. The "canonical" history in Kings is further embellished in Chronicles, but the gulf between them is not so profound as that between the former and the underlying and half-suppressed historical traditions which can still be recognized. (See also PALESTINE: *History.*)

[2] For the former (2 Kings xii. 17 seq.) cf. Hezekiah and Sennacherib (xviii. 13–15), and for the latter, cf. Asa and Baasha (1 Kings xv. 18–20; above).

[3] It is possible that Hadad-nirari's inscription refers to conditions in the latter part of his reign (812–783 B.C.), when Judah apparently was no longer independent and when Jeroboam II. was king of Israel. The accession of the latter has been placed between 785 and 782. It is now known, also, that Ben-hadad and a small coalition were defeated by the king of Hamath; but the bearing of this upon Israelite history is uncertain.

[4] Cf. generally, 1 Sam. iv., xxxi.; 2 Sam. ii. 8; 1 Kings xx., xxii.; 2 Kings vi. 8–vii. 20; also Judges v. (see DEBORAH).

[5] Special mention is made of Jonah, a prophet of Zebulun in (north) Israel (2 Kings xiv. 25). Nothing is known of him, unless the very late prophetical writing with the account of his visit to Nineveh rests upon some old tradition, which, however, can scarcely be recovered (see JONAH).

Hamath and the quiescence of Assyria may have encouraged Israelite ambitions, but until more is known of the campaigns of Hadad-nirari and of Shalmaneser III. (against Damascus, 773 B.C.) the situation cannot be safely gauged. Moab was probably tributary; the position of Judah and Edom is involved with the chronological problems. According to the Judaean annals, the "people of Judah" set Azariah (Uzziah) upon his father's throne; and to his long reign of fifty-two years are ascribed conquests over Philistia and Edom, the fortification of Jerusalem and the reorganization of the army. As the relations with Israel are not specified, the sequel to Amaziah's defeat is a matter for conjecture; although, when at the death of Jeroboam Israel hastened to its end amid anarchy and dissension, it is hardly likely that the southern kingdom was unmoved. All that can be recognized from the biblical records, however, is the period of internal prosperity which Israel and Judah enjoyed under Jeroboam and Uzziah (*qq.v.*) respectively.

It is difficult to trace the biblical history century by century as it reaches these last years of bitter conflict and of renewed prosperity. The northern kingdom at the height of its power included Judah, it extended its territory east of the Jordan towards the north and the south, and maintained close relations with Phoenicia and the Aramaean states. It had a national history which left its impress upon the popular imagination, and sundry fragments of tradition reveal the pride which the patriot felt in the past. An original close connexion is felt with the east of the Jordan and with Gilead; stories of invasion and conquest express themselves in varied forms. In so far as internal wealth and luxury presuppose the control of the trade-routes, periodical alliances are implied in which Judah, willingly or unwillingly, was included. But the Judaean records do not allow us to trace its independent history with confidence, and our estimate can scarcely base itself solely upon the accidental fulness or scantiness of political details. In the subsequent disasters of Israel (§ 15) we may perceive the growing supremacy of Judah, and the Assyrian inscriptions clearly indicate the dependence of Judaean politics upon its relations with Edom and Arab tribes on the south-east and with Philistia on the west. Whatever had been the effect of the movement of the Purasati some centuries previously, the Philistines (*i.e.* the people of Philistia) are now found in possession of a mature organization, and the Assyrian evidence is of considerable value for an estimate of the stories of conflict and covenant, of hostility and friendship, which were current in south Palestine. The extension of the term "Judah" (cf. that of "Israel" and "Samaria") is involved with the incorporation of non-Judaean elements. The country for ten miles north of Jerusalem was the exposed and highly debatable district ascribed to the young tribe of Benjamin (the favourite "brother" of both Judah and Joseph; Gen. xxxvii., xxxix. sqq.); the border-line between the rival kingdoms oscillated, and consequently the political position of the smaller and half-desert Judaean state depended upon the attitude of its neighbours. It is possible that tradition is right in supposing that "Judah went down from his brethren" (Gen. xxxviii. 1; cf. Judg. i. 3). Its monarchy traced its origin to Hebron in the south, and its growth is contemporary with a decline in Israel (§ 7). It is at least probable that when Israel was supreme an independent Judah would centre around a more southerly site than Jerusalem. It is naturally uncertain how far the traditions of David can be utilized; but they illustrate Judaean situations when they depict intrigues with Israelite officials, vassalage under Philistia, and friendly relations with Moab, or when they suggest how enmity between Israel and Ammon could be turned to useful account. Tradition, in fact, is concentrated upon the rise of the Judaean dynasty under David, but there are significant periods before the rise of both Jehoash and Uzziah upon which the historical records maintain a perplexing silence.

The Hebrews of Israel and Judah were, political history apart, men of the same general stamp, with the same cult and custom; for the study of religion and social usages, therefore, they can be treated as a single people. The institution of the monarchy was opposed to the simpler local forms of government, and a military régime had distinct disadvantages (cf. 1 Sam. viii. 11–18). The king stood at the head, as the court of final appeal, and upon him and his officers depended the people's welfare. A more intricate social organization caused internal weakness, and Eastern history shows with what rapidity peoples who have become strong by discipline and moderation pass from the height of their glory into extreme corruption and disintegration.[1] This was Israel's fate. Opposition to social abuses and enmity towards religious innovations are regarded as the factors which led to the overthrow of Omri's dynasty by Jehu, and when Israel seemed to be at the height of its glory under Jeroboam II. warning voices again made themselves heard. The two factors are inseparable, for in ancient times no sharp dividing-line was drawn between religious and civic duties: righteousness and equity, religious duty and national custom were one.

Elaborate legal enactments codified in Babylonia by the 20th century B.C. find striking parallels in Hebrew, late Jewish (Talmudic), Syrian and Mahommedan law, or in the unwritten usages of all ages; for even where there were neither written laws nor duly instituted lawgivers, there was no lawlessness, since custom and belief were, and still are, almost inflexible. Various collections are preserved in the Old Testament; they are attributed to the time of Moses the lawgiver, who stands at the beginning of Israelite national and religious history. But many of the laws were quite unsuitable for the circumstances of his age, and the belief that a body of intricate and even contradictory legislation was imposed suddenly upon a people newly emerged from bondage in Egypt raises insurmountable objections, and underestimates the fact that legal usage existed in the earliest stages of society, and therefore in pre-Mosaic times. The more important question is the date of the laws in their present form and content. Collections of laws are found in Deuteronomy and in exilic and post-exilic writings; groups of a relatively earlier type are preserved in Exod. xxxiv. 14–26, xx. 23–xxiii., and (of another stamp) in Lev. xvii.–xxvi. (now in post-exilic form). For a useful conspectus of details, see J. E. Carpenter and G. Harford-Battersby. *The Hexateuch* (vol. i., appendix); C. F. Kent, *Israel's Laws and Legal Enactments* (1907); and in general I. Benzinger, articles "Government," "Family" and "Law and Justice," *Ency. Bib.*, and G. B. Gray, "Law Literature," ib. (the literary growth of legislation). Reference may also be made, for illustrative material, to W. R. Smith, *Kinship and Marriage, Religion of the Semites*; to E. Day, *Social Life of the Hebrews*; and, for some comparison of customary usage in the Semitic field, to S. A. Cook, *Laws of Moses and Code of Hammurabi.*

14. *Religion and the Prophets.*—The elements of the thought and religion of the Hebrews do not sever them from their neighbours; similar features of cult are met with elsewhere under different names. Hebrew religious institutions can be understood from the biblical evidence studied in the light of comparative religion; and without going afield to Babylonia, Assyria or Egypt, valuable data are furnished by the cults of Phoenicia, Syria and Arabia, and these in turn can be illustrated from excavation and from modern custom. Every religion has its customary cult and ritual, its recognized times, places and persons for the observance. Worship is simpler at the smaller shrines than at the more famous temples; and, as the rulers are the patrons of the religion and are brought into contact with the religious personnel, the character of the social organization leaves its mark upon those who hold religious and judicial functions alike. The Hebrews shared the paradoxes of Orientals, and religious enthusiasm and ecstasy were prominent features. Seers and prophets of all kinds ranged from those who were consulted for daily mundane affairs to those who revealed the oracles in times of stress, from those who haunted local holy sites to those high in royal favour, from the quiet domestic communities to the austere mountain recluse. Among these were to be found the most sordid opportunism and the most heroic self-effacement, the crassest supernaturalism and—the loftiest conceptions of practical morality. A development of ideals and a growth of spirituality can be traced which render the biblical writings with their series of prophecies a unique

[1] This is philosophically handled by the Arabian historian Ibn Khaldūn, whose Prolegomena is well worthy of attention; see De Slane, *Not. et extraits*, vols. xix.–xxi., with Von Kremer's criticisms in the *Sitz. d. Kais. Akad.* of Vienna (vol. xciii., 1879); cf. also R. Flint, *History of the Philosophy of History*, i. 157 sqq.

phenomenon.[1] The prophets taught that the national existence of the people was bound up with religious and social conditions; they were in a sense the politicians of the age, and to regard them simply as foretellers of the future is to limit their sphere unduly. They took a keen interest in all the political vicissitudes of the Oriental world. Men of all standards of integrity, they were exposed to external influences, but whether divided among themselves in their adherence to conflicting parties, or isolated in their fierce denunciation of contemporary abuses, they shared alike in the worship of Yahweh whose inspiration they claimed. A recollection of the manifold forms which religious life and thought have taken in Christendom or in Islam, and the passions which are so easily engendered among opposing sects, will prevent a one-sided estimate of the religious standpoints which the writings betray; and to the recognition that they represent lofty ideals it must be added that the great prophets, like all great thinkers, were in advance of their age.

The prophets are thoroughly Oriental figures, and the interpretation of their profound religious experiences requires a particular sympathy which is not inherent in Western minds. Their writings are to be understood in the light of their age and of the conditions which gave birth to them. With few exceptions they are preserved in fragmentary form, with additions and adjustments which were necessary in order to make them applicable to later conditions. When, as often, the great figures have been made the spokesmen of the thought of subsequent generations, the historical criticism of the prophecies becomes one of peculiar difficulty.[2] According to the historical traditions it is precisely in the age of Jeroboam II. and Uzziah that the first of the extant prophecies begin (see AMOS and HOSEA). Here it is enough to observe that the highly advanced doctrines of the distinctive character of Yahweh, as ascribed to the 8th century B.C., presuppose a foundation and development. But the evidence does not allow us to trace the earlier progress of the ideas. Yahwism presents itself under a variety of aspects, and the history of Israel's relations to the God Yahweh (whose name is not necessarily of Israelite origin) can hardly be disentangled amid the complicated threads of the earlier history. The view that the seeds of Yahwism were planted in the young Israelite nation in the days of the "exodus" conflicts with the belief that the worship of Yahweh began in the pre-Mosaic age. Nevertheless, it implies that religion passed into a new stage through the influence of Moses, and to this we find a relatively less complete analogy in the specific north Israelite traditions of the age of Jehu. The change from the dynasty of Omri to that of Jehu has been treated by several hands, and the writers, in their recognition of the introduction of a new tendency, have obscured the fact that the cult of Yahweh had flourished even under such a king as Ahab. While the influence of the great prophets Elijah and Elisha is clearly visible, it is instructive to find that the south, too, has its share in the inauguration of the new era. At Horeb, the mount of God, was located the dramatic theophany which heralded to Elijah the advent of the sword, and Jehu's supporter in his sanguinary measures belongs to the Rechabites, a sect which felt itself to be the true worshipping community of Yahweh and is closely associated with the Kenites, the kin of Moses. It was at the holy well of Kadesh, in the sacred mounts of Sinai and Horeb, and in the field of Edom that the Yahweh of Moses was found, and scattered traces survive of a definite belief in the entrance into Palestine of a movement uncompromisingly devoted to the purer worship of Yahweh. The course of the dynasty of Jehu—the reforms, the disastrous Aramaean wars, and, at length, Yahweh's "arrow of victory"—constituted an epoch in the Israelite history, and it is regarded as such.[3]

The problem of the history of Yahwism depends essentially upon the view adopted as to the date and origin of the biblical details and their validity for the various historical and religious conditions they presuppose. Yahwism is a religion which appears upon a soil saturated with ideas and usages which find their parallel in extra-biblical sources and in neighbouring lands. The problem cannot be approached from modern preconceptions because there was much associated with the worship of Yahweh which only gradually came to be recognized as repugnant, and there was much in earlier ages and in other lands which reflects an elevated and even complex religious philosophy. In the south of the Sinaitic peninsula, remains have been found of an elaborate half-Egyptian, half-Semitic cultus (Petrie, *Researches in Sinai*, xiii.), and not only does Edom possess some reputation for "wisdom," but, where this district is concerned, the old Arabian religion (whose historical connexion with Palestine is still imperfectly known) claims some attention. The characteristic denunciations of corruption and lifeless ritual in the writings of the prophets and the emphasis which is laid upon purity and simplicity of religious life are suggestive of the influence of the nomadic spirit rather than of an internal evolution on Palestinian soil. Desert pastoral life does not necessarily imply any intellectual inferiority, and its religious conceptions, though susceptible of modification, are not artificially moulded through the influence of other civilizations. Nomadic life is recognized by Arabian writers themselves as possessing a relative superiority, and its characteristic purity of manner and its reaction against corruption and luxury are not incompatible with a warlike spirit. If nomadism may be recognized as one of the factors in the growth of Yahwism, there is something to be said for the hypothesis which associates it with the clans connected with the Levites (see E. Meyer, *Israeliten*, pp. 82 sqq.; B. Luther, ib. 138). It is, however, obvious that the influence due to immigrants could be, and doubtless was, exerted at more than one period (see §§ 18, 20; also HEBREW RELIGION; PRIEST).

15. *The Fall of the Israelite Monarchy.*—The prosperity of Israel was its undoing. The disorders that hastened its end find an analogy in the events of the more obscure period after the death of the earlier Jeroboam. Only the briefest details are given. Zechariah was slain after six months by Shallum ben Jabesh in Ibleam; but the usurper fell a month later to Menahem (*q.v.*), who only after much bloodshed established his position. Assyria again appeared upon the scene under Tiglath-pileser IV. (745–728 B.C.).[4] His approach was the signal for the formation of a coalition, which was overthrown in 738. Among those who paid tribute were Raṣun (the biblical Rezin) of Damascus, Menahem of Samaria, the kings of Tyre, Byblos and Hamath and the queen of Aribi (Arabia, the Syrian desert). Israel was once more in league with Damascus and Phoenicia, and the biblical records must be read in the light of political history. Judah was probably holding aloof. Its king, Uzziah, was a leper in his latter days, and his son and regent, Jotham, claims notice for the circumstantial reference (2 Chron. xxvii.; cf. xxvi. 8) to his subjugation of Ammon—the natural allies of Damascus—for three years. Scarcely had Assyria withdrawn before Menahem lost his life in a conspiracy, and Pekah with the help of Gilead made himself king. The new movement was evidently anti-Assyrian, and strenuous endeavours were made to present a united front. It is suggestive to find Judah the centre of attack.[5] Raṣun and Pekah directed their blows from the north, Philistia threatened the west flank, and the Edomites who drove out the Judaeans from Elath (on the Gulf of 'Akaba) were no doubt only taking their part in the concerted action. A more critical situation could scarcely be imagined. The throne of David was then occupied by the young Ahaz, Jotham's son.

[1] Cf. J. G. Frazer, *Adonis, Attis, Osiris* (1907), p. 67: "Prophecy of the Hebrew type has not been limited to Israel; it is indeed a phenomenon of almost world-wide occurrence; in many lands and in many ages the wild, whirling words of frenzied men and women have been accepted as the utterances of an in-dwelling deity. What does distinguish Hebrew prophecy from all others is that the genius of a few members of the profession wrested this vulgar but powerful instrument from baser uses, and by wielding it in the interest of a high morality rendered a service of incalculable value to humanity. That is indeed the glory of Israel. . . ."

[2] The use which was made in Apocalyptic literature of the traditions of Moses, Isaiah and others finds its analogy within the Old Testament itself; cf. the relation between the present late prophecies of Jonah and the unknown prophet of the time of Jeroboam II. (see § 13, note 5). To condemn re-shaping or adaptation of this nature from a modern Western standpoint is to misunderstand entirely the Oriental mind and Oriental usage.

[3] The condemnation passed upon the impetuous and fiery zeal of the adherents of the new movement (cf. Hos. i. 4), like the remarkable vicissitudes in the traditions of Moses, Aaron and the Levites (*qq.v.*), represents changing situations of real significance, whose true place in the history can with difficulty be recovered.

[4] Formerly thought to be the third of the name.

[5] Perhaps Judah had come to an understanding with Tiglath-pileser (H. M. Haydn, *Journ. Bib. Lit.*, xxviii. 1909, pp. 182-199); see UZZIAH.

In this crisis we meet with Isaiah (*q.v.*), one of the finest of Hebrew prophets. The disorganized state of Egypt and the uncertain allegiance of the desert tribes left Judah without direct aid; on the other hand, opposition to Assyria among the conflicting interests of Palestine and Syria was rarely unanimous. Either in the natural course of events—to preserve the unity of his empire—or influenced by the rich presents of gold and silver with which Ahaz accompanied his appeal for help, Tiglath-pileser intervened with campaigns against Philistia (734 B.C.) and Damascus (733–732). Israel was punished by the ravaging of the northern districts, and the king claims to have carried away the people of "the house of Omri." Pekah was slain and one Hoshea (*q.v.*) was recognized as his successor. Assyrian officers were placed in the land and Judah thus gained its deliverance at the expense of Israel. But the proud Israelites did not remain submissive for long; Damascus had indeed fallen, but neither Philistia nor Edom had yet been crushed.

At this stage a new problem becomes urgent. A number of petty peoples, of whom little definite is known, fringed Palestine from the south of Judah and the Delta to the Syrian desert. They belong to an area which merges itself in the west into Egypt, and Egypt in fact had a hereditary claim upon it. Continued intercourse between Egypt, Gaza and north Arabia is natural in view of the trade-routes which connected them, and on several occasions joint action on the part of Edomites (with allied tribes) and the Philistines is recorded, or may be inferred. The part played by Egypt proper in the ensuing anti-Assyrian combinations is not clearly known; with a number of petty dynasts fomenting discontent and revolt, there was an absence of cohesion in that ancient empire previous to the rise of the Ethiopian dynasty. Consequently the references to "Egypt" (Heb. *Miṣrayim*, Ass. *Muṣri*) sometimes suggest that the geographical term was really extended beyond the bounds of Egypt proper towards those districts where Egyptian influence or domination was or had been recognized (see further MIZRAIM).

When Israel began to recover its prosperity and regained confidence, its policy halted between obedience to Assyria and reliance upon this ambiguous "Egypt." The situation is illustrated in the writings of Hosea (*q.v.*). When at length Tiglath-pileser died, in 727, the slumbering revolt became general; Israel refused the usual tribute to its overlord, and definitely threw in its lot with "Egypt." In due course Samaria was besieged for three years by Shalmaneser IV. The alliance with So (Seveh, Sibi) of "Egypt," upon whom hopes had been placed, proved futile, and the forebodings of keen-sighted prophets were justified. Although no evidence is at hand, it is probable that Ahaz of Judah rendered service to Assyria by keeping the allies in check; possible, also, that the former enemies of Jerusalem had now been induced to turn against Samaria. The actual capture of the Israelite capital is claimed by Sargon (722), who removed 27,290 of its inhabitants and fifty chariots. Other peoples were introduced, officers were placed in charge, and the usual tribute re-imposed. Another revolt was planned in 720 in which the province of Samaria joined with Hamath and Damascus, with the Phoenician Arpad and Ṣimura, and with Gaza and "Egypt." Two battles, one at Karkar in the north, another at Rapiḥ (Raphia) on the border of Egypt, sufficed to quell the disturbance. The desert peoples who paid tribute on this occasion still continued restless, and in 715 Sargon removed men of Tamūd, Ibādid, Marsiman, Ḥayāpa, "the remote Arabs of the desert," and placed them in the land of Beth-Omri. Sargon's statement is significant for the internal history; but unfortunately the biblical historians take no further interest in the fortunes of the northern kingdom after the fall of Samaria, and see in Judah the sole survivor of the Israelite tribes (see 2 Kings xvii. 7–23). Yet the situation in this neglected district must continue to provoke inquiry.

16. *Judah and Assyria.*—Amid these changes Judah was intimately connected with the south Palestinian peoples (see further PHILISTINES). Ahaz had recognized the sovereignty of Assyria and visited Tiglath-pileser at Damascus. The Temple records describe the innovations he introduced on his return. Under his son Hezekiah there were fresh disturbances in the southern states, and anti-Assyrian intrigues began to take a more definite shape among the Philistine cities. Ashdod openly revolted and found support in Moab, Edom, Judah, and the still ambiguous "Egypt." This step may possibly be connected with the attempt of Marduk (Merodach)-baladan in south Babylonia to form a league against Assyria (cf. 2 Kings xx. 12); at all events Ashdod fell after a three years' siege (711) and for a time there was peace. But with the death of Sargon in 705 there was another great outburst; practically the whole of Palestine and Syria was in arms, and the integrity of Sennacherib's empire was threatened. In both Judah and Philistia the anti-Assyrian party was not without opposition, and those who adhered or favoured adherence to the great power were justified by the result. The inevitable lack of cohesion among the petty states weakened the national cause. At Sennacherib's approach, Ashdod, Ammon, Moab and Edom submitted; Ekron, Ascalon, Lachish and Jerusalem held out strenuously. The southern allies (with "Egypt") were defeated at Eltekeh (Josh. xix. 44). Hezekiah was besieged and compelled to submit (701). The small kings who had remained faithful were rewarded by an extension of their territories, and Ashdod, Ekron and Gaza were enriched at Judah's expense. These events are related in Sennacherib's inscription; the biblical records preserve their own traditions (see HEZEKIAH). If the impression left upon current thought can be estimated from certain of the utterances of the court-prophet Isaiah and the Judaean countryman Micah (*q.v.*), the light which these throw upon internal conditions must also be used to gauge the real extent of the religious changes ascribed to Hezekiah. A brazen serpent, whose institution was attributed to Moses, had not hitherto been considered out of place in the cult; its destruction was perhaps the king's most notable reform.

In the long reign of his son Manasseh later writers saw the deathblow to the Judaean kingdom. Much is related of his wickedness and enmity to the followers of Yahweh, but few political details have come down. It is uncertain whether Sennacherib invaded Judah again shortly before his death, nevertheless the land was practically under the control of Assyria. Both Esar-haddon (681–668) and Assur-bani-pal (668–*c.* 626) number among their tributaries Tyre, Ammon, Moab, Edom, Ascalon, Gaza and Manasseh himself,[1] and cuneiform dockets unearthed at Gezer suggest the presence of Assyrian garrisons there (and no doubt also elsewhere) to ensure allegiance. The situation was conducive to the spread of foreign customs, and the condemnation passed upon Manasseh thus perhaps becomes more significant. Precisely what form his worship took is a matter of conjecture; but it is possible that the religion must not be judged too strictly from the standpoint of the late compiler, and that Manasseh merely assimilated the older Yahweh-worship to new Assyrian forms.[2] Politics and religion, however, were inseparable, and the supremacy of Assyria meant the supremacy of the Assyrian pantheon.

If Judah was compelled to take part in the Assyrian campaigns against Egypt, Arabia (the Syrian desert) and Tyre, this would only be in accordance with a vassal's duty. But when tradition preserves some recollection of an offence for which Manasseh was taken to Babylon to explain his conduct (2 Chron. xxxiii.), also of the settling of foreign colonists in Samaria by Esar-haddon (Ezra iv. 2), there is just a possibility that Judah made some attempt to gain independence. According to Assur-bani-pal all the western lands were inflamed by the revolt of his brother Samas-sum-ukin. What part Judah took in the Transjordanic disturbances, in which Moab fought invading Arabian tribes on behalf of Assyria, is unknown (see MOAB). Manasseh's son Amon fell in a court intrigue and "the people of the land," after avenging the murder, set up in his place the infant Josiah (637). The circumstances imply a regency, but the records are silent upon

[1] The fact that these lists are of the kings of the "land Ḥatti" would suggest that the term "Hittite" had been extended to Palestine.

[2] So K. Budde, *Rel. of Israel to Exile*, pp. 165–167. For an attempt to recover the character of the cults, see W. Erbt, *Hebräer* (Leipzig, 1906), pp. 150 sqq.

the outlook. The assumption that the decay of Assyria awoke the national feeling of independence is perhaps justified by those events which made the greatest impression upon the compiler, and an account is given of Josiah's religious reforms, based upon a source apparently identical with that which described the work of Jehoash. In an age when the oppression and corruption of the ruling classes had been such that those who cherished the old worship of Yahweh dared not confide in their most intimate companions (Mic. vii. 5, 6), no social reform was possible; but now the young Josiah, the popular choice, was upon the throne. A roll, it is said, was found in the Temple, its contents struck terror into the hearts of the priests and king, and it led to a solemn covenant before Yahweh to observe the provisions of the law-book which had been so opportunely recovered.

That the writer (2 Kings xxii. seq.) meant to describe the discovery of Deuteronomy is evident from the events which followed; and this identification of the roll, already made by Jerome, Chrysostom and others, has been substantiated by modern literary criticism since De Wette (1805). (See DEUTERONOMY; JOSIAH.) Some very interesting parallels have been cited from Egyptian and Assyrian records where religious texts, said to have been found in temples, or oracles from the distant past, have come to light at the very time when "the days were full."[1] There is, however, no real proof for the traditional antiquity of Deuteronomy. The book forms a very distinctive landmark in the religious history by reason of its attitude to cult and ritual (see HEBREW RELIGION, § 7). In particular it is aimed against the worship at the numerous minor sanctuaries and inculcates the sole pre-eminence of the one great sanctuary—the Temple of Jerusalem. This centralization involved the removal of the local priests and a modification of ritual and legal observance. The fall of Samaria, Sennacherib's devastation of Judah, and the growth of Jerusalem as the capital, had tended to raise the position of the Temple, although Israel itself, as also Judah, had famous sanctuaries of its own. From the standpoint of the popular religion, the removal of the local altars, like Hezekiah's destruction of the brazen serpent, would be an act of desecration, an iconoclasm which can be partly appreciated from the sentiments of 2 Kings xviii. 22, and partly also from the modern Wahhabite reformation (of the 19th century). But the details and success of the reforms, when viewed in the light of the testimony of contemporary prophets, are uncertain. The book of Deuteronomy crystallizes a doctrine; it is the codification of teaching which presupposes a carefully prepared soil. The account of Josiah's work, like that of Hezekiah, is written by one of the Deuteronomic school: that is to say, the writer describes the promulgation of the teaching under which he lives. It is part of the scheme which runs through the book of Kings, and its apparent object is to show that the Temple planned by David and founded by Solomon ultimately gained its true position as the only sanctuary of Yahweh to which his worshippers should repair. Accordingly, in handling Josiah's successors the writer no longer refers to the high places. But if Josiah carried out the reforms ascribed to him they were of no lasting effect. This is conclusively shown by the writings of Jeremiah (xxv. 3–7, xxxvi. 2 seq.) and Ezekiel. Josiah himself is praised for his justice, but faithless Judah is insincere (Jer. iii. 10), and those who claim to possess Yahweh's law are denounced (viii. 8). If Israel could appear to be better than Judah (iii. 11; Ezek. xvi., xxiii.), the religious revival was a practical failure, and it was not until a century later that the opportunity again came to put any new teaching into effect (§ 20). On the other hand, the book of Deuteronomy has a characteristic social-religious side; its humanity, philanthropy and charity are the distinctive features of its laws, and Josiah's reputation (Jer. xxii. 15 seq.) and the circumstances in which he was chosen king may suggest that he, like Jehoash (2 Kings xi. 17; cf. xxiii. 3), had entered into a reciprocal covenant with a people who, as Micah's writings would indicate, had suffered grievous oppression and misery.[2]

17. *The Fall of the Judaean Monarchy.*—In Josiah's reign a new era was beginning in the history of the world. Assyria was rapidly decaying and Egypt had recovered from the blows of Assur-bani-pal (to which the Hebrew prophet Nahum alludes, iii. 8–10). Psammetichus (Psamtek) I., one of the ablest of Egyptian rulers for many centuries, threw off the Assyrian yoke with the help of troops from Asia Minor and employed these to guard his eastern frontiers at Defneh. He also revived the old trading-connexions between Egypt and Phoenicia. A Chaldean prince, Nabopolassar, set himself up in Babylonia, and Assyria was compelled to invoke the aid of the Aškuza. It was perhaps after this that an inroad of Scythians (*q.v.*) occurred (*c.* 626 B.C.); if it did not actually touch Judah, the advent of the people of the north appears to have caused great alarm (Jer. iv.–vi.: Zephaniah). Bethshean in Samaria has perhaps preserved in its later (though temporary) name Scythopolis an echo of the invasion.[3] Later, Necho, son of Psammetichus, proposed to add to Egypt some of the Assyrian provinces, and marched through Palestine. Josiah at once interposed; it is uncertain whether, in spite of the power of Egypt, he had hopes of extending his kingdom, or whether the famous reformer was, like Manasseh, a vassal of Assyria. The book of Kings gives the standpoint of a later Judaean writer, but Josiah's authority over a much larger area than Judah alone is suggested by xxiii. 19 (part of an addition), and by the references to the border at Riblah in Ezek. vi. 14, xi. 10 seq. He was slain at Megiddo in 608, and Egypt, as in the long-distant past, again held Palestine and Syria. The Judaeans made Jehoahaz (or Shallum) their king, but the Pharaoh banished him to Egypt three months later and appointed his brother Jehoiakim. Shortly afterwards Nineveh fell, and with it the empire which had dominated the fortunes of Palestine for over two centuries (see § 10). Nabonidus (Nabunaid) king of Babylonia (556 B.C.) saw in the disaster the vengeance of the gods for the sacrilege of Sennacherib; the Hebrew prophets, for their part, exulted over Yahweh's far-reaching judgment. The newly formed Chaldean power at once recognized in Necho a dangerous rival and Nabopolassar sent his son Nebuchadrezzar, who overthrew the Egyptian forces at Carchemish (605). The battle was the turning-point of the age, and with it the succession of the new Chaldean or Babylonian kingdom was assured. But the relations between Egypt and Judah were not broken off. The course of events is not clear, but Jehoiakim (*q.v.*) at all events was inclined to rely upon Egypt. He died just as Nebuchadrezzar, seeing his warnings disregarded, was preparing to lay siege to Jerusalem. His young son Jehoiachin surrendered after a three months' reign, with his mother and the court; they were taken away to Babylonia, together with a number of the artisan class (596). Jehoiakim's brother, Mattaniah or Zedekiah, was set in his place under an oath of allegiance, which he broke, preferring Hophra the new king of Egypt. A few years later the second siege took place. It began on the tenth day of the tenth month, January 587. The looked-for intervention of Egypt was unavailing, although a temporary raising of the siege inspired wild hopes. Desertion, pestilence and famine added to the usual horrors of a siege, and at length on the ninth day of the fourth month 586, a breach was made in the walls. Zedekiah fled towards the Jordan valley but was seized and taken to Nebuchadrezzar at Riblah (45 m. south of Hamath). His sons were slain before his eyes, and he himself was blinded and carried off to Babylon after a reign of eleven years. The Babylonian Nebuzar-adan was sent to take vengeance upon the rebellious city, and on the seventh day of the fifth month 586 B.C. Jerusalem was destroyed. The Temple, palace and city buildings were burned, the walls broken down, the chief priest Seraiah, the second priest Zephaniah, and other leaders were put to death, and a large body of people was again carried away. The disaster became the great epoch-making event for Jewish history and literature.

Throughout these stormy years the prophet Jeremiah (*q.v.*) had realized that Judah's only hope lay in submission to Babylonia. Stigmatized as a traitor, scorned and even imprisoned, he had not ceased to utter his warnings to deaf ears, although Zedekiah himself was perhaps open to persuasion. Now the penalty had been paid, and the Babylonians, whose policy was less destructive than that of Assyria, contented themselves with appointing as governor a certain Gedaliah. The new centre was Mizpah, a commanding eminence and sanctuary, about 5 m. N.W. of Jerusalem; and here Gedaliah issued an appeal to the people to

[1] See G. Maspero, *Gesch. d. morgenländ. Völker* (1877), p. 446; E. Naville, *Proc. Soc. Bibl. Archaeol.* (1907), pp. 232 sqq., and T. K. Cheyne, *Decline and Fall of Judah* (1908), p. 13, with references. [The genuineness of such discoveries is naturally a matter for historical criticism to decide. Thus the discovery of Numa's laws in Rome (Livy xl. 29), upon which undue weight has sometimes been laid (see Klostermann, *Der Pentateuch* (1906), pp. 155 sqq., was not accepted as genuine by the senate (who had the laws destroyed), and probably not by Pliny himself. Only the later antiquaries clung to the belief in their trustworthiness.—(*Communicated.*)]

[2] Both kings came to the throne after a conspiracy aimed at existing abuses, and other parallels can be found (see KINGS).

[3] But see N. Schmidt, *Ency. Bib.*, "Scythians," § 1.

be loyal to Babylonia and to resume their former peaceful occupations. The land had not been devastated, and many gladly returned from their hiding-places in Moab, Edom and Ammon. But discontented survivors of the royal family under Ishmael intrigued with Baalis, king of Ammon. The plot resulted in the murder of Gedaliah and an unsuccessful attempt to carry off various princesses and officials who had been left in the governor's care. This new confusion and a natural fear of Babylonia's vengeance led many to feel that their only safety lay in flight to Egypt, and, although warned by Jeremiah that even there the sword would find them, they fled south and took refuge in Tahpanhes (Daphnae, *q.v.*), afterwards forming small settlements in other parts of Egypt. But the thread of the history is broken, and apart from an allusion to the favour shown to the captive Jehoiachin (with which the books of Jeremiah and Kings conclude), there is a gap in the records, and subsequent events are viewed from a new standpoint (§ 20).

The last few years of the Judaean kingdom present several difficult problems.

(*a*) That there was some fluctuation of tradition is evident in the case of Jehoiakim, with whose quiet end (2 Kings xxiv. 6 [see also LUCIAN]; 2 Chron. xxxvi. 8 [Septuagint]) contrast the fate foreshadowed in Jer. xxii. 18 seq., xxxvi. 30 (cf. Jos. *Ant.* x. 6, 2 seq.). The tradition of his captivity (2 Chron. xxxvi. 6; Dan. i. 2) has apparently confused him with Jehoiachin, and the latter's reign is so brief that some overlapping is conceivable. Moreover, the prophecy in Jer. xxxiv. 5 that Zedekiah would die in peace is not borne out by the history, nor does Josiah's fate agree with the promise in 2 Kings xxii. 20. There is also an evident relation between the pairs: Jehoahaz and Jehoiakim, Jehoiachin and Zedekiah (*e.g.* length of reigns), and the difficulty felt in regard to the second and third is obvious in the attempts of the Jewish historian Josephus to provide a compromise. The contemporary prophecies ascribed to Jeremiah and Ezekiel require careful examination in this connexion, partly as regards their traditional background (especially the headings and setting), and partly for their contents, the details of which sometimes do not admit of a literal interpretation in accordance with our present historical material (cf. Ezek. xix. 3–9, where the two brothers carried off to Egypt and Babylon respectively would seem to be Jehoahaz and his nephew Jehoiachin).

(*b*) Some fluctuation is obvious in the number, dates and extent of the deportations. Jer. lii. 28–30 gives a total of 4600 persons, in contrast to 2 Kings xxiv. 14, 16 (the numbers are not inclusive), and reckons three deportations in the 7th (? 17th), 18th and 23rd years of Nebuchadrezzar. Only the second is specifically said to be from Jerusalem (the remaining are of Judaeans), and the last has been plausibly connected with the murder of Gedaliah, an interval of five years being assumed. For this twenty-third year Josephus (*Ant.* x. 9, 7) gives an invasion of Egypt and an attack upon Ammon, Moab and Palestine (see NEBUCHADREZZAR).

(*c*) That the exile lasted seventy years (? from 586 B.C. to the completion of the second temple) is the view of the canonical history (2 Chron. xxxvi. 21; Jer. xxv. 11, xxix. 10; Zech. i. 12; cf. Tyre, Isa. xxiii. 15), but it is usually reckoned from the first deportation, which was looked upon as of greater significance than the second (Jer. xxiv. xxix.), and it may be a round number. Another difficulty is the interpretation of the 40 years in Ezek. iv. 6 (cf. Egypt, xxix. 11), and the 390 in *v.* 5 (Septuagint 150 or 190; 130 in Jos. x. 9, 7 end). A period of fifty years is allowed by the chronological scheme (1 Kings vi. 1; cf. Jos. *c. Ap.* i. 21), and the late book of Baruch (vi. 3) even speaks of seven generations. Varying chronological schemes may have been current and some weight must be laid upon the remarkable vagueness of the historical information in later writings (see DANIEL).

(*d*) The attitude of the neighbouring peoples constitutes another serious problem (cf. 2 Kings xxiv. 2 and 2 Chron. xxxvi. 5, where Lucian's recension and the Septuagint respectively add the Samaritans!), in view of the circumstances of Gedaliah's appointment (Jer. xl. 11, see above) as contrasted with the frequent prophecies against Ammon, Moab and Edom which *seem* to be contemporary (see EDOM; MOAB).

(*e*) Finally, the recurrence of similar historical situations in Judaean history must be considered. The period under review, with its relations between Judah and Egypt, can be illustrated by prophecies ascribed to a similar situation in the time of Hezekiah. But the destruction of Jerusalem is not quite unique, and somewhat later we meet with indirect evidence for at least one similar disaster upon which the records are silent. There are a number of apparently related passages which, however, on internal grounds, are unsuitable to the present period, and when they show independent signs of a later date (in their present form), there is a very strong probability that they refer to such subsequent disasters. The scantiness of historical tradition makes a final solution impossible, but the study of these years has an important bearing on the history of the later Judaean state, which has been characteristically treated from the standpoint of exiles who returned from Babylonia and regard themselves as the kernel of "Israel." From this point of view, the desire to intensify the denudation of Palestine and the fate of its remnant, and to look to the Babylonian exiles for the future, can probably be recognized in the writings attributed to contemporary prophets.[1]

18. *Internal Conditions and the Exile.*—Many of the exiles accepted their lot and settled down in Babylonia (cf. Jer. xxix. 4–7); Jewish colonies, too, were being founded in Egypt. The agriculturists and herdsmen who had been left in Palestine formed, as always, the staple population, and it is impossible to imagine either Judah or Israel as denuded of its inhabitants. The down-trodden peasants were left in peace to divide the land among them, and new conditions arose as they took over the ownerless estates. But the old continuity was not entirely broken; there was a return to earlier conditions, and life moved more freely in its wonted channels. The fall of the monarchy involved a reversion to a pre-monarchical state. It had scarcely been otherwise in Israel. The Israelites who had been carried off by the Assyrians were also removed from the cult of the land (cf. 1 Sam. xxvi. 19; Ruth i. 15 seq.). It is possible that some had escaped by taking timely refuge among their brethren in Judah; indeed, if national tradition availed, there were doubtless times when Judah cast its eye upon the land with which it had been so intimately connected. It would certainly be unwise to draw a sharp boundary line between the two districts; kings of Judah could be tempted to restore the kingdom of their traditional founder, or Assyria might be complaisant towards a faithful Judaean vassal. The character of the Assyrian domination over Israel must not be misunderstood; the regular payment of tribute and the provision of troops were the main requirements, and the position of the masses underwent little change if an Assyrian governor took the place of an unpopular native ruler. The two sections of the Hebrews who had had so much in common were scarcely severed by a border-line only a few miles to the north of Jerusalem. But Israel after the fall of Samaria is artificially excluded from the Judaean horizon, and lies as a foreign land, although Judah itself had suffered from the intrusion of foreigners in the preceding centuries of war and turmoil, and strangers had settled in her midst, had formed part of the royal guard, or had even served as janissaries (§ 15, end).

Samaria had experienced several changes in its original population,[2] and an instructive story tells how the colonists, in their ignorance of the religion of their new home, incurred the divine wrath. *Cujus regio ejus religio*—settlement upon a new soil involved dependence upon its god, and accordingly priests were sent to instruct the Samaritans in the fear of Yahweh. Thenceforth they continued the worship of the Israelite Yahweh along with their own native cults (2 Kings xvii. 24–28, 33). Their descendants claimed participation in the privileges of the Judaeans (cf. Jer. xli. 5), and must have identified themselves with the old stock (Ezra iv. 2). Whatever recollection they preserved of their origin and of the circumstances of their entry would be retold from a new standpoint; the ethnological traditions would gain a new meaning; the assimilation would in time become complete. In view of subsequent events it would be difficult to find a more interesting subject of inquiry than the internal religious and sociological conditions in Samaria at this age.

To the prophets the religious position was lower in Judah than in Samaria, whose iniquities were less grievous (Jer. iii. 11 seq., xxiii. 11 sqq.; Ezek. xvi. 51). The greater prevalence of heathen elements in Jerusalem, as detailed in the reforms of Josiah or in the writings of the prophets (cf. Ezek. viii.), would

[1] So also one can now compare the estimate taken of the Jews in Egypt in Jer. xliv. with the actual religious conditions which are known to have prevailed later at Elephantine, where a small Jewish colony worshipped Yahu (Yahweh) at their own temple (see E. Sachau, "Drei aram. Papyrusurkunde," in the *Abhandlungen* of the Prussian Academy, Berlin, 1907).

[2] Sargon had removed Babylonians into the land of Hatti (Syria and Palestine), and in 715 B.C. among the colonists were tribes apparently of desert origin (Tamud, Hayapa, &c.); other settlements are ascribed to Esar-haddon and perhaps Assur-bani-pal (Ezra iv. 2, 10). See for the evidence, A. E. Cowley, *Ency. Bib.*, col. 4257; J. A. Montgomery, *The Samaritans*, pp. 46–57 (Philadelphia, 1907).

at least suggest that the destruction of the state was not entirely a disaster. To this catastrophe may be due the fragmentary character of old Judaean historical traditions. Moreover, the land was purified when it became divorced from the practices of a luxurious court and lost many of its worst inhabitants. In Israel as in Judah the political disasters not only meant a shifting of population, they also brought into prominence the old popular and non-official religion, the character of which is not to be condemned because of the attitude of lofty prophets in advance of their age. When there were sects like the Rechâbites (Jer. xxxv.), when the Judaean fields could produce a Micah or a Zephaniah, and when Israel no doubt had men who inherited the spirit of a Hosea, the nature of the underlying conditions can be more justly appreciated. The writings of the prophets were cherished, not only in the unfavourable atmosphere of courts (see Jer. xxxvi., 21 sqq.), but also in the circles of their followers (Isa. viii. 16). In the quiet smaller sanctuaries the old-time beliefs were maintained, and the priests, often perhaps of the older native stock (cf. 2 Kings xvii. 28 and above), were the recognized guardians of the religious cults. The old stories of earlier days encircle places which, though denounced for their corruption, were not regarded as illegitimate, and in the form in which the dim traditions of the past are now preserved they reveal an attempt to purify popular belief and thought. In the domestic circles of prophetic communities the part played by their great heads in history did not suffer in the telling, and it is probable that some part at least of the extant history of the Israelite kingdom passed through the hands of men whose interest lay in the pre-eminence of their seers and their beneficent deeds on behalf of these small communities. This interest and the popular tone of the history may be combined with the fact that the literature does not take us into the midst of that world of activity in which the events unfolded themselves.

Although the records preserve complete silence upon the period now under review, it is necessary to free oneself from the narrow outlook of the later Judaean compilers. It is a gratuitous assumption that the history of (north) Israel ceased with the fall of Samaria or that Judah then took over Israelite literature and inherited the old Israelite spirit: the question of the preservation of earlier writings is of historical importance. It is true that the situation in Israel or Samaria continues obscure, but a careful study of literary productions, evidently not earlier than the 7th century B.C., reveals a particular loftiness of conception and a tendency which finds its parallels in Hosea and approximates the peculiar characteristics of the Deuteronomic school of thought. But the history which the Judaean writers have handed down is influenced by the later hostility between Judah and Samaria. The traditional bond between the north and south which nothing could efface (cf. Jos. *Ant.*, xi. 8, 6) has been carried back to the earliest ages; yet the present period, after the age of rival kingdoms, Judah and Israel, and before the foundation of Judaism, is that in which the historical background for the inclusion of Judah among the "sons" of Israel is equally suitable (§§ 5, 20, end). The circumstances favoured a closer alliance between the people of Palestine, and a greater prominence of the old holy places (Hebron, Bethel, Shechem, &c.), of which the ruined Jerusalem would not be one, and the existing condition of Judah and Israel from internal and non-political points of view—not their condition in the pre-monarchical ages—is the more crucial problem in biblical history.[1]

19. *Persian Period.*[2]—The course of events from the middle of the 6th century B.C. to the close of the Persian period is lamentably obscure, although much indirect evidence indicates that this age holds the key to the growth of written biblical history. It was an age of literary activity which manifested itself, not in contemporary historical records—only a few of which have survived—but rather in the special treatment of previously existing sources. The problems are of unusual intricacy and additional light is needed from external evidence. It will be convenient to turn to this first. Scarcely 40 years after the destruction of Jerusalem, a new power appeared in the east in the person of Cyrus the Great. Babylon speedily fell (539 B.C.) and a fresh era opened. To the petty states this meant only a change of masters; they now became part of one of the largest empires of antiquity. The prophets who had marked in the past the advent of Assyrians and Chaldeans now fixed their eyes upon the advance of Cyrus, confident that the fall of Babylon would bring the restoration of their fortunes. Cyrus was hailed as the divinely appointed saviour, the anointed one of Yahweh. The poetic imagery in which the prophets clothed the doom of Babylon, like the romantic account of Herodotus (i. 191), falls short of the simple contemporary account of Cyrus himself. He did not fulfil the detailed predictions, and the events did not reach the ideals of Hebrew writers; but these anticipations may have influenced the form which the Jewish traditions subsequently took. Nevertheless, if Cyrus was not originally a Persian and was not a worshipper of Yahweh (Isa. xli. 25), he was at least tolerant towards subject races and their religions, and the persistent traditions unmistakably point to the honour in which his memory was held. Throughout the Persian supremacy Palestine was necessarily influenced by the course of events in Phoenicia and Egypt (with which intercourse was continual), and some light may thus be indirectly thrown on its otherwise obscure political history. Thus, when Cambyses, the son of Cyrus, made his great expedition against Egypt, with the fleets of Phoenicia and Cyprus and with the camels of the Arabians, it is highly probable that Palestine itself was concerned. Also, the revolt which broke out in the Persian provinces at this juncture may have extended to Palestine; although the usurper Darius encountered his most serious opposition in the north and north-east of his empire. An outburst of Jewish religious feeling is dated in the second year of Darius (520), but whether Judah was making a bold bid for independence or had received special favour for abstaining from the above revolts, external evidence alone can decide. Towards the close of the reign of Darius there was a fresh revolt in Egypt; it was quelled by Xerxes (485–465), who did not imitate the religious tolerance of his predecessors. Artaxerxes I. Longimanus (465–425), attracts attention because the famous Jewish reformers Ezra and Nehemiah flourished under a king of this name. Other revolts occurred in Egypt, and for these and also for the rebellion of the Persian satrap Megabyzos (*c.* 448–447), independent evidence for the position of Judah is needed, since a catastrophe apparently befell the unfortunate state before Nehemiah appears upon the scene. Little is known of the mild and indolent Artaxerxes II. Mnemon (404–359). With the growing weakness of the Persian empire Egypt reasserted its independence for a time. In the reign of Artaxerxes III. Ochus (359–338), Egypt, Phoenicia and Cyprus were in revolt; the rising was quelled without mercy, and the details of the vengeance are valuable for the possible fate of Palestine itself. The Jewish historian Josephus (*Ant.* xi. 7) records the enslavement of the Jews, the pollution of the Temple by a certain Bagoses (see BAGOAS), and a seven years' punishment. Other late sources narrate the destruction of Jericho and a deportation of the Jews to Babylonia and to Hyrcania (on the Caspian Sea). The evidence for the catastrophes under Artaxerxes I. and III. (see ARTAXERXES), exclusively contained in biblical and in external tradition respectively, is of particular importance, since several biblical passages refer to disasters similar to those of 586 but presuppose different conditions and are apparently of later origin.[3] The murder of Artaxerxes III. by

[1] The growing recognition that the land was not depopulated after 586 is of fundamental significance for the criticism of "exilic" and "post-exilic" history. G. A. Smith thus sums up a discussion of the extent of the deportations: "... A large majority of the Jewish people remained on the land. This conclusion may startle us with our generally received notions of the whole nation as exiled. But there are facts which support it" (*Jerusalem*, ii. 268).

[2] On the place of Palestine in Persian history see PERSIA: *History, ancient*, especially § 5 ii.; also ARTAXERXES; CAMBYSES; CYRUS; DARIUS, &c.

[3] The evidence for Artaxerxes III., accepted by Ewald and others (see W. R. Smith, *Old Testament in Jewish Church*, p. 438 seq.; W. Judeich, *Kleinasiat. Stud.*, p. 170; T. K. Cheyne, *Ency. Bib.*, col. 2202; F. C. Kent, *Hist.* [1899], pp. 230 sqq.) has however been questioned by Willrich, *Judaica*, 35–39 (see Cheyne, *Ency. Bib.*, col. 3941). The account of Josephus (above) raises several difficulties, especially the identity of Bagoses. It has been supposed that he has placed the record too late, and that this Bagoses is the Judaean governor who flourished about 408 B.C. (See p. 286, n. 3.)

Bagoses gave a set-back to the revival of the Persian Empire. Under Darius Codomannus (336–330) the advancing Greek power brought matters to a head, and at the battle of Issus in 333 Alexander settled its fate. The overthrow of Tyre and Gaza secured the possession of the coast and the Jewish state entered upon the Greek period. (See § 25.)

During these two centuries the Jews in Palestine had been only one of an aggregate of subject peoples enjoying internal freedom provided in return for a regular tribute. They lived in comparative quietude; although Herodotus knows the Palestinian coast he does not mention the Jews. The earlier Persian kings acknowledged the various religions of the petty peoples; they were also patrons of their temples and would take care to preserve an ancient right of asylum or the privileges of long-established cults.[1] Cyrus on entering Babylon had even restored the gods to the cities to which they belonged.[2] Consequently much interest attaches to the evidence which illustrates the environment of the Jews during this period. Those who had been scattered from Palestine lived in small colonies, sometimes mingling and intermarrying with the natives, sometimes strictly preserving their own individuality. Some took root in the strange lands, and, as later popular stories indicate, evidently reached high positions; others, retaining a more vivid tradition of the land of their fathers, cherished the ideal of a restored Jerusalem. Excavation at Nippur (*q.v.*) in Babylonia has brought to light numerous contract tablets of the 5th century B.C. with Hebrew proper names (Haggai, Hanani, Gedaliah, &c.). Papyri from Elephantine in Upper Egypt, of the same age, proceed from Jewish families who carry on a flourishing business, live among Egyptians and Persians, and take their oaths in courts of law in the name of the god "Yahu," the "God of Heaven," whose temple dated from the last Egyptian kings. Indeed, it was claimed that Cambyses had left the sanctuary unharmed but had destroyed the temples of the Egyptians. In Elephantine, as in Nippur, the legal usages show that similar elements of Babylonio-Assyrian culture prevailed, and the evidence from two such widely separated fields is instructive for conditions in Palestine itself.[3]

20. *The Restoration of Judah.*—The biblical history for the Persian period is contained in a new source—the books of Ezra and Nehemiah, whose standpoint and period are that of Chronicles, with which they are closely joined. After a brief description of the fall of Jerusalem the "seventy years" of the exile are passed over, and we are plunged into a history of the return (2 Chron. xxxvi.; Ezra i.). Although Palestine had not been depopulated, and many of the exiled Jews remained in Persia, the standpoint is that of those who returned from Babylon. Settled in and around Jerusalem, they look upon themselves as the sole community, the true Israel, even as it was believed that once before Israel entered and developed independently in the land of its ancestors. They look back from the age when half-suppressed hostility with Samaria had broken out, and when an exclusive Judaism had been formed. The interest of the writers is as usual in the religious history; they were indifferent to, or perhaps rather ignorant of, the strict order of events. Their narratives can be partially supplemented from other sources (Haggai; Zechariah i.–viii.; Isa. xl.–lxvi.; Malachi), but a consecutive sketch is impossible.[4]

In 561 B.C. the captive Judaean king, Jehoiachin, had received special marks of favour from Nebuchadrezzar's son Amil-marduk. So little is known of this act of recognition that its significance can only be conjectured. A little later Tyre received as its king Merbaal (555–552) who had been fetched from Babylonia. Babylonia was politically unsettled, the representative of the Davidic dynasty had descendants; if Babylon was assured of the allegiance of Judah further acts of clemency may well have followed. But the later recension of Judaean history—our sole source—entirely ignores the elevation of Jehoiachin (2 Kings xxv. 27 sqq.; Jer. lii. 31–34), and proceeds at once to the first year of Cyrus, who proclaims as his divine mission the rebuilding of the Temple (538). The Judaean Sheshbazzar (a corruption of some Babylonian name) brought back the Temple vessels which Nebuchadrezzar had carried away and prepared to undertake the work at the expense of the royal purse. An immense body of exiles is said to have returned at this time to Jerusalem under Zerubbabel, who was of Davidic descent, and the priest Jeshua or Joshua, the grandson of the murdered Seraiah (Ezra i.–iii.; v. 13–vi. 5). When these refused the proffered help of the people of Samaria, men of the same faith as themselves (iv. 2), their troubles began, and the Samaritans retaliated by preventing the rebuilding. The next historical notice is dated in the second year of Darius (520) when two prophets, Haggai and Zechariah, came forward to kindle the Judaeans to new efforts, and in spite of opposition the work went steadily onwards, thanks to the favour of Darius, until the Temple was completed four years later (Ezra v. 2, vi. 13 sqq.). On the other hand, from the independent writings ascribed to these prophets, it appears that no considerable body of exiles could have returned—it is still an event of the future (Zech. ii. 7, vi. 15); little, if anything, had been done to the Temple (Hag. ii. 15); and Zerubbabel is the one to take in hand and complete the great undertaking (Zech. iv. 9). The prophets address themselves to men living in comfortable abodes with olive-fields and vineyards, suffering from bad seasons and agricultural depression, and though the country is unsettled there is no reference to any active opposition on the part of Samaritans. So far from drawing any lesson from the brilliant event in the reign of Cyrus, the prophets imply that Yahweh's wrath is still upon the unfortunate city and that Persia is still the oppressor. Consequently, although small bodies of individuals no doubt came back to Judah from time to time, and some special mark of favour may have been shown by Cyrus, the opinion has gained ground since the early arguments of E. Schrader (*Stud. u. Krit.*, 1867, pp. 460–504), that the compiler's representation of the history is untrustworthy. His main object is to make the new Israel, the post-exilic community at Jerusalem, continuous, as a society, with the old Israel.[5] Greater weight must be laid upon the independent evidence of the prophetical writings, and the objection that Palestine could not have produced the religious fervency of Haggai or Zechariah without an initial impulse from Babylonia begs the question. Unfortunately the internal conditions in the 6th century B.C. can be only indirectly estimated (§ 18), and the political position must remain for the present quite uncertain. In Zerubbabel the people beheld once more a ruler of the Davidic race. The new temple heralded a new future; the mournful fasts commemorative of Jerusalem's disasters would become feasts; Yahweh had left the Temple at the fall of Jerusalem, but had now returned to sanctify it with his presence; the city had purged its iniquity and was fit once more to become the central sanctuary. So Haggai sees in Zerubbabel the representative of the

[1] Thus a decree of Darius I. takes the part of his subjects against the excessive zeal of the official Gadatas, and grants freedom of taxation and exemption from forced labour to those connected with a temple of Apollo in Asia Minor (*Bulletin de correspondance hellénique*, xiii. 529; E. Meyer, *Entstehung des Judenthums*, p. 19 seq.; cf. id. *Forschungen*, ii. 497).

[2] In addition to this, the Egyptian story of the priest Uza-hor at the court of Cambyses and Darius reflects a policy of religious tolerance which illustrates the biblical account of Ezra and Nehemiah (Brugsch, *Gesch. Aeg.* pp. 784 sqq.; see Cheyne, *Jew. Relig. Life after the Exile*, pp. 40–43).

[3] From Têma in north Arabia, also, there is monumental evidence of the 5th century B.C. for Babylonian and Assyrian influence upon the language, cult and art. For Nippur, see *Bab. Exped. of Univ. of Pennsylvania*, series A., vol. ix. (1898), by H. V. Hilprecht; for Elephantine, the Mond papyri, A. H. Sayce and A. E. Cowley, *Aramaic Papyri Discovered at Assuan* (1906), and those cited above (p. 282, n. 1). For the Jewish colonies in general, see H. Guthe, *Ency. Bib.*, art. "Dispersion" (with references); also below, § 25 sqq.

[4] See EZRA AND NEHEMIAH with bibliographical references, also T. K. Cheyne, *Introd. to Isaiah* (1895); *Jew. Religious Life after the Exile* (1898); E. Sellin, *Stud. z. Entstehungsgesch. d. jüd. Gemeinde* (1901); R. H. Kennett in Swete's *Cambridge Biblical Essays* (pp. 92 sqq.); G. Jahn, *Die Bücher Esra u. Nehemja* (1909); and C. C. Torrey, *Ezra Studies* (1910).

[5] There is an obvious effort to preserve the continuity of tradition (*a*) in Ezra ii. which gives a list of families who returned from exile each to its own city, and (*b*) in the return of the holy vessels in the time of Cyrus (contrast 1 Esdras iv. 43 seq.), a view which, in spite of Dan. i. 2, v. 2 seq., conflicts with 2 Kings xxiv. 13 and xxv. 13 (see, however, *v.* 14). That attempts have been made to adjust contradictory representations is suggested by the prophecy ascribed to Jeremiah (xxvii. 16 sqq.) where the restoration of the holy vessels finds no place in the shorter text of the Septuagint (see W. R. Smith, *Old Test. and Jew. Church*, pp. 104 sqq.).

ideal kingdom, the trusted and highly favoured minister who was the signet-ring upon Yahweh's hand (contrast Hag. ii. 24 with Jer. xxii. 23). Zechariah, in his turn, proclaims the overthrow of all difficulties in the path of the new king, who shall rule in glory supported by the priest (Zech. vi.). What political aspirations were revived, what other writers were inspired by these momentous events are questions of inference.

A work which inculcates the dependence of the state upon the purity of its ruler is the unfinished book of Kings with its history of the Davidic dynasty and the Temple. Its ideals culminate in Josiah (§ 16, end), and there is a strong presumption that it is intended to impress upon the new era the lessons drawn from the past. Its treatment of the monarchy is only part of a great and now highly complicated literary undertaking (traceable in the books Joshua to Kings), inspired with the thought and coloured by language characteristic of Deuteronomy (especially the secondary portions), which forms the necessary introduction. Whatever reforms Josiah actually accomplished, the restoration afforded the opportunity of bringing the Deuteronomic teaching into action; though it is more probable that Deuteronomy itself in the main is not much earlier than the second half of the 6th century B.C.[1] It shows a strong nationalist feeling which is not restricted to Judah alone, but comprises a greater Israel from Kadesh in Naphtali in the north to Hebron in the south, and even extends beyond the Jordan. Distinctive non-Judaean features are included, as in the Samaritan liturgical office (Deut. xxvii. 14–26), and the evidence for the conclusion that traditions originally of (north) Israelite interest were taken over and adapted to the later standpoint of Judah and Jerusalem (viz. in the Deuteronomic book of Kings) independently confirms the inferences drawn from Deuteronomy itself. The absence of direct testimony can be partially supplied by later events which presuppose the break-up of no inconsiderable state, and imply relations with Samaria which had been by no means so unfriendly as the historians represent. A common ground for Judaism and Samaritanism is obvious, and it is in this obscure age that it is to be sought. But the curtain is raised for too brief an interval to allow of more than a passing glimpse at the restoration of Judaean fortunes; not until the time of Nehemiah, about 140 years after the fall of Jerusalem, does the historical material become less imperfect.

Upon this blank period before the foundation of Judaism (§§ 21, 23) much light is also thrown by another body of evidence. It has long been recognized that 1 Chron. ii. and iv. represent a Judah composed mainly of groups which had moved up from the south (Hebron) to the vicinity of Jerusalem. It includes Caleb and Jerahmeel, Kenite or Rechabite families, scribes, &c., and these, as "sons" of Hezron, claim some relationship with Gilead. The names point generally to an affinity with south Palestine and north Arabia (Edom, Midian, &c.; see especially the lists in Gen. xxxvi.), and suggest that certain members of a closely related collection of groups had separated from the main body and were ultimately enrolled as Israelites. It is also recognized by many scholars that in the present account of the exodus there are indications of the original prominence of traditions of Kadesh, and also of a journey northwards in which Caleb, Kenites and others took part (§ 5). On these and on other grounds besides, it has long been felt that south Palestine, with its north Arabian connexions, is of real importance in biblical research, and for many years efforts have been made to determine the true significance of the evidence. The usual tendency has been to regard it in the light of the criticism of early Israelite history, which demands some reconstruction (§ 8), and to discern distinct tribal movements previous to the union of Judah and Israel under David. On the other hand, the elaborate theory of T. K. Cheyne involves the view that a history dealing with the south actually underlies our sources and can be recovered by emendation of the text. Against the former is the fact that although certain groups are ultimately found in Judah (Judg. i.), the evidence for the movement—a conquest north of Kadesh, almost at the gate of the promised land—explicitly mentions Israel; and against the latter the evidence again shows that this representation has been deliberately subordinated to the entrance of Israel from beyond the Jordan.[2] In either case the history of separate sections of people may have been extended to Israel as a whole, but there is no evidence for any adequate reconstruction. Yet the presence of distinct representations of the history may be recognized, and since the Judaean compilers of the Old Testament have incorporated non-Judaean sources (*e.g.* the history of the northern monarchy), it is obvious that, apart from indigenous Judaean tradition, the southern groups which were ultimately enrolled in Judah would possess their own stock of oral and written lore. Hence it is noteworthy that the late editor of Judges has given the first place to Othniel, a Kenizzite, and therefore of Edomite affinity, though subsequently reckoned as a Judaean (Judg i. 13, iii. 9; cf. Gen. xxxvi. 11; 1 Chron. iv. 13). Of Kenite interest is the position of Cain, ancestor of heroes of culture and of the worship of Yahweh (Gen. iv. 17 sqq.). One fragmentary source alludes to a journey to the Midianite or Kenite father-in-law of Moses with the Ark (*q.v.*); another knows of its movements with David and the priest Abiathar (a name closely related to Jether or Jethro; cf. also 1 Chron. iv. 17). Distinctively Calebite are the stories of the eponym who, fearless of the "giants" of Palestine, gained striking divine promises (Num. xiv. 11–24); Caleb's overthrow of the Hebronite giants finds a parallel in David's conflicts before the capture of Jerusalem, and may be associated with the belief that these primitive giants once filled the land (Josh. xi. 21 seq.; see § 7, and DAVID; SAMUEL, BOOKS OF). Calebite, too, are Hebron and its patron Abraham, and both increase in prominence in the patriarchal narratives, where, moreover, an important body of tradition can have emanated only from outside Israel and Judah (see GENESIS). Although Judah was always closely connected with the south, these "southern" features (once clearly more extensive and complete) are found in the Deuteronomic and priestly compilations, and their presence in the historical records can hardly be severed from the prominence of "southern" families in the vicinity of Jerusalem, some time after the fall of Jerusalem. The background in 1 Chron. ii. presupposes the desolation after that disaster, and some traces of these families are found in Nehemiah's time; and while the traditions know of a separation from Edom (viz. stories of Jacob and his "brother" Esau), elsewhere Edom is frequently denounced for unbrotherly conduct in connexion with some disaster which befell Jerusalem, apparently long after 586 B.C. (see § 22).[3] The true inwardness of this movement, its extent and its history, can hardly be recovered at present, but it is noteworthy that the evidence generally involves the Levites, an ecclesiastical body which underwent an extremely intricate development. To a certain extent it would seem that even as Chronicles (*q.v.*) has passed through the hands of one who was keenly interested in the Temple service, so the other historical books have been shaped not only by the late priestly writers (symbolized in literary criticism by P), but also by rather earlier writers, also of priestly sympathies, but of "southern" or half-Edomite affinity. This is independently suggested by the contents and vicissitudes of the purely ecclesiastical traditions.[4]

Recent criticism goes to show that there is a very considerable body of biblical material, more important for its attitude to the history than for its historical accuracy, the true meaning of which cannot as yet be clearly perceived. It raises many serious problems which concentrate upon that age which is of the greatest importance for the biblical and theological student. The perplexing relation between the admittedly late compilations and the actual course of the early history becomes still more intricate when one observes such a feature as the late interest in the Israelite tribes. No doubt there is much that is purely artificial and untrustworthy in the late (post-exilic) representations of these divisions, but it is almost incredible that the historical foundation for their early career is severed from the written sources by centuries of warfare, immigration and other disturbing factors. On the one hand, conservative scholars insist upon the close material relation between the constituent sources; critical scholars, on the other hand, while recognizing much that is relatively untrustworthy, refrain from departing from the general outlines of the canonical history more than is absolutely necessary. Hence the various reconstructions of the earlier history, with all their inherent weaknesses. But

[1] The view that Deuteronomy is later than the 7th century has been suggested by M. Vernes, *Nouvelle hypothèse sur la comp. et l'origine du Deut.* (1887); Havet, *Christian. et ses origines* (1878); Horst, in *Rev. de l'hist. des relig.*, 1888; and more recently by E. Day, *Journ. Bib. Lit.* (1902), pp. 202 sqq.; and R. H. Kennett, *Journ. Theol. Stud.* (1906), pp. 486 sqq. The strongest counter-arguments (see W. E. Addis, *Doc. of Hexat.* ii. 2–9) rely upon the historical trustworthiness of 2 Kings xxii. seq. Weighty reasons are brought also by conservative writers against the theory that Deuteronomy dates from or about the age of Josiah, and their objections to the "discovery" of a new law-roll apply equally to the "re-discovery" and promulgation of an old and authentic code.

[2] See, for Cheyne's view, his *Decline and Fall of Judah: Introduction* (1908). The former tendency has many supporters; see, among recent writers, N. Schmidt, *Hibbert Journal* (1908), pp. 322 sqq.; C.F. Burney, *Journ. Theol. Stud.* (1908), pp. 321 sqq.; O. A. Toffteen, *The Historic Exodus* (1909), pp. 120 sqq.; especially Meyer and Luther, *Die Israeliten*, pp. 442–440, &c. For the early recognition of the evidence in question, see J. Wellhausen, *De gentibus et familiis Judaeis* (Göttingen, 1870); *Prolegomena* (Eng. trans.), pp. 216 sqq., 342 sqq., and 441–443 (from art. "Israel," § 2, *Ency. Brit.* 9th ed.); also A. Kuenen, *Relig. of Israel* (i. 135 seq., 176–182); W. R. Smith, *Prophets of Israel*, pp. 28 seq., 379.

[3] For the prominence of the "southern" element in Judah see E. Meyer, *Entstehung d. Judenthums* (1896), pp. 119, 147, 167, 177, 183 n. 1; *Israeliten*, pp. 352 n. 5, 402, 429 seq.

[4] See § 23 end, and LEVITES. When Edom is renowned for wisdom and a small Judaean family boasts of sages whose names have south Palestinian affinity (1 Chron. ii. 6), and when such names as Korah, Heman, Ethan and Obed-edom, are associated with psalmody, there is no inherent improbability in the conjecture that the "southern" families settled around Jerusalem may have left their mark in other parts of the Old Testament. It is another question whether such literature can be identified (for Cheyne's views, see *Ency. Bib.* "Prophetic Literature," "Psalms," and his recent studies).

historical criticism is faced with the established literary conclusions which, it should be noticed, place the Deuteronomic and priestly compilations posterior to the great changes at and after the fall of the northern monarchy, and, to some extent, contemporary with the equally serious changes in Judah. There were catastrophes detrimental to the preservation of older literary records, and vicissitudes which, if they have not left their mark on contemporary history—which is singularly blank—may be traced on the representations of the past. There are external historical circumstances and internal literary features which unite to show that the application of the literary hypotheses of the Old Testament to the course of Israelite history is still incomplete, and they warn us that the intrinsic value of religious and didactic writings should not depend upon the accuracy of their history.[1] Future research may not be able to solve the problems which arise in the study of the period now under discussion; it is the more necessary, therefore, that all efforts should be tested in the light of purely external evidence (see further § 24; and PALESTINE: *History*).

21. *Nehemiah and Ezra.*—There is another remarkable gap in the historical traditions between the time of Zerubbabel and the reign of Artaxerxes I. In obscure circumstances the enthusiastic hopes have melted away, the Davidic scion has disappeared, and Jerusalem has been the victim of another disaster. The country is under Persian officials, the nobles and priests form the local government, and the ground is being prepared for the erection of a hierocracy. It is the work of rebuilding and reorganization, of social and of religious reforms, which we encounter in the last pages of biblical history, and in the records of Ezra and Nehemiah we stand in Jerusalem in the very centre of epoch-making events. Nehemiah, the cup-bearer of Artaxerxes at Susa, plunged in grief at the news of the desolation of Jerusalem, obtained permission from the king to rebuild the ruins. Provided with an escort and with the right to obtain supplies of wood for the buildings, he returned to the city of his fathers' sepulchres (the allusion may suggest his royal ancestry). His zeal is represented in a twofold aspect. Having satisfied himself of the extent of the ruins, he aroused the people to the necessity of fortifying and repopulating the city, and a vivid account is given in his name of the many dangers which beset the rebuilding of the walls. Sanballat of Horon, Tobiah the Ammonite, and Gashmu the Arabian (? Edomite) unceasingly opposed him. Tobiah and his son Johanan were related by marriage to Judaean secular and priestly families, and active intrigues resulted, in which nobles and prophets took their part. It was insinuated that Nehemiah had his prophets to proclaim that Judah had again its own king; it was even suggested that he was intending to rebel against Persia! Nehemiah naturally gives us only his version, and the attitude of Haggai and Zechariah to Zerubbabel may illustrate the feeling of his partisans. But Tobiah and Johanan themselves were worshippers of Yahweh (as their names also show), and consequently, with prophets taking different sides and with the Samaritan claims summarily repudiated (Neh. ii. 20; cf. Ezra iv. 3), all the facts cannot be gathered from the narratives. Nevertheless the undaunted Judaean pressed on unmoved by the threatening letters which were sent around, and succeeded in completing the walls within fifty-two days.[2]

In the next place, Nehemiah appears as governor of the small district of Judah and Benjamin. Famine, the avarice of the rich, and the necessity of providing tribute had brought the humbler classes to the lowest straits. Some had mortgaged their houses, fields and vineyards to buy corn; others had borrowed to pay the taxes, and had sold their children to their richer brethren to repay the debt. Nehemiah was faced with old abuses, and vehemently contrasted the harshness of the nobles with the generosity of the exiles who would redeem their poor countrymen from slavery. He himself had always refrained from exacting the usual provision which other governors had claimed; indeed, he had readily entertained over 150 officials and dependants at his table, apart from casual refugees (Neh. v.). We hear something of a twelve-years' governorship and of a second visit, but the evidence does not enable us to determine the sequence (xiii. 6). Neh. v. is placed in the middle of the building of the walls in fifty-two days; the other reforms during the second visit are closely connected with the dedication of the walls and with the events which immediately follow his first arrival when he had come to rebuild the city. Nehemiah also turns his attention to religious abuses. The sabbath, once a festival, had become more strictly observed, and when he found the busy agriculturists and traders (some of them from Tyre) pursuing their usual labours on that day, he pointed to the disasters which had resulted in the past from such profanation, and immediately took measures to put down the evil (Neh. xiii. 18; cf. Jer. xvii. 20 sqq.; Ezek. xx. 13–24; Isa. lvi. 2, 6; lviii. 13). Moreover, the maintenance of the Temple servants called for supervision; the customary allowances had not been paid to the Levites who had come to Jerusalem after the smaller shrines had been put down, and they had now forsaken the city. His last acts were the most conspicuous of all. Some of the Jews had married women of Ashdod, Ammon and Moab, and the impetuous governor indignantly adjured them to desist from a practice which was the historic cause of national sin. Even members of the priestly families had intermarried with Tobiah and Sanballat; the former had his own chamber in the precincts of the Temple, the daughter of the latter was the wife of a son of Joiada the son of the high priest Eliashib. Again Nehemiah's wrath was kindled. Tobiah was cast out, the offending priest expelled, and a general purging followed, in which all the foreign element was removed. With this Nehemiah brings the account of his reforms to a conclusion, and the words "Remember me, O my God, for good" (xiii. 31) are not meaningless. The incidents can be supplemented from Josephus. According to this writer (*Ant.* xi. 7, 2), a certain Manasseh, the brother of Jaddua and grandson of Joiada, refused to divorce his wife, the daughter of Sanballat. For this he was driven out, and, taking refuge with the Samaritans, founded a rival temple and priesthood upon Mt Gerizim, to which repaired other priests and Levites who had been guilty of mixed marriages. There is little doubt that Josephus refers to the same events; but there is considerable confusion in his history of the Persian age, and when he places the schism and the foundation of the new Temple in the time of Alexander the Great (after the obscure disasters of the reign of Artaxerxes III.), it is usually supposed that he is a century too late.[3] At all events, there is now a complete rupture with Samaria, and thus, in the concluding chapter of the last of the historical books of the Old Testament, Judah maintains its claim to the heritage of Israel and rejects the right of the Samaritans to the title[4] (see § 5).

In this separation of the Judaeans from religious and social intercourse with their neighbours, the work of Ezra (*q.v.*) requires notice. The story of this scribe (now combined with the memoirs of Nehemiah) crystallizes the new movement inaugurated after a return of exiles from Babylonia. The age can also be illustrated from Isa. lvi.–lxvi. and Malachi (*q.v.*). There was a poor and weak Jerusalem, its Temple stood in need of renovation, its temple-service was mean, its priests unworthy of their office. On the one side was the grinding poverty of the poor; on the other the abuses of the governors. There were two leading religious parties: one of oppressive formalists, exclusive, strict

[1] One may recall, in this connexion, Caxton's very interesting prologue to Malory's *Morte d'Arthur* and his remarks on the permanent value of the "histories" of this British hero. [Cf. also Horace, *Ep.* I. ii. and R. Browning, "Development."]

[2] It is noteworthy that Josephus, who has his own representation of the post-exilic age, allows two years and four months for the work (*Ant.* xi. 5, 8).

[3] The papyri from Elephantine (p. 282, n. 1, above) mention as contemporaries the Jerusalem priest Johanan (cf. the son of Joiada and father of Jaddua, Neh. xii. 22), Bagohi (Bagoas), governor of Judah, and Delaiah and Shelemiah sons of Sanballat (408–407 B.C.) They ignore any strained relations between Samaria and Judah, and Delaiah and Bagohi unite in granting permission to the Jewish colony to rebuild their place of worship. If this fixes the date of Sanballat and Nehemiah in the time of the first Artaxerxes, the probability of confusion in the later written sources is enhanced by the recurrence of identical names of kings, priests, &c., in the history.

[4] The Samaritans, for their part, claimed the traditions of their land and called themselves the posterity of Joseph, Ephraim and Manasseh. But they were ready to deny their kinship with the Jews when the latter were in adversity, and could have replied to the tradition that they were foreigners with a *tu quoque* (Josephus, *Ant.* ix. 14, 3; xi. 8, 6; xii. 5, 5) (see SAMARITANS).

and ritualistic; the other, more cosmopolitan, extended a freer welcome to strangers, and tolerated the popular elements and the superstitious cults which are vividly depicted (Isa. lxv. seq.). But the former gained the day, and, realizing that the only hope of maintaining a pure worship of Yahweh lay in a forcible isolation from foreign influence, its adherents were prepared to take measures to ensure the religious independence of their assembly. It is related that Ezra, the scribe and priest, returned to Jerusalem with priests and Levites, lay exiles, and a store of vessels for the Temple. He was commissioned to inquire into the religious condition of the land and to disseminate the teaching of the Law to which he had devoted himself (Ezra vii.). On his arrival the people were gathered together, and in due course he read the "book of the Law of Moses" daily for seven days (Neh. viii.). They entered into an agreement to obey its teaching, undertaking in particular to avoid marriages with foreigners (x. 28 sqq.). A special account is given of this reform (Ezra ix. seq.) and the description of Ezra's horror at the prevalence of intermarriage, which threatened to destroy the distinctive character of the community, sufficiently indicates the attitude of the stricter party. The true seed of Israel separated themselves from all foreigners (not, however, without some opposition) and formed an exclusively religious body or "congregation." Dreams of political freedom gave place to hopes of religious independence, and "Israel" became a church, the foundation of which it sought in the desert of Sinai a thousand years before.

22. *Post-exilic History.*—The biblical history for the period in the books of Ezra and Nehemiah is exceptionally obscure, and it is doubtful how far the traditions can be trusted before we reach the reign of Artaxerxes (Ezra vii. sqq., Neh.). The records belonging to this reign represent four different stages: (*a*) The Samaritans reported that the Jews who had returned from the king to Jerusalem were rebuilding the city and completing its walls, an act calculated to endanger the integrity of the province. Artaxerxes accordingly instructed them to stop the work until he should give the necessary decree, and this was done by force (Ezra iv. 7–23, undated; 1 Esdras ii. 16 sqq. mentions a building of the Temple!). (*b*) It was in the 7th year (*i.e.* 458 B.C.) that Ezra returned with a small body of exiles to promulgate the new laws he had brought and to set the Temple service in order.[1] Fortified with remarkable powers, some of which far exceed the known tolerance of Persian kings, he began wide-sweeping marriage reforms; but the record ceases abruptly (vii.–x.). (*c*) In the 20th year (445 B.C.) Nehemiah returned with permission to rebuild the walls, the citadel and the governor's house (Neh. ii. 5, 8; see § 21 above). But (*d*), whilst as governor he accomplishes various needed reforms, there is much confusion in the present narratives, due partly to the resumption of Ezra's labours after an interval of twelve years, and partly to the closely related events of Nehemiah's activity in which room must be found for his twelve-years' governorship and a second visit. The internal literary and historical questions are extremely intricate, and the necessity for some reconstruction is very generally felt (for preliminary details, see EZRA AND NEHEMIAH). The disaster which aroused Nehemiah's grief was scarcely the fall of Jerusalem in 586 B.C., but a more recent one, and it has been conjectured that it followed the work of Ezra (in *b* above). On the other hand, a place can hardly be found for the history of Ezra before the appearance of Nehemiah; he moves in a settled and peaceful community such as Nehemiah had helped to form, his reforms appear to be more mature and schematic than those of Nehemiah; and, whilst Josephus handles the two separately, giving Ezra the priority, many recent scholars incline to place Nehemiah's first visit before the arrival of Ezra.[2] That later tradition should give the pre-eminence to the priestly reforms of Ezra is in every way natural, but it has been found extremely difficult to combine the two in any reconstruction of the period. Next, since there are three distinct sources, for (*a*) above, and for the work of Nehemiah and of Ezra, implicit reliance cannot be placed upon the present sequence of narratives. Thus (*a*), with its allusion to a further decree, forms a plausible prelude to the return of either Ezra (vii. 13) or Nehemiah (i. 3, ii. 3); and if it is surprising that the Samaritans and other opponents, who had previously waited to address Artaxerxes (Ezra iv. 14 sqq., v. 5, 17), should now interfere when Nehemiah was armed with a royal mandate (Neh. ii. 7–9), it is very difficult not to conclude that the royal permits, as now detailed, have been coloured by Jewish patriotism and the history by enmity to Samaria. Finally, the situation in the independent and undated record (*a*) points to a return, a rebuilding (apparently after some previous destruction), and some interference. This agrees substantially with the independent records of Nehemiah, and unless we assume two disasters not widely separated in date —viz. those presupposed in (*a*) and (*c*)—the record in (*a*) may refer to that stage in the history where the other source describes the intrigues of the Samaritans and the letters sent by Tobiah (cf. Tabeel in Ezra iv. 7) to frighten Nehemiah (Neh. vi. 19).[3] Their insinuations that Nehemiah was seeking to be ruler and their representations to Artaxerxes would be enough to alarm the king (cf. Neh. vi. 5–9, 19, and Ezra iv. 15 seq., 20 seq.), and it may possibly be gathered that Nehemiah at once departed to justify himself (Neh. vii. 2, xiii. 4, 6). Nevertheless, since the narratives are no longer in their original form or sequence, it is impossible to trace the successive steps of the sequel; although if the royal favour was endorsed (cf. the account ascribed to the time of Darius, Ezra v. seq.), Nehemiah's position as a reformer would be more secure.

Although there was a stock of tradition for the post-exilic age (cf. Daniel, Esther, 1 Esdras, Josephus), the historical narratives are of the scantiest and vaguest until the time of Artaxerxes, when the account of a return (Ezra iv. 12), which otherwise is quite ignored, appears to have been used for the times of Darius (1 Esdras iv. seq.) and subsequently of Cyrus (Ezra i.–iii.). Moreover, although general opinion identifies our Artaxerxes with the first of that name, certain features suggest that there has been some confusion with the traditions of the time of Artaxerxes II. and III. (§ 19). But the problems are admittedly complicated, and since one is necessarily dependent upon scanty narratives arranged and rearranged by later hands in accordance with their own historical theories, it is difficult to lay stress upon internal evidence which appears to be conclusive for this or that reconstruction.[4] The main facts, however, are clear. Jerusalem had suffered some serious catastrophe before Nehemiah's return; a body of exiles returned, and in spite of interference the work of rebuilding was completed; through their influence the Judaean community underwent reorganization, and separated itself from its so-called heathen neighbours. How many years elapsed from beginning to end can hardly be said. Tradition concentrated upon Ezra and his age many events and changes of fundamental importance. The canonical history has allowed only one great destruction of Jerusalem, and the disaster of 586 B.C. became the type for similar disasters, but how many there were criticism can scarcely decide.[5] Allusions to Judah's sufferings at the hands of Edom, Moab and Ammon often imply conditions which are not applicable to 586. A definite series knows of an invasion and occupation by Edom (*q.v.* end), a people with whom Judah, as the genealogies show, had once been intimately connected. The unfriendliness of the "brother" people, which added so much to the bitterness of Judah, although associated with the events of 586 (so especially 1 Esdras iv. 45), probably belongs to a much later date.[6] The tradition that Edomites burned the Temple and occupied part of Judah (ib. *vv.* 45, 50) is partially confirmed by Ezek. xxxv. 5, 10, xxxvi. 5; Ps. cxxxvii. 7; but the assumption that Darius, as in 1 Esdras, helped the Jews against them can with difficulty be maintained. The interesting conjecture that the second Temple suffered another disaster in the obscure gap which follows the time of Zerubbabel has been urged, after Isa. lxiii. 7–lxiv. 12, by Kuenen (afterwards withdrawn) and by Sellin, and can be independently confirmed. In the records of Nehemiah the ruins of the city are extensive (ii. 8, 17, iii.; cf. Ecclus. xlix. 13), and the tradition that Nehemiah rebuilt this Temple (Jos. *Ant.* xi. 5, 6; 2 Macc. i. 18) is supported (*a*) by the explicit

[1] The statement that the king desired to avoid the divine wrath may possibly have some deeper meaning (*e.g.* some recent revolt, Ezra vii. 23).

[2] It must suffice to refer to the opinions of Bertholet, Buhl, Cheyne, Guthe, Van Hoonacker, Jahn, Kennett, Kent, Kosters, Marquart, Torrey, and Wildeboer.

[3] C. F. Kent, *Israel's Hist. and Biog. Narratives* (1905), p. 358 seq. The objections against this very probable view undervalue Ezra iv. 7–23 and overlook the serious intricacies in the book of Nehemiah.

[4] There are three inquiries: (*a*) the critical value of 1 Esdras, (*b*) the character of the different representations of post-exilic internal and external history, and (*c*) the recovery of the historical facts. To start with the last before considering (*a*) and (*b*) would be futile.

[5] For example, to the sufferings under Artaxerxes III. (§ 19) have been ascribed such passages as Isa. lxiii. 7–lxiv. 12; Ps. xliv., lxxiv., lxxix., lxxx., lxxxiii. (see also LAMENTATIONS). In their present form they are not of the beginning of the 6th century and, if the evidence for Artaxerxes III. proves too doubtful, they may belong to the history preceding Nehemiah's return, provided the internal features do not stand in the way (*e.g.* prior or posterior to the formation of the exclusive Judaean community, &c.). Since the book of Baruch (named after Jeremiah's scribe) is now recognized to be considerably later (probably after the destruction of Jerusalem A.D. 70), it will be seen that the recurrence of similar causes leads to a similarity in the contemporary literary productions (with a reshaping of earlier tradition), the precise date of which depends upon delicate points of detail and not upon the apparently obvious historical elements.

[6] See H. Winckler, *Keil. u. Alte Test.*, 295, and Kennett, *Journ. Theol. Stud.* (1906), p. 487; *Camb. Bib. Essays*, p. 117. The Chaldeans alone destroyed Jerusalem (2 Kings xxv.); Edom was friendly or at least neutral (Jer. xxvii. 3, xl. 11 seq.). The proposal to read "Edomites" for "Syrians" in the list of bands which troubled Jehoiakim (2 Kings xxiv. 2) is not supported by the contemporary reference, Jer. xxxv. 11.

references to the rebuilding of the Temple in the reign of Artaxerxes (1 Esdras ii. 18, not in Ezra iv. 12; but both in a context relating to the history of the Temple), and (*b*) by the otherwise inaccurate statement that the Temple was finished according to the decree of "Cyrus, Darius and Artaxerxes king of Persia" (Ezra vi. 14).

The untrustworthy account of the return in the time of Cyrus (Ezra i. sqq.) or Darius (1 Esdras iv. seq.; probably the older form) is curiously indebted to material which seems to have belonged to the history of the work of Nehemiah (cf. Ezra ii. with Neh. vii.), and the important return in the reign of Artaxerxes (Ezra iv. 12) seems to be connected with other references to some new settlement (Neh. xi. 20, 23, 25, especially xii. 29). The independent testimony of the names in Neh. iii. is against any previous large return from Babylon, and clearly illustrates the strength of the groups of "southern" origin whose presence is only to be expected (p. 285). Moreover, the late compiler of 1 Chronicles distinguishes a Judah composed almost wholly of "southern" groups (1 Chron. ii. and iv.) from a subsequent stage when the first inhabitants of Jerusalem correspond in the main to the new population after Nehemiah had repaired the ruins (1 Chron. ix. and Neh. xi.). Consequently, underlying the canonical form of post-exilic history, one may perhaps recognize some fresh disaster, after the completion of Zerubbabel's temple, when Judah suffered grievously at the hands of its Edomite brethren (in Malachi, date uncertain, vengeance has at last been taken); Nehemiah restored the city, and the traditions of the exiles who returned at this period have been thrown back and focussed upon the work of Zerubbabel. The criticism of the history of Nehemiah, which leads to this conjecture, suggests also that if Nehemiah repulsed the Samaritan claims (ii. 20; cf. Ezra iv. 3, where the building of the Temple is concerned) and refused a compromise (vi.2), it is extremely unlikely that Samaria had hitherto been seriously hostile; see also C. C. Torrey, *Ezra Studies*, pp. 321–333.

Bibilical history ends with the triumph of the Judaean community, the true "Israel," the right to which title is found in the distant past. The Judaean view pervades the present sources, and whilst its David and Solomon ruled over a united land, the separation under Jeroboam is viewed as one of calf-worshipping northern tribes from Jerusalem with its one central temple and the legitimate priesthood of the Zadokites. It is from this narrower standpoint of an exclusive and confined Judah (and Benjamin) that the traditions as incorporated in the late recensions gain fresh force, and in Israel's renunciation of the Judaean yoke the later hostility between the two may be read between the lines. The history in Kings was not finally settled until a very late date, as is evident from the important variations in the Septuagint, and it is especially in the description of the time of Solomon and the disruption that there continued to be considerable fluctuations.[1] The book has no finale and the sudden break may not be accidental. It is replaced by Chronicles, which, confining itself to Judaean history from a later standpoint (after the Persian age), includes new characteristic traditions wherein some recollection of more recent events may be recognized. Thus, the south Judaean or south Palestinian element shows itself in Judaean genealogies and lists; there are circumstantial stories of the rehabilitation of the Temple and the reorganization of cultus; there are fuller traditions of inroads upon Judah by southern peoples and their allies. There is also a more definite subordination of the royal authority to the priesthood (so too in the writings of Ezekiel, *q.v.*); and the stories of punishment inflicted upon kings who dared to contend against the priests (Jehoash, Uzziah) point to a conflict of authority, a hint of which is already found in the reconciliation of Zerubbabel and the priest Joshua in a passage ascribed to Zechariah (ch. vi.).

23. *Post-exilic Judaism.*—With Nehemiah and Ezra we enter upon the era in which a new impulse gave to Jewish life and thought that form which became the characteristic orthodox Judaism. It was not a new religion that took root; older tendencies were diverted into new paths, the existing material was shaped to new ends. Judah was now a religious community whose representative was the high priest of Jerusalem. Instead of sacerdotal kings, there were royal priests, anointed with oil, arrayed with kingly insignia, claiming the usual royal dues in addition to the customary rights of the priests. With his priests and Levites, and with the chiefs and nobles of the Jewish families, the high priest directs this small state, and his death marks an epoch as truly as did that of the monarchs in the past. This hierarchical government, which can find no foundation in the Hebrew monarchy, is the forerunner of the Sanhedrin (*q.v.*); it is an institution which, however inaugurated, set its stamp upon the narratives which have survived. Laws were recast in accordance with the requirements of the time, with the result that, by the side of usages evidently of very great antiquity, details now appear which were previously unknown or wholly unsuitable. The age, which the scanty historical traditions themselves represent as one of supreme importance for the history of the Jews, once seemed devoid of interest, and it is entirely through the laborious scholarship of the 19th century that it now begins to reveal its profound significance. The Graf-Wellhausen hypothesis, that the hierarchical law in its complete form in the Pentateuch stands at the close and not at the beginning of biblical history, that this mature Judaism was the fruit of the 5th century B.C. and not a divinely appointed institution at the exodus (nearly ten centuries previously), has won the recognition of almost all Old Testament scholars. It has been substantiated by numerous subsidiary investigations in diverse departments, from different standpoints, and under various aspects, and can be replaced only by one which shall more adequately explain the literary and historical evidence (see further, p. 289).

The post-exilic priestly spirit represents a tendency which is absent from the Judaean Deuteronomic book of Kings but is fully mature in the later, and to some extent parallel, book of Chronicles (*q.v.*). The "priestly" traditions of the creation and of the patriarchs mark a very distinct advance upon the earlier narratives, and appear in a further developed form in the still later book of Jubilees, or "Little Genesis," where they are used to demonstrate the pre-Mosaic antiquity of the priestly or Levitical institutions. There is also an unmistakable development in the laws; and the priestly legislation, though ahead of both Ezekiel and Deuteronomy, not to mention still earlier usage, not only continues to undergo continual internal modification, but finds a further distinct development, in the way of definition and interpretation, outside the Old Testament—in the Talmud (*q.v.*). Upon the characteristics of the post-exilic priestly writings we need not dwell.[2] Though one may often be repelled by their lifelessness, their lack of spontaneity and the externalization of the ritual, it must be recognized that they placed a strict monotheism upon a legal basis. "It was a necessity that Judaism should incrust itself in this manner; without those hard and ossified forms the preservation of its essential elements would have proved impossible. At a time when all nationalities, and at the same time all bonds of religion and national customs, were beginning to be broken up in the seeming cosmos and real chaos of the Graeco-Roman Empire, the Jews stood out like a rock in the midst of the ocean. When the natural conditions of independent nationality all failed them, they nevertheless artificially maintained it with an energy truly marvellous, and thereby preserved for themselves, and at the same time for the whole world, an eternal good."[3]

If one is apt to acquire too narrow a view of Jewish legalism, the whole experience of subsequent history, through the heroic age of the Maccabees (*q.v.*) and onwards, only proves that the minuteness of ritual procedure could not cramp the heart. Besides, this was only one of the aspects of Jewish literary activity. The work represented in Nehemiah and Ezra, and put into action by the supporters of an exclusive Judaism, certainly won the day, and their hands have left their impress upon the historical traditions. But Yahwism, like Islam, had its sects and tendencies, and the opponents to the stricter ritualism always had followers. Whatever the predominant party might think of foreign marriages, the tradition of the half-Moabite origin of David serves, in the beautiful idyll of Ruth (*q.v.*), to suggest the debt which Judah and Jerusalem owed to one at least of its neighbours. Again, although some may have desired a self-contained community opposed to the heathen neighbours of Jerusalem, the story of Jonah implicitly contends against the attempt of Judaism to close its doors. The conflicting tendencies were incompatible, but Judaism retained the

[1] It is at least a coincidence that the prophet who took the part of Tobiah and Sanballat against Nehemiah (vi. 10 seq.) bears the same name as the one who advised Rehoboam to acquiesce in the disruption (1 Kings xii. 21–24), or announced the divine selection of Jeroboam (ib. *v.* 24, Septuagint only).

[2] See HEBREW RELIGION, § 8 seq., and the relevant portions of the histories of Israel.

[3] J. Wellhausen, art. "Israel," *Ency. Brit.* 9th ed., vol. xiii. p. 419; or his *Prolegomena*, pp. 497 seq.

incompatibilities within its limits, and the two tendencies, prophetical and priestly, continue, the former finding its further development in Christianity.[1]

The Graf-Wellhausen hypothesis (§ 4) does not pretend to be complete in all its details and it is independent of its application to the historical criticism of the Old Testament. No alternative hypothesis prevails, mere desultory criticism of the internal intricacies being quite inadequate. Maintaining that the position of the Pentateuch alone explains the books which follow, conservative writers concede that it is composite, has had some literary history, and has suffered some revision in the post-exilic age. Their concessions continue to become ever more significant, and all that follows from them should be carefully noticed by those who are impressed by their arguments. They identify with Deuteronomy the law-roll which explains the noteworthy reforms of Josiah (§ 16); but since it is naturally admitted that religious conditions had become quite inconsistent with Mosaism, the conservative view implies that the "long-lost" Deuteronomy must have differed profoundly from any known Mosaic writings to which earlier pious kings and prophets had presumably adhered. Similarly, the "book of the Law of Moses," brought from Babylon by Ezra (Ezra vii.; Neh. viii.), clearly contained much of which the people were ignorant, and conservative writers, who oppose the theory that a new Law was then introduced, emphasize (*a*) the previous existence of legislation (to prove that Ezra's book was not entirely a novelty), and (*b*) the gross wickedness in Judah (as illustrated by the prophets) from the time of Josiah to the strenuous efforts of the reformers on behalf of the most fundamental principles of the national religion. This again simply means that the Mosaism of Ezra or Nehemiah must have differed essentially from the priestly teaching prior to their arrival. The arguments of conservative writers involve concessions which, though often overlooked by their readers, are very detrimental to the position they endeavour to support, and the objections they bring against the theory of the introduction of new law-books (under a Josiah or an Ezra) apply with equal force to the promulgation of Mosaic teaching which had been admittedly ignored or forgotten. Their arguments have most weight, however, when they show the hazardous character of reconstructions which rely upon the trustworthiness of the historical narratives. What book Ezra really brought from Babylon is uncertain; the writer, it seems, is merely narrating the introduction of the Law ascribed to Moses, even as a predecessor has recounted the discovery of the Book of the Law, the Deuteronomic code subsequently included in the Pentateuch.

The importance which the biblical writers attach to the return from Babylon in the reign of Artaxerxes forms a starting-point for several interesting inquiries. Thus, in any estimate of the influence of Babylonia upon the Old Testament, it is obviously necessary to ask whether certain features (*a*) are of true Babylonian origin, or (*b*) merely find parallels or analogies in its stores of literature; whether the indebtedness goes back to very early times or to the age of the Assyrian domination or to the exiles who now returned. Again, there were priestly and other families—some originally of "southern" origin—already settled around Jerusalem, and questions inevitably arise concerning their relation to the new-comers and the literary vicissitudes which gave us the Old Testament in its present form. To this age we may ascribe the literature of the Priestly writers (symbolized by P), which differs markedly from the other sources. Yet it is clear from the book of Genesis alone that in the age of Priestly writers and compilers there were other phases of thought. Popular stories with many features of popular religion were current. They could be, and indeed had been made more edifying; but the very noteworthy conservatism of even the last compiler or editor, in contrast to the re-shaping and re-writing of the material in the book of Jubilees, indicates that the Priestly spirit was not that of the whole community. But through the Priestly hands the Old Testament history passed, and their standpoint colours its records. This is especially true of the history of the exilic and post-exilic periods, where the effort is made to preserve the continuity of Israel and the Israelite community (Chronicles–Ezra–Nehemiah). The bitterness aroused by the ardent and to some extent unjust zeal of the reforming element can only be conjectured. The traditions reveal a tendency to legitimate new circumstances. Priesthoods, whose traditions connect them with the south, are subordinated; the ecclesiastical records are re-shaped or re-adjusted; and a picture is presented of hierarchical jealousies and rivalries which (it was thought) were settled once and for all in the days of the exodus from Egypt. Many features gain in significance as the account of the Exodus, the foundation of Israel, is read in the light of the age when, after the advent of a new element from Babylonia, the Pentateuch assumed its present shape; it must suffice to mention the supremacy of the Aaronite priests and the glorification of uncompromising hostility to foreign marriages.[2] The most "unhistorical" tradition has some significance for the development of thought or of history-writing, and thus its internal features are ultimately of historical value. Only from an exhaustive comparison of controlling data can the scattered hints be collected and classified. There is much that is suggestive, for example, in the relation between the "post-exilic" additions to the prophecies and their immediately earlier form; or in the singular prominence of the Judaean family of Perez (its elevation over Zerah, a half-Edomite family, Gen. xxxviii.; its connexion with the Davidic dynasty, Ruth iv.; its position as head of all the Judaean sub-divisions, 1 Chron. ii. 5 sqq.); or in the late insertion of local tradition encircling Jerusalem; or in the perplexing attitude of the histories towards the district of Benjamin and its famous sanctuary of Bethel (only about 10 m. north of Jerusalem). Although these and other phenomena cannot yet be safely placed in a historical frame, the methodical labours of past scholars have shed much light upon the obscurities of the exilic and post-exilic ages, and one must await the more comprehensive study of the two or three centuries which are of the first importance for biblical history and theology.

24. *Old Testament History and External Evidence.*—Thus the Old Testament, the history of the Jews during the first great period, describes the relation of the Hebrews to surrounding peoples, the superiority of Judah over the faithless (north) Israelite tribes, and the reorganization of the Jewish community in and around Jerusalem at the arrival of Ezra with the Book of the Law. The whole gives an impression of unity, which is designed, and is to be expected in a compilation. But closer examination reveals remarkable gaps and irreconcilable historical standpoints. For all serious biblical study, the stages in the growth of the written traditions and the historical circumstances which they imply, must inevitably be carefully considered, and upon the result depends, directly or indirectly, almost every subject of Old Testament investigation. Yet it is impossible to recover with confidence or completeness the development of Hebrew history from the pages of the Old Testament alone. The keen interest taken by the great prophets in the world around them is not prominent in the national records; political history has been subordinated, and the Palestine which modern discovery is revealing is not conspicuous in the didactic narratives. To external evidence one must look, therefore, for that which did not fall within the scope or the horizon of the religious historians. They do not give us the records of the age of the Babylonian monarch Khammurabi (perhaps Amraphel, Gen. xiv.), of the Egyptian conquests in the XVIIIth and following dynasties, or of the period illustrated by the Amarna tablets (§ 3). They treat with almost unique fullness a few years in the middle of the 9th century B.C., but ignore Assyria; yet only the Assyrian inscriptions explain the political situation (§ 10 seq.), and were it not for them the true significance of the 8th–7th centuries could scarcely be realized (§ 15 seq.). It would be erroneous to confuse the extant sources with the historical material which might or must have been accessible, or to assume that the antiquity of the elements of history proves or presupposes the antiquity of the records themselves, or even to deny the presence of some historical kernel merely on account of unhistorical elements or the late dress in which the events are now clothed. External research constantly justifies the cautious attitude which has its logical basis in the internal conflicting character of the written traditions or in their divergence from ascertained facts; at the same time it has clearly shown that the internal study of the Old Testament has its limits. Hence, in the absence of more complete external evidence one is obliged to recognize the limitations of Old Testament historical criticism, even though this recognition means that positive reconstructions are more precarious than negative conclusions.

The naïve impression that each period of history was handled by some more or less contemporary authority is not confirmed by a criticism which confines itself strictly to the literary evidence. An interest in the past is not necessarily confined to any one age, and the critical view that the biblical history has been compiled from relatively late standpoints finds support in the still later treatment of the events—in Chronicles as contrasted with Samuel-Kings or in Jubilees as contrasted with Genesis.[3] It is instructive to observe in Egypt the form which old traditions have taken in Manetho (Maspero, *Rec. de travaux*, xxvii., 1905, l. 22 seq.); cf. also the late story of Rameses II. and the Hittites (J. H. Breasted, *Anc. Rec. of Egypt*, iii. 189 seq.); while in Babylonia one may note the didactic treatment, after the age of Cyrus, of the events of the time of Khammurabi (A. H. Sayce, *Proc. Soc. Biblical Archaeol.*, 1907, pp. 13 sqq.).

The links which unite the traditional heroes with Babylonia (*e.g.* Abraham, Ezra), Mesopotamia (*e.g.* Jacob), Egypt (*e.g.* Joseph,

[1] An instructive account of Judaism in the early post-exilic age on critical lines (from the Jewish standpoint) is given by C. G. Montefiore, *Hibbert Lectures* (1892), pp. 355 sqq.; cf. also the sketch by I. Abrahams, *Judaism* (1907).

[2] Cf. the story of Phinehas, Num. xxv. 6 sqq.; on Gen. xxxiv., see SIMEON. Apropos of hostility towards Samaria, it is singular that the term of reproach, "Cutheans," applied to the Samaritans is derived from Cutha, the famous seat of the god Nergal, only some 25 m. N.E. of Babylon itself (see above, p. 286, n. 4).

[3] The various tendencies which can be observed in the later pseudepigraphical and apocalyptical writings are of considerable value in any consideration of the development of thought illustrated in the Old Testament itself.

Jeroboam), Midian (*e.g.* Moses, Jethro), &c., like the intimate relationship between Israel and surrounding lands, have a significance in the light of recent research. Israel can no longer be isolated from the politics, culture, folk-lore, thought and religion of western Asia and Egypt. Biblical, or rather Palestinian, thought has been brought into the world of ancient Oriental life, and this life, in spite of the various forms in which it has from time to time been shaped, still rules in the East. This has far-reaching consequences for the traditional attitude to Israelite history and religion. Research is seriously complicated by the growing stores of material, which unfortunately are often utilized without attention to the principles of the various departments of knowledge or aspects of study. The complexity of modern knowledge and the interrelation of its different branches are often insufficiently realized, and that by writers who differ widely in the application of such material as they use to their particular views of the manifold problems of the Old Testament. It has been easy to confuse the study of the Old Testament in its relation to modern religious needs with the technical scientific study of the much edited remains of the literature of a small part of the ancient East. If there was once a tendency to isolate the Old Testament and ignore comparative research, it is now sometimes found possible to exaggerate its general agreement with Oriental history, life and thought. Difficulties have been found in the supernatural or marvellous stories which would be taken as a matter of course by contemporary readers, and efforts are often made to recover historical facts or to adapt the records to modern theology without sufficient attention to the historical data as a whole or to their religious environment. The preliminary preparation for research of any value becomes yearly more exacting.

Many traces of myth, legend and "primitive" thought survive in the Old Testament, and on the most cautious estimate they presuppose a vitality which is not a little astonishing. But they are now softened and often bereft of their earlier significance, and it is this and their divergence from common Oriental thought which make Old Testament thought so profound and unique. The process finds its normal development in later and non-biblical literature; but one can recognize earlier, cruder and less distinctive stages, and, as surely as writings reflect the mentality of an author or of his age, the peculiar characteristics of the extant sources, viewed in the light of a comprehensive survey of Palestinian and surrounding culture, demand a reasonable explanation. The differences between the form of the written history and the conditions which prevailed have impressed themselves variously upon modern writers, and efforts have been made to recover from the Old Testament earlier forms more in accordance with the external evidence. It may be doubted, however, whether the material is sufficient for such restoration or reconstruction.[1] In the Old Testament we have the outcome of specific developments, and the stage at which we see each element of tradition or belief is not always isolated or final (cf. Kings and Chronicles). The early myths, legends and traditions which can be traced differ profoundly from the canonical history, and the gap is wider than that between the latter and the subsequent apocalyptical and pseudepigraphical literature.

Where it is possible to make legitimate and unambiguous comparisons, the ethical and spiritual superiority of Old Testament thought has been convincingly demonstrated, and to the re-shaping and re-writing of the older history and the older traditions the Old Testament owes its permanent value. While the history of the great area between the Nile and the Tigris irresistibly emphasizes the insignificance of Palestine, this land's achievements for humanity grow the more remarkable as research tells more of its environment. Although the light thrown upon ancient conditions of life and thought has destroyed much that sometimes seems vital for the Old Testament, it has brought into relief a more permanent and indisputable appreciation of its significance, and it is gradually dispelling that pseudo-scientific literalism which would fetter the greatest of ancient Oriental writings with an insistence upon the verity of historical facts. Not internal criticism, but the incontestable results of objective observation have shown once and for all that the relationship between the biblical account of the earliest history (Gen. i.–xi.) and its value either as an authentic record (which requires unprejudiced examination) *or* as a religious document (which remains untouched) is typical. If, as seems probable, the continued methodical investigation, which is demanded by the advance of modern knowledge, becomes more drastic in its results, it will recognize ever more clearly that there were certain unique influences in the history of Palestine which cannot be explained by purely historical research. The change from Palestinian polytheism to the pre-eminence of Yahweh and the gradual development of ethical monotheism are *facts* which external evidence continues to emphasize, which biblical criticism must investigate as completely as possible. And if the work of criticism has brought a fuller appreciation of the value of these facts, the debt which is owed to the Jews is enhanced when one proceeds to realize the immense difficulties against which those who transmitted the Old Testament had to contend in the period of Greek domination. The growth of the Old Testament into its present form, and its preservation despite hostile forces, are the two remarkable phenomena which most arrest the attention of the historian; it is for the theologian to interpret their bearing upon the history of religious thought. (S. A. C.)

[1] Reference may be made to H. Winckler, *Gesch. Israels*, ii. (1900); W. Erbt, *Die Hebräer* (1906); and T. K. Cheyne, *Traditions and Beliefs of Ancient Israel* (1907).

II.—Greek Domination

25. *Alexander the Great.*—The second great period of the history of the Jews begins with the conquest of Asia by Alexander the Great, disciple of Aristotle, king of Macedon and captain-general of the Greeks. It ends with the destruction of Jerusalem by the armies of the Roman Empire, which was, like Alexander, at once the masterful pupil and the docile patron of Hellenism. The destruction of Jerusalem might be regarded as an event of merely domestic importance; for the Roman cosmopolitan it was only the removal of the titular metropolis of a national and an Oriental religion. But, since a derivative of that religion has come to be a power in the world at large, this event has to be regarded in a different light. The destruction of Jerusalem in A.D. 70 concludes the period of four centuries, during which the Jews as a nation were in contact with the Greeks and exposed to the influence of Hellenism, not wholly of their own will nor yet against it. Whether the master of the provinces, in which there were Jews, be an Alexander, a Ptolemy, a Seleucid or a Roman, the force by which he rules is the force of Greek culture. These four centuries are the Greek period of Jewish history.

The ancient historians, who together cover this period, are strangely indifferent to the importance of the Jews, upon which Josephus is at pains to insist. When Alexander invaded the interior of the Eastern world, which had hitherto remained inviolable, he came as the champion of Hellenism. His death prevented the achievement of his designs; but he had broken down the barrier, he had planted the seed of the Greek's influence in the four quarters of the Persian Empire. His successors, the Diadochi, carried on his work, but Antiochus Epiphanes was the first who deliberately took in hand to deal with the Jews. Daniel (viii. 8) describes the interval between Alexander and Antiochus thus: "The he-goat (the king of Greece) did very greatly: and when he was strong the great horn (Alexander) was broken; and instead of it came up four other ones—four kingdoms shall stand up out of his nation but not with his power. And out of one of them came forth a little horn (Antiochus Epiphanes) which waxed exceeding great towards the south (Egypt) and towards the East (Babylon) and towards the beauteous land (the land of Israel)." The insignificance of the Jewish community in Palestine was their salvation. The reforms of Nehemiah were directed towards the establishment of a religious community at Jerusalem, in which the rigour of the law should be observed. As a part of the Persian Empire the community was obscure and unimportant. But the race whose chief sanctuary it guarded and maintained was the heir of great traditions and ideals. In Egypt, moreover, in Babylon and in Persia individual Jews had responded to the influences of their environment and won the respect of the aliens whom they despised. The law which they cherished as their standard and guide kept them united and conscious of their unity. And the individuals, who acquired power or wisdom among those outside Palestine shed a reflected glory upon the nation and its Temple.

In connexion with Alexander's march through Palestine Josephus gives a tradition of his visit to Jerusalem. In Arrian's narrative of Alexander's exploits, whose fame had already faded before the greater glory of Rome, there is no mention of the visit or the city or the Jews. Only Tyre and Gaza barred the way to Egypt. He took, presumably, the coast-road in order to establish and retain his command of the sea. The rest of Palestine, which is called Coele-Syria, made its submission and furnished supplies. Seven days after the capture of Gaza Alexander was at Pelusium. According to the tradition which Josephus has preserved the high priest refused to transfer his allegiance, and Alexander marched against Jerusalem after the capture of Gaza. The high priest dressed in his robes went out to meet him, and at the sight Alexander remembered a dream, in which such a man had appeared to him as the appointed leader of his expedition. So the danger was averted: Alexander offered sacrifice and was shown the prophecy of Daniel, which spoke of him. It is alleged, further, that at this time certain Jews who could not refrain from intermarriage with

the heathen set up a temple on Mt Gerizim and became the Samaritan schism (§ 21 above). The combination is certainly artificial and not historical. But it has a value of its own inasmuch as it illustrates the permanent tendencies which mould the history of the Jews. It is true that Alexander was subject to dreams and visited shrines in order to assure himself or his followers of victory. But it is not clear that he had such need of the Jews or such regard for the Temple of Jerusalem that he should turn aside on his way to Egypt for such a purpose.

However this may be, Alexander's tutor had been in Asia and had met a Jew there, if his disciple Clearchus of Soli is to be trusted. "The man," Aristotle says, "was by race a Jew out of Coele-Syria. His people are descendants of the Indian philosophers. It is reported that philosophers are called Calani among the Indians and Jews among the Syrians. The Jews take their name from their place of abode, which is called Judaea. The name of their city is very difficult; they call it Hierusaleme. This man, then, having been a guest in many homes and having come down gradually from the highlands to the sea-coast, was Hellenic not only in speech but also in soul. And as we were staying in Asia at the time, the man cast up at the same place and interviewed us and other scholars, making trial of their wisdom. But inasmuch as he had come to be at home with many cultured persons he imparted more than he got." The date of this interview is probably determined by the fact that Aristotle visited his friend Hermias, tyrant of Atarneus, in 347–345 B.C. There is no reason to doubt the probability or even the accuracy of the narrative. Megasthenes also describes the Jews as the philosophers of Syria and couples them with the Brahmins of India. This hellenized Jew who descended from the hills to the coast is a figure typical of the period.

26. *The Ptolemies.*—After the death of Alexander Palestine fell in the end to Ptolemy (301 B.C.) and remained an Egyptian province until 198 B.C. For a century the Jews in Palestine and in Alexandria had no history—or none that Josephus knew. But two individuals exemplify the different attitudes which the nation adopted towards its new environment and its wider opportunities, Joseph the tax-farmer and Jesus the sage.

The wisdom of Jesus ben Sira (Sirach) is contained in the book commonly called *Ecclesiasticus* (*q.v.*). At a time when men were attracted by the wisdom and science of the Greeks, he taught that all wisdom came from Yahweh who had chosen Israel to receive it in trust. He discouraged inquiries into the nature and purpose of things: it was enough for him that Yahweh had created and ruled the universe. If a man had leisure to be wise—and this is not for many—he should study the Scriptures which had come down, and so become a scribe. For the scribe, as for the man at the plough-tail, the Law was the rule of life. All, however much or little preoccupied with worldly business, must fear God, from whom come good things and evil, life, death, poverty and riches. It was not for men to meddle with secrets which are beyond human intelligence. Enough that the individual did his duty in the state of life in which he was set and left behind him a good name at his death. The race survives—"the days of Israel are unnumbered." Every member of the congregation of Israel must labour, as God has appointed, at some handicraft or profession to provide for his home. It is his sacred duty and his private interest to beget children and to train them to take his place. The scholar is apt to pity the smith, the potter, the carpenter and the farmer: with better reason he is apt to condemn the trader who becomes absorbed in greed of gain and so deserts the way of righteousness and fair dealing. As a teacher Jesus gave his own services freely. For the soldier he had no commendation. There were physicians who understood the use of herbs, and must be rewarded when their help was invited. But, whatever means each head of a family adopted to get a livelihood, he must pay the priest's dues. The centre of the life of Israel was the Temple, over which the high priest presided and which was inhabited by Yahweh, the God of Israel. The scribe could train the individual in morals and in manners; but the high priest was the ruler of the nation.

As ruler of the nation the high priest paid its tribute to Egypt, its overlord. But Josephus reports of one Onias that for avarice he withheld it. The sequel shows how a Jew might rise to power in the civil service of the Egyptian Empire and yet remain a hero to some of the Jews—provided that he did not intermarry with a Gentile. For Joseph, the son of Tobiah and nephew of Onias, went to court and secured the taxes of Palestine, when they were put up to auction. As tax-farmer he oppressed the non-Jewish cities and so won the admiration of Josephus.

But while such men went out into the world and brought back wealth of one kind or another to Palestine, other Jews were content to make their homes in foreign parts. At Alexandria in particular Alexander provided for a Jewish colony which soon became Hellenic enough in speech to require a translation of the Law. It is probable that, as in Palestine an Aramaic paraphrase of the Hebrew text was found to be necessary, so in Alexandria the Septuagint grew up gradually, as need arose. The legendary tradition which even Philo accepts gives it a formal nativity, a royal patron and inspired authors. From the text which Philo uses, it is probable that the translation had been transmitted in writing; and his legend probably fixes the date of the commencement of the undertaking for the reign of Ptolemy Lagus.

The apology for the necessary defects of a translation put forward by the translator of *Ecclesiasticus* in his Prologue shows that the work was carried on beyond the limits of the Law. Apparently it was in progress at the time of his coming to Egypt in the reign of Ptolemy Euergetes I. or II. He seems to regard this body of literature as the answer to the charge that the Jews had contributed nothing useful for human life. Once translated into Greek, the Scriptures became a bond of union for the Jews of the dispersion and were at least capable of being used as an instrument for the conversion of the world to Judaism. So far as the latter function is concerned Philo confesses that the Law in his day shared the obscurity of the people, and seems to imply that the proselytes adopted little more than the monotheistic principle and the observance of the Sabbath. According to Juvenal the sons of such proselytes were apt to go farther and to substitute the Jewish Law for the Roman—

> Romanas autem soliti contemnere leges;
> Judaicum ediscunt et servant ac metuunt ius
> Tradidit arcano quodcunque volumine Moyses.

27. *The Seleucids.*—Toward the end of the 3rd century the Palestinian Jews became involved in the struggle between Egypt and Syria. In Jerusalem there were partisans of both the combatants. The more orthodox or conservative Jews preferred the tolerant rule of the Ptolemies: the rest, who chafed at the isolation of the nation, looked to the Seleucids, who inherited Alexander's ideal of a united empire based on a universal adoption of Hellenism. At this point Josephus cites the testimony of Polybius:—"Scopas, the general of Ptolemy, advanced into the highlands and subdued the nation of the Jews in the winter. After the defeat of Scopas, Antiochus gained Batanaea and Samaria and Abila and Gadara, and a little later those of the Jews who live round the Temple called Jerusalem adhered to him." From this it appears that the pro-Syrian faction of the Jews had been strong and active enough to bring an Egyptian army upon them (199–198 B.C.). Josephus adds that an Egyptian garrison was left in Jerusalem. This act of oppression presumably strengthened the Syrian faction of the Jews and led to the transference of the nation's allegiance. The language of Polybius suggests that he was acquainted with other Jewish communities and with the fame of the Temple: in his view they are not an organized state. They were not even a pawn in the game which Antiochus proposed to play with Rome for the possession of Greece and Asia Minor. His defeat left the resources of his kingdom exhausted and its extent diminished; and so the Jews became important to his successors for the sake of their wealth and their position on the frontier. To pay his debt to Rome he was compelled to resort to extraordinary methods of raising money; he actually met his death (187 B.C.) in an attempt to loot the temple of Elymais.

The pro-Syrian faction of the Palestinian Jews found their opportunity in this emergency and informed the governor of Coele-Syria that the treasury in Jerusalem contained untold sums of money. Heliodorus, prime minister of Seleucus Philopator, who succeeded Antiochus, arrived at Jerusalem in his progress through Coele-Syria and Phoenicia and declared the treasure confiscate to the royal exchequer. According to the Jewish legend Heliodorus was attacked when he entered the Temple by a horse with a terrible rider and by two young men. He was scourged and only escaped with his life at the intercession of Onias the high priest, who had pleaded with him vainly that the treasure included the deposits of widows and orphans and also some belonging to Hyrcanus, "a man in very high position." Onias was accused by his enemies of having given the information which led to this outrage and when, relying upon the support of the provincial governor, they proceeded to attempt assassination, he fled to Antioch and appealed to the king.

When Seleucus was assassinated by Heliodorus, Antiochus IV., his brother, who had been chief magistrate at Athens, came

back secretly "to seize the kingdom by guile" (Dan. xi. 21 seq.). On his accession he appointed Jesus, the brother of Onias, to the high-priesthood, and sanctioned his proposals for the conversion of Jerusalem into a Greek city. The high priest changed his name to Jason and made a gymnasium near the citadel. The principle of separation was abandoned. The priests deserted the Temple for the palaestra and the young nobles wore the Greek cap. The Jews of Jerusalem were enrolled as citizens of Antioch. Jason sent money for a sacrifice to Heracles at Tyre; and the only recorded opposition to his policy came from his envoys, who pleaded that the money might be applied to naval expenditure. Thus Jason stripped the high-priesthood of its sacred character and did what he could to stamp out Judaism.

Menelaus supplanted Jason, obtaining his appointment from the king by the promise of a larger contribution. In order to secure his position, he contrived the murder of Onias, who had taken sanctuary at Daphne. This outrage, coupled with his appropriation of temple vessels, which he used as bribes, raised against Menelaus the senate and the people of Jerusalem. His brother and deputy was killed in a serious riot, and an accusation was laid against Menelaus before Antiochus. At the inquiry he bought his acquittal from a courtier and his accusers were executed. Antiochus required peace in Jerusalem and probably regarded Onias as the representative of the pro-Egyptian faction, the allies of his enemy.

During his second Egyptian campaign a rumour came that Antiochus was dead, and Jason made a raid upon Jerusalem. Menelaus held the citadel and Jason was unable to establish himself in the city. The people were presumably out of sympathy with hellenizers, whether they belonged to the house of Onias or that of Tobiah. When Antiochus finally evacuated Egypt in obedience to the decree of Rome, he thought that Judaea was in revolt. Though Jason had fled, it was necessary to storm the city; the drastic measures which Menelaus advised seem to indicate that the poorer classes had been roused to defend the Temple from further sacrilege. A massacre took place, and Antiochus braved the anger of Yahweh by entering and pillaging the Temple with impunity. The author of 2 Maccabees infers from his success that the nation had forfeited all right to divine protection for the time (2 Macc. v. 18–20).

The policy which Antiochus thus inaugurated he carried on rigorously and systematically. His whole kingdom was to be unified; Judaism was an eccentricity and as such doomed to extinction. The Temple of Jerusalem was made over to Zeus Olympius: the temple of Gerizim to Zeus Xenius. All the religious rites of Judaism were proscribed and the neighbouring Greek cities were requested to enforce the prohibition upon their Jewish citizens. Jerusalem was occupied by an army which took advantage of the Sabbath and proceeded to suppress its observance. An Athenian came to be the missionary of Hellenism and to direct its ceremonies, which were established by force up and down the country.

28. *The Maccabees.*—Jerusalem and Gerizim were purged and converted to the state religion with some ease. Elsewhere, as there, some conformed and some became martyrs for the faith. And the passive resistance of those who refused to conform at length gave rise to active opposition. "The king's officers who were enforcing the apostasy came into the city of Modein to sacrifice, and many of Israel went over to them, but Mattathias . . . slew a Jew who came to sacrifice and the king's officer and pulled down the altar" (1 Macc. ii. 15 sqq.). Whether led by this Mattathias or not, certain Jews fled into the wilderness and found a leader in Judas Maccabaeus his reputed son, the first of the five Asmonean (Hasmonean) brethren. The warfare which followed was like that which Saul and David waged against the Philistines. Antiochus was occupied with his Parthian campaign and trusted that the Hellenized Jews would maintain their ascendancy with the aid of the provincial troops. In his last illness he wrote to express his confidence in their loyalty. But the rebels collected adherents from the villages; and, when they resolved to violate the sabbath to the extent of resisting attack, they were joined by the company of the Assideans (Hasidim). Such a breach of the sabbath was necessary if the whole Law was to survive at all in Palestine. But the transgression is enough to explain the disfavour into which the Maccabees seem to fall in the judgment of later Judaism, as, in that judgment, it is enough to account for the instability of their dynasty. Unstable as it was, their dynasty was soon established. In the country-side of Judaea, Judaism—and no longer Hellenism—was propagated by force. Apollonius, the commander of the Syrian garrison in Jerusalem, and Seron the commander of the army in Syria, came in turn against Judas and his bands and were defeated. The revolt thus became important enough to engage the attention of the governor of Coele-Syria and Phoenicia, if not of Lysias the regent himself. Nicanor was despatched with a large army to put down the rebels and to pay the tribute due to Rome by selling them as slaves. Judas was at Emmaus; "the men of the citadel" guided a detachment of the Syrian troops to his encampment by night. The rebels escaped in time, but not into the hills, as their enemies surmised. At dawn they made an unexpected attack upon the main body and routed it. Next year (165 B.C.) Lysias himself entered the Idumaean country and laid siege to the fortress of Bethsura. Judas gathered what men he could and joined battle. The siege was raised, more probably in consequence of the death of Antiochus Epiphanes than because Judas had gained any real victory. The proscription of the Jewish religion was withdrawn and the Temple restored to them. But it was Menelaus who was sent by the king "to encourage" (2 Macc. xi. 32) the Jews, and in the official letters no reference is made to Judas. Such hints as these indicate the impossibility of recovering a complete picture of the Jews during the sovereignty of the Greeks, which the Talmudists regard as the dark age, best left in oblivion.

Judas entered Jerusalem, the citadel of which was still occupied by a Syrian garrison, and the Temple was re-dedicated on the 25th of Kislev (164 B.C.). So "the Pious" achieved the object for which presumably they took up arms. The re-establishment of Judaism, which alone of current religions was intolerant of a rival, seems to have excited the jealousy of their neighbours who had embraced the Greek way of life. The hellenizers had not lost all hope of converting the nation and were indisposed to acquiesce in the concordat. Judas and his zealots were thus able to maintain their prominence and gradually to increase their power. At Joppa, for example, the Jewish settlers—two hundred in all—"were invited to go into boats provided in accordance with the common decree of the city." They accepted the invitation and were drowned. Judas avenged them by burning the harbour and the shipping, and set to work to bring into Judaea all such communities of Jews who had kept themselves separate from their heathen neighbours. In this way he became strong enough to deal with the apostates of Judaea.

In 163 Lysias led another expedition against these disturbers of the king's peace and defeated Judas at Bethzachariah. But while the forces were besieging Bethzur and the fortress on Mount Zion, a pretender arose in Antioch, and Lysias was compelled to come to terms—and now with Judas. The Jewish refugees had turned the balance, and so Judas became strategus of Judaea, whilst Menelaus was put to death.

In 162 Demetrius escaped from Rome and got possession of the kingdom of Syria. Jakim, whose name outside religion was Alcimus, waited upon the new king on behalf of the loyal Jews who had hellenized. He himself was qualified to be the legitimate head of a united state, for he was of the tribe of Aaron. Judas and the Asmoneans were usurpers, who owed their title to Lysias. So Alcimus-Jakim was made high priest and Bacchides brought an army to instal him in his office. The Assideans made their submission at once. Judas had won for them religious freedom: but the Temple required a descendant of Aaron for priest and he was come. But his first act was to seize and slay sixty of them: so it was clear to Judas at any rate, if not also to the Assideans who survived, that political independence was necessary if the religion was to be secure. In face of his active opposition Alcimus could not maintain himself

without the support of Bacchides and was forced to retire to Antioch. In response to his complaints Nicanor was appointed governor of Judaea with power to treat with Judas. It appears that the two became friends at first, but fresh orders from Antioch made Nicanor guilty of treachery in the eyes of Judas's partisans. Warned by the change of his friend's manner Judas fled. Nicanor threatened to destroy the Temple if the priests would not deliver Judas into his hands. Soon it came to his knowledge that Judas was in Samaria, whither he followed him on a sabbath with Jews pressed into his service. The day was known afterwards as Nicanor's day, for he was found dead on the field (Capharsalama) by the victorious followers of Judas (13th of Adar, March 161 B.C.). After this victory Judas made an alliance with the people of Rome, who had no love for Demetrius his enemy, nor any intention of putting their professions of friendship into practice. Bacchides and Alcimus returned meanwhile into the land of Judah; at Elasa "Judas fell and the rest fled" (1 Macc. ix. 18). Bacchides occupied Judaea and made a chain of forts. Jonathan, who succeeded his brother Judas, was captain of a band of fugitive outlaws. But on the death of Alcimus Bacchides retired and Jonathan with his followers settled down beyond the range of the Syrian garrisons. The Hellenizers still enjoyed the royal favour and Jonathan made no attempt to dispossess them. After an interval of two years they tried to capture him and failed. This failure seems to have convinced Bacchides that it would be well to recognize Jonathan and to secure a balance of parties. In 158 Jonathan began to rule as a judge in Michmash and he destroyed the godless out of Israel—so far, that is, as his power extended. In 153 Alexander Balas withdrew Jonathan from his allegiance to Demetrius by the offer of the high-priesthood. He had already made Jerusalem his capital and fortified the Temple mount: the Syrian garrisons had already been withdrawn with the exception of those of the Akra and Bethzur. In 147 Jonathan repaid his benefactor by destroying the army of the governor of Coele-Syria, who had espoused the cause of Demetrius. The fugitives took sanctuary in the temple of Dagon at Azotus. "But Jonathan burned the temple of Dagon and those who fled into it." After the death of Balas he laid siege to the Akra; and "the apostates, who hated their own nation," appealed to Demetrius. Jonathan was summoned to Antioch, made his peace and apparently relinquished his attempt in return for the addition of three Samaritan districts to his territory. Later, when the people of Antioch rose against the king, Jonathan despatched a force of 3000 men who played a notable part in the merciless suppression of the insurrection. 1 Maccabees credits them with 100,000 victims. Trypho, the regent of Antiochus VI., put even greater political power into the hands of Jonathan and his brother Simon, but finally seized Jonathan on the pretext of a conference. Simon was thus left to consolidate what had been won in Palestine for the Jews and the family whose head he had become. The weakness of the king enabled him to demand and to secure immunity from taxation. The Jewish aristocracy became peers of the Seleucid kingdom. Simon was declared high priest: Rome and Sparta rejoiced in the elevation of their friend and ally. In the hundred and seventieth year (142 B.C.) the yoke of the heathen was taken away from Israel and the people began to date their legal documents "in the first year of Simon the great high priest and commander and leader of the Jews." The popular verdict received official and formal sanction. Simon was declared by the Jews and the priests their governor and high priest for ever, until there should arise a faithful prophet. The garrison of the Akra had been starved by a close blockade into submission, and beyond the boundaries of Judaea "he took Joppa for a haven and made himself master of Gazara and Bethsura."

29. *John Hyrcanus and the Sadducees.*—But in 138 B.C. Antiochus Sidetes entered Seleucia and required the submission of all the petty states, which had taken advantage of the weakness of preceding kings. From Simon he demanded an indemnity of 1000 talents for his oppression and invasion of non-Jewish territory: Simon offered 100 talents. At length Antiochus appeared to enforce his demand in 134. Simon was dead (135 B.C.) and John Hyrcanus had succeeded his father. The Jewish forces were driven back upon Jerusalem and the city was closely invested. At the feast of tabernacles of 132 Hyrcanus requested and Antiochus granted a week's truce. The only hope of the Jews lay in the clemency of their victorious suzerain, and it did not fail them. Some of his advisers urged the demolition of the nation on the ground of their exclusiveness, but he sent a sacrifice and won thereby the name of "Pious." In subsequent negotiations he accepted the disarmament of the besieged and a tribute as conditions of peace, and in response to their entreaty left Jerusalem without a garrison. When he went on his last disastrous campaign, Hyrcanus led a Jewish contingent to join his army, partly perhaps a troop of mercenaries (for Hyrcanus was the first of the Jewish kings to hire mercenaries, with the treasure found in David's tomb). After his death Hyrcanus took advantage of the general confusion to extend Jewish territory with the countenance of Rome. He destroyed the temple of Gerizim and compelled the Idumaeans to submit to circumcision and embrace the laws of the Jews on pain of deportation.

In Jerusalem and in the country, in Alexandria, Egypt and Cyprus, the Jews were prosperous (Jos. *Ant.* xiii. 284). This prosperity and the apparent security of Judaism led to a breach between Hyrcanus and his spiritual directors, the Pharisees. His lineage was (in the opinion of one of them at least) of doubtful purity; and so it was his duty to lay down the high-priesthood and be content to rule the nation. That one man should hold both offices was indeed against the example of Moses, and could only be admitted as a temporary concession to necessity. Hyrcanus could not entertain the proposal that he should resign the sacred office to which he owed much of his authority. The allegation about his mother was false: the Pharisee who retailed it was guilty of no small offence. A Sadducean friend advised Hyrcanus to ask the whole body of the Pharisees to prescribe the penalty. Their leniency, which was notorious, alienated the king or probably furnished him with a pretext for breaking with them. The Pharisees were troublesome counsellors and doubtful allies for an ambitious prince. They were all-powerful with the people, but Hyrcanus with his mercenaries was independent of the people, and the wealthy belonged to the sect of the Sadducees. The suppression of the Pharisaic ordinances and the punishment of those who observed them led to some disturbance. But Hyrcanus "was judged worthy of the three great privileges, the rule of the nation, the high-priestly dignity, and prophecy." This verdict suggests that the Sadducees, with whom he allied himself, had learned to affect some show of Judaism in Judaea. If the poor were ardent nationalists who would not intermingle with the Greeks, the rich had long outgrown and now could humour such prejudices; and the title of their party was capable of recalling at any rate the sound of the national ideal of righteousness, *i.e. Sadaqah.*

The successor of Hyrcanus (d. 105) was Judas Aristobulus, "the friend of the Greeks," who first assumed the title of king. According to Strabo he was a courteous man and in many ways useful to the Jews. His great achievement was the conquest of a part of Ituraea, which he added to Judaea and whose inhabitants he compelled to accept Judaism.

The Sadducean nobility continued in power under his brother and successor Alexander Jannaeus (103–78); and the breach between the king and the mass of the people widened. But Salome Alexandra, his brother's widow, who released him from prison on the death of her husband and married him, was connected with the Pharisees through her brother Simon ben Shetach. If his influence or theirs dictated her policy, there is no evidence of any objection to the union of the secular power with the high-priesthood. The party may have thought that Jannaeus was likely to bring the dynasty to an end. His first action was to besiege Ptolemais. Its citizens appealed to Ptolemy Lathyrus, who had been driven from the throne of Egypt by his mother Cleopatra and was reigning in Cyprus. Alexander raised the siege, made peace with Ptolemy and secretly sent to Cleopatra

for help against her son. The result of this double-dealing was that his army was destroyed by Ptolemy, who advanced into Egypt leaving Palestine at the mercy of Cleopatra. But Cleopatra's generals were Jews and by their protests prevented her from annexing it. Being thus freed from fear on the side of Ptolemy, Alexander continued his desultory campaigns across the Jordan and on the coast without any apparent policy and with indifferent success. Finally, when he officiated as high priest at the feast of tabernacles he roused the fury of the people by a derisive breach of the Pharisaic ritual. They cried out that he was unworthy of his office, and pelted him with the citrons which they were carrying as the Law prescribed. Alexander summoned his mercenaries, and 6000 Jews were killed before he set out on his disastrous campaign against an Arabian king. He returned a fugitive to find the nation in armed rebellion. After six years of civil war he appealed to them to state the conditions under which they would lay aside their hostility. They replied by demanding his death and called in the Syrians. But when the Syrians chased him into the mountains, 6000 Jews went over to him and, with their aid, he put down the rebellion. Eight hundred Jews who had held a fortress against him were crucified; 8000 Pharisees fled to Egypt and remained there. Offering an ineffectual resistance to the passage of the Syrian troops, Alexander was driven back by Aretas, king of Arabia, against whom they had marched. His later years brought him small victories over isolated cities.

On his deathbed it is said that Alexander advised his wife to reverse this policy and rely upon the Pharisees. According to the Talmud, he warned her "to fear neither the Pharisees nor their opponents but the hypocrites who do the deed of Zimri and claim the reward of Phinehas:" the warning indicates his justification of his policy in the matter of the crucifixions. In any case the Pharisees were predominant under Alexandra, who became queen (78–69) under her husband's will. Hyrcanus her elder son was only high priest, as the stricter Pharisees required. All the Pharisaic ordinances which Hyrcanus had abolished were reaffirmed as binding. Simon ben Shatach stood beside the queen: the exiles were restored and among them his great colleague Jehudah ben Tabai. The great saying of each of these rabbis is concerned with the duties of a judge; the selection does justice to the importance of the Sanhedrin, which was filled with Pharisees. The legal reforms which they introduced tended for the most part to mercy, but the Talmud refers to one case which is an exception: false witnesses were condemned to suffer the penalty due to their victim, even if he escaped. This ruling may be interpreted as part of a campaign directed against the counsellors of Alexander or as an instance of their general principle that intention is equivalent to commission in the eye of the Law. The queen interposed to prevent the execution of those who had counselled the crucifixion of the rebels and permitted them to withdraw with her younger son Aristobulus to the fortresses outside Jerusalem. Against their natural desire for revenge may be set the fact that the Pharisees did much to improve the status of women among the Jews.

On the death of Alexandra (69 B.C.) Aristobulus disputed the succession of Hyrcanus. When their forces met at Jericho, Hyrcanus, finding that the bulk of his following deserted to Aristobulus, fled with those who remained to the tower Antonia and seized Aristobulus's wife and children as hostages for his own safety. Having this advantage, he was able to abdicate in favour of Aristobulus and to retire into private life. But he was not able to save his friends, who were also the enemies of the reigning king. In fear of reprisals Antipas (or Antipater), the Idumaean, his counsellor, played on the fears of Hyrcanus and persuaded him to buy the aid of the Nabataean Arabs with promises. Aristobulus could not withstand the army of Aretas: he was driven back upon Jerusalem and there besieged. The Jews deserted to the victorious Hyrcanus: only the priests remained loyal to their accepted king; many fled to Egypt.

30. *The Romans and the Idumaeans.*—At this point the power of Rome appeared upon the scene in the person of M. Aemilius Scaurus (stepson of Sulla) who had been sent into Syria by Pompey (65 B.C.). Both brothers appealed to this new tribunal and Aristobulus bought a verdict in his favour. The siege was raised. Aretas retired from Judaea; and Aristobulus pursued the retreating army. But, when Pompey himself arrived at Damascus, Antipater, who pulled the strings and exploited the claims of Hyrcanus, realized that Rome and not the Arabs, who were cowed by the threats of Scaurus, was the ruler of the East. To Rome, therefore, he must pay his court. Others shared this conviction: Strabo speaks of embassies from Egypt and Judaea bearing presents—one deposited in the temple of Jupiter Capitolinus bore the inscription of Alexander, the king of the Jews. From Judaea there were three embassies pleading, for Aristobulus, for Hyrcanus, and for the nation, who would have no king at all but their God.

Pompey deferred his decision until he should have inquired into the state of the Nabataeans, who had shown themselves to be capable of dominating the Jews in the absence of the Roman army. In the interval Aristobulus provoked him by his display of a certain impatience. The people had no responsible head, of whom Rome could take cognisance: so Pompey decided in favour of Hyrcanus and humoured the people by recognizing him, not as king, but as high priest. Antipater remained secure, in power if not in place. The Roman supremacy was established: the Jews were once more one of the subject states of Syria, now a Roman province. Their national aspirations had received a contemptuous acknowledgment, when their Temple had been desecrated by the entry of a foreign conqueror.

Aristobulus himself had less resolution than his partisans. When he repented of his attempted resistance and treated with Pompey for peace, his followers threw themselves into Jerusalem, and, when the faction of Hyrcanus resolved to open the gates, into the Temple. There they held out for three months, succumbing finally because in obedience to the Law (as interpreted since the time of Antiochus Epiphanes) they would only defend themselves from actual assault upon the sabbath day. The Romans profited by this inaction to push on the siege-works, without provoking resistance by actual assaults until the very end. Pompey finally took the stronghold by choosing the day of the fast, when the Jews abstain from all work, that is the sabbath (Strabo). Dio Cassius calls it the day of Cronos. On this bloody sabbath the priests showed a devotion to their worship which matched the inaction of the fighting men. Though they saw the enemy advancing upon them sword in hand they remained at worship untroubled and were slaughtered as they poured libation and burned incense, for they put their own safety second to the service of God. And there were Jews among the murderers of the 12,000 Jews who fell.

The Jews of Palestine thus became once more a subject state, stripped of their conquests and confined to their own borders. Aristobulus and his children were conveyed to Rome to grace their conqueror's triumphal procession. But his son Alexander escaped during the journey, gathered some force, and overran Judaea. The Pharisees decided that they could not take action on either side, since the elder son of Alexandra was directed by the Idumaean Antipater; and the people had an affection for such Asmonean princes as dared to challenge the Roman domination of their ancestral kingdom. The civil war was renewed; but Aulus Gabinius, the proconsul, soon crushed the pretender and set up an aristocracy in Judaea with Hyrcanus as guardian of the Temple. The country was divided into five districts with five synods; and Josephus asserts that the people welcomed the change from the monarchy. In spite of this, Aristobulus (56 B.C.) and Alexander (55 B.C.) found loyalists to follow them in their successive raids. But Antipater found supplies for the army of Gabinius, who, despite Egyptian and Parthian distractions, restored order according to the will of Antipater. M. Crassus, who succeeded him, plundered the Temple of its gold and the treasure (54 B.C.) which the Jews of the dispersion had contributed for its maintenance. It is said that Eleazar, the priest who guarded the treasure, offered Crassus the golden beam as ransom for the whole, knowing, what no one else knew, that it was mainly composed of wood. So Crassus departed to

Parthia and died. When the Parthians, elated by their victory over Crassus (53 B.C.) advanced upon Syria, Cassius opposed them. Some of the Jews, presumably the partisans of Aristobulus, were ready to co-operate with the Parthians. At any rate Antipater was ready to aid Cassius with advice; Taricheae was taken and 30,000 Jews were sold into slavery (51 B.C.). In spite of this vigorous coercion Cassius came to terms with Alexander, before he returned to the Euphrates to hold it against the Parthians.

Two years later Julius Caesar made himself master of Rome and despatched the captive Aristobulus with two legions to win Judaea (49 B.C.). But Pompey's partisans were beforehand with him: he was taken off by poison and got not so much as a burial in his fatherland. At the same time his son Alexander was beheaded at Antioch by Pompey's order as an enemy of Rome. After the defeat and death of Pompey (48 B.C.) Antipater transferred his allegiance to Caesar and demonstrated its value during Caesar's Egyptian campaign. He carried with him the Arabs and the princes of Syria, and through Hyrcanus he was able to transform the hostility of the Egyptian Jews into active friendliness. These services, which incidentally illustrate the solidarity and unity of the Jewish nation and the respect of the communities of the dispersion for the metropolis, were recognized and rewarded. Before his assassination in 44 B.C. Julius Caesar had confirmed Hyrcanus in the high-priesthood and added the title of ethnarch. Antipater had been made a Roman citizen and procurator of the reunited Judaea. Further, as confederates of the senate and people of Rome, the Jews had received accession of territory, including the port of Joppa and, with other material privileges, the right of observing their religious customs not only in Palestine but also in Alexandria and elsewhere. Idumaean or Philistine of Ascalon, Antipater had displayed the capacity of his adoptive or adopted nation for his own profit and theirs. And when Caesar died Suetonius notes that he was mourned by foreign nations, especially by the Jews (*Caes.* 84).

In the midst of all this civil strife the Pharisees and all who were preoccupied with religion found it almost impossible to discern what they should do to please God. The people whom they directed were called out to fight, at the bidding of an alien, for this and that foreigner who seemed most powerful and most likely to succeed. In Palestine few could command leisure for meditation; as for opportunities of effective intervention in affairs, they had none, it would seem, once Alexander was dead.

There is a story of a priest named Onias preserved both by Josephus and in the Talmud, which throws some light upon the indecision of the religious in the period just reviewed. When Aretas intervened in the interest of Hyrcanus and defeated Aristobulus, the usurper of his brother's inheritance, the people accepted the verdict of battle, sided with the victor's client, and joined in the siege of Jerusalem. The most reputable of the Jews fled to Egypt; but Onias, a righteous man and dear to God, who had hidden himself, was discovered by the besiegers. He had a name for power in prayer; for once in a drought he prayed for rain and God had heard his prayer. His captors now required of him that he should put a curse upon Aristobulus and his faction. On compulsion he stood in their midst and said: "O God, king of the universe, since these who stand with me are thy people and the besieged are thy priests, I pray thee that thou hearken not to those against these, nor accomplish what these entreat against those." So he prayed—and the wicked Jews stoned him.

Unrighteous Jews were in the ascendant. There were only Asmonean princes, degenerate and barely titular sons of Levi, to serve as judges of Israel—and they were at feud and both relied upon foreign aid. The righteous could only flee or hide, and so wait dreaming of the mercy of God past and to come. As yet our authorities do not permit us to follow them to Egypt with any certainty, but the *Psalms of Solomon* express the mind of one who survived to see Pompey the Great brought low. Although Pompey had spared the temple treasure, he was the embodiment of the power of Rome, which was not always so considerately exercised. And so the psalmist exults in his death and dishonour (Ps. ii.): he prayed that the pride of the dragon might be humbled and God shewed him the dead body lying upon the waves—and there was none to bury it. As one of those who fear the Lord in truth and in patience, he looks forward to the punishment of all sinners who oppress the righteous and profane the sanctuary. For the sins of the rulers God had rejected his people; but the remnant could not but inherit the promises, which belong to the chosen people. For the Lord is faithful unto those who walk in the righteousness of his commandments (xiv. 1): in the exercise of their freewill and with God's help they will attain salvation. As God's servant, Pompey destroyed their rulers and every wise councillor: soon the righteous and sinless king of David's house shall reign over them and over all the nations (xvii.).

31. *Herod the Great.*—After the departure of Caesar, Antipater warned the adherents of Hyrcanus against taking part in any revolutionary attempts, and his son Herod, who, in spite of his youth, had been appointed governor of Galilee, dealt summarily with Hezekiah, the robber captain who was overrunning the adjacent part of Syria. The gratitude of the Syrians brought him to the knowledge of Sextus Caesar the governor of Syria; but his action inspired the chief men of the Jews with apprehension. Complaint was made to Hyrcanus that Herod had violated the law which prohibited the execution of even an evil man, unless he had been first condemned to death by the Sanhedrin. At the same time the mothers of the murdered men came to the Temple to demand vengeance. So Herod was summoned to stand his trial. He came in answer to the summons—but attended by a bodyguard and protected by the word of Sextus. Of all the Sanhedrin only Sameas "a righteous man and therefore superior to fear" dared to speak. Being a Pharisee he faced the facts of Herod's power and warned the tribunal of the event, just as later he counselled the people to receive him, saying that for their sins they could not escape him. Herod put his own profit above the Law, acting after his kind, and he also was God's instrument. The effect of the speech was to goad the Sanhedrin into condemning Herod: Hyrcanus postponed their decision and persuaded him to flee. Sextus Caesar made him lieutenant-governor of Coele Syria, and only his father restrained him from returning to wreak his revenge upon Hyrcanus.

It is to be remembered that, in this and all narratives of the life of Herod, Josephus was dependent upon the history of Herod's client, Nicolaus of Damascus, and was himself a supporter of law and order. The action of the Sanhedrin and the presence of the women suppliants in the Temple suggest, if they do not prove, that this Hezekiah who harassed the Syrians was a Jewish patriot, who could not acquiesce and wait with Sameas.

Malichus also, the murderer or reputed murderer of Antipater, appears to have been a partisan of Hyrcanus, who had a zeal for Judaism. When Cassius demanded a tribute of 700 talents from Palestine, Antipater set Herod, Phasael and this Malichus, his enemy, to collect it. Herod thought it imprudent to secure the favour of Rome by the sufferings of others. But some cities defaulted, and they were apparently among those assigned to Malichus. If he had been lenient for their sakes or in the hope of damaging Antipater, he was disappointed; for Cassius sold four cities into slavery and Hyrcanus made up the deficit. Soon after this (43 B.C.) Malichus succeeded, it is said, in poisoning Antipater as he dined with Hyrcanus, and was assassinated by Herod's bravoes.

After the departure of Cassius, Antipater being dead, there was confusion in Judaea. Antigonus, the son of Aristobulus, made a raid and was with difficulty repulsed by Herod. The prince of Tyre occupied part of Galilee. When Antony assumed the dominion of the East after the defeat of Cassius at Philippi, an embassy of the Jews, amongst other embassies, approached him in Bithynia and accused the sons of Antipater as usurpers of the power which rightly belonged to Hyrcanus. Another approached him at Antioch. But Hyrcanus was well content to forgo the title to political power, which he could not exercise in practice, and Antony had been a friend of Antipater. So Herod and Phasael continued to be virtually kings of the Jews: Antony's court required large remittances and Palestine was not exempt.

In 40 B.C. Antony was absent in Egypt or Italy; and the Parthians swept down upon Syria with Antigonus in their train. Hyrcanus and Phasael were trapped: Herod fled by way of Egypt to Rome. Hyrcanus, who was Antigonus' only rival, was mutilated and carried to Parthia. So he could no more be

high priest, and his life was spared only at the intercession of the Parthian Jews, who had a regard for the Asmonean prince. Thus Antigonus succeeded his uncle as "King Antigonus" in the Greek and "Mattathiah the high priest" in the Hebrew by grace of the Parthians.

The senate of Rome under the influence of Antony and Octavian ratified the claims of Herod, and after some delay lent him the armed force necessary to make them good. In the hope of healing the breach, which his success could only aggravate, and for love, he took to wife Mariamne, grandniece of Hyrcanus. Galilee was pacified, Jerusalem taken and Antigonus beheaded by the Romans. From this point to the end of the period the Jews were dependents of Rome, free to attend to their own affairs, so long as they paid taxes to the subordinate rulers, Herodian or Roman, whom they detested equally. If some from time to time dared to hope for political independence their futility was demonstrated. One by one the descendants of the Asmoneans were removed. The national hope was relegated to an indefinite future and to another sphere. At any rate the Jews were free to worship their God and to study his law: their religion was recognized by the state and indeed established.

This development of Judaism was eminently to the mind of the rulers; and Herod did much to encourage it. More and more it became identified with the synagogue, in which the Law was expounded: more and more it became a matter for the individual and his private life. This was so even in Palestine —the land which the Jews hoped to possess—and in Jerusalem itself, the holy city, in which the Temple stood. Herod had put down Jewish rebels and Herod appointed the high priests. In his appointments he was careful to avoid or to suppress any person who, being popular, might legitimize a rebellion by heading it. The Pharisees, who regarded his rule as an inevitable penalty for the sins of the people, he encouraged. Pollio the Pharisee and Sameas his disciple were in special honour with him, Josephus says, when he re-entered Jerusalem and put to death the leaders of the faction of Antigonus. How well their teaching served his purpose is shown by the sayings of two rabbis who, if not identical with these Pharisees, belong to their period and their party. Shemaiah said, "Love work and hate lordship and make not thyself known to the government." Abtalion said, "Ye wise, be guarded in your words: perchance ye may incur the debt of exile." Precepts such as these could hardly fail to effect some modification of the reckless zeal of the Galileans in the pupils of the synagogue. Many if not all of the professed rabbis had travelled outside Palestine: some were even members of the dispersion, like Hillel the Babylonian, who with Shammai forms the second of the pairs. Through them the experience of the dispersion was brought to bear upon the Palestinian Jews. Herod's nominees were not the men to extend the prestige of the high-priesthood at the expense of these rabbis: even in Jerusalem the synagogue became of more importance than the Temple. Hillel also inculcated the duty of making converts to Judaism. He said, "Be of the disciples of Aaron, loving peace, and pursuing peace, loving mankind and bringing them nigh to the Law." But even he reckoned the books of Daniel and Esther as canonical, and these were dangerous food for men who did not realize the full power of Rome.

So long as Herod lived there was no insurrection. Formally he was an orthodox Jew and set his face against intermarriage with the uncircumcised. He was also ready and able to protect the Jews of the dispersion. But that ability was largely due to his whole-hearted Hellenism, which was shown by the Greek cities which he founded in Palestine and the buildings he erected in Jerusalem. In its material embodiments Greek civilization became as much a part of Jewish life in Palestine as it was in Alexandria or Antioch; and herein the rabbis could not follow him.

When all the Jewish people swore to be loyal to Caesar and the king's policy, the Pharisees—above 6000—refused to swear. The king imposed a fine upon them, and the wife of Pheroras—Herod's brother—paid it on their behalf. In return for her kindness, being entrusted with foreknowledge by the visitation of God, they prophesied that God had decreed an end of rule for Herod and his line and that the sovereignty devolved upon her and Pheroras and their children.

From the sequel it appears that the prophecy was uttered by one Pharisee only, and that it was in no way endorsed by the party. When it came to the ears of the king he slew the most responsible of the Pharisees and every member of his household who accepted what the Pharisee said. An explanation of this unwarrantable generalization may be found in the fact that the incident is derived from a source which was unfavourable to the Pharisees: they are described as a Jewish section of men who pretend to set great store by the exactitude of the ancestral tradition and the laws in which the deity delights—as dominant over women-folk—and as sudden and quick in quarrel.

Towards the end of Herod's life two rabbis attempted to uphold by physical force the cardinal dogma of Judaism, which prohibited the use of images. Their action is intelligible enough. Herod was stricken with an incurable disease. He had sinned against the Law; and at last God had punished him. At last the law-abiding Jews might and must assert the majesty of the outraged Law. The most conspicuous of the many symbols and signs of his transgression was the golden eagle which he had placed over the great gate of the Temple; its destruction was the obvious means to adopt for the quickening and assertion of Jewish principles.

By their labours in the education of the youth of the nation, these rabbis, Judas and Matthias, had endeared themselves to the populace and had gained influence over their disciples. A report that Herod was dead co-operated with their exhortations to send the iconoclasts to their appointed work. And so they went to earn the rewards of their practical piety from the Law. If they died, death was inevitable, the rabbis said, and no better death would they ever find. Moreover, their children and kindred would benefit by the good name and fame belonging to those who died for the Law. Such is the account which Josephus gives in the *Antiquities*; in the *Jewish War* he represents the rabbis and their disciples as looking forward to greater happiness for themselves after such a death. But Herod was not dead yet, and the instigators and the agents of this sacrilege were burned alive.

32. *The Settlement of Augustus.*—On the death of Herod in 4 B.C. Archelaus kept open house for mourners as the Jewish custom, which reduced many Jews to beggary, prescribed. The people petitioned for the punishment of those who were responsible for the execution of Matthias and his associates and for the removal of the high priest. Archelaus temporized; the loyalty of the people no longer constituted a valid title to the throne; his succession must first be sanctioned by Augustus. Before he departed to Rome on this errand, which was itself an insult to the nation, there were riots in Jerusalem at the Passover which he needed all his soldiery to put down. When he presented himself before the emperor—apart from rival claimants of his own family—there was an embassy from the Jewish people who prayed to be rid of a monarchy and rulers such as Herod. As part of the Roman province of Syria and under its governors they would prove that they were not really disaffected and rebellious. During the absence of Archelaus, who would—the Jews feared—prove his legitimacy by emulating his father's ferocity, and to whom their ambassadors preferred Antipas, the Jews of Palestine gave the lie to their protestations of loyalty and peaceableness. At the Passover the pilgrims attacked the Roman troops. After hard fighting the procurator, whose cruelty provoked the attack, captured the Temple and robbed the treasury. On this the insurgents were joined by some of Herod's army and besieged the Romans in Herod's palace. Elsewhere the occasion tempted many to play at being king—Judas, son of Hezekiah, in Galilee; Simon, one of the king's slaves, in Peraea. Most notable of all perhaps was the shepherd Athronges, who assumed the pomp of royalty and employed his four brothers as captains and satraps in the war which he waged upon Romans and king's men alike—not even Jews escaped him unless they brought him contributions.

Order was restored by Varus the governor of Syria in a campaign which Josephus describes as the most important war between that of Pompey and that of Vespasian.

At length Augustus summoned the representatives of the nation and Nicholaus of Damascus, who spoke for Archelaus, to plead before him in the temple of Apollo. Augustus apportioned Herod's dominions among his sons in accordance with the provisions of his latest will. Archelaus received the lion's share: for ten years he was ethnarch of Idumaea, Judaea and Samaria, with a yearly revenue of 600 talents. Antipas became tetrarch of Galilee and Peraea, with a revenue of 200 talents. Philip, who had been left in charge of Palestine pending the decision and had won the respect of Varus, became tetrarch of Batanaea, Trachonitis and Auranitis, with 100 talents. His subjects included only a sprinkling of Jews. Up to his death (A.D. 34) he did nothing to forfeit the favour of Rome. His coins bore the heads of Augustus and Tiberius, and his government was worthy of the best Roman traditions—he succeeded where proconsuls had failed. His capital was Caesarea Philippi, where Pan had been worshipped from ancient times, and where Augustus had a temple built by Herod the Great.

33. *Archelaus.*—Augustus had counselled Archelaus to deal gently with his subjects. But there was an outstanding feud between him and them; and his first act as ethnarch was to remove the high priest on the ground of his sympathy with the rebels. In violation of the Law he married a brother's widow, who had already borne children, and in general he showed himself so fierce and tyrannical that the Jews joined with the Samaritans to accuse him before the emperor. Archelaus was summoned to Rome and banished to Gaul; his territory was entrusted to a series of procurators (A.D. 6–41), among whom was an apostate Jew, but none with any pretension even to a semi-legitimate authority. Each procurator represented not David but Caesar. The Sanhedrin had its police and powers to safeguard the Jewish religion; but the procurator had the appointment of the high priests, and no capital sentence could be executed without his sanction.

34. *The Procurators.*—So the Jews of Judaea obtained the settlement for which they had pleaded at the death of Herod; and some of them began to regret it at once. The first procurator Coponius was accompanied by P. Sulpicius Quirinius, legate of Syria, who came to organize the new Roman province. As a necessary preliminary a census (A.D. 6–7) was taken after the Roman method, which did not conform to the Jewish Law. The people were affronted, but for the most part acquiesced, under the influence of Joazar the high priest. But Judas the Galilean, with a Pharisee named Sadduc (Sadduk), endeavoured to incite them to rebellion in the name of religion. The result of this alliance between a revolutionary and a Pharisee was the formation of the party of Zealots, whose influence—according to Josephus—brought about the great revolt and so led to the destruction of Jerusalem in 70. So far as this influence extended, the Jewish community was threatened with the danger of suicide, and the distinction drawn by Josephus between the Pharisees and the Zealots is a valid one. Not all Pharisees were prepared to take such action, in order that Israel might "tread on the neck of the eagle" (as is said in *The Assumption of Moses*). So long as the Law was not deliberately outraged and so long as the worship was established, most of the religious leaders of the Jews were content to wait.

It seems that the Zealots made more headway in Galilee than in Judaea—so much so that the terms Galilean and Zealot are practically interchangeable. In Galilee the Jews predominated over the heathen and their ruler Herod Antipas had some sort of claim upon their allegiance. His marriage with the daughter of the Arabian king Aretas (which was at any rate in accordance with the general policy of Augustus) seems to have preserved his territory from the incursions of her people, so long as he remained faithful to her. He conciliated his subjects by his deference to the observances of Judaism, and—the case is probably typical of his policy—he joined in protesting, when Pilate set up a votive shield in the palace of Herod within the sacred city. He seems to have served Tiberius as an official scrutineer of the imperial officials and he commemorated his devotion by the foundation of the city of Tiberias. But he repudiated the daughter of Aretas in order to marry Herodias and so set the Arabians against him. Disaster overtook his forces (A.D. 36) and Tiberius, his patron, died before the Roman power was brought in full strength to his aid. Caligula was not predisposed to favour the favourites of Tiberius; and Antipas, having petitioned him for the title of king at the instigation of Herodias, was banished from his tetrarchy and (apparently) was put to death in 39.

Antipas is chiefly known to history in connexion with John the Baptist, who reproached him publicly for his marriage with Herodias. According to the earliest authority, he seems to have imprisoned John to save him from the vengeance of Herodias. But—whatever his motive—Antipas certainly consented to John's death. If the Fourth Gospel is to be trusted, John had already recognized and acclaimed Jesus of Nazareth as the Messiah for whom the Jews were looking. By common consent of Christendom, John was the forerunner of the founder of the Christian Church. It was, therefore, during the reign of Antipas, and partly if not wholly within his territory, that the Gospel was first preached by the rabbi or prophet whom Christendom came to regard as the one true Christ, the Messiah of the Jews. Josephus' history of the Jews contains accounts of John the Baptist and Jesus, the authenticity of which has been called in question for plausible but not entirely convincing reasons. However this may be, the Jews who believed Jesus to be the Christ play no great part in the history of the Jews before 70, as we know it. Many religious teachers and many revolutionaries were crucified within this period; and the early Christians were outwardly distinguished from other Jews only by their scrupulous observance of religious duties.

The crucifixion of Jesus was sanctioned by Pontius Pilate, who was procurator of Judaea A.D. 26–36. Of the Jews under his predecessors little enough is known. Speaking generally, they seem to have avoided giving offence to their subjects. But Pilate so conducted affairs as to attract the attention not only of Josephus but also of Philo, who represents for us the Jewish community of Alexandria. Pilate inaugurated his term of office by ordering his troops to enter Jerusalem at night and to take their standards with them. There were standards and standards in the Roman armies: those which bore the image of the emperor, and therefore constituted a breach of the Jewish Law, had hitherto been kept aloof from the holy city. On learning of this, the Jews repaired to Caesarea and besought Pilate to remove these offensive images. Pilate refused; and, when they persisted in their petition for six days, he surrounded them with soldiers and threatened them with instant death. They protested that they would rather die than dare to transgress the wisdom of the laws; and Pilate yielded. But he proceeded to expend the temple treasure upon an aqueduct for Jerusalem; and some of the Jews regarded the devotion of sacred money to the service of man as a desecration. Pilate came up to Jerusalem and dispersed the petitioners by means of disguised soldiers armed with clubs. So the revolt was put down, but the excessive zeal of the soldiers and Pilate's obstinate adherence to his policy widened the breach between Rome and the stricter Jews. But the death of Sejanus in 31 set Tiberius free from prejudice against the Jews; and, when Pilate put up the votive shields in Herod's palace at Jerusalem, the four sons of Herod came forward in defence of Jewish principles and he was ordered to remove them. In 35 he dispersed a number of Samaritans, who had assembled near Mt Gerizim at the bidding of an impostor, in order to see the temple vessels buried there by Moses. Complaint was made to Vitellius, then legate of Syria, and Pilate was sent to Rome to answer for his shedding of innocent blood. At the passover of 36 Vitellius came to Jerusalem and pacified the Jews by two concessions: he remitted the taxes on fruit sold in the city, and he restored to their custody the high priest's vestments, which Herod Archelaus and the Romans had kept in the tower Antonia. The vestments had been stored there since the time

of the first high priest named Hyrcanus, and Herod had taken them over along with the tower, thinking that his possession of them would deter the Jews from rebellion against his rule. At the same time Vitellius vindicated the Roman supremacy by degrading Caiaphas from the high-priesthood, and appointing a son of Annas in his place. The motive for this change does not appear, and we are equally ignorant of the cause which prompted his transference of the priesthood from his nominee to another son of Annas in 37. But it is quite clear that Vitellius was concerned to reconcile the Jews to the authority of Rome. When he marched against Aretas, his army with their standards did not enter Judaea at all; but he himself went up to Jerusalem for the feast and, on receipt of the news that Tiberius was dead, administered to the Jews the oath of allegiance to Caligula.

35. *Caligula and Agrippa I.*— The accession of Caligula (A.D. 37–41) was hailed by his subjects generally as the beginning of the Golden Age. The Jews in particular had a friend at court. Agrippa, the grandson of Herod the Great, was an avowed partisan of the new emperor and had paid penalty for a premature avowal of his preference. But Caligula's favour, though lavished upon Agrippa, was not available for pious Jews. His foible was omnipotence, and he aped the gods of Greece in turn. In the provinces and even in Italy his subjects were ready to acknowledge his divinity—with the sole exception of the Jews. So we learn something of the Palestinian Jews and more of the Jewish community in Alexandria. The great world (as we know it) took small note of Judaism even when Jews converted its women to their faith; but now the Jews as a nation refused to bow before the present god of the civilized world. The new Catholicism was promulgated by authority and accepted with deference. Only the Jews protested: they had a notion of the deity which Caligula at all events did not fulfil.

The people of Alexandria seized the opportunity for an attack upon the Jews. Images of Caligula were set up in the synagogues, an edict deprived the Jews of their rights as citizens, and finally the governor authorized the mob to sack the Jewish quarter, as if it had been a conquered city (38). Jewesses were forced to eat pork and the elders were scourged in the theatre. But Agrippa had influence with the emperor and secured the degradation of the governor. The people and the Jews remained in a state of civil war, until each side sent an embassy (40) to wait upon the emperor. The Jewish embassy was headed by Philo, who has described its fortunes in a tract dealing with the divine punishment of the persecutors. Their opponents also had secured a friend at court and seem to have prevented any effective measure of redress. While the matter was still pending, news arrived that the emperor had commanded Publius Petronius, the governor of Syria, to set up his statue in the temple of Jerusalem. On the intervention of Agrippa the order was countermanded, and the assassination of the emperor (41) effectually stopped the desecration.

36. *Claudius and the Procurators.*—Claudius, the new emperor, restored the civic rights of the Alexandrian Jews and made Agrippa I. king over all the territories of Herod the Great. So there was once more a king of Judaea, and a king who observed the tradition of the Pharisees and protected the Jewish religion. There is a tradition in the Talmud which illustrates his popularity. As he was reading the Law at the feast of tabernacles he burst into tears at the words "Thou mayest not set a stranger over thee which is not thy brother"; and the people cried out, "Fear not, Agrippa; thou art our brother." The fact that he began to build a wall round Jerusalem may be taken as further proof of his patriotism. But the fact that he summoned five vassal-kings of the empire to a conference at Tiberias suggests rather a policy of self-aggrandisement. Both projects were prohibited by the emperor on the intervention of the legate. In 44 he died. The Christian records treat his death as an act of divine vengeance upon the persecutor of the Christian Church. The Jews prayed for his recovery and lamented him. The Gentile soldiers exulted in the downfall of his dynasty, which they signalized after their own fashion. Claudius intended that Agrippa's young son should succeed to the kingdom; but he was overruled by his advisers, and Judaea was taken over once more by Roman procurators. The success of Agrippa's brief reign had revived the hopes of the Jewish nationalists, and concessions only retarded the inevitable insurrection.

Cuspius Fadus, the first of these procurators, purged the land of bandits. He also attempted to regain for the Romans the custody of the high priest's vestments; but the Jews appealed to the emperor against the revival of this advertisement of their servitude. The emperor granted the petition, which indeed the procurator had permitted them to make, and further transferred the nomination of the high priest and the supervision of the temple from the procurator to Agrippa's brother, Herod of Chalcis. But these concessions did not satisfy the hopes of the people. During the government of Fadus, Theudas, who claimed to be a prophet and whom Josephus describes as a wizard, persuaded a large number to take up their possessions and follow him to the Jordan, saying that he would cleave the river asunder with a word of command and so provide them with an easy crossing. A squadron of cavalry despatched by Fadus took them alive, cut off the head of Theudas and brought it to Jerusalem.

Under the second procurator Tiberius Alexander, an apostate Jew of Alexandria, nephew of Philo, the Jews suffered from a great famine and were relieved by the queen of Adiabene, a proselyte to Judaism, who purchased corn from Egypt. The famine was perhaps interpreted by the Zealots as a punishment for their acquiescence in the rule of an apostate. At any rate Alexander crucified two sons of Simon the Galilean, who had headed a revolt in the time of the census. They had presumably followed the example of their father.

Under Ventidius Cumanus (48–52) the mutual hatred of Jews and Romans, Samaritans and Jews, found vent in insults and bloodshed. At the passover, on the fourth day of the feast, a soldier mounting guard at the porches of the Temple provoked an uproar, which ended in a massacre, by indecent exposure of his person. Some of the rebels intercepted a slave of the emperor on the high-road near the city and robbed him of his possessions. Troops were sent to pacify the country, and in one village a soldier found a copy of Moses' laws and tore it up in public with jeers and blasphemies. At this the Jews flocked to Caesarea, and were only restrained from a second outbreak by the execution of the soldier. Finally, the Samaritans attacked certain Galileans who were (as the custom was) travelling through Samaria to Jerusalem for the passover. Cumanus was bribed and refused to avenge the death of the Jews who were killed. So the Galileans with some of the lower classes of "the Jews" allied themselves with a "robber" and burned some of the Samaritan villages. Cumanus armed the Samaritans, and, with them and his own troops, defeated these Jewish marauders. The leading men of Jerusalem prevailed upon the rebels who survived the defeat to disperse. But the quarrel was referred first to the legate of Syria and then to the emperor. The emperor was still disposed to conciliate the Jews; and, at the instance of Agrippa, son of Agrippa I., Cumanus was banished.

37. *Felix and the Revolutionaries.*— Under Antonius Felix (52–60) the revolutionary movement grew and spread. The country, Josephus says, was full of "robbers" and "wizards." The high priest was murdered in the Temple by pilgrims who carried daggers under their cloaks. Wizards and impostors persuaded the multitude to follow them into the desert, and an Egyptian, claiming to be a prophet, led his followers to the Mount of Olives to see the walls of Jerusalem fall at his command. Such deceivers, according to Josephus, did no less than the murderers to destroy the happiness of the city. Their hands were cleaner but their thoughts were more impious, for they pretended to divine inspiration.

Felix the procurator—a king, as Tacitus says, in power and in mind a slave—tried in vain to put down the revolutionaries. The "chief-robber" Eleazar, who had plundered the country for twenty years, was caught and sent to Rome; countless robbers of less note were crucified. But this severity cemented the alliance of religious fanatics with the physical-force party and induced the ordinary citizens to join them, in spite of the punishments

which they received when captured. Agrippa II. received a kingdom—first Chalcis, and then the tetrarchies of Philip and Lysanias—but, though he had the oversight of the Temple and the nomination of the high priest, and enjoyed a reputation for knowledge of Jewish customs and questions, he was unable to check the growing power of the Zealots. His sister Drusilla had broken the Law by her marriage with Felix; and his own notorious relations with his sister Berenice, and his coins which bore the images of the emperors, were an open affront to the conscience of Judaism. When Felix was recalled by Nero in 60 the nation was divided against itself, the Gentiles within its gates were watching for their opportunity, and the chief priests robbed the lower priests with a high hand.

In Caesarea there had been for some time trouble between the Jewish and the Syrian inhabitants. The Jews claimed that the city was theirs, because King Herod had founded it. The Syrians admitted the fact, but insisted that it was a city for Greeks, as its temples and statues proved. Their rivalry led to street-fighting: the Jews had the advantage in respect of wealth and bodily strength, but the Greek party had the assistance of the soldiers who were stationed there. On one occasion Felix sent troops against the victorious Jews; but neither this nor the scourge and the prison, to which the leaders of both factions had been consigned, deterred them. The quarrel was therefore referred to the emperor Nero, who finally gave his decision in favour of the Syrians or Greeks. The result of this decision was that the synagogue at Caesarea was insulted on a Sabbath and the Jews left the city taking their books of the Law with them. So—Josephus says—the war began in the twelfth year of the reign of Nero (A.D. 66).

38. *Festus, Albinus and Florus.*—Meanwhile the procurators who succeeded Felix—Porcius Festus (60–62), Albinus (62–64) and Gessius Florus (64–66)—had in their several ways brought the bulk of the nation into line with the more violent of the Jews of Caesarea. Festus found Judaea infested with robbers and the sicarii, who mingled with the crowds at the feasts and stabbed their enemies with the daggers (*sicae*) from which their name was derived. He also had to deal with a wizard, who deceived many by promising them salvation and release from evils, if they would follow him into the desert. His attempts to crush all such disturbers of the peace were cut short by his death in his second year of office.

In the interval which elapsed before the arrival of Albinus, Ananus son of Annas was made high priest by Agrippa. With the apparent intention of restoring order in Jerusalem, he assembled the Sanhedrin, and being, as a Sadducee, cruel in the matter of penalties, secured the condemnation of certain law-breakers to death by stoning. For this he was deposed by Agrippa. Albinus fostered and turned to his profit the struggles of priests with priests and of Zealots with their enemies. The general release of prisoners, with which he celebrated his impending recall, is typical of his policy. Meanwhile Agrippa gave the Levites the right to wear the linen robe of the priests and sanctioned the use of the temple treasure to provide work—the paving of the city with white stones—for the workmen who had finished the Temple (64) and now stood idle. But everything pointed to the destruction of the city, which one Jesus had prophesied at the feast of tabernacles in 62. The Zealots' zeal for the Law and the Temple was flouted by their pro-Roman king.

By comparison with Florus, Albinus was, in the opinion of Josephus, a benefactor. When the news of the troubles at Caesarea reached Jerusalem, it became known also that Florus had seized seventeen talents of the temple treasure (66). At this the patience of the Jews was exhausted. The sacrilege, as they considered it, may have been an attempt to recover arrears of tribute; but they were convinced that Florus was providing for himself and not for Caesar. The revolutionaries went about among the excited people with baskets, begging coppers for their destitute and miserable governor. Stung by this insult, he neglected the fire of war which had been lighted at Caesarea, and hastened to Jerusalem. His soldiers sacked the upper city and killed 630 persons—men, women and children. Berenice, who was fulfilling a Nazarite vow, interposed in vain. Florus actually dared to scourge and crucify Jews who belonged to the Roman order of knights. For the moment the Jews were cowed, and next day they went submissively to greet the troops coming from Caesarea. Their greetings were unanswered, and they cried out against Florus. On this the soldiers drew their swords and drove the people into the city; but, once inside the city, the people stood at bay and succeeded in establishing themselves upon the temple-hill. Florus withdrew with all his troops, except one cohort, to Caesarea. The Jews laid complaint against him, and he complained against the Jews before the governor of Syria, Cestius Gallus, who sent an officer to inquire into the matter. Agrippa, who had hurried from Alexandria, entered Jerusalem with the governor's emissary. So long as he counselled submission to the overwhelming power of Rome the people complied, but when he spoke of obedience to Florus he was compelled to fly. The rulers, who desired peace, and upon whom Florus had laid the duty of restoring peace, asked him for troops; but the civil war ended in their complete discomfiture. The rebels abode by their decision to stop the daily sacrifice for the emperor; Agrippa's troops capitulated and marched out unhurt; and the Romans, who surrendered on the same condition and laid down their arms, were massacred. As if to emphasize the spirit and purpose of the rebellion, one and only one of the Roman soldiers was spared, because he promised to become a Jew even to the extent of circumcision.

39. *Josephus and the Zealots.*—Simultaneously with this massacre the citizens of Caesarea slaughtered the Jews who still remained there; and throughout Syria Jews effected—and suffered—reprisals. At length the governor of Syria approached the centre of the disturbance in Jerusalem, but retreated after burning down a suburb. In the course of his retreat he was attacked by the Jews and fled to Antioch, leaving them his engines of war. Some prominent Jews fled from Jerusalem—as from a sinking ship—to join him and carried the news to the emperor. The rest of the pro-Roman party were forced or persuaded to join the rebels and prepared for war on a grander scale. Generals were selected by the Sanhedrin from the aristocracy, who had tried to keep the peace and still hoped to make terms with Rome. Ananus the high priest, their leader, remained in command at Jerusalem; Galilee, where the first attack was to be expected, was entrusted to Josephus, the historian of the war. The revolutionary leaders, who had already taken the field, were superseded.

Josephus set himself to make an army of the inhabitants of Galilee, many of whom had no wish to fight, and to strengthen the strongholds. His organization of local government and his efforts to maintain law and order brought him into collision with the Zealots and especially with John of Giscala, one of their leaders. The people, whom he had tried to conciliate, were roused against him; John sent assassins and finally procured an order from Jerusalem for his recall. In spite of all this Josephus held his ground and by force or craft put down those who resisted his authority.

In the spring of 67 Vespasian, who had been appointed by Nero to crush the rebellion, advanced from his winter quarters at Antioch. The inhabitants of Sepphoris—whom Josephus had judged to be so eager for the war that he left them to build their wall for themselves—received a Roman garrison at their own request. Joined by Titus, Vespasian advanced into Galilee with three legions and the auxiliary troops supplied by Agrippa and other petty kings. Before his advance the army of Josephus fled. Josephus with a few stalwarts took refuge in Tiberias, and sent a letter to Jerusalem asking that he should be relieved of his command or supplied with an adequate force to continue the war. Hearing that Vespasian was preparing to besiege Jotapata, a strong fortress in the hills, which was held by other fugitives, Josephus entered it just before the road approaching it was made passable for the Roman horse and foot. A deserter announced his arrival to Vespasian, who rejoiced (Josephus says) that the cleverest of his enemies had thus voluntarily imprisoned himself. After some six weeks' siege the place was stormed, and its

exhausted garrison were killed or enslaved. Josephus, whose pretences had postponed the final assault, hid in a cave with forty men. His companions refused to permit him to surrender and were resolved to die. At his suggestion they cast lots, and the first man was killed by the second and so on, until all were dead except Josephus and (perhaps) one other. So Josephus saved them from the sin of suicide and gave himself up to the Romans. He had prophesied that the place would be taken—as it was—on the forty-seventh day, and now he prophesied that both Vespasian and his son Titus would reign over all mankind. The prophecy saved his life, though many desired his death, and the rumour of it produced general mourning in Jerusalem. By the end of the year (67) Galilee was in the hands of Vespasian, and John of Giscala had fled. Agrippa celebrated the conquest at Caesarea Philippi with festivities which lasted twenty days.

In accordance with ancient custom Jerusalem welcomed the fugitive Zealots. The result was civil war and famine. Ananus incited the people against these robbers, who arrested, imprisoned and murdered prominent friends of Rome, and arrogated to themselves the right of selecting the high priest by lot. The Zealots took refuge in the Temple and summoned the Idumaeans to their aid. Under cover of a storm, they opened the city-gates to their allies and proceeded to murder Ananus the high priest, and, against the verdict of a formal tribunal, Zacharias the son of Baruch in the midst of the Temple. The Idumaeans left, but John of Giscala remained master of Jerusalem.

40. *The Fall of Jerusalem.*—Vespasian left the rivals to consume one another and occupied his army with the subjugation of the country. When he had isolated the capital and was preparing to besiege it, the news of Nero's death reached him at Caesarea. For a year (June 68–June 69) he held his hand and watched events, until the robber-bands of Simon Bar-Giora (son of the proselyte) required his attention. But, before Vespasian took action to stop his raids, Simon had been invited to Jerusalem in the hope that he would act as a counterpoise to the tyrant John. And so, when Vespasian was proclaimed emperor in fulfilment of Josephus' prophecy, and deputed the command to Titus, there were three rivals at war in Jerusalem—Eleazar, Simon and John. The temple sacrifices were still offered and worshippers were admitted; but John's catapults were busy, and priest and worshippers at the altar were killed, because Eleazar's party occupied the inner courts of the Temple. A few days before the passover of 70 Titus advanced upon Jerusalem, but the civil war went on. When Eleazar opened the temple-gates to admit those who wished to worship God, John of Giscala introduced some of his own men, fully armed under their garments, and so got possession of the Temple. Titus pressed the attack, and the two factions joined hands at last to repel it. In spite of their desperate sallies, Jerusalem was surrounded by a wall, and its people, whose numbers were increased by those who had come up for the passover, were hemmed in to starve. The famine affected all alike—the populace, who desired peace, and the Zealots, who were determined to fight to the end. At last John of Giscala portioned out the sacred wine and oil, saying that they who fought for the Temple might fearlessly use its stores for their sustenance. Steadily the Romans forced their way through wall after wall, until the Jews were driven back to the Temple and the daily sacrifices came to an end on the 17th of July for lack of men. Once more Josephus appealed in vain to John and his followers to cease from desecrating and endangering the Temple. The siege proceeded and the temple-gates were burned. According to Josephus, Titus decided to spare the Temple, but—whether this was so or not—on the 10th of August it was fired by a soldier after a sortie of the Jews had been repelled. The legions set up their standards in the temple-court and hailed Titus as imperator.

Some of the Zealots escaped with John and Simon to the upper city and held it for another month. But Titus had already earned the triumph which he celebrated at Rome in 71. The Jews, wherever they might be, continued to pay the temple-tax; but now it was devoted to Jupiter Capitolinus. The Romans had taken their holy place, and the Law was all that was left to them.

41. *From* A.D. 70 *to* A.D. 135.—The destruction of the Temple carried with it the destruction of the priesthood and all its power. The priests existed to offer sacrifices, and by the Law no sacrifice could be offered except at the Temple of Jerusalem. Thenceforward the remnant of the Jews who survived the fiery ordeal formed a church rather than a nation or a state, and the Pharisees exercised an unchallenged supremacy. With the Temple and its Sadducean high priests perished the Sanhedrin in which the Sadducees had competed with the Pharisees for predominance. The Sicarii or Zealots who had appealed to the arm of flesh were exterminated. Only the teachers of the Law survived to direct the nation and to teach those who remained loyal Jews, how they should render to Caesar what belonged to Caesar, and to God what belonged to God. Here and there hot-headed Zealots rose up to repeat the errors and the disasters of their predecessors. But their fate only served to deepen the impression already stamped upon the general mind of the nation. The Temple was gone, but they had the Law. Already the Jews of the Dispersion had learned to supplement the Temple by the synagogue, and even the Jews of Jerusalem had not been free to spend their lives in the worship of the Temple. There were still, as always, rites which were independent of the place and of the priest; there had been a time when the Temple did not exist. So Judaism survived once more the destruction of its central sanctuary.

When Jerusalem was taken, the Sicarii still continued to hold three strongholds: one—Masada—for three years. But the commander of Masada realized at length that there was no hope of escaping captivity except by death, and urged his comrades to anticipate their fate. Each man slew his wife and children; ten men were selected by lot to slay the rest; one man slew the nine executioners, fired the palace and fell upon his sword. When the place was stormed the garrison consisted of two old women and five children who had concealed themselves in caves. So Vespasian obtained possession of Palestine—the country which Nero had given him—and for a time it was purged of revolutionaries. Early Christian writers assert that he proceeded to search out and to execute all descendants of David who might conceivably come forward as claimants of the vacant throne.

In Egypt and in Cyrene fugitive Zealots endeavoured to continue their rebellion against the emperor, but there also with disastrous results. The doors of the Temple in Egypt were closed, and its sacrifices which had been offered for 243 years were prohibited. Soon afterwards this temple also was destroyed. Apart from these local outbreaks, the Jews throughout the empire remained loyal citizens and were not molested. The general hope of the nation was not necessarily bound up with the house of David, and its realization was not incompatible with the yoke of Rome. They still looked for a true prophet, and meanwhile they had their rabbis.

Under Johanan ben Zaccai (*q.v.*) the Pharisees established themselves at Jamnia. A new Sanhedrin was formed there under the presidency of a ruler, who received yearly dues from all Jewish communities. The scribes through the synagogues preserved the national spirit and directed it towards the religious life which was prescribed by Scripture. The traditions of the elders were tested and gradually harmonized in their essentials. The canon of Scripture was decided in accordance with the touchstone of the Pentateuch. Israel had retired to their tents to study their Bible.

Under Vespasian and Titus the Jews enjoyed freedom of conscience and equal political rights with non-Jewish subjects of Rome. But Domitian, according to pagan historians, bore hardly on them. The temple-tax was strictly exacted; Jews who lived the Jewish life without openly confessing their religion and Jews who concealed their nationality were brought before the magistrates. Proselytes to Judaism were condemned either to death or to forfeiture of their property. Indeed it would seem that Domitian instituted a persecution of the Jews, to which Nerva his successor put an end. Towards the end of Trajan's reign (114–117) the Jews of Egypt and Cyrene rose against their Greek neighbours and set up a king. The rebellion spread to Cyprus; and when Trajan advanced from Mesopotamia into Parthia the Jews of Mesopotamia revolted. The massacres they perpetrated were avenged in kind and all the insurrections were quelled when Hadrian succeeded Trajan.

In 132 the Jews of Palestine rebelled again. Hadrian had forbidden circumcision as illegal mutilation: he had also replaced Jerusalem by a city of his own, Aelia Capitolina, and the temple of Yahweh by a temple of Jupiter. Apart from these bitter provocations—the prohibition of the sign of the covenant and the desecration of the sacred place—the Jews had a leader who was recognized as Messiah by the rabbi Aqiba. Though the majority of the rabbis looked for no such deliverer and refused to admit his claims, Barcochebas (*q.v.*) drew the people after him to struggle for their national independence. For three years and a half he held his own and issued coins in the name of Simon, which commemorate the liberation of Jerusalem. Some attempt was apparently made to rebuild the Temple; and the Jews of the Dispersion, who had perhaps been won over by Aqiba, supported the rebellion. Indeed even Gentiles helped them, so that the whole world (Dio Cassius says) was stirred. Hadrian sent his best generals against the rebels, and at length they were driven from Jerusalem to Bethar (135). The Jews were forbidden to enter the new city of Jerusalem on pain of death.

BIBLIOGRAPHY.—The most comprehensive of modern books dealing with the period is Emil Schürer, *Geschichte des Jüdischen Volkes im Zeitalter Jesu Christi* (3 vols., Leipzig, 1901 foll.). Exception has been taken to a certain lack of sympathy with the Jews, especially the rabbis, which has been detected in the author. But at least the book remains an indispensable storehouse of references to ancient and modern authorities. An earlier edition was translated into English under the title *History of the Jewish People* (Edinburgh, 1890, 1891). Of shorter histories, D. A. Schlatter's *Geschichte Israel's von Alexander dem Grossen bis Hadrian* (2nd ed., 1906) is perhaps the least dependent upon Schürer and attempts more than others to interpret the fragmentary evidence available. Dr R. H. Charles has done much by his editions to restore to their proper prominence in connexion with Jewish history the *Testaments of the Twelve Patriarchs*, *The Book of Jubilees*, *Enoch*, &c. But Schürer gives a complete bibliography to which it must suffice to refer. For the Sanhedrin see SYNEDRIUM. (J. H. A. H.)

III.—From the Dispersion to Modern Times

42. *The Later Empire.*—With the failure in 135 of the attempt led by Barcochebas to free Judaea from Roman domination a new era begins in the history of the Jews. The direct consequence of the failure was the annihilation of political nationality. Large numbers fell in the actual fighting. Dio Cassius puts the total at the incredible figure of 580,000, besides the incalculable number who succumbed to famine, disease and fire (Dio-Xiphilin lxix. 11–15). Jerusalem was rebuilt by Hadrian, orders to this effect being given during the emperor's first journey through Syria in 130, the date of his foundations at Gaza, Tiberias and Petra (Reinach, *Textes relatifs au Judaïsme*, p. 198). The new city was named Aelia Capitolina, and on the site of the temple of Jehovah there arose another temple dedicated to Jupiter. To Eusebius the erection of a temple of Venus over the sepulchre of Christ was an act of mockery against the Christian religion. Rome had been roused to unwonted fury, and the truculence of the rebels was matched by the cruelty of their masters. The holy city was barred against the Jews; they were excluded, under pain of death, from approaching within view of the walls. Hadrian's policy in this respect was matched later on by the edict of the caliph Omar (*c.* 638), who, like his Roman prototype, prevented the Jews from settling in the capital of their ancient country. The death of Hadrian and the accession of Antoninus Pius (138), however, gave the dispersed people of Palestine a breathing-space. Roman law was by no means intolerant to the Jews. Under the constitution of Caracalla (198–217) all inhabitants of the Roman empire enjoyed the civil rights of the *Cives Romani* (Scherer, *Die Rechtsverhällnisse der Juden*, p. 10).

Moreover, a spiritual revival mitigated the crushing effects of material ruin. The synagogue had become a firmly established institution, and the personal and social life of the masses had come under the control of communal law. The dialectic of the school proved stronger to preserve than the edge of the sword to destroy. Pharisaic Judaism, put to the severest test to which a religious system has ever been subject, showed itself able to control and idealize life in all its phases. Whatever question may be possible as to the force or character of Pharisaism in the time of Christ, there can be no doubt that it became both all-pervading and ennobling among the successors of Aqiba (*q.v.*), himself one of the martyrs to Hadrian's severity. Little more than half a century after the overthrow of the Jewish nationality, the Mishnah was practically completed, and by this code of rabbinic law—and law is here a term which includes the social, moral and religious as well as the ritual and legal phases of human activity—the Jewish people were organized into a community, living more or less autonomously under the Sanhedrin or Synedrium (*q.v.*) and its officials.

Judah the prince, the patriarch or *nāsī* who edited the Mishnah, died early in the 3rd century. With him the importance of the Palestinian patriarchate attained its zenith. Gamaliel II. of Jamnia (Jabne Yebneh) had been raised to this dignity a century before, and, as members of the house of Hillel and thus descendants of David, the patriarchs enjoyed almost royal authority. Their functions were political rather than religious, though their influence was by no means purely secular. They were often on terms of intimate friendship with the emperors, who scarcely interfered with their jurisdiction. As late as Theodosius I. (379–395) the internal affairs of the Jews were formally committed to the patriarchs, and Honorius (404) authorized the collection of the patriarch's tax (*aurum coronarium*), by which a revenue was raised from the Jews of the diaspora. Under Theodosius II. (408–450) the patriarchate was finally abolished after a régime of three centuries and a half (Graetz, *History of the Jews*, Eng. trans. vol. ii. ch. xxii.), though ironically enough the last holder of the office had been for a time elevated by the emperor to the rank of prefect. The real turning-point had been reached earlier, when Christianity became the state religion under Constantine I. in 312.

Religion under the Christian emperors became a significant source of discrimination in legal status, and non-conformity might reach so far as to produce complete loss of rights. The laws concerning the Jews had a repressive and preventive object: the repression of Judaism and the prevention of inroads of Jewish influences into the state religion. The Jews were thrust into a position of isolation, and the Code of Theodosius and other authorities characterize the Jews as a lower order of depraved beings (*inferiores* and *perversi*), their community as a godless, dangerous sect (*secta nefaria*, *feralis*), their religion a superstition, their assemblies for religious worship a blasphemy (*sacrilegi coetus*) and a contagion (Scherer, *op. cit.* pp. 11–12). Yet Judaism under Roman Christian law was a lawful religion (*religio licita*), Valentinian I. (364–375) forbade the quartering of soldiers in the synagogues, Theodosius I. prohibited interference with the synagogue worship ("Judaeorum sectam nulla lege prohibitam satis constat"), and in 412 a special edict of protection was issued. But the admission of Christians into the Jewish fold was punished by confiscation of goods (357), the erection of new synagogues was arrested by Theodosius II. (439) under penalty of a heavy fine, Jews were forbidden to hold Christian slaves under pain of death (423). A similar penalty attached to intermarriage between Jews and Christians, and an attempt was made to nullify all Jewish marriages which were not celebrated in accordance with Roman law. But Justinian (527–565) was the first to interfere directly in the religious institutions of the Jewish people. In 553 he interdicted the use of the Talmud (which had then not long been completed), and the Byzantine emperors of the 8th and 9th centuries passed even more intolerant regulations. As regards civil law, Jews were at first allowed to settle disputes between Jew and Jew before their own courts, but Justinian denied to them and to heretics the right to appear as witnesses in the public courts against orthodox Christians. To Constantine V. (911–959) goes back the Jewish form of oath which in its later development required the Jew to gird himself with thorns; stand in water; and, holding the scroll of the Torah in his hand, invoke upon his person the leprosy of Naaman, the curse of Eli and the fate of Korah's sons should he perjure himself. This was the original of all the medieval forms of oath *more judaico*, which still prevailed in many European lands till the 19th century, and are even now maintained by some of the Rumanian courts. Jews were by the law of Honorius excluded from the army, from public offices and dignities (418), from acting as advocates (425); only the curial offices were open to them. Justinian gave the finishing touch by proclaiming in 537 the Jews absolutely ineligible for any honour whatsoever ("honore fruantur nullo").

43. *Judaism in Babylonia.*—The Jews themselves were during this period engaged in building up a system of isolation on their own side, but they treated Roman law with greater hospitality than it meted out to them. The Talmud shows the influence of that law in many points, and may justly be compared to it as a monument of codification based on great principles. The Palestinian Talmud was completed in the 4th century, but the better known and more influential version was compiled in Babylonia about 500. The land which, a millennium before, had been a prison for the Jewish exiles was now their asylum of refuge. For a long time it formed their second fatherland. Here, far more than on Palestinian soil, was built the enduring edifice of rabbinism. The population of the southern part of Mesopotamia —the strip of land enclosed between the Tigris and the Euphrates —was, according to Graetz, mainly Jewish; while the district extending for about 70 m. on the east of the Euphrates, from Nehardea in the north to Sura in the south, became a new Palestine with Nehardea for its Jerusalem. The Babylonian Jews were practically independent, and the exilarch (*resh-galutha*) or prince of the captivity was an official who ruled the community as a vassal of the Persian throne. The exilarch claimed, like the Palestinian patriarch, descent from the royal house of David, and exercised most of the functions of

government. Babylonia had risen into supreme importance for Jewish life at about the time when the Mishnah was completed. The great rabbinic academies at Sura and Nehardea, the former of which retained something of its dominant rôle till the 11th century, had been founded, Sura by Abba Arika (*q.v.*) (*c.* 219), but Nehardea, the more ancient seat of the two, famous in the 3rd century for its association with Abba Arika's renowned contemporary Samuel, lost its Jewish importance in the age of Mahomet.

To Samuel of Nehardea (*q.v.*) belongs the honour of formulating the principle which made it possible for Jews to live under alien laws. Jeremiah had admonished his exiled brothers: "Seek ye the peace of the city whither I have caused you to be carried away captives, and pray unto the Lord for it: for in the peace thereof shall ye have peace" (Jer. xxix. 7). It was now necessary to go farther, and the rabbis proclaimed a principle which was as influential with the synagogue as "Give unto Caesar that which is Caesar's" became with the Church. "The law of the government is law" (*Baba Qama* 113 b.), said Samuel, and ever since it has been a religious duty for the Jews to obey and accommodate themselves as far as possible to the laws of the country in which they are settled or reside. In 259 Odenathus, the Palmyrene adventurer whose memory has been eclipsed by that of his wife Zenobia, laid Nehardea waste for the time being, and in its neighbourhood arose the academy of Pumbedita (Pombeditha) which became a new focus for the intellectual life of Israel in Babylonia. These academies were organized on both scholastic and popular lines; their constitution was democratic. An outstanding feature was the *Kallah* assemblage twice a year (in Elul at the close of the summer, and in Adar at the end of the winter), when there were gathered together vast numbers of outside students of the most heterogeneous character as regards both age and attainments. Questions received from various quarters were discussed and the final decision of the *Kallah* was signed by the *Resh-Kallah* or president of the general assembly, who was only second in rank to the *Resh-Metibta*, or president of the scholastic sessions. Thus the Babylonian academies combined the functions of specialist law-schools, universities and popular parliaments. They were a unique product of rabbinism; and the authors of the system were also the compilers of its literary expression, the Talmud.

44. *Judaism in Islam.*—Another force now appears on the scene. The new religion inaugurated by Mahomet differed in its theory from the Roman Catholic Church. The Church, it is true, in council after council, passed decisions unfriendly to the Jews. From the synod at Elvira in the 4th century this process began, and it was continued in the West-Gothic Church legislation, in the Lateran councils (especially the fourth in 1215), and in the council of Trent (1563). The anti-social tendency of these councils expressed itself in the infliction of the badge, in the compulsory domicile of Jews within ghettos, and in the erection of formidable barriers against all intercourse between church and synagogue. The protective instinct was responsible for much of this interference with the natural impulse of men of various creeds towards mutual esteem and forbearance. The church, it was conceived, needed defence against the synagogue at all hazards, and the fear that the latter would influence and dominate the former was never absent from the minds of medieval ecclesiastics. But though this defensive zeal led to active persecution, still in theory Judaism was a tolerated religion wherever the Church had sway, and many papal bulls of a friendly character were issued throughout the middle ages (Scherer, p. 32 seq.).

Islam, on the other hand, had no theoretic place in its scheme for tolerated religions; its principle was fundamentally intolerant. Where the mosque was erected, there was no room for church or synagogue. The caliph Omar initiated in the 7th century a code which required Christians and Jews to wear peculiar dress, denied them the right to hold state offices or to possess land, inflicted a poll-tax on them, and while forbidding them to enter mosques, refused them the permission to build new places of worship for themselves. Again and again these ordinances were repeated in subsequent ages, and intolerance for infidels is still a distinct feature of Mahommedan law. But Islam has often shown itself milder in fact than in theory, for its laws were made to be broken. The medieval Jews on the whole lived, under the crescent, a fuller and freer life than was possible to them under the cross. Mahommedan Babylonia (Persia) was the home of the gaonate (see GAON), the central authority of religious Judaism, whose power transcended that of the secular exilarchate, for it influenced the synagogue far and wide, while the exilarchate was local. The gaonate enjoyed a practical tolerance remarkable when contrasted with the letter of Islamic law. And as the Bagdad caliphate tended to become more and more supreme in Islam, so the gaonate too shared in this increased influence. Not even the Qaraite schism was able to break the power of the geonim. But the dispersion of the Jews was proceeding in directions which carried masses from the Asiatic inland to the Mediterranean coasts and to Europe.

45. *In Medieval Europe: Spain.*—This dispersion of the Jews had begun in the Hellenistic period, but it was after the Barcochebas war that it assumed great dimensions in Europe. There were Jews in the Byzantine empire, in Rome, in France and Spain at very early periods, but it is with the Arab conquest of Spain that the Jews of Europe began to rival in culture and importance their brethren of the Persian gaonate. Before this date the Jews had been learning the rôle they afterwards filled, that of the chief promoters of international commerce. Already under Charlemagne this development is noticeable; in his generous treatment of the Jews this Christian emperor stood in marked contrast to his contemporary the caliph Harun al-Rashid, who persecuted Jews and Christians with equal vigour. But by the 10th century Judaism had received from Islam something more than persecution. It caught the contagion of poetry, philosophy and science.[1] The schismatic Qaraites initiated or rather necessitated a new Hebrew philology, which later on produced Qimḥi, the gaon Saadiah founded a Jewish philosophy, the statesman Ḥasdai introduced a new Jewish culture—and all this under Mahommedan rule. It is in Spain that above all the new spirit manifested itself. The distinctive feature of the Spanish-Jewish culture was its comprehensiveness. Literature and affairs, science and statecraft, poetry and medicine, these various expressions of human nature and activity were so harmoniously balanced that they might be found in the possession of one and the same individual. The Jews of Spain attained to high places in the service of the state from the time of the Moorish conquest in 711. From Ḥasdai ibn Shaprut in the 10th century and Samuel the nagid in the 11th the line of Jewish scholar-statesmen continued till we reach Isaac Abrabanel in 1492, the date of the expulsion of the Jews from Spain. This last-named event synchronized with the discovery of America; Columbus being accompanied by at least one Jewish navigator. While the Spanish period of Jewish history was thus brilliant from the point of view of public service, it was equally notable on the literary side. Hebrew religious poetry was revived for synagogue hymnology, and, partly in imitation of Arabian models, a secular Hebrew poetry was developed in metre and rhyme. The new Hebrew *Piyut* found its first important exponent in Kalir, who was not a Spaniard. But it is to Spain that we must look for the best of the medieval poets of the synagogue, greatest among them being Ibn Gabirol and Halevi. So, too, the greatest Jew of the middle ages, Maimonides, was a Spaniard. In him culminates the Jewish expression of the Spanish-Moorish culture; his writings had an influence on European scholasticism and contributed significant elements to the philosophy of Spinoza. But the reconquest of Andalusia by the Christians associated towards the end of the 15th century with the establishment of the Inquisition, introduced a spirit of intolerance which led to the expulsion of the Jews and Moors. The consequences of this blow were momentous; it may be said to inaugurate the ghetto period. In Spain Jewish life had participated in the general life, but the expulsion—while it dispersed

[1] On the writers mentioned below see articles *s.v.*

the Spanish Jews in Poland, Turkey, Italy and France, and thus in the end contributed to the Jewish emancipation at the French Revolution—for the time drove the Jews within their own confines and barred them from the outside world.[1]

46. *In France, Germany, England, Italy.*—In the meantime Jewish life had been elsewhere subjected to other influences which produced a result at once narrower and deeper. Under Charlemagne, the Jews, who had begun to settle in Gaul in the time of Caesar, were more than tolerated. They were allowed to hold land and were encouraged to become—what their ubiquity qualified them to be—the merchant princes of Europe. The reign of Louis the Pious (814–840) was, as Graetz puts it, "a golden era for the Jews of his kingdom, such as they had never enjoyed, and were destined never again to enjoy in Europe"—prior, that is, to the age of Mendelssohn. In Germany at the same period the feudal system debarred the Jews from holding land, and though there was as yet no material persecution they suffered moral injury by being driven exclusively into finance and trade. Nor was there any widening of the general horizon such as was witnessed in Spain. The Jewries of France and Germany were thus thrown upon their own cultural resources. They rose to the occasion. In Mainz there settled in the 10th century Gershom, the "light of the exile," who, about 1000, published his ordinance forbidding polygamy in Jewish law as it had long been forbidden in Jewish practice. This ordinance may be regarded as the beginning of the Synodal government of Judaism, which was a marked feature of medieval life in the synagogues of northern and central Europe from the 12th century. Soon after Gershom's death, Rashi (1040–1106) founded at Troyes a new school of learning. If Maimonides represented Judaism on its rational side, Rashi was the expression of its traditions.

French Judaism was thus in a sense more human if less humane than the Spanish variety; the latter produced thinkers, statesmen, poets and scientists; the former, men with whom the Talmud was a passion, men of robuster because of more naïve and concentrated piety. In Spain and North Africa persecution created that strange and significant phenomenon Maranism or crypto-Judaism, a public acceptance of Islam or Christianity combined with a private fidelity to the rites of Judaism. But in England, France and Germany persecution altogether failed to shake the courage of the Jews, and martyrdom was borne in preference to ostensible apostasy. The crusades subjected the Jews to this ordeal. The evil was wrought, not by the regular armies of the cross who were inspired by noble ideals, but by the undisciplined mobs which, for the sake of plunder, associated themselves with the genuine enthusiasts. In 1096 massacres of Jews occurred in many cities of the Rhineland. During the second crusade (1145–1147) Bernard of Clairvaux heroically protested against similar inhumanities. The third crusade, famous for the participation of Richard I., was the occasion for bloody riots in England, especially in York, where 150 Jews immolated themselves to escape baptism. Economically and socially the crusades had disastrous effects upon the Jews (see J. Jacobs, *Jewish Encyclopedia*, iv. 379). Socially they suffered by the outburst of religious animosity. One of the worst forms taken by this ill-will was the oft-revived myth of ritual murder (*q.v.*), and later on when the Black Death devastated Europe (1348–1349) the Jews were the victims of an odious charge of well-poisoning. Economically the results were also injurious. "Before the crusades the Jews had practically a monopoly of trade in Eastern products, but the closer connexion between Europe and the East brought about by the crusades raised up a class of merchant traders among the Christians, and from this time onwards restrictions on the sale of goods by Jews became frequent" (*op. cit.*). After the second crusade the German Jews fell into the class of *servi camerae*, which at first only implied that they enjoyed the immunity of imperial servants, but afterwards made of them slaves and pariahs. At the personal whim of rulers, whether royal or of lower rank, the Jews were expelled from states and principalities and were reduced to a condition of precarious uncertainty as to what the morrow might bring forth. Pope Innocent III. gave strong impetus to the repression of the Jews, especially by ordaining the wearing of a badge. Popular animosity was kindled by the enforced participation of the Jews in public disputations. In 1306 Philip IV. expelled the Jews from France, nine years later Louis X. recalled them for a period of twelve years. Such vicissitudes were the ordinary lot of the Jews for several centuries, and it was their own inner life—the pure life of the home, the idealism of the synagogue, and the belief in ultimate Messianic redemption—that saved them from utter demoralization and despair. Curiously enough in Italy—and particularly in Rome—the external conditions were better. The popes themselves, within their own immediate jurisdiction, were often far more tolerant than their bulls issued for foreign communities, and Torquemada was less an expression than a distortion of the papal policy. In the early 14th century, the age of Dante, the new spirit of the Renaissance made Italian rulers the patrons of art and literature, and the Jews to some extent shared in this gracious change. Robert of Aragon—vicar-general of the papal states—in particular encouraged the Jews and supported them in their literary and scientific ambitions. Small coteries of Jewish minor poets and philosophers were formed, and men like Kalonymos and Immanuel—Dante's friend—shared the versatility and culture of Italy. But in Germany there was no echo of this brighter note. Persecution was elevated into a system, a poll-tax was exacted, and the rabble was allowed (notably in 1336–1337) to give full vent to its fury. Following on this came the Black Death with its terrible consequences in Germany; even in Poland, where the Jews had previously enjoyed considerable rights, extensive massacres took place.

In effect the Jews became outlaws, but their presence being often financially necessary, certain officials were permitted to "hold Jews," who were liable to all forms of arbitrary treatment on the side of their "owners." The Jews had been among the first to appreciate the commercial advantages of permitting the loan of money on interest, but it was the policy of the Church that drove the Jews into money-lending as a characteristic trade. Restrictions on their occupations were everywhere common, and as the Church forbade Christians to engage in usury, this was the only trade open to the Jews. The excessive demands made upon the Jews forbade a fair rate of interest. "The Jews were unwilling sponges by means of which a large part of the subjects' wealth found its way into the royal exchequer" (Abrahams, *Jewish Life in the Middle Ages*, ch. xii.). Hence, though this procedure made the Jews intensely obnoxious to the peoples, they became all the more necessary to the rulers. A favourite form of tolerance was to grant a permit to the Jews to remain in the state for a limited term of years; their continuance beyond the specified time was illegal and they were therefore subject to sudden banishment. Thus a second expulsion of the Jews of France occurred in 1394. Early in the 15th century John Hus—under the inspiration of Wycliffe—initiated at Prague the revolt against the Roman Catholic Church. The Jews suffered in the persecution that followed, and in 1420 all the Austrian Jews were thrown into prison. Martin V. published a favourable bull, but it was ineffectual. The darkest days were nigh. Pope Eugenius (1442) issued a fiercely intolerant missive; the Franciscan John of Capistrano moved the masses to activity by his eloquent denunciations; even Casimir IV. revoked the privileges of the Jews in Poland, when the Turkish capture of Constantinople (1453) offered a new asylum for the hunted Jews of Europe. But in Europe itself the catastrophe was not arrested. The Inquisition in Spain led to the expulsion of the Jews (1492), and this event involved not only the latter but the whole of the Jewish people. "The Jews everywhere felt as if the temple had again been destroyed" (Graetz). Nevertheless, the result was not all evil. If fugitives are for the next half-century to be met with in all parts of Europe, yet, especially in the Levant, there grew up thriving Jewish

[1] For the importance of the Portuguese Jews, see PORTUGAL: *History*.

communities often founded by Spanish refugees. Such incidents as the rise of Joseph Nasi (*q.v.*) to high position under the Turkish government as duke of Naxos mark the coming change. The reformation as such had no favourable influence on Jewish fortunes in Christian Europe, though the championship of the cause of toleration by Reuchlin had considerable value. But the age of the ghetto (*q.v.*) had set in too firmly for immediate amelioration to be possible. It is to Holland and to the 17th century that we must turn for the first real steps towards Jewish emancipation.

47. *Period of Emancipation.*—The ghetto, which had prevailed more or less rigorously for a long period, was not formally prescribed by the papacy until the beginning of the 16th century. The same century was not ended before the prospect of liberty dawned on the Jews. Holland from the moment that it joined the union of Utrecht (1579) deliberately set its face against religious persecution (*Jewish Encyclopedia*, i. 537). Maranos, fleeing to the Netherlands, were welcomed; the immigrants were wealthy, enterprising and cultured. Many Jews, who had been compelled to conceal their faith, now came into the open. By the middle of the 17th century the Jews of Holland had become of such importance that Charles II. of England (then in exile) entered into negotiations with the Amsterdam Jews (1656). In that same year the Amsterdam community was faced by a serious problem in connexion with Spinoza. They brought themselves into notoriety by excommunicating the philosopher—an act of weak self-defence on the part of men who had themselves but recently been admitted to the country, and were timorous of the suspicion that they shared Spinoza's then execrated views. It is more than a mere coincidence that this step was taken during the absence in England of one of the ablest and most notable of the Amsterdam rabbis. At the time, Menasseh ben Israel (*q.v.*) was in London, on a mission to Cromwell. The Jews had been expelled from England by Edward I., after a sojourn in the country of rather more than two centuries, during which they had been the licensed and oppressed money-lenders of the realm, and had—through the special exchequer of the Jews—been used by the sovereign as a means of extorting a revenue from his subjects. In the 17th century a considerable number of Jews had made a home in the English colonies, where from the first they enjoyed practically equal rights with the Christian settlers. Cromwell, upon the inconclusive termination of the conference summoned in 1655 at Whitehall to consider the Jewish question, tacitly assented to the return of the Jews to this country, and at the restoration his action was confirmed. The English Jews "gradually substituted for the personal protection of the crown, the sympathy and confidence of the nation" (L. Wolf, *Menasseh ben Israel's Mission to Cromwell*, p. lxxv.). The city of London was the first to be converted to the new attitude. "The wealth they brought into the country, and their fruitful commercial activity, especially in the colonial trade, soon revealed them as an indispensable element of the prosperity of the city. As early as 1668, Sir Josiah Child, the millionaire governor of the East India company, pleaded for their naturalization on the score of their commercial utility. For the same reason the city found itself compelled at first to connive at their illegal representation on 'Change, and then to violate its own rules by permitting them to act as brokers without previously taking up the freedom. At this period they controlled more of the foreign and colonial trade than all the other alien merchants in London put together. The momentum of their commercial enterprise and stalwart patriotism proved irresistible. From the exchange to the city council chamber, thence to the aldermanic court, and eventually to the mayoralty itself, were inevitable stages of an emancipation to which their large interests in the city and their high character entitled them. Finally the city of London—not only as the converted champion of religious liberty but as the convinced apologist of the Jews—sent Baron Lionel de Rothschild to knock at the door of the unconverted House of Commons as parliamentary representative of the first city in the world" (Wolf, *loc. cit.*).

The pioneers of this emancipation in Holland and England were Sephardic (or Spanish) Jews—descendants of the Spanish exiles. In the meantime the Ashkenazic (or German) Jews had been working out their own salvation. The chief effects of the change were not felt till the 18th century. In England emancipation was of democratic origin and concerned itself with practical questions. On the Continent, the movement was more aristocratic and theoretical; it was part of the intellectual renaissance which found its most striking expression in the principles of the French Revolution. Throughout Europe the 18th century was less an era of stagnation than of transition. The condition of the European Jews seems, on a superficial examination, abject enough. But, excluded though they were from most trades and occupations, confined to special quarters of the city, disabled from sharing most of the amenities of life, the Jews nevertheless were gradually making their escape from the ghetto and from the moral degeneration which it had caused. Some ghettos (as in Moravia) were actually not founded till the 18th century, but the careful observer can perceive clearly that at that period the ghetto was a doomed institution. In the "dark ages" Jews enjoyed neither rights nor privileges; in the 18th century they were still without rights but they had privileges. A grotesque feature of the time in Germany and Austria was the class of court Jews, such as the Oppenheims, the personal favourites of rulers and mostly their victims when their usefulness had ended. These men often rendered great services to their fellow-Jews, and one of the results was the growth in Jewish society of an aristocracy of wealth, where previously there had been an aristocracy of learning. Even more important was another privileged class—that of the *Schutz-Jude* (protected Jew). Where there were no rights, privileges had to be bought. While the court Jews were the favourites of kings, the protected Jews were the protégés of town councils. Corruption is the frequent concomitant of privilege, and thus the town councils often connived for a price at the presence in their midst of Jews whose admission was illegal. Many Jews found it possible to evade laws of domicile by residing in one place and trading in another. Nor could they be effectually excluded from the fairs, the great markets of the 18th century. The Sephardic Jews in all these respects occupied a superior position, and they merited the partiality shown to them. Their personal dignity and the vast range of their colonial enterprises were in striking contrast to the retail traffic of the Ashkenazim and their degenerate bearing and speech. Peddling had been forced on the latter by the action of the gilds which were still powerful in the 18th century on the Continent. Another cause may be sought in the Cossack assaults on the Jews at an earlier period. Crowds of wanderers were to be met on every road; Germany, Holland and Italy were full of Jews who, pack on shoulder, were seeking a precarious livelihood at a time when peddling was neither lucrative nor safe.

But underneath all this were signs of a great change. The 18th century has a goodly tale of Jewish artists in metal-work, makers of pottery, and (wherever the gilds permitted it) artisans and wholesale manufacturers of many important commodities. The last attempts at exclusion were irritating enough; but they differed from the earlier persecution. Such strange enactments as the *Familianten-Gesetz*, which prohibited more than one member of a family from marrying, broke up families by forcing the men to emigrate. In 1781 Dohm pointed to the fact that a Jewish father could seldom hope to enjoy the happiness of living with his children. In that very year, however, Joseph II. initiated in Austria a new era for the Jews. This Austrian reformation was so typical of other changes elsewhere, and so expressive of the previous disabilities of the Jews, that, even in this rapid summary, space must be spared for some of the details supplied by Graetz. "By this new departure (19th of October 1781) the Jews were permitted to learn handicrafts, arts and sciences, and with certain restrictions to devote themselves to agriculture. The doors of the universities and academies, hitherto closed to them, were thrown open. . . . An ordinance of November 2 enjoined that the Jews were everywhere considered fellow-men, and all excesses against them were

to be avoided. The Leibzoll (body-tax) was also abolished, in addition to the special law-taxes, the passport duty, the night-duty and all similiar imposts which had stamped the Jews as outcast, for they were now (Dec. 19) to have equal rights with the Christian inhabitants." The Jews were not, indeed, granted complete citizenship, and their residence and public worship in Vienna and other Austrian cities were circumscribed and even penalized. "But Joseph II. annulled a number of vexatious, restrictive regulations, such as the compulsory wearing of beards, the prohibition against going out in the forenoon on Sundays or holidays, or frequenting public pleasure resorts. The emperor even permitted Jewish wholesale merchants, notables and their sons, to wear swords (January 2, 1782), and especially insisted that Christians should behave in a friendly manner towards Jews."

48. *The Mendelssohn Movement.*—This notable beginning to the removal of "the ignominy of a thousand years" was causally connected with the career of Moses Mendelssohn (1729–1786; *q.v.*). He found on both sides an unreadiness for approximation: the Jews had sunk into apathy and degeneration, the Christians were still moved by hereditary antipathy. The failure of the hopes entertained of Sabbatai Zebi (*q.v.*) had plunged the Jewries of the world into despair. This Smyrnan pretender not only proclaimed himself Messiah (*c.* 1650) but he was accepted in that rôle by vast numbers of his brethren. At the moment when Spinoza was publishing a system which is still a dominating note of modern philosophy, this other son of Israel was capturing the very heart of Jewry. His miracles were reported and eagerly believed everywhere; "from Poland, Hamburg and Amsterdam treasures poured into his court; in the Levant young men and maidens prophesied before him; the Persian Jews refused to till the fields. 'We shall pay no more taxes,' they said, 'our Messiah is come.'" The expectation that he would lead Israel in triumph to the Holy Land was doomed to end in disappointment. Sabbatai lacked one quality without which enthusiasm is ineffective; he failed to believe in himself. At the critical moment he embraced Islam to escape death, and though he was still believed in by many—it was not Sabbatai himself but a phantom resemblance that had assumed the turban!—his meteoric career did but colour the sky of the Jews with deeper blackness. Despite all this, one must not fall into the easy error of exaggerating the degeneration into which the Jewries of the world fell from the middle of the 17th till the middle of the 18th century. For Judaism had organized itself; the *Shulḥan aruch* of Joseph Qaro (*q.v.*), printed in 1564 within a decade of its completion, though not accepted without demur, was nevertheless widely admitted as the code of Jewish life. If in more recent times progress in Judaism has implied more or less of revolt against the rigors and fetters of Qaro's code, yet for 250 years it was a powerful safeguard against demoralization and stagnation. No community living in full accordance with that code could fail to reach a high moral and intellectual level.

It is truer to say that on the whole the Jews began at this period to abandon as hopeless the attempt to find a place for themselves in the general life of their country. Perhaps they even ceased to desire it. Their children were taught without any regard to outside conditions, they spoke and wrote a jargon, and their whole training, both by what it included and by what it excluded, tended to produce isolation from their neighbours. Moses Mendelssohn, both by his career and by his propaganda, for ever put an end to these conditions; he more than any other man. Born in the ghetto of Dessau, he was not of the ghetto. At the age of fourteen he found his way to Berlin, where Frederick the Great, inspired by the spirit of Voltaire, held the maxim that "to oppress the Jews never brought prosperity to any government." Mendelssohn became a warm friend of Lessing, the hero of whose drama *Nathan the Wise* was drawn from the Dessau Jew. Mendelssohn's *Phaedo*, on the immortality of the soul, brought the author into immediate fame, and the simple home of the "Jewish Plato" was sought by many of the leaders of Gentile society in Berlin. Mendelssohn's translation of the Pentateuch into German with a new commentary by himself and others introduced the Jews to more modern ways of thinking. Two results emanated from Mendelssohn's work. A new school of scientific study of Judaism emerged, to be dignified by the names of Leopold Zunz (*q.v.*), H. Graetz (*q.v.*) and many others. On the other hand Mendelssohn by his pragmatic conception of religion (specially in his *Jerusalem*) weakened the belief of certain minds in the absolute truth of Judaism, and thus his own grandchildren (including the famous musician Felix Mendelssohn–Bartholdy) as well as later Heine, Börne, Gans and Neander, embraced Christianity. Within Judaism itself two parties were formed, the Liberals and the Conservatives, and as time went on these tendencies definitely organized themselves. Holdheim (*q.v.*) and Geiger (*q.v.*) led the reform movement in Germany and at the present day the effects of the movement are widely felt in America on the Liberal side and on the opposite side in the work of the neo-orthodox school founded by S. R. Hirsch (*q.v.*). Modern seminaries were established first in Breslau by Zacharias Fränkel (*q.v.*) and later in other cities. Brilliant results accrued from all this participation in the general life of Germany. Jews, engaged in all the professions and pursuits of the age, came to the front in many branches of public life, claiming such names as Riesser (d. 1863) and Lasker in politics, Auerbach in literature, Rubenstein and Joachim in music, Traube in medicine, and Lazarus in psychology. Especially famous have been the Jewish linguists, pre-eminent among them Theodor Benfey (1809–1881), the pioneer of modern comparative philology; and the Greek scholar and critic Jakob Bernays (1824–1881).

49. *Effect of the French Revolution.*—In close relation to the German progress in Mendelssohn's age, events had been progressing in France, where the Revolution did much to improve the Jewish condition, thanks largely to the influence of Mirabeau. In 1807 Napoleon convoked a Jewish assembly in Paris. Though the decisions of this body had no binding force on the Jews generally, yet in some important particulars its decrees represent principles widely adopted by the Jewish community. They proclaim the acceptance of the spirit of Mendelssohn's reconciliation of the Jews to modern life. They assert the citizenship and patriotism of Jews, their determination to accommodate themselves to the present as far as they could while retaining loyalty to the past. They declare their readiness to adapt the law of the synagogue to the law of the land, as for instance in the question of marriage and divorce. No Jew, they decided, may perform the ceremony of marriage unless civil formalities have been fulfilled; and divorce is allowed to the Jews only if and so far as it is confirmatory of a legal divorce pronounced by the civil law of the land. The French assembly did not succeed in obtaining formal assent to these decisions (except from Frankfort and Holland), but they gained the practical adhesion of the majority of Western and American Jews. Napoleon, after the report of the assembly, established the consistorial system which remained in force, with its central consistory in the capital, until the recent separation of church and state. Many French Jews acquired fame, among them the ministers Crémieux (1796–1879), Fould, Gondchaux and Raynal; the archaeologists and philologians Oppert, Halévy, Munk, the Derenbourgs, Darmesteters and Reinachs; the musicians Halévy, Waldteufel and Meyerbeer; the authors and dramatists Catulle Mendès and A. d'Ennery, and many others, among them several distinguished occupants of civil and military offices.

50. *Modern Italy.*—Similar developments occurred in other countries, though it becomes impossible to treat the history of the Jews, from this time onwards, in general outline. We must direct our attention to the most important countries in such detail as space permits. And first as to Italy, where the Jews in a special degree have identified themselves with the national life. The revolutions of 1848, which greatly affected the position of the Jews in several parts of Europe, brought considerable gain to the Jews of Italy. During the war against Austria in the year named, Isaac Pesaro Marogonato was finance minister in Venice. Previously to this date the Jews were still confined to the ghetto, but in 1859, in the Italy united under Victor

Emanuel II., the Jews obtained complete rights, a privilege which was extended also to Rome itself in 1870. The Italian Jews devoted themselves with ardour to the service of the state. Isaac Artom was Cavour's secretary, L' Olper a counsellor of Mazzini. "The names of the Jewish soldiers who died in the cause of Italian liberty were placed along with those of their Christian fellow soldiers on the monuments erected in their honour" (*Jewish Encyclopedia*, vii. 10). More recently men like Wollemberg, Ottolenghi and Luzzatti rose to high positions as ministers of state. Most noted of recent Jewish scholars in Italy was S. D. Luzzatto (*q.v.*).

51. *Austria.*—From Italy we may turn to the country which so much influenced Italian politics, Austria, which had founded the system of "Court Jews" in 1518, had expelled the Jews from Vienna as late as 1670, when the synagogue of that city was converted into a church. But economic laws are often too strong for civil vagaries or sectarian fanaticism, and as the commerce of Austria suffered by the absence of the Jews, it was impossible to exclude the latter from the fairs in the provinces of from the markets of the capital. As has been pointed out above, certain protected Jews were permitted to reside in places where the expulsion of the Jews had been decreed. But Maria Theresa (1740–1780) was distinguished for her enmity to the Jews, and in 1744 made a futile attempt to secure their expulsion from Bohemia. "In 1760 she issued an order that all unbearded Jews should wear a yellow badge on their left arm" (*Jewish Encyclopedia*, ii. 330). The most petty limitations of Jewish commercial activity continued; thus at about this period the community of Prague, in a petition, "complain that they are not permitted to buy victuals in the market before a certain hour, vegetables not before 9 and cattle not before 11 o'clock; to buy fish is sometimes altogether prohibited; Jewish druggists are not permitted to buy victuals at the same time with Christians" (*op. cit.*). So, too, with taxation. It was exorbitant and vexatious. To pay for rendering inoperative the banishment edict of 1744, the Jews were taxed 3,000,000 florins annually for ten years. In the same year it was decreed that the Jews should pay "a special tax of 40,000 florins for the right to import their citrons for the feast of booths." Nevertheless, Joseph II. (1780–1790) inaugurated a new era for the Jews of his empire. Soon after his accession he abolished the distinctive Jewish dress, abrogated the poll-tax, admitted the Jews to military service and their children to the public schools, and in general opened the era of emancipation by the *Toleranzpatent* of 1782. This enlightened policy was not continued by the successors of Joseph II. Under Francis II. (1792–1835) economic and social restrictions were numerous. Agriculture was again barred; indeed the Vienna congress of 1815 practically restored the old discriminations against the Jews. As time went on, a more progressive policy intervened, the special form of Jewish oath was abolished in 1846, and in 1848, as a result of the revolutionary movement in which Jews played an active part, legislation took a more liberal turn. Francis Joseph I. ascended the throne in that year, and though the constitution of 1849 recognized the principle of religious liberty, an era of reaction supervened, especially when "the concordat of 1855 delivered Austria altogether into the hands of the clericals." But the day of medieval intolerance had passed, and in 1867 the new constitution "abolished all disabilities on the ground of religious differences," though anti-Semitic manipulation of the law by administrative authority has led to many instances of intolerance. Many Jews have been members of the Reichsrath, some have risen to the rank of general in the army, and Austrian Jews have contributed their quota to learning, the arts and literature. Löw, Jellinek, Kaufmann, as scholars in the Jewish field; as poets and novelists, Kompert, Franzos, L. A. Frankl; the pianist Moscheles, the dramatist Mosenthal, and the actor Sonnenthal, the mathematician Spitzer and the chess-player Steinitz are some of the most prominent names. The law of 1890 makes it "compulsory for every Jew to be a member of the congregation of the district in which he resides, and so gives to every congregation the right to tax the individual members" (*op. cit.*). A similar obligation prevails in parts of Germany. A Jew can avoid the communal tax only by formally declaring himself as outside the Jewish community. The Jews of Hungary shared with their brethren in Austria the same alternations of expulsion and recall. By the law "De Judaeis" passed by the Diet in 1791 the Jews were accorded protection, but half a century passed before their tolerated condition was regularized. The "toleration-tax" was abolished in 1846. During the revolutionary outbreak of 1848, the Jews suffered severely in Hungary, but as many as 20,000 Jews are said to have joined the army. Kossuth succeeded in granting them temporary emancipation, but the suppression of the War of Independence led to an era of royal autocracy which, while it advanced Jewish culture by enforcing the establishment of modern schools, retarded the obtaining of civic and political rights. As in Austria, so in Hungary, these rights were granted by the constitution of 1867. But one step remained. The Hungarian Jews did not consider themselves fully emancipated until the Synagogue was "duly recognized as one of the legally acknowledged religions of the country." This recognition was granted by the law of 1895–1896. In the words of Büchler (*Jewish Encyclopedia*, vi. 503): "Since their emancipation the Jews have taken an active part in the political, industrial, scientific and artistic life of Hungary. In all these fields they have achieved prominence. They have also founded great religious institutions. Their progress has not been arrested even by anti-Semitism, which first developed in 1883 at the time of the Tisza-Eslar accusation of ritual murder."

52. *Other European Countries.*—According to M. Caimi the present Jewish communities of Greece are divisible into five groups: (1) Arta (Epirus); (2) Chalcis (Euboea); (3) Athens (Attica); (4) Volo, Larissa and Trikala (Thessaly); and (5) Corfu and Zante (Ionian Islands). The Greek constitution admits no religious disabilities, but anti-Semitic riots in Corfu and Zante in 1891 caused much distress and emigration. In Spain there has been of late a more liberal attitude towards the Jews, and there is a small congregation (without a public synagogue) in Madrid. In 1858 the edict of expulsion was repealed. Portugal, on the other hand, having abolished the Inquisition in 1821, has since 1826 allowed Jews freedom of religion, and there are synagogues in Lisbon and Faro. In Holland the Jews were admitted to political liberty in 1796. At present more than half of the Dutch Jews are concentrated in Amsterdam, being largely engaged in the diamond and tobacco trades. Among famous names of recent times foremost stands that of the artist Josef Israels. In 1675 was consecrated in Amsterdam the synagogue which is still the most noted Jewish edifice in Europe. Belgium granted full freedom to the Jews in 1815, and the community has since 1808 been organized on the state consistorial system, which till recently also prevailed in France. It was not till 1874 that full religious equality was granted to the Jews of Switzerland. But there has been considerable interference (ostensibly on humanitarian grounds) with the Jewish method of slaughtering animals for food (*Shehitah*) and the method was prohibited by a referendum in 1893. In the same year a similar enactment was passed in Saxony, and the subject is a favourite one with anti-Semites, who have enlisted on their side some scientific authorities, though the bulk of expert opinion is in favor of *Shehitah* (see Dembo, *Das Schlachten*, 1894). In Sweden the Jews have all the rights which are open to non-Lutherans; they cannot become members of the council of state. In Norway there is a small Jewish settlement (especially in Christiania) who are engaged in industrial pursuits and enjoy complete liberty. Denmark has for long been distinguished for its liberal policy towards the Jews. Since 1814 the latter have been eligible as magistrates, and in 1849 full equality was formally ratified. Many Copenhagen Jews achieved distinction as manufacturers, merchants and bankers, and among famous Jewish men of letters may be specially named Georg Brandes.

The story of the Jews in Russia and Rumania remains a black spot on the European record. In Russia the Jews are more numerous and more harshly treated than in any other part of the world. In the remotest past Jews were settled in much of

the territory now included in Russia, but they are still treated as aliens. They are restricted to the pale of settlement which was first established in 1791. The pale now includes fifteen governments, and under the May laws of 1892 the congestion of the Jewish population, the denial of free movement, and the exclusion from the general rights of citizens were rendered more oppressive than ever before. The right to leave the pale is indeed granted to merchants of the first gild, to those possessed of certain educational diplomas, to veteran soldiers and to certain classes of skilled artisans. But these concessions are unfavourably interpreted and much extortion results. Despite a huge emigration of Jews from Russia, the congestion within the pale is the cause of terrible destitution and misery. Fierce massacres occurred in Nizhniy-Novgorod in 1882, and in Kishinev in 1903. Many other pogroms have occurred, and the condition of the Jews has been reduced to one of abject poverty and despair. Much was hoped from the duma, but this body has proved bitterly opposed to the Jewish claim for liberty. Yet in spite of these disabilities there are amongst the Russian Jews many enterprising contractors, skilful doctors, and successful lawyers and scientists. In Rumania, despite the Berlin Treaty, the Jews are treated as aliens, and but a small number have been naturalized. They are excluded from most of the professions and are hampered in every direction.

53. *Oriental Countries.*—In the Orient the condition of the Jews has been much improved by the activity of Western organizations, of which something is said in a later paragraph. Modern schools have been set up in many places, and Palestine has been the scene of a notable educational and agricultural revival, while technical schools—such as the agricultural college near Jaffa and the schools of the alliance and the more recent Bezalel in Jerusalem—have been established. Turkey has always on the whole tolerated the Jews, and much is hoped from the new régime. In Morocco the Jews, who until late in the 19th century were often persecuted, are still confined to a *mellah* (separate quarter), but at the coast-towns there are prosperous Jewish communities mostly engaged in commerce. In other parts of the same continent, in Egypt and in South Africa, many Jews have settled, participating in all industrial and financial pursuits. Recently a mission has been sent to the Falashas of Abyssinia, and much interest has been felt in such outlying branches of the Jewish people as the Black Jews of Cochin and the Bene Israel community of Bombay. In Persia Jews are often the victims of popular outbursts as well as of official extortion, but there are fairly prosperous communities at Bushire, Isfahan, Teheran and Kashan (in Shiraz they are in low estate). The recent advent of constitutional government may improve the condition of the Jews.

54. *The United Kingdom.*—The general course of Jewish history in England has been indicated above. The Jews came to England at least as early as the Norman Conquest; they were expelled from Bury St Edmunds in 1190, after the massacres at the coronation of Richard I.; they were required to wear badges in 1218. At the end of the 12th century was established the "exchequer of the Jews," which chiefly dealt with suits concerning money-lending, and arranged a "continual flow of money from the Jews to the royal treasury," and a so-called "parliament of the Jews" was summoned in 1241; in 1275 was enacted the statute *de Judaismo* which, among other things, permitted the Jews to hold land. But this concession was illusory, and as the statute prevented Jews from engaging in finance—the only occupation which had been open to them—it was a prelude to their expulsion in 1290. There were few Jews in England from that date till the Commonwealth, but Jews settled in the American colonies earlier in the 17th century, and rendered considerable services in the advancement of English commerce. The Whitehall conference of 1655 marks a change in the status of the Jews in England itself, for though no definite results emerged it was clearly defined by the judges that there was no legal obstacle to the return of the Jews. Charles II. in 1664 continued Cromwell's tolerant policy. No serious attempt towards the emancipation of the Jews was made till the Naturalization Act of 1753, which was, however, immediately repealed. Jews no longer attached to the Synagogue, such as the Herschels and Disraelis, attained to fame. In 1830 the first Jewish emancipation bill was brought in by Robert Grant, but it was not till the legislation of 1858–1860 that Jews obtained full parliamentary rights. In other directions progress was more rapid. The office of sheriff was thrown open to Jews in 1835 (Moses Montefiore, sheriff of London was knighted in 1837); Sir I. L. Goldsmid was made a baronet in 1841, Baron Lionel de Rothschild was elected to Parliament in 1847 (though he was unable to take his seat), Alderman (Sir David) Salomons became lord mayor of London in 1855 and Francis Goldsmid was made a Q.C. in 1858. In 1873 Sir George Jessel was made a judge, and Lord Rothschild took his seat in the House of Lords as the first Jewish peer in 1886. A fair proportion of Jews have been elected to the House of Commons, and Mr Herbert Samuel rose to cabinet rank in 1909. Sir Matthew Nathan has been governor of Hong-Kong and Natal, and among Jewish statesmen in the colonies Sir Julius Vogel and V. L. Solomon have been prime ministers (HYAMSON: *A History of the Jews in England*, p. 342). It is unnecessary to remark that in the British colonies the Jews everywhere enjoy full citizenship. In fact, the colonies emancipated the Jews earlier than did the mother country. Jews were settled in Canada from the time of Wolfe, and a congregation was founded at Montreal in 1768, and since 1832 Jews have been entitled to sit in the Canadian parliament. There are some thriving Jewish agricultural colonies in the same dominion. In Australia the Jews from the first were welcomed on perfectly equal terms. The oldest congregation is that of Sydney (1817); the Melbourne community dates from 1844. Reverting to incidents in England itself, in 1870 the abolition of university tests removed all restrictions on Jews at Oxford and Cambridge, and both universities have since elected Jews to professorships and other posts of honour. The communal organization of English Jewry is somewhat inchoate. In 1841 an independent reform congregation was founded, and the Spanish and Portuguese Jews have always maintained their separate existence with a Ḥaham as the ecclesiastical head. In 1870 was founded the United Synagogue, which is a metropolitan organization, and the same remark applies to the more recent Federation of Synagogues. The chief rabbi, who is the ecclesiastical head of the United Synagogue, has also a certain amount of authority over the provincial and colonial Jewries, but this is nominal rather than real. The provincial Jewries, however, participate in the election of the chief rabbi. At the end of 1909 was held the first conference of Jewish ministers in London, and from this is expected some more systematic organization of scattered communities. Anglo-Jewry is rich, however, in charitable, educational and literary institutions; chief among these respectively may be named the Jewish board of guardians (1859), the Jews' college (1855), and the Jewish historical society (1893). Besides the distinctions already noted, English Jews have risen to note in theology (C. G. Montefiore), in literature (Israel Zangwill and Alfred Sutro), in art (S. Hart, R.A., and S. J. Solomon, R.A.) in music (Julius Benedict and Frederick Hymen Cowen). More than 1000 English and colonial Jews participated as active combatants in the South African War. The immigration of Jews from Russia was mainly responsible for the ineffective yet oppressive Aliens Act of 1905. (Full accounts of Anglo-Jewish institutions are given in the *Jewish Year-Book* published annually since 1895.)

55. *The American Continent.*—Closely parallel with the progress of the Jews in England has been their steady advancement in America. Jews made their way to America early in the 16th century, settling in Brazil prior to the Dutch occupation. Under Dutch rule they enjoyed full civil rights. In Mexico and Peru they fell under the ban of the Inquisition. In Surinam the Jews were treated as British subjects; in Barbadoes, Jamaica and New York they are found as early as the first half of the 17th century. During the War of Independence the Jews of America took a prominent part on both sides, for under the British rule many had risen to wealth and high social position. After the Declaration of Independence, Jews are found all over America, where they

have long enjoyed complete emancipation, and have enormously increased in numbers, owing particularly to immigration from Russia. The American Jews bore their share in the Civil War (7038 Jews were in the two armies), and have always identified themselves closely with national movements such as the emancipation of Cuba. They have attained to high rank in all branches of the public service, and have shown most splendid instances of far-sighted and generous philanthropy. Within the Synagogue the reform movement began in 1825, and soon won many successes, the central conference of American rabbis and Union College (1875) at Cincinnati being the instruments of this progress. At the present time orthodox Judaism is also again acquiring its due position and the Jewish theological seminary of America was founded for this purpose. In 1908 an organization, inclusive of various religious sections, was founded under the description "the Jewish community of New York." There have been four Jewish members of the United States senate, and about 30 of the national House of Representatives. Besides filling many diplomatic offices, a Jew (O. S. Straus) has been a member of the cabinet. Many Jews have filled professorial chairs at the universities, others have been judges, and in art, literature (there is a notable Jewish publication society), industry and commerce have rendered considerable services to national culture and prosperity. American universities have owed much to Jewish generosity, a foremost benefactor of these (as of many other American institutions) being Jacob Schiff. Such institutions as the Gratz and Dropsie colleges are further indications of the splendid activity of American Jews in the educational field. The Jews of America have also taken a foremost place in the succour of their oppressed brethren in Russia and other parts of the world. (Full accounts of American Jewish institutions are given in the *American Jewish Year-Book*, published annually since 1899.)

56. *Anti-Semitism.*—It is saddening to be compelled to close this record with the statement that the progress of the European Jews received a serious check by the rise of modern anti-Semitism in the last quarter of the 19th century. While in Russia this took the form of actual massacre, in Germany and Austria it assumed the shape of social and civic ostracism. In Germany Jews are still rarely admitted to the rank of officers in the army, university posts are very difficult of access, Judaism and its doctrines are denounced in medieval language, and a tone of hostility prevails in many public utterances. In Austria, as in Germany, anti-Semitism is a factor in the parliamentary elections. The legend of ritual murder (*q.v.*) has been revived, and every obstacle is placed in the way of the free intercourse of Jews with their Christian fellow-citizens. In France Edouard Adolphe Drumont led the way to a similar animosity, and the popular fury was fanned by the Dreyfus case. It is generally felt, however, that this recrudescence of anti-Semitism is a passing phase in the history of culture (see ANTI-SEMITISM).

57. *The Zionist Movement.*—The Zionist movement (see ZIONISM), founded in 1895 by Theodor Herzl (*q.v.*) was in a sense the outcome of anti-Semitism. Its object was the foundation of a Jewish state in Palestine, but though it aroused much interest it failed to attract the majority of the emancipated Jews, and the movement has of late been transforming itself into a mere effort at colonization. Most Jews not only confidently believe that their own future lies in progressive development *within* the various nationalities of the world, but they also hope that a similar consummation is in store for the as yet unemancipated branches of Israel. Hence the Jews are in no sense internationally organized. The influence of the happier communities has been exercised on behalf of those in a worse position by individuals such as Sir Moses Montefiore (*q.v.*) rather than by societies or leagues. From time to time incidents arise which appeal to the Jewish sympathies everywhere and joint action ensues. Such incidents were the Damascus charge of ritual murder (1840), the forcible baptism of the Italian child Mortara (1858), and the Russian pogroms at various dates. But all attempts at an international union of Jews, even in view of such emergencies as these, have failed. Each country has its own local organization for dealing with Jewish questions. In France the Alliance Israélite (founded in 1860), in England the Anglo-Jewish Association (founded in 1871), in Germany the Hilfsverein der deutschen Juden, and in Austria the Israelitische Allianz zu Wien (founded 1872), in America the American Jewish Committee (founded 1906), and similar organizations in other countries deal only incidentally with political affairs. They are concerned mainly with the education of Jews in the Orient, and the establishment of colonies and technical institutions. Baron Hirsch (*q.v.*) founded the Jewish colonial association, which has undertaken vast colonizing and educational enterprises, especially in Argentina, and more recently the Jewish territorial organization has been started to found a home for the oppressed Jews of Russia. All these institutions are performing a great regenerative work, and the tribulations and disappointments of the last decades of the 19th century were not all loss. The gain consisted in the rousing of the Jewish consciousness to more virile efforts towards a double end, to succour the persecuted and ennoble the ideals of the emancipated.

58. *Statistics.*—Owing to the absence of a religious census in several important countries, the Jewish population of the world can only be given by inferential estimate. The following approximate figures are taken from the *American Jewish Year-Book* for 1909–1910 and are based on similar estimates in the English *Jewish Year-Book*, the *Jewish Encyclopedia*, Nossig's *Jüdische Statistik* and the *Reports* of the Alliance Israélite Universelle. According to these estimates the total Jewish population of the world in the year named was approximately 11,500,000. Of this total there were in the British Empire about 380,000 Jews (British Isles 240,000, London accounts for 150,000 of these; Canada and British Columbia 60,000; India 18,000; South Africa 40,000). The largest Jewish populations were those of Russia (5,215,000), Austria-Hungary (2,084,000), United States of America (1,777,000), Germany (607,000, of whom 409,000 were in Prussia), Turkey (463,000, of whom some 78,000 resided in Palestine), Rumania (250,000), Morocco (109,000) and Holland (106,000). Others of the more important totals are: France 95,000 (besides Algeria 63,000 and Tunis 62,000); Italy 52,000; Persia 49,000; Egypt 39,000; Bulgaria 36,000; Argentine Republic 30,000; Tripoli 19,000; Turkestan and Afghanistan 14,000; Switzerland and Belgium each 12,000; Mexico 9000; Greece 8000; Servia 6000; Sweden and Cuba each 4000; Denmark 3500; Brazil and Abyssinia (Falashas) each 3000; Spain and Portugal 2500; China and Japan 2000. There are also Jews in Curaçoa, Surinam, Luxemburg, Norway, Peru, Crete and Venezuela; but in none of these does the Jewish population much exceed 1000.

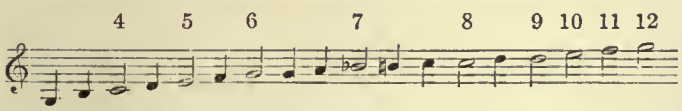
BIBLIOGRAPHY.—H. Graetz, *Geschichte der Juden* (11 vols., 1853–1875; several subsequent editions of separate volumes; Eng. trans. 5 vols., 1891–1892); the works of L. Zunz; *Jewish Encyclopedia passim*; publications of Jewish societies, such as *Études Juives*, Jewish historical societies of England and America, German historical commission, Julius Barasch society (Rumania), Societas Litteraria Hungarico-Judaica, the Viennese communal publications, and many others to which may be added the 20 vols. of the *Jewish Quarterly Review;* Scherer, *Rechtsverhältnisse der Juden* (1901); M. Güdemann *Geschichte des Erziehungswesens und der Cultur der Juden* (1880, &c.); A. Leroy-Beaulieu, *Israel among the Nations* (1895); I. Abrahams, *Jewish Life in the Middle Ages* (1896); G. F. Abbott, *Israel in Europe* (1905); G. Caro, *Wirtschaftsgeschichte der Juden* (1908); M. Philippson, *Neueste Geschichte des jüdischen Volkes* (1907, &c.); Nossig, *Jüdische Statistik* (1903); and such special works as H. Gross, *Gallia Judaica* (1897), &c. (I. A.)

JEWSBURY, GERALDINE ENDSOR (1812–1880), English writer, daughter of Thomas Jewsbury, a Manchester merchant, was born in 1812 at Measham, Derbyshire. Her first novel, *Zoe: the History of Two Lives*, was published in 1845, and was followed by *The Half Sisters* (1848), *Marian Withers* (1851), *Constance Herbert* (1855), *The Sorrows of Gentility* (1856), *Right or Wrong* (1859). In 1850 she was invited by Charles Dickens to write for *Household Words;* for many years she was a frequent contributor to the *Athenaeum* and other journals and magazines. It is, however, mainly on account of her friendship with Thomas Carlyle and his wife that her name is remembered. Carlyle described her, after their first meeting in 1841, as "one of the most interesting young women I have seen for years; clear delicate sense and courage looking out of her small sylph-like figure." From this time till Mrs Carlyle's death in 1866, Geraldine Jewsbury was the most intimate of her friends. The selections from Geraldine Jewsbury's letters to Jane Welsh Carlyle (1892, ed. Mrs Alexander Ireland) prove how confidential were the relations

between the two women for a quarter of a century. In 1854 Miss Jewsbury removed from Manchester to London to be near her friend. To her Carlyle turned for sympathy when his wife died; and at his request she wrote down some "biographical anecdotes" of Mrs Carlyle's childhood and early married life. Carlyle's comment was that "few or none of these narratives are correct in details, but there is a certain mythical truth in all or most of them;" and he added, "the Geraldine accounts of her (Mrs Carlyle's) childhood are substantially correct." He accepted them as the groundwork for his own essay on "Jane Welsh Carlyle," with which they were therefore incorporated by Froude when editing Carlyle's *Reminiscences*. Miss Jewsbury was consulted by Froude when he was preparing Carlyle's biography, and her recollection of her friend's confidences confirmed the suspicion that Carlyle had on one occasion used physical violence towards his wife. Miss Jewsbury further informed Froude that the secret of the domestic troubles of the Carlyles lay in the fact that Carlyle had been "one of those persons who ought never to have married," and that Mrs Carlyle had at one time contemplated having her marriage legally annulled (see *My Relations with Carlyle*, by James Anthony Froude, 1903). The endeavour has been made to discredit Miss Jewsbury in relation to this matter, but there seems to be no sufficient ground for doubting that she accurately repeated what she had learnt from Mrs Carlyle's own lips. Miss Jewsbury died in London on the 23rd of September 1880.

JEW'S EARS, the popular name of a fungus, known botanically as *Hirneola auricula-judae*, so called from its shape, which somewhat resembles a human ear. It is very thin, flexible, flesh-coloured to dark brown, and one to three inches broad. It is common on branches of elder, which it often kills, and is also found on elm, willow, oak and other trees. It was formerly prescribed as a remedy for dropsy.

JEW'S HARP, or JEW'S TRUMP (Fr. *guimbarde*, O. Fr. *trompe, gronde*; Ger. *Mundharmonica, Maultrommel, Brummeisen*; Ital. *scaccia-pensieri* or *spassa-pensiero*), a small musical instrument of percussion, known for centuries all over Europe. "Jew's trump" is the older name, and "trump" is still used in parts of Great Britain. Attempts have been made to derive "Jew's" from "jaws" or Fr. *jeu*, but, though there is no apparent reason for associating the instrument with the Jews, it is certain that "Jew's" is the original form (see the *New English Dictionary* and C. B. Mount in *Notes and Queries* (Oct. 23, 1897, p. 322). The instrument consists of a slender tongue of steel riveted at one end to the base of a pear-shaped steel loop; the other end of the tongue, left free and passing out between the two branches of the frame, terminates in a sharp bend at right angles, to enable the player to depress it by an elastic blow and thus set it vibrating while firmly pressing the branches of the frame against his teeth. The vibrations of the steel tongue produce a compound sound composed of a fundamental and its harmonics. By using the cavity of the mouth as a resonator, each harmonic in succession can be isolated and reinforced, giving the instrument the compass shown. The lower harmonics of the series cannot be



obtained, owing to the limited capacity of the resonating cavity. The black notes on the stave show the scale which may be produced by using two harps, one tuned a fourth above the other. The player on the Jew's harp, in order to isolate the harmonics, frames his mouth as though intending to pronounce the various vowels. At the beginning of the 19th century, when much energy and ingenuity were being expended in all countries upon the invention of new musical instruments, the *Maultrommel*, re-christened *Mundharmonica* (the most rational of all its names), attracted attention in Germany. Heinrich Scheibler devised an ingenious holder with a handle, to contain five Jew's harps, all tuned to different notes; by holding one in each hand, a large compass, with duplicate notes, became available; he called this complex Jew's harp *Aura*[1] and with it played themes with variations, marches, Scotch reels, &c. Other virtuosi, such as Eulenstein, a native of Würtemberg, achieved the same result by placing the variously tuned Jew's harps upon the table in front of him, taking them up and setting them down as required. Eulenstein created a sensation in London in 1827 by playing on no fewer than sixteen Jew's harps. In 1828 Sir Charles Wheatstone published an essay on the technique of the instrument in the *Quarterly Journal of Science*. (K. S.)

JEZEBEL (Heb. *ī-zebel*, perhaps an artificial form to suggest "un-exalted," a divine name or its equivalent would naturally be expected instead of the first syllable), wife of Ahab, king of Israel (1 Kings xvi. 31), and mother of Athaliah, in the Bible. Her father Eth-baal (Ithobal, Jos., *contra Ap.* i. 18) was king of Tyre and priest of the goddess Astarte. He had usurped the throne and was the first important Phoenician king after Hiram (see PHOENICIA). Jezebel, a true daughter of a priest of Astarte, showed herself hostile to the worship of Yahweh, and to his prophets, whom she relentlessly pursued (1 Kings xviii. 4–13; see ELIJAH). She is represented as a woman of virile character, and became notorious for the part she took in the matter of Naboth's vineyard. When the Jezreelite[2] sheikh refused to sell the family inheritance to the king, Jezebel treacherously caused him to be arrested on a charge of treason, and with the help of false witnesses he was found guilty and condemned to death. For this the prophet Elijah pronounced a solemn curse upon Ahab and Jezebel, which was fulfilled when Jehu, who was anointed king at Elisha's instigation, killed the son Jehoram, massacred all the family, and had Jezebel destroyed (1 Kings xxi.; 2 Kings ix. 11–28). What is told of her comes from sources written under the influence of strong religious bias; among the exaggerations must be reckoned 1 Kings xviii. 13, which is inconsistent with xix. 18 and xxii. 6. A literal interpretation of the reference to Jezebel's idolatry (2 Kings ix. 22) has made her name a by-word for a false prophetess in Rev. ii. 20. Her name is often used in modern English as a synonym for an abandoned woman or one who paints her face. (S. A. C.)

JEZREEL (Heb. "God sows"), the capital of the Israelite monarchy under Ahab, and the scene of stirring Biblical events (1 Sam. xxix. 1; 1 Kings xxi.; 2 Kings ix. 21–37). The name was also applied to the great plain (Esdraelon) dominated by the city ("valley of Jezreel," Josh. xvii. 16, &c.). The site has never been lost, and the present village *Zercîn* retains the name radically unchanged. In Greek (*e.g.* Judith) the name appears under the form Ἐσδραηλά; it is *Stradela* in the *Bordeaux Pilgrim*, and to the Crusaders the place was known as *Parvum Gerinum*. The modern stone village stands on a bare rocky knoll, 500 ft. above the broad northern valley, at the north extremity of a long ledge, terminating in steep cliffs, forming part of the chain of Mt Gilboa. The buildings are modern, but some scanty remains of rock-hewn wine presses and a few scattered sarcophagi mark the antiquity of the site. The view over the plains is fine and extensive. It is vain now to look for Ahab's palace or Naboth's vineyard. The fountain mentioned in 1 Sam. xxix. 1 is perhaps the fine spring *'Ain el Meiyyita*, north of the village, a shallow pool of good water full of small fish, rising between black basalt boulders: or more probably the copious *'Ain Jalūd*.

A second city named Jezreel lay in the hill country of Judah, somewhere near Hebron (Josh. xv. 56). This was the native place of David's wife Abinoam (1 Sam. xxv. 43).

See, for an excellent description of the scenery and history of the Israelite Jezreel, G. A. Smith, *Hist. Geog.* xix.

JHABUA, a native state of Central India, in the Bhopawar agency. Area, with the dependency of Rutanmal, 1336 sq. m.

[1] See *Allg. musik. Ztg.* (Leipzig, 1816), p. 506, and *Beilage* 5, where the construction of the instruments is described and illustrated and the system of notation shown in various pieces of music.

[2] According to another tradition Naboth lived at Samaria (xxi. 1 [LXX.], 18 seq.; cf. xxii. 38). A similar confusion regarding the king's home appears in 2 Kings x. 11 compared with *vv.* 1, 17.

Pop. (1901), 80,889. More than half the inhabitants belong to the aboriginal Bhils. Estimated revenue, £7000; tribute, £1000. Manganese and opium are exported. The chief, whose title is raja, is a Rajput of the Rathor clan, descended from a branch of the Jodhpur family. Raja Udai Singh was invested in 1898 with the powers of administration.

The town of JHABUA (pop. 3354) stands on the bank of a lake, and is surrounded by a mud wall. A dispensary and a guest-house were constructed to commemorate Queen Victoria's Diamond Jubilee in 1897.

JHALAWAR, a native state of India, in the Rajputana agency, pop. (1901), 90,175; estimated revenue, £26,000; tribute, £2000. Area, 810 sq. m. The ruling family of Jhalawar belongs to the Jhala clan of Rajputs, and their ancestors were petty chiefs of Halwad in the district of Jhalawar, in Kathiawar. About 1709 one of the younger sons of the head of the clan left his country with his son to try his fortunes at Delhi. At Kotah he left his son Madhu Singh, who soon became a favourite with the maharaja, and received from him an important post, which became hereditary. On the death of one of the Kotah rajas (1771), the country was left to the charge of Zalim Singh, a descendant of Madhu Singh. From that time Zalim Singh was the real ruler of Kotah. He brought it to a wonderful state of prosperity, and under his administration, which lasted over forty-five years, the Kotah territory was respected by all parties. In 1838 it was resolved, with the consent of the chief of Kotah, to dismember the state, and to create the new principality of Jhalawar as a separate provision for the descendants of Zalim Singh. The districts then severed from Kotah were considered to represent one-third (£120,000) of the income of Kotah; by treaty they acknowledged the supremacy of the British, and agreed to pay an annual tribute of £8000. Madan Singh received the title of maharaja rana, and was placed on the same footing as the other chiefs in Rajputana. He died in 1845. An adopted son of his successor took the name of Zalim Singh in 1875 on becoming chief of Jhalawar. He was a minor and was not invested with governing powers till 1884. Owing to his maladministration, his relations with the British government became strained, and he was finally deposed in 1896, "on account of persistent misgovernment and proved unfitness for the powers of a ruling chief." He went to live at Benares, on a pension of £2000; and the administration was placed in the hands of the British resident. After much consideration, the government resolved in 1897 to break up the state, restoring the greater part to Kotah, but forming the two districts of Shahabad and the Chaumahla into a new state, which came into existence in 1899, and of which Kunwar Bhawani Singh, a descendant of the original Zalim Singh, was appointed chief.

The chief town is PATAN, or JHALRAPATAN (pop. 7955), founded close to an old site by Zalim Singh in 1796, by the side of an artificial lake. It is the centre of trade, the chief exports of the state being opium, oil-seeds and cotton. The palace is at the cantonment or chhaoni, 4 m. north. The ancient site near the town was occupied by the city of Chandrawati, said to have been destroyed in the time of Aurangzeb. The finest feature of its remains is the temple of Sitaleswar Mahadeva (*c.* 600).

JHANG, a town and district of British India, in the Multan division of the Punjab. The town, which forms one municipality with the newer and now more important quarter of Maghiana, is about 3 m. from the right bank of the river Chenab. Founded by Mal Khan, a Sial chieftain, in 1462, it long formed the capital of a Mahommedan state. Pop. (1901), 24,382. Maghiana has manufactures of leather, soap and metal ware.

The DISTRICT OF JHANG extends along both sides of the Chenab, including its confluences with the Jhelum and the Ravi. Area, 3726 sq. m. Pop. (1901), 378,695, showing an apparent decrease of 13 % in the decade, due to the creation of the district of Lyallpur in 1904. But actually the population increased by 132 % on the old area, owing to the opening of the Chenab canal and the colonization of the tract irrigated by it. Within Jhang many thousands of acres of government waste have been allotted to colonists, who are reported to be flourishing. A branch of the North-Western railway enters the district in this quarter, extending throughout its entire length. The Southern Jech Doab railway serves the south. The principal industries are the ginning, pressing and weaving of cotton.

Jhang contains the ruins of Shorkot, identified with one of the towns taken by Alexander. In modern times the history of Jhang centres in the famous clan of Sials, who exercised an extensive sway over a large tract between Shahpur and Multan, with little dependence on the imperial court at Delhi, until they finally fell before the all-absorbing power of Ranjit Singh. The Sials of Jhang are Mahommedans of Rajput descent, whose ancestor, Rai Shankar of Daranagar, emigrated early in the 13th century from the Gangetic Doab. In the beginning of the 19th century Maharaja Ranjit Singh invaded Jhang, and captured the Sial chieftain's territory. The latter recovered a small portion afterwards, which he was allowed to retain on payment of a yearly tribute. In 1847, after the establishment of the British agency at Lahore, the district came under the charge of the British government; and in 1848 Ismail Khan, the Sial leader, rendered important services against the rebel chiefs, for which he received a pension. During the Mutiny of 1857 the Sial leader again proved his loyalty by serving in person on the British side. His pension was afterwards increased, and he obtained the title of khan bahadur, with a small *jagir* for life.

JHANSI, a city and district of British India, in the Allahabad division of the United Provinces. The city is the centre of the Indian Midland railway system, whence four lines diverge to Agra, Cawnpore, Allahabad and Bhopal. Pop. (1901), 55,724. A stone fort crowns a neighbouring rock. Formerly the capital of a Mahratta principality, which lapsed to the British in 1853, it was during the Mutiny the scene of disaffection and massacre. It was then made over to Gwalior, but has been taken back in exchange for other territory. Even when the city was within Gwalior, the civil headquarters and the cantonment were at Jhansi Naoabad, under its walls. Jhansi is the principal centre for the agricultural trade of the district, but its manufactures are small.

The DISTRICT OF JHANSI was enlarged in 1891 by the incorporation of the former district of Lalitpur, which extends farther into the hill country, almost entirely surrounded by native states. Combined area, 3628 sq. m. Pop. (1901), 616,759 showing a decrease of 10 % in the decade, due to the results of famine. The main line and branches of the Indian Midland railway serve the district, which forms a portion of the hill country of Bundelkhand, sloping down from the outliers of the Vindhyan range on the south to the tributaries of the Jumna on the north. The extreme south is composed of parallel rows of long and narrow-ridged hills. Through the intervening valleys the rivers flow down impetuously over ledges of granite or quartz. North of the hilly region, the rocky granite chains gradually lose themselves in clusters of smaller hills. The northern portion consists of the level plain of Bundelkhand, distinguished for its deep black soil, known as *mar*, and admirably adapted for the cultivation of cotton. The district is intersected or bounded by three principal rivers—the Pahuj, Betwa and Dhasan. The district is much cut up, and portions of it are insulated by the surrounding native states. The principal crops are millets, cotton, oil-seeds, pulses, wheat, gram and barley. The destructive *kans* grass has proved as great a pest here as elsewhere in Bundelkhand. Jhansi is especially exposed to blights, droughts, floods, hailstorms, epidemics, and their natural consequence—famine.

Nothing is known with certainty as to the history of this district before the period of Chandel rule, about the 11th century of our era. To this epoch must be referred the artificial reservoirs and architectural remains of the hilly region. The Chandels were succeeded by their servants the Khangars, who built the fort of Karar, lying just outside the British border. About the 14th century the Bundelas poured down upon the plains, and gradually spread themselves over the whole region which now bears their name. The Mahommedan governors were constantly making irruptions into the Bundela country; and in

1732 Chhatar Sal, the Bundela chieftain, called in the aid of the Mahrattas. They came to his assistance with their accustomed promptitude, and were rewarded on the raja's death in 1734, by the bequest of one-third of his dominions. Their general founded the city of Jhansi, and peopled it with inhabitants from Orchha state. In 1806 British protection was promised to the Mahratta chief, and in 1817 the peshwa ceded to the East India Company all his rights over Bundelkhand. In 1853 the raja died childless, and his territories lapsed to the British. The Jhansi state and the Jalaun and Chanderi districts were then formed into a superintendency. The widow of the raja considered herself aggrieved because she was not allowed to adopt an heir, and because the slaughter of cattle was permitted in the Jhansi territory. Reports were spread which excited the religious prejudices of the Hindus. The events of 1857 accordingly found Jhansi ripe for mutiny. In June a few men of the 12th native infantry seized the fort containing the treasure and magazine, and massacred the European officers of the garrison. Everywhere the usual anarchic quarrels rose among the rebels, and the country was plundered mercilessly. The rani put herself at the head of the rebels, and died bravely in battle. It was not till November 1858, after a series of sharp contests with various guerilla leaders, that the work of reorganization was fairly set on foot.

JHELUM, or JEHLAM (*Hydaspes* of the Greeks), a river of northern India. It is the most westerly of the "five rivers" of the Punjab. It rises in the north-east of the Kashmir state, flows through the city of Srinagar and the Wular lake, issues through the Pir Panjal range by the narrow pass of Baramula, and enters British territory in the Jhelum district. Thence it flows through the plains of the Punjab, forming the boundary between the Jech Doab and the Sind Sagar Doab, and finally joins the Chenab at Timmu after a course of 450 miles. The Jhelum colony, in the Shahpur district of the Punjab, formed on the example of the Chenab colony in 1901, is designed to contain a total irrigable area of 1,130,000 acres. The Jhelum canal is a smaller work than the Chenab canal, but its silt is noted for its fertilizing qualities. Both projects have brought great prosperity to the cultivators.

JHELUM, or JEHLAM, a town and district of British India, in the Rawalpindi division of the Punjab. The town is situated on the right bank of the river Jhelum, here crossed by a bridge of the North-Western railway, 103 m. N. of Lahore. Pop. (1901), 14,951. It is a modern town with river and railway trade (principally in timber from Kashmir), boat-building and cantonments for a cavalry and four infantry regiments.

The DISTRICT OF JHELUM stretches from the river Jhelum almost to the Indus. Area, 2813 sq. m. Pop. (1901), 501,424, showing a decrease of 2% in the decade. Salt is quarried at the Mayo mine in the Salt Range. There are two coal-mines, the only ones worked in the province, from which the North-Western railway obtains part of its supply of coal. The chief centre of the salt trade is Pind Dadan Khan (pop. 13,770). The district is crossed by the main line of the North-Western railway, and also traversed along the south by a branch line. The river Jhelum is navigable throughout the district, which forms the south-eastern portion of a rugged Himalayan spur, extending between the Indus and Jhelum to the borders of the Sind Sagar Doab. Its scenery is very picturesque, although not of so wild a character as the mountain region of Rawalpindi to the north, and is lighted up in places by smiling patches of cultivated valley. The backbone of the district is formed by the Salt Range, a treble line of parallel hills running in three long forks from east to west throughout its whole breadth. The range rises in bold precipices, broken by gorges, clothed with brushwood and traversed by streams which are at first pure, but soon become impregnated with the saline matter over which they pass. Between the line of hills lies a picturesque table-land, in which the beautiful little lake of Kallar Kahar nestles amongst the minor ridges. North of the Salt Range, the country extends upwards in an elevated plateau, diversified by countless ravines and fissures, until it loses itself in tangled masses of Rawalpindi mountains. In this rugged tract cultivation is rare and difficult, the soil being choked with saline matter. At the foot of the Salt Range, however, a small strip of level soil lies along the banks of the Jhelum, and is thickly dotted with prosperous villages. The drainage of the district is determined by a low central watershed running north and south at right angles to the Salt Range. The waters of the western portion find their way into the Sohan, and finally into the Indus; those of the opposite slope collect themselves into small torrents, and empty themselves into the Jhelum.

The history of the district dates back to the semi-mythical period of the *Mahābhārata*. Hindu tradition represents the Salt Range as the refuge of the five Pandava brethren during the period of their exile, and every salient point in its scenery is connected with some legend of the national heroes. Modern research has fixed the site of the conflict between Alexander and Porus as within Jhelum district, although the exact point at which Alexander effected the passage of the Jhelum (or Hydaspes) is disputed. After this event, we have little information with regard to the condition of the district until the Mahommedan conquest brought back literature and history to Upper India. The Janjuahs and Jats, who now hold the Salt Range and its northern plateau respectively, appear to have been the earliest inhabitants. The Ghakkars seem to represent an early wave of conquest from the east, and they still inhabit the whole eastern slope of the district; while the Awans, who now cluster in the western plain, are apparently later invaders from the opposite quarter. The Ghakkars were the dominant race at the period of the first Mahommedan incursions, and long continued to retain their independence. During the flourishing period of the Mogul dynasty, the Ghakkar chieftains were prosperous and loyal vassals of the house of Baber; but after the collapse of the Delhi Empire Jhelum fell, like its neighbours, under the sway of the Sikhs. In 1765 Gujar Singh defeated the last independent Ghakkar prince, and reduced the wild mountaineers to subjection. His son succeeded to his dominions, until 1810, when he fell before the irresistible power of Ranjit Singh. In 1849 the district passed, with the rest of the Sikh territories, into the hands of the British.

JHERING, RUDOLF VON (1818–1892), German jurist, was born on the 22nd of August 1818 at Aurich in East Friesland, where his father practised as a lawyer. Young Jhering entered the university of Heidelberg in 1836 and, after the fashion of German students, visited successively Göttingen and Berlin. G. F. Puchta, the author of *Geschichte des Rechts bei dem römischen Volke*, alone of all his teachers appears to have gained his admiration and influenced the bent of his mind. After graduating *doctor juris*, Jhering established himself in 1844 at Berlin as *privatdocent* for Roman law, and delivered public lectures on the *Geist des römischen Rechts*, the theme which may be said to have constituted his life's work. In 1845 he became an ordinary professor at Basel, in 1846 at Rostock, in 1849 at Kiel, and in 1851 at Giessen. Upon all these seats of learning he left his mark; beyond any other of his contemporaries he animated the dry bones of Roman law. The German juristic world was still under the dominating influence of the Savigny cult, and the older school looked askance at the daring of the young professor, who essayed to adapt the old to new exigencies and to build up a system of natural jurisprudence. This is the keynote of his famous work, *Geist des römischen Rechts auf den verschiedenen Stufen seiner Entwickelung* (1852–1865), which for originality of conception and lucidity of scientific reasoning placed its author in the forefront of modern Roman jurists. It is no exaggeration to say that in the second half of the 19th century the reputation of Jhering was as high as that of Savigny in the first. Their methods were almost diametrically opposed. Savigny and his school represented the conservative, historical tendency. In Jhering the philosophical conception of jurisprudence, as a science to be utilized for the further advancement of the moral and social interests of mankind, was predominant. In 1868 Jhering accepted the chair of Roman Law at Vienna, where his lecture-room was crowded, not only with regular students but

with men of all professions and even of the highest ranks in the official world. He became one of the lions of society, the Austrian emperor conferring upon him in 1872 a title of hereditary nobility. But to a mind constituted like his, the social functions of the Austrian metropolis became wearisome, and he gladly exchanged its brilliant circles for the repose of Göttingen, where he became professor in 1872. In this year he had read at Vienna before an admiring audience a lecture, published under the title of *Der Kampf um's Recht* (1872; Eng. trans., *Battle for Right*, 1884). Its success was extraordinary. Within two years it attained twelve editions, and it has been translated into twenty-six languages. This was followed a few years later by *Der Zweck im Recht* (2 vols., 1877–1883). In these two works is clearly seen Jhering's individuality. The *Kampf um's Recht* shows the firmness of his character, the strength of his sense of justice, and his juristic method and logic: "to assert his rights is the duty that every responsible person owes to himself." In the *Zweck im Recht* is perceived the bent of the author's intellect. But perhaps the happiest combination of all his distinctive characteristics is to be found in his *Jurisprudenz des läglichen Lebens* (1870; Eng. trans., 1904). A great feature of his lectures was his so-called *Praktika*, problems in Roman law, and a collection of these with hints for solution was published as early as 1847 under the title *Civilrechtsfälle ohne Entscheidungen*. In Göttingen he continued to work until his death on the 17th of September 1892. A short time previously he had been the centre of a devoted crowd of friends and former pupils, assembled at Wilhelmshöhe near Cassel to celebrate the jubilee of his doctorate. Almost all countries were worthily represented, and this pilgrimage affords an excellent illustration of the extraordinary fascination and enduring influence that Jhering commanded. In appearance he was of middle stature, his face clean-shaven and of classical mould, lit up with vivacity and beaming with good nature. He was perhaps seen at his best when dispensing hospitality in his own house. With him died the best beloved and the most talented of Roman-law professors of modern times. It was said of him by Professor Adolf Merkel in a memorial address, *R. v. Jhering* (1893), that he belonged to the happy class of persons to whom Goethe's lines are applicable: "Was ich in der Jugend gewünscht, das habe ich im Alter die Fülle," and this may justly be said of him, though he did not live to complete his *Geist des römischen Rechts* and his *Rechtsgeschichte*. For this work the span of a single life would have been insufficient, but what he has left to the world is a monument of vigorous intellectual power and stamps Jhering as an original thinker and unrivalled exponent (in his peculiar interpretation) of the spirit of Roman law.

Among others of his works, all of them characteristic of the author and sparkling with wit, may be mentioned the following: *Beiträge zur Lehre von Besitz*, first published in the *Jahrbücher für die Dogmatik des heutigen römischen und deutschen Privat-rechts*, and then separately; *Der Besitzwille*, and an article entitled "Besitz" in the *Handwörterbuch der Staatswissenschaften* (1891), which aroused at the time much controversy, particularly on account of the opposition manifested to Savigny's conception of the subject. See also *Scherz und Ernst in der Jurisprudenz* (1885); *Das Schuldmoment im römischen Privat-recht* (1867); *Das Trinkgeld* (1882); and among the papers he left behind him his *Vorgeschichte der Indoeuropäer*, a fragment, has been published by v. Ehrenberg (1894). See for an account of his life also M. de Jonge, *Rudolf v. Jhering* (1888); and A. Merkel, *Rudolf von Jhering* (1893). (P. A. A.)

JIBITOS, a tribe of South American Indians, first met with by the Franciscans in 1676 in the forest near the Huallaga river, in the Peruvian province of Loreto. After their conversion they settled in villages on the western bank of the river.

JIBUTI (Djibouti), the chief port and capital of French Somaliland, in 11° 35′ N., 43° 10′ E. Jibuti is situated at the entrance to and on the southern shore of the Gulf of Tajura about 150 m. S.W. of Aden. The town is built on a horseshoe-shaped peninsula partly consisting of mud flats, which are spanned by causeways. The chief buildings are the governor's palace, customs-house, post office, and the terminal station of the railway to Abyssinia. The houses in the European quarter are built of stone, are flat-roofed and provided with verandas. There is a good water supply, drawn from a reservoir about 2½ m. distant. The harbour is land-locked and capacious. Ocean steamers are able to enter it at all states of wind and tide. Adjoining the mainland is the native town, consisting mostly of roughly made wooden houses with well thatched roofs. In it is held a large market, chiefly for the disposal of live stock, camels, cattle, &c. The port is a regular calling-place and also a coaling station for the steamers of the Messageries Maritimes, and there is a local service to Aden. Trade is confined to coaling passing ships and to importing goods for and exporting goods from southern Abyssinia via Harrar, there being no local industries. (For statistics see Somaliland, French.) The inhabitants are of many races—Somali, Danakil, Gallas, Armenians, Jews, Arabs, Indians, besides Greeks, Italians, French and other Europeans. The population, which in 1900 when the railway was building was about 15,000, had fallen in 1907 to some 5000 or 6000, including 300 Europeans.

Jibuti was founded by the French in 1888 in consequence of its superiority to Obok both in respect to harbour accommodation and in nearness to Harrar. It has been the seat of the governor of the colony since May 1896. Order is maintained by a purely native police force. The port is not fortified.

JICARILLA, a tribe of North American Indians of Athapascan stock. Their former range was in New Mexico, about the headwaters of the Rio Grande and the Pecos, and they are now settled in a reservation on the northern border of New Mexico. Originally a scourge of the district, they are now subdued, but remain uncivilized. They number some 800 and are steadily decreasing. The name is said to be from the Spanish *jicara*, a basket tray, in reference to their excellent basket-work.

JIDDA (also written Jeddah, Djiddah, Djeddeh), a town in Arabia on the Red Sea coast in 21° 28′ N. and 39° 10′ E. It is of importance mainly as the principal landing place of pilgrims to Mecca, from which it is about 46 m. distant. It is situated in a low sandy plain backed by a range of hills 10 m. to the east, with higher mountains behind. The town extends along the beach for about a mile, and is enclosed by a wall with towers at intervals, the seaward angles being commanded by two forts, in the northern of which are the prison and other public buildings. There are three gates, the Medina gate on the north, the Mecca gate on the east, and the Yemen gate (rarely opened) on the south; there are also three small posterns on the west side, the centre one leading to the quay. In front of the Mecca gate is a rambling suburb with shops, coffee houses, and an open market place; before the Medina gate are the Turkish barracks, and beyond them the holy place of Jidda, the tomb of "our mother Eve," surrounded by the principal cemetery.

The tomb is a walled enclosure said to represent the dimensions of the body, about 200 paces long and 15 ft. broad. At the head is a small erection where gifts are deposited, and rather more than half-way down a whitewashed dome encloses a small dark chapel within which is the black stone known as *El Surrah*, the navel. The grave of Eve is mentioned by Edrisi, but except the black stone nothing bears any aspect of antiquity (see Burton's *Pilgrimage*, vol. ii.).

The sea face is the best part of the town; the houses there are lofty and well built of the rough coral that crops out all along the shore. The streets are narrow and winding. There are two mosques of considerable size and a number of smaller ones. The outer suburbs are merely collections of brushwood huts. The bazaars are well supplied with food-stuffs imported by sea, and fruit and vegetables from Taif and Wadi Fatima. The water supply is limited and brackish; there are, however, two sweet wells and a spring 7½ m. from the town, and most of the houses have cisterns for storing rain-water. The climate is hot and damp, but fever is not so prevalent as at Mecca. The harbour though inconvenient of access is well protected by coral reefs; there are, however, no wharves or other dock facilities and cargo is landed in small Arab boats, *sambuks*.

The governor is a Turkish kaimakam under the vali of Hejaz, and there is a large Turkish garrison; the sharif of Mecca, however, through his agent at Jidda exercises an authority

practically superior to that of the sultan's officials. Consulates are maintained by Great Britain, France, Austria, Russia, Holland, Belgium and Persia. The permanent population is estimated at 20,000, of which less than half are Arabs, and of these a large number are foreigners from Yemen and Hadramut, the remainder are negroes and Somali with a few Indian and Greek traders.

Jidda is said to have been founded by Persian merchants in the caliphate of Othman, but its great commercial prosperity dates from the beginning of the 15th century, when it became the centre of trade between Egypt and India. Down to the time of Burckhardt (1815) the Suez ships went no farther than Jidda, where they were met by Indian vessels. The introduction of steamers deprived Jidda of its place as an emporium, not only for Indian goods but for the products of the Red Sea, which formerly were collected here, but are now largely exported direct by steamer from Hodeda, Suakin, Jibuti and Aden. At the same time it gave a great impulse to the pilgrim traffic which is now regarded as the annual harvest of Jidda. The average number of pilgrims arriving by sea exceeds 50,000, and in 1903–1904 the total came to 74,600. The changed status of the port is shown in its trade returns, for while its exports decreased from £250,000 in 1880 to £25,000 in 1904, its imports in the latter year amounted to over £1,400,000. The adverse balance of trade is paid by a very large export of specie, collected from the pilgrims during their stay in the country.

JIG, a brisk lively dance, the quick and irregular steps of which have varied at different times and in the various countries in which it has been danced (see DANCE). The music of the "jig," or such as is written in its rhythm, is in various times and has been used frequently to finish a suite, *e.g.* by Bach and Handel. The word has usually been derived from or connected with Fr. *gigue*, Ital. *giga*, Ger. *Geige*, a fiddle. The French and Italian words are now chiefly used of the dance or dance rhythm, and in this sense have been taken by etymologists as adapted from the English "jig," which may have been originally an onomatopoeic word. The idea of jumping, jerking movement has given rise to many applications of "jig" and its derivative "jigger" to mechanical and other devices, such as the machine used for separating the heavier metal-bearing portions from the lighter parts in ore-dressing, or a tackle consisting of a double and single block and fall, &c. The word "jigger," a corruption of the West Indian *chigoe*, is also used as the name of a species of flea, the *Sarcopsylla penetrans*, which burrows and lays its eggs in the human foot, generally under the toe nails, and causes great swelling and irritation (see FLEA).

JIHAD (also written JEHAD, JAHAD, DJEHAD), an Arabic word of which the literal meaning is an effort or a contest. It is used to designate the religious duty inculcated in the Koran on the followers of Mahomet to wage war upon those who do not accept the doctrines of Islam. This duty is laid down in five suras—all of these suras belonging to the period after Mahomet had established his power. Conquered peoples who will neither embrace Islam nor pay a poll-tax (*jizya*) are to be put to the sword. (See further MAHOMMEDAN INSTITUTIONS.) By Mahommedan commentators the commands in the Koran are not interpreted as a general injunction on all Moslems constantly to make war on the infidels. It is generally supposed that the order for a general war can only be given by the caliph (an office now claimed by the sultans of Turkey). Mahommedans who do not acknowledge the spiritual authority of the Ottoman sultan, such as the Persians and Moors, look to their own rulers for the proclamation of a jihad; there has been in fact no universal warfare by Moslems on unbelievers since the early days of Mahommedanism. Jihads are generally proclaimed by all persons who claim to be mahdis, *e.g.* Mahommed Aḥmad (the Sudanese mahdi) proclaimed a jihad in 1882. In the belief of Moslems every one of their number slain in a jihad is taken straight to paradise.

JIMENES (or XIMENES) **DE CISNEROS, FRANCISCO** (1436–1517), Spanish cardinal and statesman, was born in 1436 at Torrelaguna in Castile, of good but poor family. He studied at Alcalá de Henares and afterwards at Salamanca; and in 1459, having entered holy orders, he went to Rome. Returning to Spain in 1465, he brought with him an "expective" letter from the pope, in virtue of which he took possession of the archpriestship of Uzeda in the diocese of Toledo in 1473. Carillo, archbishop of Toledo, opposed him, and on his obstinate refusal to give way threw him into prison. For six years Jimenes held out, and at length in 1480 Carillo restored him to his benefice. This Jimenes exchanged almost at once for a chaplaincy at Siguenza, under Cardinal Mendoza, bishop of Siguenza, who shortly appointed him vicar-general of his diocese. In that position Jimenes won golden opinions from ecclesiastic and layman; and he seemed to be on the sure road to distinction among the secular clergy, when he abruptly resolved to become a monk. Throwing up all his benefices, and changing his baptismal name Gonzales for that of Francisco, he entered the Franciscan monastery of San Juan de los Reyes, recently founded by Ferdinand and Isabella at Toledo. Not content with the ordinary severities of the noviciate, he added voluntary austerities. He slept on the bare ground, wore a hair-shirt, doubled his fasts, and scourged himself with much fervour; indeed throughout his whole life, even when at the acme of his greatness, his private life was most rigorously ascetic. The report of his sanctity brought crowds to confess to him; but from them he retired to the lonely monastery of Our Lady of Castañar; and he even built with his own hands a rude hut in the neighbouring woods, in which he lived at times as an anchorite. He was afterwards guardian of a monastery at Salzeda. Meanwhile Mendoza (now archbishop of Toledo) had not forgotten him; and in 1492 he recommended him to Isabella as her confessor. The queen sent for Jimenes, was pleased with him, and to his great reluctance forced the office upon him. The post was politically important, for Isabella submitted to the judgment of her father-confessor not only her private affairs but also matters of state. Jimenes's severe sanctity soon won him considerable influence over Isabella; and thus it was that he first emerged into political life. In 1494 the queen's confessor was appointed provincial of the order of St Francis, and at once set about reducing the laxity of the conventual to the strictness of the observantine Franciscans. Intense opposition was continued even after Jimenes became archbishop of Toledo. The general of the order himself came from Rome to interfere with the archbishop's measures of reform, but the stern inflexibility of Jimenes, backed by the influence of the queen, subdued every obstacle. Cardinal Mendoza had died in 1495, and Isabella had secretly procured a papal bull nominating her confessor to his diocese of Toledo, the richest and most powerful in Spain, second perhaps to no other dignity of the Roman Church save the papacy. Long and sincerely Jimenes strove to evade the honour; but his *nolo episcopari* was after six months overcome by a second bull ordering him to accept consecration. With the primacy of Spain was associated the lofty dignity of high chancellor of Castile; but Jimenes still maintained his lowly life; and, although a message from Rome required him to live in a style befitting his rank, the outward pomp only concealed his private asceticism. In 1499 Jimenes accompanied the court to Granada, and there eagerly joined the mild and pious Archbishop Talavera in his efforts to convert the Moors. Talavera had begun with gentle measures, but Jimenes preferred to proceed by haranguing the *fakihs*, or doctors of religion, and loading them with gifts. Outwardly the latter method was successful; in two months the converts were so numerous that they had to be baptized by aspersion. The indignation of the unconverted Moors swelled into open revolt. Jimenes was besieged in his house, and the utmost difficulty was found in quieting the city. Baptism or exile was offered to the Moors as a punishment for rebellion. The majority accepted baptism; and Isabella, who had been momentarily annoyed at her archbishop's imprudence, was satisfied that he had done good service to Christianity.

On the 24th of November 1504 Isabella died. Ferdinand at once resigned the title of king of Castile in favour of his daughter Joan and her husband the archduke Philip, assuming instead

that of regent. Philip was keenly jealous of Ferdinand's pretensions to the regency; and it required all the tact of Jimenes to bring about a friendly interview between the princes. Ferdinand finally retired from Castile; and, though Jimenes remained, his political weight was less than before. The sudden death of Philip in September 1506 quite overset the already tottering intellect of his wife; his son and heir Charles was still a child; and Ferdinand was at Naples. The nobles of Castile, mutually jealous, agreed to entrust affairs to the archbishop of Toledo, who, moved more by patriotic regard for his country's welfare than by special friendship for Ferdinand, strove to establish the final influence of that king in Castile. Ferdinand did not return till August 1507; and he brought a cardinal's hat for Jimenes. Shortly afterwards the new cardinal of Spain was appointed grand inquisitor-general for Castile and Leon.

The next great event in the cardinal's life was the expedition against the Moorish city of Oran in the north of Africa, in which his religious zeal was supported by the prospect of the political and material gain that would accrue to Spain from the possession of such a station. A preliminary expedition, equipped, like that which followed, at the expense of Jimenes, captured the port of Mers-el-Kebir in 1505; and in 1509 a strong force, accompanied by the cardinal in person, set sail for Africa, and in one day the wealthy city was taken by storm. Though the army remained to make fresh conquests, Jimenes returned to Spain, and occupied himself with the administration of his diocese, and in endeavouring to recover from the regent the expenses of his Oran expedition. On the 28th of January 1516 Ferdinand died, leaving Jimenes as regent of Castile for Charles (afterwards Charles V.), then a youth of sixteen in the Netherlands. Though Jimenes at once took firm hold of the reins of government, and ruled in a determined and even autocratic manner, the haughty and turbulent Castilian nobility and the jealous intriguing Flemish councillors of Charles combined to render his position peculiarly difficult; while the evils consequent upon the unlimited demands of Charles for money threw much undeserved odium upon the regent. In violation of the laws, Jimenes acceded to Charles's desire to be proclaimed king; he secured the person of Charles's younger brother Ferdinand; he fixed the seat of the cortes at Madrid; and he established a standing army by drilling the citizens of the great towns. Immediately on Ferdinand's death, Adrian, dean of Louvain, afterwards pope, produced a commission from Charles appointing him regent. Jimenes admitted him to a nominal equality, but took care that neither he nor the subsequent commissioners of Charles ever had any real share of power. In September 1517 Charles landed in the province of Asturias, and Jimenes hastened to meet him. On the way, however, he fell ill, not without a suspicion of poison. While thus feeble, he received a letter from Charles coldly thanking him for his services, and giving him leave to retire to his diocese. A few hours after this virtual dismissal, which some, however, say the cardinal never saw, Francisco Jimenes died at Roa, on the 8th of November 1517.

Jimenes was a bold and determined statesman. Sternly and inflexibly, with a confidence that became at times overbearing, he carried through what he had decided to be right, with as little regard for the convenience of others as for his own. In the midst of a corrupt clergy his morals were irreproachable. He was liberal to all, and founded and maintained very many benevolent institutions in his diocese. His whole time was devoted either to the state or to religion; his only recreation was in theological or scholastic discussion. Perhaps one of the most noteworthy points about the cardinal is the advanced period of life at which he entered upon the stage where he was to play such leading parts. Whether his abrupt change from the secular to the regular clergy was the fervid outcome of religious enthusiasm or the far-seeing move of a wily schemer has been disputed; but the constant austerity of his life, his unvarying superiority to small personal aims, are arguments for the former alternative that are not to be met by merely pointing to the actual honours and power he at last attained.

In 1500 was founded, and in 1508 was opened, the university of Alcalá de Henares, which, fostered by Cardinal Jimenes, at whose sole expense it was raised, attained a great pitch of outward magnificence and internal worth. At one time 7000 students met within its walls. In 1836 the university was removed to Madrid, and the costly buildings were left vacant. In the hopes of supplanting the romances generally found in the hands of the young, Jimenes caused to be published religious treatises by himself and others. He revived also the Mozarabic liturgy, and endowed a chapel at Toledo, in which it was to be used. But his most famous literary service was the printing at Alcalá (in Latin *Complutum*) of the Complutensian Polyglott, the first edition of the Christian Scriptures in the original text. In this work, on which he is said to have expended half a million of ducats, the cardinal was aided by the celebrated Stunica (D. Lopez de Zuñiga), the Greek scholar Nuñez de Guzman (Pincianus), the Hebraist Vergara, and the humanist Nebrija, by a Cretan Greek Demetrius Ducas, and by three Jewish converts, of whom Zamora edited the Targum to the Pentateuch. The other Targums are not included. In the Old Testament Jerome's version stands between the Greek and Hebrew. The synagogue and the Eastern church, as the preface expresses it, are set like the thieves on this side and on that, with Jesus (that is, the Roman Church) in the midst. The text occupies five volumes, and a sixth contains a Hebrew lexicon, &c. The work commenced in 1502. The New Testament was finished in January 1514, and the whole in April 1517. It was dedicated to Leo X., and was reprinted in 1572 by the Antwerp firm of Plantin, after revision by Benito Arias Montano at the expense of Philip II. The second edition is known as the *Biblia Regia* or *Filipina*.

The work by Alvaro Gomez de Castro, *De Rebus Gestis Francisci Ximenii* (folio, 1659, Alcalá), is the quarry whence have come the materials for biographies of Jimenes—in Spanish by Robles (1604) and Quintanilla (1633); in French by Baudier (1635), Marsollier (1684), Flèchier (1694) and Richard (1704); in German by Hefele (1844, translated into English by Canon Dalton, 1860) and Havemann (1848); and in English by Barrett (1813). See also Prescott's *Ferdinand and Isabella; Revue des Deux Mondes* (May 1841) and *Mém. de l'Acad. d'hist. de Madrid*, vol. iv.

JIND, a native state of India, within the Punjab. It ranks as one of the Cis-Sutlej states, which came under British influence in 1809. The territory consists of three isolated tracts, amid British districts. Total area, 1332 sq. m. Pop. (1901), 282,003, showing a decrease of 1% in the decade. Estimated gross revenue £109,000; there is no tribute. Grain and cotton are exported, and there are manufactures of gold and silver ornaments, leather and wooden wares and cloth. The chief, whose title is raja, is a Sikh of the Sidhu Jat clan and of the Phulkian family. The principality was founded in 1763, and the chief was recognized by the Mogul emperor in 1768. The dynasty has always been famous for its loyalty to the British, especially during the Mutiny, which has been rewarded with accessions of territory. In 1857 the raja of Jind was actually the first man, European or native, who took the field against the mutineers; and his contingent collected supplies in advance for the British troops marching upon Delhi, besides rendering excellent service during the siege. Raja Ranbir Singh succeeded as a minor in 1887, and was granted full powers in 1899. During the Tirah expedition of 1897–98 the Jind imperial service infantry specially distinguished themselves. The town of Jind, the former capital, has a station on the Southern Punjab railway, 80 m. N.W. of Delhi. Pop. (1901), 8047. The present capital and residence of the raja since 1827 is Sangrur; pop. (1901), 11,852.

JINGO, a legendary empress of Japan, wife of Chūai, the 14th mikado (191–200). On her husband's death she assumed the government, and fitted out an army for the invasion of Korea (see JAPAN, § 9). She returned to Japan completely victorious after three years' absence. Subsequently her son Ojen Tenno, afterwards 15th mikado, was born, and later was canonized as Hachiman, god of war. The empress Jingo ruled over Japan till 270. She is still worshipped.

As regards the English oath, usually "By Jingo," or "By the living Jingo," the derivation is doubtful. The identification with the name of Gingulph or Gengulphus, a Burgundian saint who was martyred on the 11th of May 760, was a joke on the part of R. H. Barham, author of the *Ingoldsby Legends*. Some explain the word as a corruption of Jainko, the Basque name for God. It has also been derived from the Persian *jang* (war), St Jingo being the equivalent of the Latin god of war, Mars; and is even explained as a corruption of "Jesus, Son of God," Je-n-go. In

support of the Basque derivation it is alleged that the oath was first common in Wales, to aid in the conquest of which Edward I. imported a number of Basque mercenaries. The phrase does not, however, appear in literature before the 17th century, first as conjurer's jargon. Motteux, in his "Rabelais," is the first to use "by jingo," translating *par dieu*. The political use of the word as indicating an aggressive patriotism (Jingoes and Jingoism) originated in 1877 during the weeks of national excitement preluding the despatch of the British Mediterranean squadron to Gallipoli, thus frustrating Russian designs on Constantinople. While the public were on the tiptoe of expectation as to what policy the government would pursue, a bellicose music-hall song with the refrain "We don't want to fight, but by Jingo if we do," &c., was produced in London by a singer known as "the great MacDermott," and instantly became very popular. Thus the war-party came to be called Jingoes, and Jingoism has ever since been the term applied to those who advocate a national policy of arrogance and pugnacity.

For a discussion of the etymology of Jingo see *Notes and Queries*, (August 25, 1894), 8th series, p. 149.

JINN (Djinn), the name of a class of spirits (*genii*) in Arabian mythology. They are the offspring of fire, but in their form and the propagation of their kind they resemble human beings. They are ruled by a race of kings named "Suleyman," one of whom is considered to have built the pyramids. Their central home is the mountain Kāf, and they manifest themselves to men under both animal and mortal form and become invisible at will. There are good and evil jinn, and these in each case reach the extremes of beauty and ugliness.

JIREČEK, JOSEF (1825–1888), Czech scholar, was born at Vysoké Mýto in Bohemia on the 9th of October 1825. He entered the Prague bureau of education in 1850, and became minister of the department in the Hohenwart cabinet in 1871. His efforts to secure equal educational privileges for the Slav nationalities in the Austrian dominions brought him into disfavour with the German element. He became a member of the Bohemian Landtag in 1878, and of the Austrian Reichsrat in 1879. His merits as a scholar were recognized in 1875 by his election as president of the royal Bohemian academy of sciences. He died in Prague on the 25th of November 1888.

With Hermenegild Jireček he defended in 1862 the genuineness of the Königinhof MS. discovered by Wenceslaus Hanka. He published in the Czech language an anthology of Czech literature (3 vols., 1858–1861), a biographical dictionary of Czech writers (2 vols., 1875–1876), a Czech hymnology, editions of Blahoslaw's Czech grammar and of some Czech classics, and of the works of his father-in-law Pavel Josef Šafařik (1795–1861).

His brother Hermenegild Jireček, Ritter von Samakow (1827–), Bohemian jurisconsult, who was born at Vysoké Mýto on the 13th of April 1827, was also an official in the education department.

Among his important works on Slavonic law were *Codex juris bohemici* (11 parts, 1867–1892), and a *Collection of Slav Folk-Law* (Czech, 1880), *Slav Law in Bohemia and Moravia down to the 14th Century* (Czech, 3 vols. 1863–1873).

Jireček, Konstantin Josef (1854–), son of Josef, taught history at Prague. He entered the Bulgarian service in 1879, and in 1881 became minister of education at Sofia. In 1884 he became professor of universal history in Czech at Prague, and in 1893 professor of Slavonic antiquities at Vienna.

The bulk of Konstantin's writings deal with the history of the southern Slavs and their literature. They include a *History of the Bulgars* (Czech and German, 1876), *The Principality of Bulgaria* (1891), *Travels in Bulgaria* (Czech, 1888), &c.

JIZAKH, a town of Russian Central Asia, in the province of Samarkand, on the Transcaspian railway, 71 m. N.E. of the city of Samarkand. Pop. (1897), 16,041. As a fortified post of Bokhara it was captured by the Russians in 1866.

JOAB (Heb. "Yah[weh] is a father"), in the Bible, the son of Zeruiah, David's sister (1 Chron. ii. 16). His brothers were Asahel and Abishai. All three were renowned warriors and played a prominent part in David's history. Abishai on one occasion saved the king's life from a Philistine giant (2 Sam. xxi. 17), and Joab as warrior and statesman was directly responsible for much of David's success. Joab won his spurs, according to one account, by capturing Jerusalem (1 Chron. xi. 4–9); with Abishai and Ittai of Gath he led a small army against the Israelites who had rebelled under Absalom (2 Sam. xviii. 2); and he superintended the campaign against Ammon and Edom (2 Sam. xi. 1, xii. 26; 1 Kings xi. 15). He showed his sturdy character by urging the king after the death of Absalom to place his duty to his people before his grief for the loss of his favourite son (2 Sam. xix. 1–8), and by protesting against David's proposal to number the people, an innovation which may have been regarded as an infringement of their liberties (2 Sam. xxiv.; 1 Chron. xxi. 6).

The hostility of the "sons of Zeruiah" towards the tribe of Benjamin is characteristically contrasted with David's own generosity towards Saul's fallen house. Abishai proposed to kill Saul when David surprised him asleep (1 Sam. xxvi. 8), and was anxious to slay Shimei when he cursed the king (2 Sam. xvi. 9). But David was resigned to the will of Yahweh and refused to entertain the suggestions. After Asahel met his death at the hands of Abner, Joab expostulated with David for not taking revenge upon the guilty one, and indeed the king might be considered bound in honour to take up his nephew's cause. But when Joab himself killed Abner, David's imprecation against him and his brother Abishai showed that he dissociated himself from the act of vengeance, although it brought him nearer to the throne of all Israel (2 Sam. iii.). Fear of a possible rival may have influenced Joab, and this at all events led him to slay Amasa of Judah (2 Sam. xx. 4–13). The two deeds are similar, and the impression left by them is expressed in David's last charges to Solomon (1 Kings ii.). But here Joab had taken the side of Adonijah against Solomon, and was put to death by Benaiah at Solomon's command, and it is possible that the charges are the fruit of a later tradition to remove all possible blame from Solomon (*q.v.*). It is singular that Joab is not blamed for killing Absalom, but it would indeed be strange if the man who helped to reconcile father and son (2 Sam. xiv.) should have perpetrated so cruel an act in direct opposition to the king's wishes (xviii. 5, 10–16). A certain animus against Joab's family thus seems to underlie some of the popular narratives of the life of David (*q.v.*). (S. A. C.)

JOACHIM OF FLORIS (*c.* 1145–1202), so named from the monastery of San Giovanni in Fiore, of which he was abbot, Italian mystic theologian, was born at Celico, near Cosenza, in Calabria. He was of noble birth and was brought up at the court of Duke Roger of Apulia. At an early age he went to visit the holy places. After seeing his comrades decimated by the plague at Constantinople he resolved to change his mode of life, and, on his return to Italy, after a rigorous pilgrimage and a period of ascetic retreat, became a monk in the Cistercian abbey of Casamari. In August 1177 we know that he was abbot of the monastery of Corazzo, near Martirano. In 1183 he went to the court of Pope Lucius III. at Veroli, and in 1185 visited Urban III. at Verona. There is extant a letter of Pope Clement III., dated the 8th of June 1188, in which Clement alludes to two of Joachim's works, the *Concordia* and the *Expositio in Apocalypsin*, and urges him to continue them. Joachim, however, was unable to continue his abbatial functions in the midst of his labours in prophetic exegesis, and, moreover, his asceticism accommodated itself but ill with the somewhat lax discipline of Corazzo. He accordingly retired into the solitudes of Pietralata, and subsequently founded with some companions under a rule of his own creation the abbey of San Giovanni in Fiore, on Monte Nero, in the *massif* of La Sila. The pope and the emperor befriended this foundation; Frederick II. and his wife Constance made important donations to it, and promoted the spread of offshoots of the parent house; while Innocent III., on the 21st of January 1204, approved the "ordo Florensis" and the "institutio" which its founder had bestowed upon it. Joachim died in 1202, probably on the 20th of March.

Of the many prophetic and polemical works that were attributed to Joachim in the 13th and following centuries, only those enumerated in his will can be regarded as absolutely authentic. These are the *Concordia novi et veteris Testamenti* (first printed at Venice in 1519), the *Expositio in Apocalypsin* (Venice, 1527), the *Psalterium decem chordarum* (Venice, 1527), together with some "libelli" against the Jews or the adversaries of the Christian faith. It is very probable that these "libelli" are the writings entitled *Concordia Evangeliorum, Contra Judaeos, De articulis fidei, Confessio fidei* and *De unitate Trinitatis*. The last is perhaps the work which was condemned by the Lateran council in 1215 as containing an erroneous

criticism of the Trinitarian theory of Peter Lombard. This council, though condemning the book, refrained from condemning the author, and approved the order of Floris. Nevertheless, the monks continued to be subjected to insults as followers of a heretic, until they obtained from Honorius III. in 1220 a bull formally recognizing Joachim as orthodox and forbidding anyone to injure his disciples.

It is impossible to enumerate here all the works attributed to Joachim. Some served their avowed object with great success, being powerful instruments in the anti-papal polemic and sustaining the revolted Franciscans in their hope of an approaching triumph. Among the most widely circulated were the commentaries on Jeremiah, Isaiah and Ezekiel, the *Vaticinia pontificum* and the *De oneribus ecclesiae*. Of his authentic works the doctrinal essential is very simple. Joachim divides the history of humanity, past, present and future, into three periods, which, in his *Expositio in Apocalypsin* (bk. i. ch. 5), he defines as the age of the Law, or of the Father; the age of the Gospel, or of the Son; and the age of the Spirit, which will bring the ages to an end. Before each of these ages there is a period of incubation, or initiation: the first age begins with Abraham, but the period of initiation with the first man Adam. The initiation period of the third age begins with St Benedict, while the actual age of the Spirit is not to begin until 1260, the Church—*mulier amicta sole* (Rev. xii. 1)—remaining hidden in the wilderness 1260 days. We cannot here enter into the infinite details of the other subdivisions imagined by Joachim, or into his system of perpetual concordances between the New and the Old Testaments, which, according to him, furnish the prefiguration of the third age. Far more interesting as explaining the diffusion and the religious and social importance of his doctrine is his conception of the second and third ages. The first age was the age of the Letter, the second was intermediary between the Letter and the Spirit, and the third was to be the age of the Spirit. The age of the Son is the period of study and wisdom, the period of striving towards mystic knowledge. In the age of the Father all that was necessary was obedience; in the age of the Son reading is enjoined; but the age of the Spirit was to be devoted to prayer and song. The third is the age of the *plena spiritus libertas*, the age of contemplation, the monastic age *par excellence*, the age of a monachism wholly directed towards ecstasy, more Oriental than Benedictine. Joachim does not conceal his sympathies with the ideal of Basilian monachism. In his opinion—which is, in form at least, perfectly orthodox—the church of Peter will be, not abolished, but purified; actually, the hierarchy effaces itself in the third age before the order of the monks, the *viri spirituales*. The entire world will become a vast monastery in that day, which will be the resting-season, the sabbath of humanity. In various passages in Joachim's writings the clerical hierarchy is represented by Rachel and the contemplative order by her son Joseph, and Rachel is destined to efface herself before her son. Similarly, the teaching of Christ and the Apostles on the sacraments is considered, implicitly and explicitly, as transitory, as representing that passage from the *significantia* to the *significata* which Joachim signalizes at every stage of his demonstration. Joachim was not disturbed during his lifetime. In 1200 he submitted all his writings to the judgment of the Holy See, and unreservedly affirmed his orthodoxy; the Lateran council, which condemned his criticism of Peter Lombard, made no allusion to his eschatological temerities; and the bull of 1220 was a formal certificate of his orthodoxy.

The Joachimite ideas soon spread into Italy and France, and especially after a division had been produced in the Franciscan order. The rigorists, who soon became known as "Spirituals," represented St Francis as the initiator of Joachim's third age. Certain convents became centres of Joachimism. Around the hermit of Hyères, Hugh of Digne, was formed a group of Franciscans who expected from the advent of the third age the triumph of their ascetic ideas. The Joachimites even obtained a majority in the general chapter of 1247, and elected John of Parma, one of their number, general of the order. Pope Alexander IV., however, compelled John of Parma to renounce his dignity, and the Joachimite opposition became more and more vehement. Pseudo-Joachimite treatises sprang up on every hand, and, finally, in 1254, there appeared in Paris the *Liber introductorius ad Evangelium aeternum*, the work of a Spiritual Franciscan, Gherardo da Borgo San Donnino. This book was published with, and as an introduction to, the three principal works of Joachim, in which the Spirituals had made some interpolations.[1] Gherardo, however, did not say, as has been supposed, that Joachim's books were the new gospel, but merely that the Calabrian abbot had supplied the key to Holy Writ, and that with the help of that *intelligentia mystica* it would be possible to extract from the Old and New Testaments the eternal meaning, the gospel according to the Spirit, a gospel which would never be written; as for this eternal sense, it had been entrusted to an order set apart, to the Franciscan order announced by Joachim, and in this order the ideal of the third age was realized. These affirmations provoked very keen protests in the ecclesiastical world. The secular masters of the university of Paris denounced the work to Pope Innocent IV., and the bishop of Paris sent it to the pope. It was Innocent's successor, Alexander IV., who appointed a commission to examine it; and as a result of this commission, which sat at Anagni, the destruction of the *Liber introductorius* was ordered by a papal breve dated the 23rd of October 1255. In 1260 a council held at Arles condemned Joachim's writings and his supporters, who were very numerous in that region. The Joachimite ideas were equally persistent among the Spirituals, and acquired new strength with the publication of the commentary on the Apocalypse. This book, probably published after the death of its author and probably interpolated by his disciples, contains, besides Joachimite principles, an affirmation even clearer than that of Gherardo da Borgo of the elect character of the Franciscan order, as well as extremely violent attacks on the papacy. The Joachimite literature is extremely vast. From the 14th century to the middle of the 16th, Ubertin of Casale (in his *Arbor Vitae crucifixae*), Bartholomew of Pisa (author of the *Liber Conformitatum*), the Calabrian hermit Telesphorus, John of La Rochetaillade, Seraphin of Fermo, Johannes Annius of Viterbo, Coelius Pannonius, and a host of other writers, repeated or complicated *ad infinitum* the exegesis of Abbot Joachim. A treatise entitled *De ultima aetate ecclesiae*, which appeared in 1356, has been attributed to Wycliffe, but is undoubtedly from the pen of an anonymous Joachimite Franciscan. The heterodox movements in Italy in the 13th and 14th centuries, such as those of the Segarellists, Dolcinists, and Fraticelli of every description, were penetrated with Joachimism; while such independent spirits as Roger Bacon, Arnaldus de Villa Nova and Bernard Délicieux often comforted themselves with the thought of the era of justice and peace promised by Joachim. Dante held Joachim in great reverence, and has placed him in Paradise (*Par.*, xii. 140–141).

See *Acta Sanctorum, Boll.* (May), vii. 94–112; W. Preger in *Abhandl. der kgl. Akad. der Wissenschaften*, hist. sect., vol. xii., pt. 3 (Munich, 1874); idem, *Gesch. d. deutschen Mystik im Mittelalter*, vol. i. (Leipzig, 1874); E. Renan, "Joachim de Flore et l'Évangile éternel" in *Nouvelles études d'histoire religieuse* (Paris, 1884); F. Tocco, *L'Eresia nel medio evo* (Florence, 1884); H. Denifle, "Das Evangelium aeternum und die Commission zu Anagni" in *Archiv für Literatur- und Kirchengesch. des Mittelalters*, vol. i.; Paul Fournier, "Joachim de Flore, ses doctrines, son influence" in *Revue des questions historiques*, t. i. (1900); H. C. Lea, *History of the Inquisition of the Middle Ages*, vol. iii. ch. i. (London, 1888); F. Ehrle's article "Joachim" in Wetzer and Welte's *Kirchenlexikon*. On Joachimism see E. Gebhardt, "Recherches nouvelles sur l'histoire du Joachimisme" in *Revue historique*, vol. xxxi. (1886); H. Haupt, "Zur Gesch. des Joachimismus" in *Briegers Zeitschrift für Kirchengesch.*, vol. vii. (1885). (P. A.)

JOACHIM I. (1484–1535), surnamed Nestor, elector of Brandenburg, elder son of John Cicero, elector of Brandenburg, was born on the 21st of February 1484. He received an excellent education, became elector of Brandenburg on his father's death in January 1499, and soon afterwards married Elizabeth, daughter of John, king of Denmark. He took some part in the political complications of the Scandinavian kingdoms, but the early years of his reign were mainly spent in the administration of his electorate, where by stern and cruel measures he succeeded in restoring some degree of order (see BRANDENBURG). He also improved the administration of justice, aided the development of commerce, and was a friend to the towns. On the approach of the imperial election of 1519, Joachim's vote was eagerly solicited by the partisans of Francis I., king of France, and by those of Charles, afterwards the emperor Charles V. Having treated with, and received lavish promises from, both parties, he appears to have hoped for the dignity for himself; but when the election came he turned to the winning side and voted for Charles. In spite of this step, however, the relations between the emperor and the elector were not friendly, and during the next few years Joachim was frequently in communication with the enemies of Charles. Joachim is best known as a pugnacious adherent of Catholic orthodoxy. He was one of the princes who urged upon the emperor the necessity of enforcing the Edict of Worms, and at several diets was prominent among the enemies of the Reformers. He was among those who met at Dessau in July 1525, and was a member of the league established at Halle in November 1533. But his wife adopted the reformed faith, and in 1528 fled for safety to Saxony; and he had the mortification of seeing these doctrines also favoured by other members of his family. Joachim, who was a patron of learning, established the university of Frankfort-on-the-Oder in 1506. He died at Stendal on the 11th of July 1535.

See T. von Buttlar, *Der Kampf Joachims I. von Brandenburg gegen den Adel* (1889); J. G. Droysen, *Geschichte der Preussischen Politik* (1855–1886).

[1] Preger is the only writer who has maintained that the three books in their primitive form date from 1254.

JOACHIM II. (1505–1571), surnamed Hector, elector of Brandenburg, the elder son of Joachim I., elector of Brandenburg, was born on the 13th of January 1505. Having passed some time at the court of the emperor Maximilian I., he married in 1524 a daughter of George, duke of Saxony. In 1532 he led a contingent of the imperial army on a campaign against the Turks; and soon afterwards, having lost his first wife, married Hedwig, daughter of Sigismund I., king of Poland. He became elector of Brandenburg on his father's death in July 1535, and undertook the government of the old and middle marks, while the new mark passed to his brother John. Joachim took a prominent part in imperial politics as an advocate of peace, though with a due regard for the interests of the house of Habsburg. He attempted to make peace between the Protestants and the emperor Charles V. at Frankfort in 1539, and subsequently at other places; but in 1542 he led the German forces on an unsuccessful campaign against the Turks. When the war broke out between Charles and the league of Schmalkalden in 1546 the elector at first remained neutral; but he afterwards sent some troops to serve under the emperor. With Maurice, elector of Saxony, he persuaded Philip, landgrave of Hesse, to surrender to Charles after the imperial victory at Mühlberg in April 1547, and pledged his word that the landgrave would be pardoned. But, although he felt aggrieved when the emperor declined to be bound by this promise, he refused to join Maurice in his attack on Charles. He supported the *Interim*, which was issued from Augsburg in May 1548, and took part in the negotiations that resulted in the treaty of Passau (1552), and the religious peace of Augsburg (1555). In domestic politics he sought to consolidate and strengthen the power of his house by treaties with neighbouring princes, and succeeded in secularizing the bishoprics of Brandenburg, Havelberg and Lebus. Although brought up as a strict adherent of the older religion, he showed signs of wavering soon after his accession, and in 1539 allowed free entrance to the reformed teaching in the electorate. He took the communion himself in both kinds, and established a new ecclesiastical organization in Brandenburg, but retained much of the ceremonial of the Church of Rome. His position was not unlike that of Henry VIII. in England, and may be partly explained by a desire to replenish his impoverished exchequer with the wealth of the Church (see BRANDENBURG). After the peace of Augsburg the elector mainly confined his attention to Brandenburg, where he showed a keener desire to further the principles of the Reformation. By his luxurious habits and his lavish expenditure on public buildings he piled up a great accumulation of debt, which was partly discharged by the estates of the land in return for important concessions. He cast covetous eyes upon the archbishopric of Magdeburg and the bishopric of Halberstadt, both of which he secured for his son Frederick in 1551. When Frederick died in the following year, the elector's son Sigismund obtained the two sees; and on Sigismund's death in 1566 Magdeburg was secured by his nephew, Joachim Frederick, afterwards elector of Brandenburg. Joachim, who was a prince of generous and cultured tastes, died at Köpenick on the 3rd of January 1571, and was succeeded by his son, John George. In 1880 a statue was erected to his memory at Spandau.

See Steinmüller, *Einführung der Reformation in die Kurmark Brandenburg durch Joachim II.* (1903); S. Isaacsohn, "Die Finanzen Joachims II." in the *Zeitschrift für Preussische Geschichte und Landeskunde* (1864–1883); J. G. Droysen, *Geschichte der Preussischen Politik* (1855–1886).

JOACHIM, JOSEPH (1831–1907), German violinist and composer, was born at Kittsee, near Pressburg, on the 28th of June 1831, the son of Jewish parents. His family moved to Budapest when he was two years old, and he studied there under Serwaczynski, who brought him out at a concert when he was only eight years old. Afterwards he learnt from the elder Hellmesberger and Joseph Böhm in Vienna, the latter instructing him in the management of the bow. In 1843 he went to Leipzig to enter the newly founded conservatorium. Mendelssohn, after testing his musical powers, pronounced that the regular training of a music school was not needed, but recommended that he should receive a thorough general education in music from Ferdinand David and Moritz Hauptmann. In 1844 he visited England, and made his first appearance at Drury Lane Theatre, where his playing of Ernst's fantasia on *Otello* made a great sensation; he also played Beethoven's concerto at a Philharmonic concert conducted by Mendelssohn. In 1847–1849 and 1852 he revisited England, and after the foundation of the popular concerts in 1859, up to 1899, he played there regularly in the latter part of the season. On Liszt's invitation he accepted the post of *Konzertmeister* at Weimar, and was there from 1850 to 1853. This brought Joachim into close contact with the advanced school of German musicians, headed by Liszt; and he was strongly tempted to give his allegiance to what was beginning to be called the "music of the future"; but his artistic convictions forced him to separate himself from the movement, and the tact and good taste he displayed in the difficult moment of explaining his position to Liszt afford one of the finest illustrations of his character.

His acceptance of a similar post at Hanover brought him into a different atmosphere, and his playing at the Düsseldorf festival of 1853 procured him the intimate friendship of Robert Schumann. His introduction of the young Brahms to Schumann is a famous incident of this time. Schumann and Brahms collaborated with Albert Dietrich in a joint sonata for violin and piano, as a welcome on his arrival in Düsseldorf. At Hanover he was *königlicher Konzertdirektor* from 1853 to 1868, when he made Berlin his home. He married in 1863 the mezzo soprano singer, Amalie Weiss, who died in 1899. In 1869 Joachim was appointed head of the newly founded *königliche Hochschule für Musik* in Berlin. The famous "Joachim quartet" was started in the *Sing-Akademie* in the following year. Of his later life, continually occupied with public performances, there is little to say except that he remained, even in a period which saw the rise of numerous violinists of the finest technique, the acknowledged master of all. He died on the 15th of August 1907.

Besides the consummate manual skill which helped to make him famous in his youth, Joachim was gifted with the power of interpreting the greatest music in absolute perfection: while Bach, Mozart, Beethoven and Brahms were masters, whose works he played with a degree of insight that has never been approached, he was no less supreme in the music of Mendelssohn and Schumann; in short, the whole of the classical repertory has become identified with his playing. No survey of Joachim's artistic career would be complete which omitted mention of his absolute freedom from tricks or mannerism, his dignified bearing, and his unselfish character. His devotion to the highest ideals, combined with a certain austerity and massivity of style, brought against him an accusation of coldness from admirers of a more effusive temperament. But the answer to this is given by the depth and variety of expression which his mastery of the resources of his instrument put at his command. His biographer (1898), Andreas Moser, expressed his essential characteristic in the words, "He plays the violin, not for its own sake, but in the service of an ideal."

As a composer Joachim did but little in his later years, and the works of his earlier life never attained the public success which, in the opinion of many, they deserve (see MUSIC). They undoubtedly have a certain austerity of character which does not appeal to every hearer, but they are full of beauty of a grave and dignified kind; and in such things as his "Hungarian concerto" for his own instrument the utmost degree of difficulty is combined with great charm of melodic treatment. The "romance" in B flat for violin and the variations for violin and orchestra are among his finest things, and the noble overture in memory of Kleist, as well as the scena for mezzo soprano from Schiller's *Demetrius*, show a wonderful degree of skill in orchestration as well as originality of thought. Joachim's place in musical history as a composer can only be properly appreciated in the light of his intimate relations with Brahms, with whom he studiously refrained from putting himself into independent rivalry, and to whose work as a composer he gave the co-operation of one who might himself have ranked as a master.

There are admirable portraits of Joachim by G. F. Watts (1866) and by J. S. Sargent (1904), the latter presented to him on the 16th of May 1904, at the celebration of the sixtieth anniversary of his first appearance in England.

JOAN, a mythical female pope, who is usually placed between Leo IV. (847–855) and Benedict III. (855–858). One account has it that she was born in England, another in Germany of English parents. After an education at Cologne, she fell in love with a Benedictine monk and fled with him to Athens disguised as a man. On his death she went to Rome under the alias of Joannes Anglicus (John of England), and entered the priesthood, eventually receiving a cardinal's hat. She was elected pope under the title of John VIII., and died in childbirth during a papal procession.

A French Dominican, Steven of Bourbon (d. *c.* 1261) gives the legend in his *Seven Gifts of the Holy Spirit.* He is believed to have derived it from an earlier writer. More than a hundred authors between the 13th and 17th centuries gave circulation to the myth. Its explosion was first seriously undertaken by David Blondel, a French Calvinist, in his *Éclaircissement de la question si une femme a été assise au siège papal de Rome* (1647); and *De Joanna Papissa* (1657). The refutation was completed by Johann Dollinger in his *Papstfabeln des Mittelalters* (1863; Eng. trans. 1872).

JOAN OF ARC, more properly JEANNETON DARC, afterwards known in France as JEANNE D'ARC[1] (1411–1431), the "Maid of Orleans," was born between 1410 and 1412, the daughter of Jacques Darc, peasant proprietor, of Domremy, a small village in the Vosges, partly in Champagne and partly in Lorraine, and of his wife Isabeau, of the village of Vouthon, who from having made a pilgrimage to Rome had received the usual surname of Romée. Although her parents were in easy circumstances, Joan never learned to read or write, and received her sole religious instruction from her mother, who taught her to recite the Pater Noster, Ave Maria, and Credo. She sometimes guarded her father's flocks, but at her trial in 1431 she strongly resented being referred to as a shepherd girl. In all household work she was specially proficient, her skill in the use of the needle not being excelled (she said) by that of any matron even of Rouen. In her childhood she was noted for her abounding physical energy; but her vivacity, so far from being tainted by any coarse or unfeminine trait, was the direct outcome of an abnormally sensitive nervous temperament. Towards her parents her conduct was uniformly exemplary, and the charm of her unselfish kindness made her a favourite in the village. As she grew to womanhood she became inclined to silence, and spent much of her time in solitude and prayer. She repelled all attempts of the young men of her acquaintance to win her favour; and while active in the performance of her duties, and apparently finding her life quite congenial, inwardly she was engrossed with thoughts reaching far beyond the circle of her daily concerns.

At this time, through the alliance and support of Philip of Burgundy, the English had extended their conquest over the whole of France north of the Loire in addition to their possession of Guienne; and while the infant Henry VI. of England had in 1422 been proclaimed king of France at his father's grave at St Denis, Charles the dauphin (still uncrowned) was forced to watch the slow dismemberment of his kingdom. Isabella, the dauphin's mother, had favoured Henry V. of England, the husband of her daughter Catherine; and under Charles VI. a visionary named Marie d'Avignon declared that France was being ruined by a woman and would be restored by an armed virgin from the marches of Lorraine. To what extent this idea worked in Joan's mind is doubtful. In Geoffrey of Monmouth's tract, *De prophetiis Merlini,* there is a reference to an ancient prophecy of the enchanter Merlin concerning a virgin *ex nemore canuto,* and it appears that this *nemus canutum* had been identified in folk-lore with the oak wood of Domremy. Joan's knowledge of the prophecy does not, however, appear till 1429; and already before that, from 1424, according to her account at her trial, she had become imbued with a sense of having a mission to free France from the English. She heard the voices of St Michael, St Catherine and St Margaret urging her on. In May 1428 she tried to obtain from Robert de Baudricourt, governor of Vaucouleurs, an introduction to the dauphin, saying that God would send him aid, but she was rebuffed. When, however, in September the English (under the earl of Salisbury) invested Orleans, the key to the south of France, she renewed her efforts with Baudricourt, her mission being to relieve Orleans and crown the dauphin at Reims. By persistent importunity, the effect of which was increased by the simplicity of her demeanour and her calm assurance of success, she at last prevailed on the governor to grant her request; and in February 1429, accompanied by six men-at-arms, she set out on her perilous journey to the court of the dauphin at Chinon. At first Charles refused to see her, but popular feeling in her favour induced his advisers to persuade him after three days to grant her an interview. She is said to have persuaded him of the divine character of her commission by discovering him though disguised in the crowd of his courtiers, and by reassuring him regarding his secret doubts as to his legitimacy. And Charles was impressed by her knowledge of a secret prayer, which (he told Dunois) could only be known to God and himself. Accordingly, after a commission of doctors had reported that they had found in her nothing of evil or contrary to the Catholic faith, and a council of matrons had reported on her chastity, she was permitted to set forth with an army of 4000 or 5000 men designed for the relief of Orleans. At the head of the army she rode clothed in a coat of mail, armed with an ancient sword, said to be that with which Charles Martel had vanquished the Saracens, the hiding-place of which, under the altar of the parish church of the village of Ste Catherine de Fierbois, the "voices" had revealed to her; she carried a white standard of her own design embroidered with lilies, and having on the one side the image of God seated on the clouds and holding the world in His hand, and on the other a representation of the Annunciation. Joan succeeded in entering Orleans on the 29th of April 1429, and through the vigorous and unremitting sallies of the French the English gradually became so discouraged that on the 8th of May they raised the siege. It is admitted that her extraordinary pluck and sense of leadership were responsible for this result. In a single week (June 12 to 19), by the capture of Jargeau and Beaugency, followed by the great victory of Patay, where Talbot was taken prisoner, the English were driven beyond the Loire. With some difficulty the dauphin was then persuaded to set out towards Reims, which he entered with an army of 12,000 men on the 16th of July, Troyes having yielded on the way. On the following day, holding the sacred banner, Joan stood beside Charles at his coronation in the cathedral.

The king then entered into negotiations with a view to detaching Burgundy from the English cause. Joan, at his importunity, remained with the army, but the king played her false when she attempted the capture of Paris; and after a failure on the 8th of September, when Joan was wounded,[2] his troops were disbanded. Joan went into Normandy to assist the duke of Alençon, but in December returned to the court, and on the 29th she and her family were ennobled with the surname of du Lis. Unconsoled by such honours, she rode away from the court in March, to assist in the defence of Compiègne against the duke of Burgundy; and on the 24th of May she led an unsuccessful sortie against the besiegers, when she was surrounded and taken prisoner. Charles, partly perhaps on account of his natural indolence, partly on account of the intrigues at the court, made no effort to effect her ransom, and never showed any sign of interest in her fate. By means of negotiations instigated and prosecuted with great perseverance by the university of Paris and the Inquisition, and through the persistent scheming of Pierre Cauchon, the bishop of Beauvais—a Burgundian partisan, who, chased from his own see, hoped to obtain the archbishopric of Rouen—she was sold in November by John of Luxemburg and Burgundy to the English, who on the 3rd of January 1431, at the instance of the

[1] In the act of ennoblement the name is spelt Day, due probably to the peculiar pronunciation. It has been disputed whether the name was written originally d'Arc or Darc. It is beyond doubt that the father of Joan was not of noble origin, but Bouteiller suggests that at that period the apostrophe did not indicate nobility. Her mother, it may be noted, is called "de Vouthon."

[2] The Porte St Honoré where Joan was wounded stood where the Comédie Française now stands.

university of Paris, delivered her over to the Inquisition for trial. After a public examination, begun on the 9th of January and lasting six days, and another conducted in the prison, she was, on the 20th of March, publicly accused as a heretic and witch, and, being in the end found guilty, she made her submission at the scaffold on the 24th of May, and received pardon. She was still, however, the prisoner of the English, and, having been induced by those who had her in charge to resume her male clothes, she was on this account judged to have relapsed, was sentenced to death, and burned at the stake on the streets of Rouen on the 30th of May 1431. In 1436 an impostor appeared, professing to be Joan of Arc escaped from the flames, who succeeded in inducing many people to believe in her statement, but afterwards confessed her imposture. The sentence passed on Joan of Arc was revoked by the pope on the 7th of July 1456, and since then it has been the custom of Catholic writers to uphold the reality of her divine inspiration.

During the latter part of the 19th century a popular cult of the Maid of Orleans sprang up in France, being greatly stimulated by the clerical party, which desired to advertise, in the person of this national heroine, the intimate union between patriotism and the Catholic faith, and for this purpose ardently desired her enrolment among the Saints. On the 27th of January 1894 solemn approval was given by Pope Leo XIII., and in February 1903 a formal proposal was entered for her canonization. The Feast of the Epiphany (Jan. 6), 1904 was made the occasion for a public declaration by Pope Pius X. that she was entitled to the designation Venerable. On the 13th of December 1908 the decree of beatification was published in the Consistory Hall of the Vatican.

As an historical figure, it is impossible to dogmatize concerning the personality of Joan of Arc. The modern clerical view has to some extent provoked what appears, in Anatole France's learned account, ably presented as it is, to be a retaliation, in regarding her as a clerical tool in her own day. But her character was in any case exceptional. She undoubtedly nerved the French at a critical time, and inspired an army of laggards and pillagers with a fanatical enthusiasm, comparable with that of Cromwell's Puritans. Moreover, as regards her genuine military qualities we have the testimony of Dunois and d'Alençon; and Captain Marin, in his *Jeanne d'Arc, tacticien et stratégiste* (1891), takes a high view of her achievements. The nobility of her purpose and the genuineness of her belief in her mission, combined with her purity of character and simple patriotism, stand clear. As to her "supranormal" faculties, a matter concerning which belief largely depends on the point of view, it is to be remarked that Quicherat, a freethinker wholly devoid of clerical influences, admits them (*Aperçus nouveaux*, 1850), saying that the evidence is as good as for any facts in her history. See also A. Lang on "the voices" in *Proc. Soc. Psychical Research*, vol. xi.

AUTHORITIES.—For bibliography see *Le Livre d'or de Jeanne d'Arc* (1894), and A. Molinier, *Sources de l'histoire de France* (1904). Until the 19th century the history of Joan of Arc was almost entirely neglected; Voltaire's scurrilous satire *La Pucelle*, while indicative of the attitude of his time, may be compared with the very fair praises in the *Encyclopédie*. The first attempt at a study of the sources was that of L'Averdy in 1790, published in the third volume of *Mémoires* of the Academy of Inscriptions, which served as the base for all lives until J. Quicherat's great work, *Le Procès de Jeanne d'Arc* (1841–1849), a collection of the texts so full and so vivid that they reveal the character and life of the heroine with great distinctness. Michelet's sketch of her work in his *Histoire de France*, one of the best sections of the history, is hardly more vivid than these sources, upon which all the later biographies (notably that of H. A. Wallon, 1860) are based. See also A. Marty, *L'Histoire de Jeanne d'Arc d'après des documents originaux*, with introduction by M. Sepet (1907); P. H. Dunand, *Jeanne d'Arc et l'église* (1908); and especially Andrew Lang, *The Maid of France* (1908). The *Vie de Jeanne d'Arc*, by Anatole France (2 vols., 1908), is brilliant and erudite, but in some respects open to charges of inaccuracy and prejudice in its handling of the sources (see the criticism by Andrew Lang in *The Times*, Lit. Suppl., May 28, 1908). The attempt to establish the reality of the "revelations" and consequently to obtain the canonization of Joan of Arc led the Catholic party in France to publish lives (such as Sepet's, 1869) in support of their claims. Excellent works worth special mention are: Siméon Luce, *Jeanne d'Arc à Domremy*; L. Jarry, *L'Armée anglaise au siège d'Orleans* (1892); J. J. Bourassé, *Miracles de Madame Sainte Kathérine de Fierbois* (1858, trans. by A. Lang); Boucher de Molandon and A. de Beaucorps, *L'Armée anglaise vaincue par Jeanne d'Arc* (1892); R. P. Agroles, S.J., *La Vraie Jeanne d'Arc*. For the "false Pucelle" see A. Lang's article in his *Valet's Tragedy* (1903). Of the numerous dramas and poems of which Joan of Arc has been the subject, mention can only be made of *Die Jungfrau von Orleans* of Schiller, and of the *Joan of Arc* of Southey. A drama in verse by Jules Barbier was set to music by C. Gounod (1873). (J. T. S.*; H. Ch.)

JOANES (or JUANES), **VICENTE** (1506–1579), head of the Valencian school of painters, and often called "the Spanish Raphael," was born at Fuente de la Higuera in the province of Valencia in 1506. He is said to have studied his art for some time in Rome, with which school his affinities are closest, but the greater part of his professional life was spent in the city of Valencia, where most of the extant examples of his work are now to be found. All relate to religious subjects, and are characterized by dignity of conception, accuracy of drawing, truth and beauty of colour, and minuteness of finish. He died at Bocairente (near Jativa) while engaged upon an altarpiece in the church there, on the 21st of December 1579.

JOANNA (1479–1555), called the Mad (*la Loca*), queen of Castile and mother of the emperor Charles V., was the second daughter of Ferdinand and Isabella, king and queen of Spain, and was born at Toledo on the 6th of November 1479. Her youngest sister was Catherine of Aragon, the first wife of Henry VIII. In 1496 at Lille she was married to the archduke Philip the Handsome, son of the German King Maximilian I., and at Ghent, in February 1500, she gave birth to the future emperor. The death of her only brother John, of her eldest sister Isabella, queen of Portugal, and then of the latter's infant son Miguel, made Joanna heiress of the Spanish kingdoms, and in 1502 the cortes of Castile and of Aragon recognized her and her husband as their future sovereigns. Soon after this Joanna's reason began to give way. She mourned in an extravagant fashion for her absent husband, whom at length she joined in Flanders; in this country her passionate jealousy, although justified by Philip's conduct, led to deplorable scenes. In November 1504 her mother's death left Joanna queen of Castile, but as she was obviously incapable of ruling, the duties of government were undertaken by her father, and then for a short time by her husband. The queen was with Philip when he was wrecked on the English coast and became the guest of Henry VII. at Windsor; soon after this event, in September 1506, he died and Joanna's mind became completely deranged, it being almost impossible to get her away from the dead body of her husband. The remaining years of her miserable existence were spent at Tordesillas, where she died on the 11th of April 1555. In spite of her afflictions the queen was sought in marriage by Henry VII. just before his death. Nominally Joanna remained queen of Castile until her death, her name being joined with that of Charles in all public documents, but of necessity she took no part in the business of state. In addition to Charles she had a son Ferdinand, afterwards the emperor Ferdinand I., and four daughters, among them being Maria (1505–1558), wife of Louis II., king of Hungary, afterwards governor-general of the Netherlands.

See R. Villa, *La Reina doña Juana la Loca* (Madrid, 1892); Rösler, *Johanna die Wahrsinnige* (Vienna, 1890); W. H. Prescott, *Hist. of Ferdinand and Isabella* (1854); and H. Tighe, *A Queen of Unrest* (1907).

JOANNA I. (*c.* 1327–1382), queen of Naples, was the daughter of Charles duke of Calabria (d. 1328), and became sovereign of Naples in succession to her grandfather King Robert in 1343. Her first husband was Andrew, son of Charles Robert, king of Hungary, who like the queen herself was a member of the house of Anjou. In 1345 Andrew was assassinated at Aversa, possibly with his wife's connivance, and at once Joanna married Louis, son of Philip prince of Taranto. King Louis of Hungary then came to Naples to avenge his brother's death, and the queen took refuge in Provence—which came under her rule at the same time as Naples—purchasing pardon from Pope Clement VI. by selling to him the town of Avignon, then part of her dominions. Having returned to Naples in 1352 after the departure of Louis, Joanna lost her second husband in 1362, and married James, king of

Majorca (d. 1375), and later Otto of Brunswick, prince of Taranto. The queen had no sons, and as both her daughters were dead she made Louis I. duke of Anjou, brother of Charles V. of France, her heir. This proceeding so angered Charles, duke of Durazzo, who regarded himself as the future king of Naples, that he seized the city. Joanna was captured and was put to death at Aversa on the 22nd of May 1382. The queen was a woman of intellectual tastes, and was acquainted with some of the poets and scholars of her time, including Petrarch and Boccaccio.

See Crivelli, *Della prima e della seconda Giovanna, regine di Napoli* (1832); G. Battaglia, *Giovanna I., regina di Napoli* (1835); W. St C. Baddeley, *Queen Joanna I. of Naples* (1893); Scarpetta, *Giovanna I. di Napoli* (1903); and Francesca M. Steele, *The Beautiful Queen Joanna I. of Naples* (1910).

JOANNA II. (1371–1435), queen of Naples, was descended from Charles II. of Anjou through his son John of Durazzo. She had been married to William, son of Leopold III. of Austria, and at the death of her brother King Ladislaus in 1414 she succeeded to the Neapolitan crown. Her life had always been very dissolute, and although now a widow of forty-five, she chose as her lover Pandolfo Alopo, a youth of twenty-six, whom she made seneschal of the kingdom. He and the constable Muzio Attendolo Sforza completely dominated her, and the turbulent barons wished to provide her with a husband who would be strong enough to break her favourites yet not make himself king. The choice fell on James of Bourbon, a relative of the king of France, and the marriage took place in 1415. But James at once declared himself king, had Alopo killed and Sforza imprisoned, and kept his wife in a state of semi-confinement; this led to a counter-agitation on the part of the barons, who forced James to liberate Sforza, renounce his kingship, and eventually to quit the country. The queen now sent Sforza to re-establish her authority in Rome, whence the Neapolitans had been expelled after the death of Ladislaus; Sforza entered the city and obliged the *condottiere* Braccio da Montone, who was defending it in the pope's name, to depart (1416). But when Oddo Colonna was elected pope as Martin V., he allied himself with Joanna, who promised to give up Rome, while Sforza returned to Naples. The latter found, however, that he had lost all influence with the queen, who was completely dominated by her new lover Giovanni (Sergianni) Caracciolo. Hoping to re-establish his position and crush Caracciolo, Sforza favoured the pretensions of Louis III. of Anjou, who wished to obtain the succession of Naples at Joanna's death, a course which met with the approval of the pope. Joanna refused to adopt Louis owing to the influence of Caracciolo, who hated Sforza; she appealed for help instead to Alphonso of Aragon, promising to make him her heir. War broke out between Joanna and the Aragonese on one side and Louis and Sforza, supported by the pope, on the other. After much fighting by land and sea, Alphonso entered Naples, and in 1422 peace was made. But dissensions broke out between the Aragonese and Catalans and the Neapolitans, and Alphonso had Caracciolo arrested; whereupon Joanna, fearing for her own safety, invoked the aid of Sforza, who with difficulty carried her off to Aversa. There she was joined by Louis whom she adopted as her successor instead of the ungrateful Alphonso. Sforza was accidentally drowned, but when Alphonso returned to Spain, leaving only a small force in Naples, the Angevins with the help of a Genoese fleet recaptured the city. For a few years there was peace in the kingdom, but in 1432 Caracciolo, having quarrelled with the queen, was seized and murdered by his enemies. Internal disorders broke out, and Gian Antonio Orsini, prince of Taranto, led a revolt against Joanna in Apulia; Louis of Anjou died while conducting a campaign against the rebels (1434), and Joanna herself died on the 11th of February 1435, after having appointed his son René her successor. Weak, foolish and dissolute, she made her reign one long scandal, which reduced the kingdom to the lowest depths of degradation. Her perpetual intrigues and her political incapacity made Naples a prey to anarchy and foreign invasions, destroying all sense of patriotism and loyalty both in the barons and the people.

AUTHORITIES.—A. von Platen, *Storia del reame di Napoli dal 1414 al 1423* (1864). C. Cipolla, *Storia, della signoria Italiana* (1881), where the original authorities are quoted. (See also NAPLES: SFORZA.)

JOASH, or JEHOASH (Heb. "Yahweh is strong, *or* hath given"), the name of two kings of Palestine in the Bible.

1. Son of Ahaziah (see JEHORAM, 2) and king of Judah. He obtained the throne by means of a revolt in which Athaliah (*q.v.*) perished, and his accession was marked by a solemn covenant, and by the overthrow of the temple of Baal and of its priest Mattan(-Baal). In this the priest Jehoiada (who must have continued to act as regent) took the leading part. The account of Joash's reign is not from a contemporary source (2 Kings xi. 4–xii. 16), and 2 Chronicles adds several new details, including a tradition of a conflict between the king and priests after the death of Jehoiada (xxii. 11; xxiv. 3, 15 sqq.).[1] At an unstated period, the Aramaeans under Hazael captured Gath, and Jerusalem only escaped by buying off the enemy (2 Kings xii. 17 sqq.). This may perhaps be associated with the Aramaean attacks upon Israel (2 below), but the tradition recorded in 2 Chron. xxiv. 23 seq. differs widely and cannot be wholly rejected. The king perished in a conspiracy, the origin of which is not clear; it may have been for his attack upon the priests, it was scarcely for the course he took to save Jerusalem. He was succeeded by his son Amaziah, whose moderation in avenging his father's death receives special mention. After defeating the Edomites, Amaziah turned his attention to Israel.

2. Son of Jehoahaz and king of Israel. Like his grandfather Jehu, he enjoyed the favour of the prophet Elisha, who promised him a triple defeat of the Aramaeans at Aphek (2 Kings xiii. 14 sqq. 22–25). The cities which had been taken from his father by Hazael the father of Ben-hadad were recovered (cf. 1 Kings xx. 34, time of Ahab) and the relief gained by Israel from the previous blows of Syria prepared the way for its speedy extension of power. When challenged by Amaziah of Judah, Joash uttered the famous fable of the thistle and cedar (for another example see Judg. ix. 8–15; see also ABIMELECH), and a battle was fought at Beth-shemesh, in which Israel was completely successful. An obscure statement in 2 Chron. xxv. 13 would show that this was not the only conflict; at all events, Amaziah was captured, the fortifications of Jerusalem were partially destroyed, the treasures of the Temple and palace were looted, and hostages were carried away to Samaria. According to one statement, Amaziah survived the disaster fifteen years, and lost his life in a conspiracy; but there is a gap in the history of Judah which the narratives do not enable us to fill (1 Kings xv. 1; see xiv. 17, 23). See further UZZIAH; JEROBOAM (2); and JEWS.

(S. A. C.)

JOB. The book of Job (Heb. אִיּוֹב *'Iyyob*, Gr. Ἰώβ), in the Bible, the most splendid creation of Hebrew poetry, is so called from the name of the man whose history and afflictions and sayings form the theme of it.

Contents.—As it now lies before us it consists of five parts. 1. The prologue, in prose, chr. i.–ii., describes in rapid and dramatic steps the history of this man, his prosperity and greatness corresponding to his godliness; then how his life is drawn in under the operation of the sifting providence of God, through the suspicion suggested by the Satan, the minister of this aspect of God's providence, that his godliness is selfish and only the natural return for unexampled prosperity, and the insinuation that if stripped of his prosperity he will curse God to His face. These suspicions bring down two severe calamities on Job, one depriving him of children and possessions alike, and the other throwing the man himself under a painful malady. In spite of these afflictions Job retains his integrity and ascribes no wrong to God. Then is described the advent of Job's three friends—Eliphaz the Temanite, Bildad the Shuhite, and Zophar the Naamathite—who, having heard of Job's calamities, come to condole with him. 2. The body of the book, in poetry, ch. iii.–xxxi., contains a series of speeches in which the problem of Job's afflictions and the relation of external evil to the righteousness of God and the conduct of men are brilliantly discussed. This part, after Job's passionate outburst in ch. iii., is divided into three cycles, each containing six speeches, one by each of the friends, and three by Job, one in reply to each of theirs (ch. iv.–xiv.; xv.–xxi.; xxii.–xxxi.). although in the last cycle the

[1] That the murder of Zechariah the son of Jehoiada (2 Chron. *l.c.*) is referred to in Matt. xxiii. 35, Luke xi. 51 is commonly held; but see Cheyne, *Ency. Bib.* col. 5373.

third speaker Zophar fails to answer (unless his answer is to be found in ch. xxvii.). Job, having driven his opponents from the field, carries his reply through a series of discourses in which he dwells in pathetic words upon his early prosperity, contrasting with it his present humiliation, and ends with a solemn repudiation of all the offences that might be suggested against him, and a challenge to God to appear and put His hand to the charge which He had against him and for which He afflicted him. 3. Elihu, the representative of a younger generation, who has been a silent observer of the debate, intervenes to express his dissatisfaction with the manner in which both Job and his friends conducted the cause, and offers what is in some respects a new solution of the question (xxxii.–xxxvii.). 4. In answer to Job's repeated demands that God would appear and solve the riddle of his life, the Lord answers Job out of the whirlwind. The divine speaker does not condescend to refer to Job's individual problem, but in a series of ironical interrogations asks him, as he thinks himself capable of fathoming all things, to expound the mysteries of the origin and subsistence of the world, the phenomena of the atmosphere, the instincts of the creatures that inhabit the desert, and, as he judges God's conduct of the world amiss, invites him to seize the reins, gird himself with the thunder and quell the rebellious forces of evil in the universe (xxxviii.–xlii. 6). Job is humbled and abashed, lays his hand upon his mouth, and repents his hasty words in dust and ashes. No solution of his problem is vouchsafed; but God Himself effects that which neither the man's own thoughts of God nor the representations of the friends could accomplish: he had heard of him with the hearing of the ear without effect, but now his eye sees Him. This is the profoundest religious deep in the book. 5. The epilogue, in prose, xlii. 7–17, describes Job's restoration to a prosperity double that of his former estate, his family felicity and long life.

Design.—With the exception of the episode of Elihu, the connexion of which with the original form of the poem may be doubtful, all five parts of the book are essential elements of the work as it came from the hand of the first author, although some parts of the second and fourth divisions may have been expanded by later writers. The idea of the composition is to be derived not from any single element of the book, but from the teaching and movement of the whole piece. Job is unquestionably the hero of the work, and in his ideas and his history combined we may assume that we find the author himself speaking and teaching. The discussion between Job and his friends of the problem of suffering occupies two-thirds of the book, or, if the space occupied by Elihu be not considered, nearly three-fourths, and in the direction which the author causes this discussion to take we may see revealed the main didactic purpose of the book. When the three friends, the representatives of former theories of providence, are reduced to silence, we may be certain that it was the author's purpose to discredit the ideas which they represent. Job himself offers no positive contribution to the doctrine of evil; his position is negative, merely antagonistic to that of the friends. But this negative position victoriously maintained by him has the effect of clearing the ground, and the author himself supplies in the prologue the positive truth, when he communicates the real explanation of his hero's calamities, and teaches that they were a trial of his righteousness. It was therefore the author's main purpose in his work to widen men's views of the providence of God and set before them a new view of suffering. This purpose, however, was in all probability subordinate to some wider practical design. No Hebrew writer is merely a poet or a thinker. He is always a teacher. He has men before him in their relations to God,[1] and usually not men in their individual relations, but members of the family of Israel, the people of God. It is consequently scarcely to be doubted that the book has a national scope. The author considered his new truth regarding the meaning of affliction as of national interest, and as the truth then needful for the heart of his people. But the teaching of the book is only half its contents. It contains also a history—deep and inexplicable affliction, a great moral struggle, and a victory. The author meant his new truth to inspire new conduct, new faith, and new hopes. In Job's sufferings, undeserved and inexplicable to him, yet capable of an explanation most consistent with the goodness and faithfulness of God, and casting honour upon his faithful servants; in his despair bordering on unbelief; at last overcome; and in the happy issue of his afflictions—in all this Israel may see itself, and from the sight take courage, and forecast its own history. Job, however, is not to be considered Israel, the righteous servant of the Lord, under a feigned name; he is no mere parable (though such a view is found as early as the Talmud); he and his history have both elements of reality in them. It is these elements of reality common to him with Israel in affliction, common even to him with humanity as a whole, confined within the straitened limits set by its own ignorance, wounded to death by the mysterious sorrows of life, tortured by the uncertainty whether its cry finds an entrance into God's ear, alarmed and paralysed by the irreconcilable discrepancies which it seems to discover between its necessary thoughts of Him and its experience of Him in His providence, and faint with longing that it might come into His place, and behold him, not girt with His majesty, but in human form, as one looketh upon his fellow—it is these elements of truth that make the history of Job instructive to Israel in the times of affliction when it was set before them, and to men of all races in all ages. It would probably be a mistake, however, to imagine that the author consciously stepped outside the limits of his nation and assumed a human position antagonistic to it. The chords he touches vibrate through all humanity—but this is because Israel is the religious kernel of humanity, and because from Israel's heart the deepest religious music of mankind is heard, whether of pathos or of joy.

Two threads requiring to be followed, therefore, run through the book—one the discussion of the problem of evil between Job and his friends, and the other the varying attitude of Job's mind towards God, the first being subordinate to the second. Both Job and his friends advance to the discussion of his sufferings and of the problem of evil, ignorant of the true cause of his calamities—Job strong in his sense of innocence, and the friends armed with their theory of the righteousness of God, who giveth to every man according to his works. With fine psychological instinct the poet lets Job altogether lose his self-control first when his three friends came to visit him. His bereavements and his malady he bore with a steady courage, and his wife's direct instigations to godlessness he repelled with severity and resignation. But when his equals and the old associates of his happiness came to see him, and when he read in their looks and in their seven days' silence the depth of his own misery, his self-command deserted him, and he broke out into a cry of despair, cursing his day and crying for death (iii.). Job had somewhat misinterpreted the demeanour of his friends. It was not all pity that it expressed. Along with their pity they had also brought their theology, and they trusted to heal Job's malady with this. Till a few days before, Job would have agreed with them on the sovereign virtues of this remedy. But he had learned through a higher teaching, the events of God's providence, that it was no longer a specific in his case. His violent impatience, however, under his afflictions and his covert attacks upon the divine rectitude only served to confirm the view of his sufferings which their theory of evil had already suggested to his friends. And thus commences the high debate which continues through twenty-nine chapters.

The three friends of Job came to the consideration of his history with the principle that calamity is the result of evil-doing, as prosperity is the reward of righteousness. Suffering is not an accident or a spontaneous growth of the soil; man is born unto trouble as the sparks fly upwards; there is in human life a tendency to do evil which draws down upon men the chastisement of God (v. 6). The principle is thus enunciated by Eliphaz, from whom the other speakers take their cue: where there is suffering there has been sin in the sufferer. Not suffering in itself, but the effect of it on the sufferer is what gives insight into his true character. Suffering is not always punitive; it is sometimes disciplinary, designed to wean the good man from his sin. If he sees in his suffering the monition of God and turns from his evil, his future shall be rich in peace and happiness, and his latter estate more prosperous than his first. If he murmurs or resists, he can only perish under the multiplying chastisements which his impenitence will provoke. Now this principle is far from being a peculiar crotchet of the friends; its truth is undeniable, though they erred in supposing that it would cover the wide providence of God. The principle is the fundamental idea of moral government, the expression of the natural conscience, a principle common more or less to all peoples, though perhaps more prominent in the Semitic mind, because all religious ideas are more prominent and simple there—not suggested to Israel first by the law, but found and adopted by the law, though it may be sharpened by it. It is the fundamental principle of prophecy no less than of the law, and, if possible, of the wisdom of philosophy of the Hebrews more than of either. Speculation among the Hebrews had a simpler task before it than it had in the West or in the farther East. The Greek philosopher began his operations upon the sum of things; he threw the universe into his crucible at once. His object was to effect some analysis of it, so

[1] Exceptions must be made in the cases of Esther and the Song of Songs, which do not mention God, and the original writer in Ecclesiastes who is a philosopher.

that he could call one element cause and another effect. Or, to vary the figure, his endeavour was to pursue the streams of tendency which he could observe till he reached at last the central spring which sent them all forth. God, a single cause and explanation, was the object of his search. But to the Hebrew of the later time this was already found. The analysis resulting in the distinction of God and the world had been effected for him so long ago that the history and circumstances of the process had been forgotten, and only the unchallengeable result remained. His philosophy was not a quest of God whom he did not know, but a recognition on all hands of God whom he knew. The great primary idea to his mind was that of God, a Being wholly just, doing all. And the world was little more than the phenomena that revealed the mind and the presence and the operations of God. Consequently the nature of God as known to him and the course of events formed a perfect equation. The idea of what God was in Himself was in complete harmony with His manifestation of Himself in providence, in the events of individual human lives, and in the history of nations. The philosophy of the wise did not go behind the origin of sin, or referred it to the freedom of man; but, sin existing, and God being in immediate personal contact with the world, every event was a direct expression of His moral will and energy; calamity fell on wickedness, and success attended right-doing. This view of the moral harmony between the nature of God and the events of providence in the fortunes of men and nations is the view of the Hebrew wisdom in its oldest form, during what might be called the period of principles, to which belong Prov. x. seq.; and this is the position maintained by Job's three friends. And the significance of the book of Job in the history of Hebrew thought arises in that it marks the point when such a view was definitely overcome, closing the long period when this principle was merely subjected to questionings, and makes a new positive addition to the doctrine of evil.

Job agreed that afflictions came directly from the hand of God, and also that God afflicted those whom He held guilty of sins. But his conscience denied the imputation of guilt, whether insinuated by his friends or implied in God's chastisement of him. Hence he was driven to conclude that God was unjust. The position of Job appeared to his friends nothing else but impiety; while theirs was to him mere falsehood and the special pleading of sycophants on behalf of God because He was the stronger. Within these two iron walls the debate moves, making little progress, but with much brilliancy, if not of argument, of illustration. A certain advance indeed is perceptible. In the first series of speeches (iv.–xiv.), the key-note of which is struck by Eliphaz, the oldest and most considerate of the three, the position is that affliction is caused by sin, and is chastisement designed for the sinner's good; and the moral is that Job should recognize it and use it for the purpose for which it was sent. In the second (xv.–xxi.) the terrible fate of the sinner is emphasized, and those brilliant pictures of a restored future, thrown in by all the speakers in the first series, are absent. Job's demeanour under the consolations offered him afforded little hope of his repentance. In the third series (xxii. seq.) the friends cast off all disguise, and openly charge Job with a course of evil life. That their armoury was now exhausted is shown by the brevity of the second speaker, and the failure of the third (at least in the present text) to answer in any form. In reply Job disdains for a time to touch what he well knew lay under all their exhortations; he laments with touching pathos the defection of his friends, who were like the winter torrents looked for in vain by the perishing caravan in the summer heat; he meets with bitter scorn their constant cry that God will not cast off the righteous man, by asking: How can one be righteous with God? what can human weakness, however innocent, do against infinite might and subtlety? they are righteous whom an omnipotent and perverse will thinks fit to consider so; he falls into a hopeless wail over the universal misery of man, who has a weary campaign of life appointed him; then, rising up in the strength of his conscience, he upbraids the Almighty with His misuse of His power and His indiscriminate tyranny—righteous and innocent He destroys alike—and challenges Him to lay aside His majesty and meet His creature as a man, and then he would not fear Him. Even in the second series Job can hardly bring himself to face the personal issue raised by the friends. His relations to God absorb him almost wholly—his pitiable isolation, the indignities showered on his once honoured head, the loathsome spectacle of his body; abandoned by all, he turns for pity from God to men and from men to God. Only in the third series of debates does he put out his hand and grasp firmly the theory of his friends, and their "defences of mud" fall to dust in his hands. Instead of that roseate moral order on which they are never weary of insisting, he finds only disorder and moral confusion. When he thinks of it, trembling takes hold of him. It is not the righteous but the wicked that live, grow old, yea, wax mighty in strength, that send forth their children like a flock and establish them in their sight. Before the logic of facts the theory of the friends goes down; and with this negative result, which the author skilfully reaches through the debate, has to be combined his own positive doctrine of the uses of adversity advanced in the prologue.

To a modern reader it appears strange that both parties were so entangled in the meshes of their preconceptions regarding God as to be unable to break through the broader views. The friends, while maintaining that injustice on the part of God is inconceivable, might have given due weight to the persistent testimony of Job's conscience as that behind which it is impossible to go, and found refuge in the reflection that there might be something inexplicable in the ways of God, and that affliction might have some other meaning than to punish the sinner or even to wean him from his sin. And Job, while maintaining his innocence from overt sins, might have confessed that there was such sinfulness in every human life as was sufficient to account for the severest chastisement from heaven, or at least he might have stopped short of charging God foolishly. Such a position would certainly be taken up by an afflicted saint now, and such an explanation of his sufferings would suggest itself to the sufferer, even though it might be in truth a false explanation. Perhaps here, where an artistic fault might seem to be committed, the art of the writer, or his truth to nature, and the extraordinary freedom with which he moves among his materials, as well as the power and individuality of his dramatic creations, are most remarkable. The rôle which the author reserved for himself was to teach the truth on the question in dispute, and he accomplishes this by allowing his performers to push their false principles to their proper extreme. There is nothing about which men are usually so sure as the character of God. They are ever ready to take Him in their own hand, to interpret His providence in their own sense, to say what things are consistent or not with His character and word, and beat down the opposing consciences of other men by His so-called authority, which is nothing but their own. The friends of Job were religious Orientals, men to whom God was a being in immediate contact with the world and life, to whom the idea of second causes was unknown, on whom science had not yet begun to dawn, nor the conception of a divine scheme pursuing a distant end by complicated means, in which the individual's interest may suffer for the larger good. The broad sympathies of the author and his sense of the truth lying in the theory of the friends are seen in the scope which he allows them, in the richness of the thought and the splendid luxuriance of the imagery—drawn from the immemorial moral consent of mankind, the testimony of the living conscience, and the observation of life—with which he makes them clothe their views. He remembered the elements of truth in the theory from which he was departing, that it was a national heritage, which he himself perhaps had been constrained not without a struggle to abandon; and, while showing its insufficiency, he sets it forth in its most brilliant form.

The extravagance of Job's assertions was occasioned greatly by the extreme position of his friends, which left no room for his conscious innocence along with the rectitude of God. Again, the poet's purpose, as the prologue shows, was to teach that afflictions may fall on a man out of all connexion with any offence of his own, and merely as the trial of his righteousness; and hence he allows Job, as by a true instinct of the nature of his sufferings, to repudiate all connexion between them and sin in himself. And further, the terrible conflict into which the suspicions of the Satan brought Job could not be exhibited without pushing him to the verge of ungodliness. These are all elements of the poet's art; but art and nature are one. In ancient Hebrew life the sense of sin was less deep than it is now. In the desert, too, men speak boldly of God. Nothing is more false than to judge the poet's creation from our later point of view, and construct a theory of the book according to a more developed sense of sin and a deeper reverence for God than belonged to antiquity. In complete contradiction to the testimony of the book itself, some critics, as Hengstenberg and Budde, have assumed that Job's spiritual pride was the cause of his afflictions, that this was the root of bitterness in him which must be killed down ere he could become a true saint. The fundamental position of the book is that Job was already a true saint; this is testified by God Himself, is the radical idea of the author in the prologue, and the very hypothesis of the drama. We might be ready to think that Job's afflictions did not befall him out of all connexion with his own condition of mind, and we might be disposed to find a vindication of God's ways in this. There is no evidence that such an idea was shared by the author of the book. It is remarkable that the attitude which we imagine it would have been so easy for Job to assume, namely, while holding fast his integrity, to fall back upon the inexplicableness of providence, of which there are such imposing descriptions in his speeches, is just the attitude which is taken up in ch. xxviii. It is far from certain, however, that this chapter is an integral part of the original book.

The other line running through the book, the varying attitude of Job's mind towards God, exhibits dramatic action and tragic interest of the highest kind, though the movement is internal. That the exhibition of this struggle in Job's mind was a main point in the author's purpose is seen from the fact that at the end of each of his great trials he notes that Job sinned not, nor ascribed wrong to God (i. 22; ii. 10), and from the effect which the divine voice from the whirlwind is made to produce upon him (xl. 3). In the first cycle of debate (iv.–xiv.) Job's mind reaches the deepest limit of estrangement. There he not merely charges God with injustice, but, unable to reconcile His former goodness with His present enmity, he regards the latter as the true expression of God's attitude towards His creatures, and the former, comprising all his infinite creative skill in weaving the delicate organism of

human nature and the rich endowments of His providence, only as the means of exercising His mad and immoral cruelty in the time to come. When the Semitic skin of Job is scratched, we find a modern pessimist beneath. Others in later days have brought the keen sensibility of the human frame and the torture which it endures together, and asked with Job to whom at last all this has to be referred. Towards the end of the cycle a star of heavenly light seems to rise on the horizon; the thought seizes the sufferer's mind that man might have another life, that God's anger pursuing him to the grave might be sated, and that He might call him out of it to Himself again (xiv. 13). This idea of a resurrection, unfamiliar to Job at first, is one which he is allowed to reach out of the necessities of the moral complications around him, but from the author's manner of using the idea we may judge that it was familiar to himself. In the second cycle the thought of a future reconciliation with God is more firmly grasped. That satisfaction or at least composure which, when we observe calamities that we cannot morally account for, we reach by considering that providence is a great scheme moving according to general laws, and that it does not always truly reflect the relation of God to the individual, Job reached in the only way possible to a Semitic mind. He drew a distinction between an outer God whom events obey, pursuing him in His anger, and an inner God whose heart was with him, who was aware of his innocence; and he appeals from God to God, and beseeches God to pledge Himself that he shall receive justice from God (xvi. 19; xvii. 3). And so high at last does this consciousness that God is at one with him rise that he avows his assurance that He will yet appear to do him justice before men, and that he shall see Him with his own eyes, no more estranged but on his side, and for this moment he faints with longing (xix. 25 seq.).[1]

After this expression of faith Job's mind remains calm, though he ends by firmly charging God with perverting his right, and demanding to know the cause of his afflictions (xxvii. 2 seq.; xxxi. 35, where render: "Oh, that I had the indictment which mine adversary has written!"). In answer to this demand the Divine voice answers Job out of the tempest: "Who is this that darkeneth counsel by words without knowledge?" The word "counsel" intimates to Job that God does not act without a design, large and beyond the comprehension of man; and to impress this is the purpose of the Divine speeches. The speaker does not enter into Job's particular cause; there is not a word tending to unravel his riddle; his mind is drawn away to the wisdom and majesty of God Himself. His own words and those of his friends are but re-echoed, but it is God Himself who now utters them. Job is in immediate nearness to the majesty of heaven, wise, unfathomable, ironical over the littleness of man, and he is abased; God Himself effects what neither the man's own thoughts of God nor the representations of his friends could accomplish, though by the same means. The religious insight of the writer sounds here the profoundest deeps of truth.

Integrity.—Doubts whether particular portions of the present book belonged to the original form of it have been raised by many. M. L. De Wette expressed himself as follows: "It appears to us that the present book of Job has not all flowed from one pen. As many books of the Old Testament have been several times written over, so has this also" (Ersch and Gruber, *Ency.*, sect. ii. vol. viii.). The judgment formed by De Wette has been adhered to more or less by most of those who have studied the book. Questions regarding the unity of such books as this are difficult to settle; there is not unanimity among scholars regarding the idea of the book, and consequently they differ as to what parts are in harmony or conflict with unity; and it is dangerous to apply modern ideas of literary composition and artistic unity to the works of antiquity and of the East. The problem raised in the book of Job has certainly received frequent treatment in the Old Testament; and there is no likelihood that all efforts in this direction have been preserved to us. It is probable that the book of Job was but a great effort amidst or after many smaller. It is scarcely to be supposed that one with such poetic and literary power as the author of chap. iii.–xxxi., xxxviii.–xli. would embody the work of any other writer in his own. If there be elements in the book which must be pronounced foreign, they have been inserted in the work of the author by a later hand. It is not unlikely that our present book may, in addition to the great work of the original author, contain some fragments of the thoughts of other religious minds upon the same question, and that these, instead of being loosely appended, have been fitted into the mechanism of the first work. Some of these fragments may have originated at first quite independently of our book, while others may be expansions and insertions that never existed separately. At the same time it is scarcely safe to throw out any portion of the book merely because it seems to us out of harmony with the unity of the main part of the poem, or unless several distinct lines of consideration conspire to point it out as an extraneous element.

The arguments against the originality of the prologue—as, that it is written in prose, that the name Yahweh appears in it, that sacrifice is referred to, and that there are inconsistencies between it and the body of the book—are of little weight. There must have been some introduction to the poem explaining the circumstances of Job, otherwise the poetical dispute would have been unintelligible, for it is improbable that the story of Job was so familiar that a poem in which he and his friends figured as they do here would have been understood. And there is no trace of any other prologue or introduction having ever existed. The prologue, too, is an essential element of the work, containing the author's positive contribution to the doctrine of suffering, for which the discussion in the poem prepares the way. The intermixture of prose and poetry is common in Oriental works containing similar discussions; the reference to sacrifice is to primitive not to Mosaic sacrifice; and the author, while using the name Yahweh freely himself, puts the patriarchal Divine names into the mouth of Job and his friends because he regards them as belonging to the patriarchal age and to a country outside of Israel. That the observance of this rule had a certain awkwardness for the writer appears perhaps from his allowing the name Yahweh to slip in once or twice (xii. 9, cf. xxviii. 28) in familiar phrases in the body of the poem. The discrepancies, such as Job's references to his children as still alive (xix. 17, the interpretation is doubtful), and to his servants, are trivial, and even if real imply nothing in a book admittedly poetical and not historical. The objections to the epilogue are equally unimportant—as that the Satan is not mentioned in it, and that Job's restoration is in conflict with the main idea of the poem—that earthly felicity does not follow righteousness. The epilogue confirms the teaching of the poem when it gives the divine sanction to Job's doctrine regarding God in opposition to that of the friends (xlii. 7). And it is certainly not the intention of the poem to teach that earthly felicity does not follow righteousness; its purpose is to correct the exclusiveness with which the friends of Job maintained that principle. The Satan is introduced in the prologue, exercising his function as minister of God in heaven; but it is to misinterpret wholly the doctrine of evil in the Old Testament to assign to the Satan any such personal importance or independence of power as that he should be called before the curtain to receive the hisses that accompany his own discomfiture. The Satan, though he here appears with the beginnings of a malevolent will of his own, is but the instrument of the sifting providence of God. His work was to try; that done he

[1] This remarkable passage reads thus: "*But I know that my redeemer liveth, and afterwards he shall arise upon the dust, and after my skin*, even *this* body, *is destroyed, without my flesh shall I see God; whom I shall see for myself, and mine eyes shall behold, and not as a stranger; my reins within me are consumed* with longing." The redeemer who liveth and shall arise or stand upon the earth is God whom he shall see with his own eyes, on his side. The course of exegesis was greatly influenced by the translation of Jerome, who, departing from the Itala, rendered: "In novissimo die de terra surrecturus sum . . . et rursum circumdabor pelle mea et in carne mea videbo deum meum." The only point now in question is whether: (*a*) Job looks for this manifestation of God to him while he is still alive, or (*b*) after death, and therefore in the sense of a spiritual vision and union with God in another life; that is, whether the words "destroyed" and "without my flesh" are to be taken relatively only, of the extremest effects of his disease upon him, or literally, of the separation of the body in death. A third view which assumes that the words rendered "without my flesh," which run literally, "out of my flesh," mean *looking* out from my flesh, that is, clothed with a new body, and finds the idea of resurrection repeated, perhaps imports more into the language than it will fairly bear. In favour of (*b*) may be adduced the persistent refusal of Job throughout to entertain the idea of a restoration in this life: the word "afterwards"; and perhaps the analogy of other passages where the same situation appears, as Ps. xlix. and lxxiii., although the actual dénouement of the tragedy supports (*a*). The difference between the two senses is not important, when the Old Testament view of immortality is considered. To the Hebrew the life beyond was not what it is to us, a freedom from sin and sorrow and admission to an immediate divine fellowship not attainable here. To him the life beyond was at best a prolongation of the life here; all he desired was that his fellowship with God here should not be interrupted in death, and that Sheol, the place into which deceased persons descended and where they remained, cut off from all life with God, might be overleapt. On this account the theory of Ewald, which throws the centre of gravity of the book into this passage in ch. xix., considering its purpose to be to teach that the riddles of this life shall be solved and its inequalities corrected in a future life, appears one-sided. The point of the passage does not lie in any distinction which it draws between this life and a future life; it lies in the assurance which Job expresses that God, who even now knows his innocence, will vindicate it in the future, and that, though estranged now, He will at last take him to His heart.

disappears, his personality being too slight to have any place in the result.

Much graver are the suspicions that attach to the speeches of Elihu. Most of those who have studied the book carefully hold that this part does not belong to the original cast, but has been introduced at a considerably later time. The piece is one of the most interesting parts of the book; both the person and the thoughts of Elihu are marked by a strong individuality. This individuality has indeed been very diversely estimated. The ancients for the most part passed a very severe judgment on Elihu: he is a buffoon, a boastful youth whose shallow intermeddling is only to be explained by the fewness of his years, the incarnation of folly, or even the Satan himself gone a-mumming. Some moderns on the other hand have regarded him as the incarnation of the voice of God or even of God himself. The main objections to the connexion of the episode of Elihu with the original book are: that the prologue and epilogue know nothing of him; that on the cause of Job's afflictions he occupies virtually the same position as the friends; that his speeches destroy the dramatic effect of the divine manifestation by introducing a lengthened break between Job's challenge and the answer of God; that the language and style of the piece are marked by an excessive mannerism, too great to have been created by the author of the rest of the poem; that the allusions to the rest of the book are so minute as to betray a reader rather than a hearer; and that the views regarding sin, and especially the scandal given to the author by the irreverence of Job, indicate a religious advance which marks a later age. The position taken by Elihu is almost that of a critic of the book. Regarding the origin of afflictions he is at one with the friends, although he dwells more on the general sinfulness of man than on actual sins, and his reprobation of Job's position is even greater than theirs. His anger was kindled against Job because he made himself righteous before God, and against his friends because they found no answer to Job. His whole object is to refute Job's charge of injustice against God. What is novel in Elihu, therefore, is not his position but his arguments. These do not lack cogency, but betray a kind of thought different from that of the friends. Injustice in God, he argues, can only arise from selfishness in Him; but the very existence of creation implies unselfish love on God's part, for if He thought only of Himself, He would cease actively to uphold creation, and it would fall into death. Again, without justice mere earthly rule is impossible; how then is injustice conceivable in Him who rules over all? It is probable that the original author found his three interlocutors a sufficient medium for expression, and that this new speaker is the creation of another. To a devout and thoughtful reader of the original book, belonging perhaps to a more reverential age, it appeared that the language and bearing of Job had scarcely been sufficiently reprobated by the original speakers, and that the religious reason, apart from any theophany, could suggest arguments sufficient to condemn such demeanour on the part of any man. (For an able though hardly convincing argument for the originality of the discourses of Elihu see Budde's *Commentary*.)

It is more difficult to come to a decision in regard to some other portions of the book, particularly ch. xxvii. 7–xxviii. In the latter part of ch. xxvii. Job seems to go over to the camp of his opponents, and expresses sentiments in complete contradiction to his former views. Hence some have thought the passage to be the missing speech of Zophar. Others, as Hitzig, believe that Job is parodying the ideas of the friends; while others, like Ewald, consider that he is recanting his former excesses, and making such a modification as to express correctly his views on evil. None of these opinions is quite satisfactory, though the last probably expresses the view with which the passage was introduced, whether it be original or not. The meaning of ch. xxviii. can only be that "Wisdom," that is, a theoretical comprehension of providence, is unattainable by man, whose only wisdom is the fear of the Lord or practical piety. But to bring Job to the feeling of this truth was just the purpose of the theophany and the divine speeches; and, if Job had reached it already through his own reflection, the theophany becomes an irrelevancy. It is difficult, therefore, to find a place for these two chapters in the original work. The hymn on Wisdom is a most exquisite poem, which probably originated separately, and was brought into our book with a purpose similar to that which suggested the speeches of Elihu. Objections have also been raised to the descriptions of leviathan and behemoth (ch. xl. 15–xli.). Regarding these it may be enough to say that in meaning these passages are in perfect harmony with other parts of the Divine words, although there is a breadth and detail in the style unlike the sharp, short, ironical touches otherwise characteristic of this part of the poem. (Other longer passages, the originality of which has been called into question, are: xvii. 8 seq.; xxi. 16–18; xxii. 17 seq.; xxiii. 8 seq.; xxiv. 9, 18–24; xxvi. 5–14. On these see the commentaries.)

Date.—The age of such a book as Job, dealing only with principles and having no direct references to historical events can be fixed only approximately. Any conclusion can be reached only by an induction founded on matters which do not afford perfect certainty, such as the comparative development of certain moral ideas in different ages, the pressing claims of certain problems for solution at particular epochs of the history of Israel, and points of contact with other writings of which the age may with some certainty be determined. The Jewish tradition that the book is Mosaic, and the idea that it is a production of the desert, written in another tongue and translated into Hebrew, want even a shadow of probability. The book is a genuine outcome of the religious life and thought of Israel, the product of a religious knowledge and experience that were possible among no other people. That the author lays the scene of the poem outside his own nation and in the patriarchal age is a proceeding common to him with other dramatic writers, who find freer play for their principles in a region removed from the present, where they are not hampered by the obtrusive forms of actual life, but are free to mould occurrences into the moral form that their ideas require.

It is the opinion of some scholars, *e.g.* Delitzsch, that the book belongs to the age of Solomon. It cannot be earlier than this age, for Job (vii. 17) travesties the ideas of Ps. viii. in a manner which shows that this hymn was well known. To infer the date from a comparison of literary coincidences and allusions is however a very delicate operation. For, first, owing to the unity of thought and language which prevades the Old Testament, in which, regarded merely as a national literature, it differs from all other national literatures, we are apt to be deceived, and to take mere similarities for literary allusions and quotations; and, secondly, even when we are sure that there is dependence, it is often uncommonly difficult to decide which is the original source. The reference to Job in Ezek. xiv. 14 is not to our book, but to the man (a legendary figure) who was afterwards made the hero of it. The affinities on the other hand between Job and Isa. xl.–lv. are very close. The date, however, of this part of Isaiah is uncertain, though it cannot have received its final form, if it be composite, long before the return. Between Job iii. and Jer. xx. 14 seq. there is, again, certainly literary connexion. But the judgment of different minds differs on the question which passage is dependent on the other. The language of Jeremiah, however, has a natural pathos and genuineness of feeling in it, somewhat in contrast with the elaborate poetical finish of Job's words, which might suggest the originality of the former.

The tendency among recent scholars is to put the book of Job not earlier than the 5th century B.C. There are good reasons for putting it in the 4th century. It stands at the beginning of the era of Jewish philosophical inquiry—its affinities are with Proverbs, Ecclesiasticus, Ecclesiastes, and the Wisdom of Solomon, a body of writings that belongs to the latest period of pre-Christian Jewish literary development (see WISDOM LITERATURE). Its points of connexion with Isa. xl.–lv. relate only to the problem of the suffering of the righteous, and that it is later than the Isaiah passage appears from the fact that this latter is national and ritual in scope, while Job is universal and ethical.

The book of Job is not literal history, though it reposes on historical tradition. To this tradition belong probably the name of Job and his country, and the names of his three friends, and perhaps also many other details impossible to specify particularly. The view that the book is entirely a literary creation with no basis in historical tradition is as old as the Talmud (*Baba Bathra*, xv. 1), in which a rabbi is cited who says: Job was not, and was not created, but is an allegory. This view is supported by Hengstenberg and others. But pure poetical creations on so extensive a scale are not probable in the East and at so early an age.

Author.—The author of the book is wholly unknown. The religious life of Israel was at certain periods very intense, and at those times the spiritual energy of the nation expressed itself almost impersonally, through men who forgot themselves and were speedily forgotten in name by others. Hitzig conjectures that the author was a native of the north on account of the free criticism of providence which he allows himself. Others, on account of some affinities with the prophet Amos, infer that he belonged to the south of Judah, and this is supposed to account

for his intimate acquaintance with the desert. Ewald considers that he belonged to the exile in Egypt, on account of his minute acquaintance with that country. But all these conjectures localize an author whose knowledge was not confined to any locality, who was a true child of the East and familiar with life and nature in every country there, who was at the same time a true Israelite and felt that the earth was the Lord's and the fullness thereof, and whose sympathies and thought took in all God's works.

LITERATURE.—Commentaries by Ewald (1854); Renan (1859); Delitzsch (1864); Zöckler in Lange's *Bibelwerk* (1872); F. C. Cook in *Speaker's Comm.* (1880); A. B. Davidson in *Cambridge Bible* (1884); Dillmann (1891); K. Budde (1896); Duhm (1897). See also Hoekstra, "Job de Knecht van Jehovah" in *Theol. Tijdschr.* (1871), and, in reply, A. Kuenen, "Job en de leidende Knecht van Jahveh," ibid. (1873); C. H. H. Wright in *Bib. Essays* (1886); G. G. Bradley, *Lects. on Job* (2nd ed., 1888); Cheyne, *Job and Solomon* (1887); Dawson, *Wisd. Lit.* (1893); D. B. Macdonald, "The Original Form of the Legend of Job" in *Journ. Bib. Lit.* (1895); E. Hatch, *Essays in Bib. Gk.* (1889); A. Dillmann, in *Trans. of Roy. Pruss. Acad.* (1890). (A. B. D., C. H. T.*)

JOBST, or JODOCUS (*c.* 1350–1411), margrave of Moravia, was a son of John Henry of Luxemburg, margrave of Moravia, and grandson of John, the blind king of Bohemia. He became margrave of Moravia on his father's death in 1375, and his clever and unscrupulous character enabled him to amass a considerable amount of wealth, while his ambition led him into constant quarrels with his brother Procop, his cousins, the German king Wenceslaus and Sigismund, margrave of Brandenburg, and others. By taking advantage of their difficulties he won considerable power, and the record of his life is one of warfare and treachery, followed by broken promises and transitory reconciliations. In 1385 and 1388 he purchased Brandenburg from Sigismund, and the duchy of Luxemburg from Wenceslaus; and in 1397 he also became possessed of upper and lower Lusatia. For some time he had entertained hopes of the German throne and had negotiated with Wenceslaus and others to this end. When, however, King Rupert died in 1410 he maintained at first that there was no vacancy, as Wenceslaus, who had been deposed in 1400, was still king; but changing his attitude, he was chosen German king at Frankfort on the 1st of October 1410 in opposition to Sigismund, who had been elected a few days previously. Jobst however was never crowned, and his death on the 17th of January 1411 prevented hostilities between the rival kings.

See F. M. Pelzel, *Lebensgeschichte des römischen und böhmischen Königs Wenceslaus* (1788–1790); J. Heidemann, *Die Mark Brandenburg unter Jobst von Mähren* (1881); J. Aschbach, *Geschichte Kaiser Sigmunds* (1838–1845); F. Palacky, *Geschichte von Böhmen*, iii. (1864–1874); and T. Lindner, *Geschichte des Deutschen Reiches vom Ende des 14 Jahrhunderts bis zur Reformation*, i. (1875–1880).

JOB'S TEARS, in botany, the popular name for *Coix Lachryma-Jobi*, a species of grass, of the tribe *maydeae*, which also includes the maize (see GRASSES). The seeds, or properly fruits, are contained singly in a stony involucre or bract, which does not open until the enclosed seed germinates. The young involucre surrounds the female flower and the stalk supporting the spike of male flowers, and when ripe has the appearance of bluish-white porcelain. Being shaped somewhat like a large drop of fluid, the form has suggested the name. The fruits are esculent, but the involucres are the part chiefly used, for making necklaces and other ornaments. The plant is a native of India, but is now widely spread throughout the tropical zone. It grows in marshy places; and is cultivated in China, the fruit having a supposed value as a diuretic and anti-phthisic. It was cultivated by John Gerard, author of the famous *Herball*, at the end of the 16th century as a tender annual.

JOCASTA, or IOCASTA (Ἰοκάστη; in Homer, Ἐπικάστη), in Greek legend, wife of Laïus, mother (afterwards wife) of Oedipus (*q.v.*), daughter of Menoeceus, sister (or daughter) of Creon. According to Homer (*Od.* xi. 271) and Sophocles (*Oed. Tyr.* 1241), on learning that Oedipus was her son she immediately hanged herself; but in Euripides (*Phoenissae*, 1455) she stabs herself over the bodies of her sons Eteocles and Polynices, who had slain each other in single combat before the walls of Thebes.

JOCKEY, a professional rider of race-horses, now the current usage (see HORSE-RACING). The word is by origin a diminutive of "Jock," the Northern or Scots colloquial equivalent of the name "John" (cf. JACK). A familiar instance of the use of the word as a name is in "Jockey of Norfolk" in Shakespeare's *Richard III.* v. 3, 304. In the 16th and 17th centuries the word was applied to horse-dealers, postilions, itinerant minstrels and vagabonds, and thus frequently bore the meaning of a cunning trickster, a "sharp," whence "to jockey," to outwit, or "do" a person out of something. The current usage is found in John Evelyn's *Diary*, 1670, when it was clearly well known. George Borrow's attempt to derive the word from the gipsy *chukni*, a heavy whip used by horse-dealing gipsies, has no foundation.

JODELLE, ÉTIENNE, seigneur de Limodin (1532–1573), French dramatist and poet, was born in Paris of a noble family. He attached himself to the poetic circle of the Pléiade (see DAURAT) and proceeded to apply the principles of the reformers to dramatic composition. Jodelle aimed at creating a classical drama that should be in every respect different from the moralities and *soties* that then occupied the French stage. His first play, *Cléopâtre captive*, was represented before the court at Reims in 1552. Jodelle himself took the title rôle, and the cast included his friends Remy Belleau and Jean de la Péruse. In honour of the play's success the friends organized a little fête at Arcueil when a goat garlanded with flowers was led in procession and presented to the author—a ceremony exaggerated by the enemies of the Ronsardists into a renewal of the pagan rites of the worship of Bacchus. Jodelle wrote two other plays. *Eugène*, a comedy satirizing the superior clergy, had less success than it deserved. Its preface poured scorn on Jodelle's predecessors in comedy, but in reality his own methods are not so very different from theirs. *Didon se sacrifiant*, a tragedy which follows Virgil's narrative, appears never to have been represented. Jodelle died in poverty in July 1573. His works were collected the year after his death by Charles de la Mothe. They include a quantity of miscellaneous verse dating chiefly from Jodelle's youth. The intrinsic value of his tragedies is small. *Cléopâtre* is lyric rather than dramatic. Throughout the five acts of the piece nothing actually happens. The death of Antony is announced by his ghost in the first act; the story of Cleopatra's suicide is related, but not represented, in the fifth. Each act is terminated by a chorus which moralizes on such subjects as the inconstancy of fortune and the judgments of heaven on human pride. But the play was the starting-point of French classical tragedy, and was soon followed by the *Médée* (1553) of Jean de la Péruse and the *Aman* (1561) of André de Rivaudeau. Jodelle was a rapid worker, but idle and fond of dissipation. His friend Ronsard said that his published poems gave no adequate idea of his powers.

Jodelle's works are collected (1868) in the *Pléiade française* of Charles Marty-Laveaux. The prefatory notice gives full information of the sources of Jodelle's biography, and La Mothe's criticism is reprinted in its entirety.

JODHPUR, or MARWAR, a native state of India, in the Rajputana agency. Area, 34,963 sq. m. Pop. (1901), 1,935,565, showing a decrease of 23% in the decade, due to the results of famine. Estimated revenue, £373,600; tribute, £14,000. The general aspect of the country is that of a sandy plain, divided into two unequal parts by the river Lūni, and dotted with picturesque conical hills, attaining in places an elevation of 3000 ft. The river Lūni is the principal feature in the physical aspects of Jodhpur. One of its head-streams rises in the sacred lake of Pushkar in Ajmere, and the main river flows through Jodhpur in a south-westerly direction till it is finally lost in the marshy ground at the head of the Runn of Cutch. It is fed by numerous tributaries and occasionally overflows its banks, fine crops of wheat and barley being grown on the saturated soil. Its water is, as a rule, saline or brackish, but comparatively sweet water is obtained from wells sunk at a distance of 20 or 30 yds. from the river bank. The famous salt-lake of Sambhar is situated on the borders of Jodhpur and Jaipur, and two smaller lakes of the same description lie within the limits of the state,

from which large quantities of salt are extracted. Marble is mined in the north of the state and along the south-east border.

The population consists of Rathor Rājputs (who form the ruling class), Brāhmans, Charans, Bhāts, Mahajans or traders, and Jāts. The Charans, a sacred race, hold large religious grants of land, and enjoy peculiar immunities as traders in local produce. The Bhāts are by profession genealogists, but also engage in trade. Mārwāri traders are an enterprising class to be found throughout the length and breadth of India.

The principal crops are millets and pulses, but wheat and barley are largely produced in the fertile tract watered by the Lūni river. The manufactures comprise leather boxes and brass utensils; and turbans and scarfs and a description of embroidered silk knotted thread are specialities of the country.

The Mahārājā belongs to the Rathor clan of Rājputs. The family chronicles relate that after the downfall of the Rathor dynasty of Kanauj in 1194, Sivajī, the grandson of Jāi Chānd, the last king of Kanauj, entered Mārwār on a pilgrimage to Dwarka, and on halting at the town of Pāli he and his followers settled there to protect the Brāhman community from the constant raids of marauding bands. The Rathor chief thus laid the foundation of the state, but it was not till the time of Rāo Chānda, the tenth in succession from Sivajī, that Mārwār was actually conquered. His grandson Jodha founded the city of Jodhpur, which he made his capital. In 1561 the country was invaded by Akbar, and the chief was forced to submit, and to send his son as a mark of homage to take service under the Mogul emperor. When this son Udāi Singh succeeded to the chiefship, he gave his sister Jodhbāi in marriage to Akbar, and was rewarded by the restoration of most of his former possessions. Udāi Singh's son, Gaj Singh, held high service under Akbar, and conducted successful expeditions in Gujarat and the Deccan. The bigoted and intolerant Aurangzeb invaded Mārwār in 1679, plundered Jodhpur, sacked all the large towns, and commanded the conversion of the Rathors to Mahommedanism. This cemented all the Rājput clans into a bond of union, and a triple alliance was formed by the three states of Jodhpur, Udāipur and Jaipur, to throw off the Mahommedan yoke. One of the conditions of this alliance was that the chiefs of Jodhpur and Jaipur should regain the privilege of marriage with the Udāipur family, which they had forfeited by contracting alliances with the Mogul emperors, on the understanding that the offspring of Udāipur princesses should succeed to the state in preference to all other children. The quarrels arising from this stipulation lasted through many generations, and led to the invitation of Mahratta help from the rival aspirants to power, and finally to the subjection of all the Rājput states to the Mahrattās. Jodhpur was conquered by Sindhia, who levied a tribute of £60,000, and took from it the fort and town of Ajmere. Internecine disputes and succession wars disturbed the peace of the early years of the century, until in January 1818 Jodhpur was taken under British protection. In 1839 the misgovernment of the rājā led to an insurrection which compelled the interference of the British. In 1843, the chief having died without a son, and without having adopted an heir, the nobles and state officials were left to select a successor from the nearest of kin. Their choice fell upon Rājā Takht Sinh, chief of Ahmednagar. This chief, who did good service during the Mutiny, died in 1873. Mahārājā Jaswant Singh, who died in 1896, was a very enlightened ruler. His brother, Sir Pertab Singh (*q.v.*), conducted the administration until his nephew, Sardar Singh, came of age in 1898. The imperial service cavalry formed part of the reserve brigade during the Tirah campaign.

The state maintains a railway running to Bikanir, and there is also a branch railway into Sind. Gold, silver and copper money is coined. The state emblems are a *jhar* or sprig of seven branches and a *khanda* or sword. Jodhpur practically escaped the plague, but it suffered more severely than any other part of Rajputana from the famine of 1899–1900. In February 1900 more than 110,000 persons were in receipt of famine relief.

The city of JODHPUR is 64 m. by rail N.W. of Mārwār junction, on the Rajputana railway. Pop. (1901), 60,437. It was built by Rāo Jodha in 1459, and from that time has been the seat of government. It is surrounded by a strong wall nearly 6 m. in extent, with seventy gates. The fort, which stands on an isolated rock, contains the mahārājā's palace, a large and handsome building, completely covering the crest of the hill on which it stands, and overlooking the city, which lies several hundred feet below. The city contains palaces of the mahārājā, and town residences of the *thākurs* or nobles, besides numerous fine temples and tanks. Building stone is plentiful and close at hand, and the architecture is solid and handsome. Three miles north of Jodhpur are the ruins of Mandor, the site of the ancient capital of the Parihar princes of Mārwār, before its conquest by the Rathors. Mills for grinding flour and crushing grain have been constructed for the imperial service troops. The Jaswant college is affiliated to the B.A. standard of the Allahabad university. To the Hewson hospital a wing for eye diseases was added in 1898, and the Jaswant hospital for women is under an English lady doctor.

JOEL. The second book among the minor prophets in the Bible is entitled *The word of Yahweh that came to Joel the son of Pethuel*, or, as the Septuagint, Latin, Syriac and other versions read, *Bethuel*. Nothing is recorded as to the date or occasion of the prophecy. Most Hebrew prophecies contain pointed references to the foreign politics and social relations of the nation at the time. In the book of Joel there are only scanty allusions to Phoenicians, Philistines, Egypt and Edom, couched in terms applicable to very different ages, while the prophet's own people are exhorted to repentance without specific reference to any of those national sins of which other prophets speak. The occasion of the prophecy, described with great force of rhetoric, is no known historical event, but a plague of locusts, perhaps repeated in successive seasons; and even here there are features in the description which have led many expositors to seek an allegorical interpretation. The most remarkable part of the book is the eschatological picture with which it closes; and the way in which the plague of locusts appears to be taken as foreshadowing the final judgment—the great day or assize of Yahweh, in which Israel's enemies are destroyed—is so unique as greatly to complicate the exegetical problem. It is not therefore surprising that the most various views are still held as to the date and meaning of the book. Allegorists and literalists still contend over the first and still more over the second chapter, and, while the largest number of recent interpreters accept Credner's view that the prophecy was written in the reign of Joash of Judah (835–796 B.C.?), a powerful school of critics (including A. B. Davidson) follow the view suggested by Vatke (*Bib. Theol.* p. 462 seq.), and reckon Joel among the post-exile prophets. Other scholars give yet other dates: see the particulars in the elaborate work of Merx. The followers of Credner are literalists; the opposite school of moderns includes some literalists (as Duhm), while others (like Hilgenfeld, and in a modified sense Merx) adopt the old allegorical interpretation which treats the locusts as a figure for the enemies of Jerusalem.

There are cogent reasons for placing Joel either earlier or later than the great series of prophets extending from the time when Amos first proclaimed the approach of the Assyrian down to the Babylonian exile. In Joel the enemies of Israel are the nations collectively, and among those specified by name neither Assyria nor Chaldaea finds a place. This circumstance might, if it stood alone, be explained by placing Joel with Zephaniah in the brief interval between the decline of the empire of Nineveh and the advance of the Babylonians. But it is further obvious that Joel has no part in the internal struggle between spiritual Yahweh-worship and idolatry which occupied all the prophets from Amos to the captivity. He presupposes a nation of Yahweh-worshippers, whose religion has its centre in the temple and priesthood of Zion, which is indeed conscious of sin, and needs forgiveness and an outpouring of the Spirit, but is not visibly divided, as the kingdom of Judah was, between the adherents of spiritual prophecy and a party whose national worship of Yahweh involved for them no fundamental separation from the surrounding nations. The book, therefore, must have been written before the ethico-spiritual and the popular conceptions of Yahweh came into conscious antagonism, or else after the fall of the state and the restoration of the community of Jerusalem to religious rather than political existence had decided

the contest in favour of the prophets, and of the Law in which their teaching was ultimately crystallized.

The considerations which have given currency to an early date for Joel are of various kinds. The absence of all mention of one great oppressing world-power seems most natural before the westward march of Assyria involved Israel in the general politics of Asia. The purity of the style is also urged, and a comparison of Amos i. 2, Joel iii. 16 (Heb. iv. 16), and Amos ix. 13, Joel iii. 18 (iv. 18), has been taken as proving that Amos knew our book. The last argument might be inverted with much greater probability, and numerous points of contact between Joel and other parts of the Old Testament (*e.g.* Joel ii. 2, Exod. x. 14; Joel ii. 3, Ezek. xxxvi. 35; Joel iii. 10, Mic. iv. 3) make it not incredible that the purity of his style—which is rather elegant than original and strongly marked—is in large measure the fruit of literary culture. The absence of allusion to a hostile or oppressing empire may be fairly taken in connexion with the fact that the prophecy gives no indication of political life at Jerusalem. When the whole people is mustered in ch. i., the elders or sheikhs of the municipality and the priests of the temple are the most prominent figures. The king is not mentioned—which on Credner's view is explained by assuming that the plague fell in the minority of Joash, when the priest Jehoiada held the reins of power—and the princes, councillors and warriors necessary to an independent state, and so often referred to by the prophets before the exile, are altogether lacking. The nation has only a municipal organization with a priestly aristocracy, precisely the state of things that prevailed under the Persian empire. That the Persians do not appear as enemies of Yahweh and his people is perfectly natural. They were hard masters but not invaders, and under them the enemies of the Jews were their neighbours, just as appears in Joel.[1] Those, however, who place our prophet in the minority of King Joash draw a special argument from the mention of Phoenicians, Philistines and Edomites (iii. 4 seq., 19), pointing to the revolt of Edom under Joram (2 Kings viii. 20) and the incursion of the Philistines in the same reign (2 Chron. xxi. 16, xxii. 1). These were recent events in the time of Joash, and in like manner the Phoenician slave trade in Jewish children is carried back to an early date by the reference in Amos i. 9. This argument is rather specious than sound. Edom's hostility to Judah was incessant, but the feud reached its full intensity only after the time of Deuteronomy (xxiii. 7), when the Edomites joined the Chaldaeans, drew profit from the overthrow of the Jews, whose land they partly occupied, and exercised barbarous cruelty towards the fugitives of Jerusalem (Obad. *passim*; Mal. i. 2 seq.; Isa. lxiii.). The offence of shedding innocent blood charged on them by Joel is natural after these events, but hardly so in connexion with the revolt against Joram.

As regards the Philistines, it is impossible to lay much weight on the statement of Chronicles, unsupported as it is by the older history, and in Joel the Philistines plainly stand in one category with the Phoenicians, as slave dealers, not as armed foes. Gaza in fact was a slave emporium as early as the time of Amos (i. 6), and continued so till Roman times.

Thus, if any inference as to date can be drawn from ch. iii., it must rest on special features of the trade in slaves, which was always an important part of the commerce of the Levant. In the time of Amos the slaves collected by Philistines and Tyrians were sold *en masse* to Edom, and presumably went to Egypt or Arabia. Joel complains that they were sold to the Grecians (Javan, Ionians).[2] It is probable that some Hebrew and Syrian slaves were exported to the Mediterranean coasts from a very early date, and Isa. xi. 11 already speaks of Israelites captive in these districts as well as in Egypt, Ethiopia and the East. But the traffic in this direction hardly became extensive till a later date. In Deut. xxviii. 68, Egypt is still the chief goal of the maritime slave trade, and in Ezek. xxvii. 13 Javan exports slaves to Tyre, not conversely. Thus the allusion to Javan in Joel better suits a later date, when Syrian slaves were in special request in Greece.[3] And the name of Javan is not found in any part of the Old Testament certainly older than Ezekiel. In Joel it seems to stand as a general representative of the distant countries reached by the Mediterranean (in contrast with the southern Arabians, *Sabaeans*, ch. iii. 8), the farthest nation reached by the fleets of the Red Sea. This is precisely the geographical standpoint of the post-exile author of Gen. x. 4, where (assuming that Elishah = Carthage and Tarshish = Tartessus) Javan includes Carthage and Tartessus.

Finally, the allusion to Egypt in Joel iii. 19 must on Credner's theory be explained of the invasion of Shishak a century before Joash. From this time down to the last period of the Hebrew monarchy Egypt was not the enemy of Judah.

If the arguments chiefly relied on for an early date are so precarious or can even be turned against their inventors, there are others of an unambiguous kind which make for a date in the Persian period. It appears from ch. iii. 1, 2, that Joel wrote after the exile. The phrase "to bring again the captivity" would not alone suffice to prove this, for it is used in a wide sense, and perhaps means rather to "reverse the calamity,"[4] but the dispersion of Israel among the nations, and the allotment of the Holy Land to new occupants, cannot fairly be referred to any calamity less than that of the captivity. With this the whole standpoint of the prophecy agrees. To Joel Judah and the people of Yahweh are synonyms; northern Israel has disappeared. Now it is true that those who take their view of the history from Chronicles, where the kingdom of Ephraim is always treated as a sect outside the true religion, can reconcile this fact with an early date. But in ancient times it was not so; and under Joash, the contemporary of Elisha, such a limitation of the people of Yahweh is wholly inconceivable. The earliest prophetic books have a quite different standpoint; otherwise indeed the books of northern prophets and historians could never have been admitted into the Jewish canon. Again, the significant fact that there is no mention of a king and princes, but only of sheikhs and priests, has a force not to be invalidated by the ingenious reference of the book to the time of Joash's minority and the supposed regency of Jehoiada.[5] And the assumption that there was a period before the prophetic conflicts of the 8th century B.C. when spiritual prophecy had unchallenged sway, when there was no gross idolatry or superstition, when the priests of Jerusalem, acting in accord with prophets like Joel, held the same place as heads of a pure worship which they occupied after the exile (cf. Ewald, *Propheten*, i. 89), is not consistent with history. It rests on the old theory of the antiquity of the Levitical legislation, so that in fact all who place that legislation later than Ezekiel are agreed that the book of Joel is also late. In this connexion one point deserves special notice. The religious significance of the plague of drought and locusts is expressed in ch. i. 9 in the observation that the daily meat and drink offering are cut off, and the token of new blessing is the restoration of this service, ch. ii. 14. In other words, the daily offering is the continual symbol of gracious intercourse between Yahweh and his people and the main office of religion. This conception, which finds its parallel in Dan. viii. 11, xi. 31, xii. 11, is quite in accordance with the later law. But under the monarchy the daily oblation was the king's private offering, and not till Ezra's reformation did it become the affair of the community and the central act of national worship (Neh. x. 33 seq.).[6] That Joel wrote not only after the exile but after the work of Ezra and Nehemiah may be viewed as confirmed by the allusions to the walls of Jerusalem in ch. ii. 7, 9. Such is the historical basis which we seem to be able to lay for the study of the exegetical problems of the book.

The style of Joel is clear (which hardly favours an early date), and his language presents peculiarities which are evidences of a late origin. But the structure of the book, the symbolism and the connexion of the prophet's thoughts have given rise to much controversy. It seems safest to start from the fact that the prophecy is divided into two well-marked sections by ch. ii. 18, 19a. According to the Massoretic vocalization, which is in harmony with the most ancient exegetical tradition as contained in the LXX, these words are historical: "Then the Lord was jealous, . . . and answered and said unto his people, Behold," &c. Such is the natural meaning of the words as pointed.

Thus the book falls into two parts. In the first the prophet speaks in his own name, addressing himself to the people in a lively description of a present calamity caused by a terrible plague of locusts which threatens the entire destruction of the country, and appears to be the vehicle of a final consuming judgment (the day of Yahweh). There is no hope save in repentance and prayer; and in ch. ii. 12 the prophet, speaking now for the first time in Yahweh's name, calls the people to a solemn fast at the sanctuary, and invites the intercession of the priests. The calamity is described in the strongest colours of Hebrew hyperbole, and it seems arbitrary to seek too literal an interpretation of details, *e.g.* to lay weight on the four names of locusts, or to take ch. i. 20 of a conflagration produced by drought, when it appears from ii. 3 that the ravages of the locusts themselves are compared to those of fire. But when due allowance is made for

[1] In the A.V. of ii. 17 it appears that subjection to a foreign power is not a present fact but a thing feared. But the parallelism and v. 19 justify the rendering in margin of R.V. "use a byword against them."

[2] The hypothesis of an Arabian Javan, applied to Joel iii. 6 by Credner, Hitzig, and others, may be viewed as exploded (see Stade, "Das Volk Javan," 1880, reprinted in his *Akad. Reden u. Abhandlungen*, 1899, pp. 123–142). The question, however, has to be re-examined; later interpreters, *e.g.* the LXX translators, may have misunderstood. The text of the passages has to be critically treated anew. See Cheyne, *Traditions and Beliefs of Ancient Israel* (on Gen. x. 2).

[3] Compare Movers, *Phönizisches Alterthum*, iii. i. 70 seq.

[4] See Ewald on Jer. xlviii. 47, Kuenen, *Theol. Tijdschrift* (1873), p. 519; Schwally, *Z.A.T.W.*, viii. 200, and Briggs on Ps. xiv. 7.

[5] Stade not unreasonably questions whether 2 Kings xii. 1–3 implies the paramount political influence of Jehoiada.

[6] See Wellhausen, *Geschichte Israels*, p. 78 seq.; *Prolegomena zur Gesch. Israels* (1883), p. 82 seq.

Eastern rhetoric, there is no occasion to seek in this section anything else than literal locusts. Nay, the allegorical interpretation, which takes the locusts to be hostile invaders, breaks through the laws of all reasonable writing; for the poetical hyperbole which compares the invading swarms to an army (ii. 4 seq.) would be inconceivably lame if a literal army was already concealed under the figure of the locusts. Nor could the prophet so far forget himself in his allegory as to speak of a victorious host as entering the conquered city like a thief (ii. 9). The second part of the book is Yahweh's answer to the people's prayer. The answer begins with a promise of deliverance from famine, and of fruitful seasons compensating for the ravages of the locusts. In the new prosperity of the land the union of Yahweh and his people shall be sealed anew, and so the Lord will proceed to pour down further and higher blessings. The aspiration of Moses (Num. xi. 29) and the hope of earlier prophets (Isa. xxxii. 15, lix. 21; Jer. xxxi. 33) shall be fully realized in the outpouring of the Spirit on all the Jews and even upon their servants (Isa. lxi. 5 with lvi. 6, 7); and then the great day of judgment, which had seemed to overshadow Jerusalem in the now averted plague, shall draw near with awful tokens of blood and fire and darkness. But the terrors of that day are not for the Jews but for their enemies. The worshippers of Yahweh on Zion shall be delivered (cf. Obad. *v.* 17, whose words Joel expressly quotes in ch. ii. 32), and it is their heathen enemies, assembled before Jerusalem to war against Yahweh, who shall be mowed down in the valley of Jehoshaphat ("Yahweh judgeth") by no human arm, but by heavenly warriors. Thus definitively freed from the profane foot of the stranger (Isa. lii. 1), Jerusalem shall abide a holy city for ever. The fertility of the land shall be such as was long ago predicted in Amos ix. 13, and streams issuing from the Temple, as Ezekiel had described in his picture of the restored Jerusalem (Ezek. xlvii.), shall fertilize the barren Wādi of Acacias. Egypt and Edom, on the other hand, shall be desolate, because they have shed the blood of Yahweh's innocents. Compare the similar predictions against Edom, Isa. xxxiv. 9 seq. (Mal. i. 3), and against Egypt, Isa. xix. 5 seq., Ezek. xxix. Joel's eschatological picture appears indeed to be largely a combination of elements from older unfulfilled prophecies. Its central feature, the assembling of the nations to judgment, is already found in Zeph. iii. 8, and in Ezekiel's prophecy concerning Gog and Magog, where the wonders of fire and blood named in Joel ii. 30 are also mentioned (Ezek. xxxviii. 22). The other physical features of the great day, the darkening of the lights of heaven, are a standing figure of the prophets from Amos v. 6, viii. 9, downwards. It is characteristic of the prophetic eschatology that images suggested by one prophet are adopted by his successors, and gradually become part of the permanent scenery of the last times; and it is a proof of the late date of Joel that almost his whole picture is made up of such features. In this respect there is a close parallelism, extending to minor details, between Joel and the last chapters of Zechariah.

That Joel's delineation of the final deliverance and glory attaches itself directly to the deliverance of the nation from a present calamity is quite in the manner of the so-called prophetic perspective. But the fact that the calamity which bulks so largely is natural and not political is characteristic of the post-exile period. Other prophets of the same age speak much of dearth and failure of crops, which in Palestine then as now were aggravated by bad government, and were far more serious to a small and isolated community than they could ever have been to the old kingdom. It was indeed by no means impossible that Jerusalem might have been altogether undone by the famine caused by the locusts; and so the conception of these visitants as the destroying army, executing Yahweh's final judgment, is really much more natural than appears to us at first sight, and does not need to be explained away by allegory. The chief argument relied upon by those who still find allegory at least in ch. ii. is the expression *haṣṣephōnī*, "the northerner"[1] [if this rendering is correct], in ii. 20. In view of the other points of affinity between Joel and Ezekiel, this word inevitably suggests Gog and Magog, and it is difficult to see how a swarm of locusts could receive such a name, or if they came from the north could perish, as the verse puts it, in the desert between the Mediterranean and the Dead Sea. The verse remains a *crux interpretum*, and no exegesis hitherto given can be deemed thoroughly satisfactory; but the interpretation of the whole book must not be made to hinge on a single word in a verse which might be altogether removed without affecting the general course of the prophet's argument.

The whole verse is perhaps the addition of an allegorizing glossator. The prediction in *v.* 19, that the seasons shall henceforth be fruitful, is given after Yahweh has shown his zeal and pity for Israel, not of course by mere words, but by acts, as appears in verses 20, 21, where the verbs are properly perfects recording that Yahweh hath already done great things, and that vegetation has already revived. In other words, the mercy already experienced in the removal of the plague is taken as a pledge of future grace not to stop short till all God's old promises are fulfilled. In this context *v.* 20 is out of place. Observe also that in *v.* 25 the locusts are spoken of in the plain language of chap. i.

See the separate commentaries on Joel by Credner (1831), Wünsche (1872), Merx (1879). The last-named gives an elaborate history of interpretation from the Septuagint down to Calvin, and appends the Ethiopic text edited by Dillmann. Nowack and Marti should also be consulted (see their respective series of commentaries); also G. A. Smith, in *The Book of the Twelve Prophets*, vol. i. (1896), and S. R. Driver, *Joel and Amos* (1897). On the language of Joel, see Holzinger, *Z. A. T. W.* (1889), pp. 89–131. Of older commentaries the most valuable is Pocock's (Oxford, 1691). Bochart's *Hierozoïcon* may also be consulted. (W. R. S.; T. K. C.)

JOEL, MANUEL (1826–1890), Jewish philosopher and preacher. After teaching for several years at the Breslau rabbinical seminary, founded by Z. Frankel, he became the successor of Abraham Geiger in the rabbinate of Breslau. He made important contributions to the history of the school of Aqiba (*q.v.*) as well as to the history of Jewish philosophy, his essays on Ibn Gabirol and Maimonides being of permanent worth. But his most influential work was connected with the relations between Jewish philosophy and the medieval scholasticism. He showed how Albertus Magnus derived some of his ideas from Maimonides and how Spinoza was indebted to the same writer, as well as to Hasdai Crescas. These essays were collected in two volumes of *Beiträge zur Geschichte der Philosophie* (1876), while another two volumes of *Blicke in die Religionsgeschichte* (1880–1883) threw much light on the development of religious thought in the early centuries of the Christian era. Equally renowned were Joel's pulpit addresses. Though he was no orator, his appeal to the reason was effective, and in their published form his three volumes of *Predigten* (issued posthumously) have found many readers. (I. A.)

JOFFRIN, JULES FRANÇOIS ALEXANDRE (1846–1890), French politician, was born at Troyes on the 16th of March 1846. He served in the Franco-German War, was involved in the Commune, and spent eleven years in England as a political exile. He attached himself to the "possibilist" group of the socialist party, the section opposed to the root-and-branch measures of Jules Guesde. He became a member of the municipal council of Paris in 1882, and vice-president in 1888–1889. Violently attacked by the Boulangist organs, *L'Intransigeant* and *La France*, he won a suit against them for libel, and in 1889 he contested the 18th arrondissement of Paris with General Boulanger, who obtained a majority of over 2000 votes, but was declared ineligible. Joffrin was only admitted to the Chamber after a heated discussion, and continued to be attacked by the nationalists. He died in Paris on the 17th of September 1890.

[1] It has been suggested that *Ṣaphon*, which is often rather troublesome if rendered "the north," may be a weakened form of *ṣib'ōn*, a current popular corruption of *shimo'n* = Ishmael. In Ezek. xxxviii. 15 it is distinctly said that Gog is to come from the recesses of Ṣāphōn. "Meshech" and "Tubal" are no hindrance to this view, if the names of the so-called "sons of Japheth" are critically examined. For they, too, as well as Ṣāphōn, can be plausibly shown to represent regions of North Arabia. See Cheyne, *Traditions and Beliefs of Anc. Israel*, on Gen. x. 2–4.

JOGUES, ISAAC (1607–1646), French missionary in North America, was born at Orleans on the 10th of January 1607. He entered the Society of Jesus at Rouen in 1624, and in 1636 was ordained and sent, by his own wish, to the Huron mission. In 1639 he went among the Tobacco Nation, and in 1641 journeyed to Sault Sainte Marie, where he preached to the Algonquins. Returning from an expedition to Three Rivers he was captured by Mohawks, who tortured him and kept him as a slave until the summer of 1643, when, aided by some Dutchmen, he escaped to the manor of Rensselaerwyck and thence to New Amsterdam. After a brief visit to France, where he was treated with high honour, he returned to the Mohawk country in May 1646 and ratified a treaty between that tribe and the Canadian government. Working among them as the founder of the Mission of the Martyrs, he incurred their enmity, was tortured as a sorcerer, and finally killed at Ossernenon, near Auriesville, N.Y.

See Parkman, *The Jesuits in North America* (1898).

JOḤANAN BEN ZACCAI, Palestinian rabbi, contemporary of the Apostles. He was a disciple of Hillel (*q.v.*), and after the destruction of the Temple of Jerusalem by Titus was the main instrument in the preservation of the Jewish religion. During the last decades of the Temple Joḥanan was a member of the Sanhedrin and a skilled controversialist against the Sadducees. He is also reported to have been head of a great school in the capital. In the war with Rome he belonged to the peace party, and finding that the Zealots were resolved on carrying their revolt to its inevitable sequel, Joḥanan had himself conveyed out of Jerusalem in a coffin. In the Roman camp the rabbi was courteously received, and Vespasian (whose future elevation to the imperial dignity Joḥanan, like Josephus, is said to have foretold) agreed to grant him any boon he desired. Joḥanan obtained permission to found a college at Jamnia (Jabneh), which became the centre of Jewish culture. It practically exercised the judicial functions of the Sanhedrin (see JEWS, § 40 *ad fin.*). That chief literary expression of Pharisaism, the Mishnah, was the outcome of the work begun at Jamnia. Joḥanan solaced his disciples on the fall of the Temple by the double thought that charity could replace sacrifice, and that a life devoted to the religious law could form a fitting continuation of the old theocratic state. "Joḥanan felt the fall of his people more deeply than anyone else, but—and in this lies his historical importance—he did more than any one else to prepare the way for Israel to rise again" (Bacher).

See Graetz, *History of the Jews* (Eng. trans.), vol. ii. ch. xiii.; Weiss, *Dor dor ve-doreshav*, ii. 36; Bacher, *Die Agada der Tannaiten*, vol. i. ch. iii. (I. A.)

JOHANNESBURG, a city of the Transvaal and the centre of the Rand gold-mining industry. It is the most populous city and the commercial capital of South Africa. It is built on the southern slopes of the Witwatersrand in 26° 11′ S. 28° 2′ E., at an elevation of 5764 ft. above the sea. The distances by rail from Johannesburg to the following seaports are: Lourenço Marques, 364 m.; Durban, 483 m.; East London, 659 m.; Port Elizabeth, 714 m.; Cape Town, 957 m. Pretoria is, by rail, 46 m. N. by E.

The town lies immediately north of the central part of the main gold reef. The streets run in straight lines east and west or north and south. The chief open spaces are Market Square in the west and Government Square in the south of the town. Park railway station lies north of the business quarter, and farther north are the Wanderers' athletic sports ground and Joubert's Park. The chief business streets, such as Commissioner Street, Market Street, President Street and Pritchard Street, run east and west. In these thoroughfares and in several of the streets which intersect them are the offices of the mining companies, the banks, clubs, newspaper offices, hotels and shops, the majority being handsome stone or brick buildings, while the survival of some wooden shanties and corrugated iron buildings recalls the early character of the town.

Chief Buildings, &c.—In the centre of Market Square are the market buildings, and at its east end the post and telegraph offices, a handsome block of buildings with a façade 200 ft. long and a tower 106 ft. high. The square itself, a quarter of a mile long, is the largest in South Africa. The offices of the Witwatersrand chamber of mines face the market buildings. The stock exchange is in Marshall Square. The telephone exchange is in the centre of the city, in Von Brandis Square. The law courts are in the centre of Government Square. The Transvaal university college is in Plein Square, a little south of Park station. In the vicinity is St Mary's (Anglican) parish hall (1905–1907), the first portion of a large building planned to take the place of "Old" St Mary's Church, the "mother" church of the Rand, built in 1887. The chief Jewish synagogue is in the same neighbourhood. In Kerk Street, on the outskirts of central Johannesburg, is the Roman Catholic Church of the Immaculate Conception, the headquarters of the vicar apostolic of the Transvaal. North of Joubert's Park is the general hospital, and beyond, near the crest of the hills, commanding the town and the road to Pretoria, is a fort built by the Boer government and now used as a gaol. On the hills, some 3 m. E.N.E. of the town, is the observatory, built in 1903. Johannesburg has several theatres and buildings adapted for public meetings. There is a race-course 2 m. south of the town under the control of the Johannesburg Turf Club.

The Suburbs.—North, east and west of the city proper are suburbs, laid out on the same rectangular plan. The most fashionable are to the east and north—Jeppestown, Belgravia, Doornfontein, the Berea, Hillbrow, Parktown, Yeoville and Bellevue. Braamfontein (with a large cemetery) lies north-west and Fordsburg due west of the city. At Fordsburg are the gas and electric light and power works, and north of Doornfontein there is a large reservoir. There are also on the Rand, and dependent on the gold-mining, three towns possessing separate municipalities—Germiston and Boksburg (*q.v.*), respectively 9 m. and 15 m. E. of Johannesburg, and Krugersdorp (*q.v.*), 21 m. W.

The Mines and other Industries.—South, east and west of the city are the gold mines, indicated by tall chimneys, battery houses and the compounds of the labourers. The bare veld is dotted with these unsightly buildings for a distance of over fifty miles. The mines are worked on the most scientific lines. Characteristic of the Rand is the fine white dust arising from the crushing of the ore, and, close to the batteries, the incessant din caused by the stamps employed in that operation. The compounds in general, especially those originally made for Chinese labourers, are well built, comfortable, and fulfil every hygienic requirement. Besides the buildings, the compounds include wide stretches of veld. To enter and remain in the district, Kaffirs require a monthly pass for which the employer pays 2s. (For details of gold-mining, see GOLD.) A railway traverses the Rand, going westward past Krugersdorp to Klerksdorp and thence to Kimberley, and eastward past Springs to Delagoa Bay. From Springs, 25 m. E. of Johannesburg, is obtained much of the coal used in the Rand mines.

The mines within the municipal area produce nearly half the total gold output of the Transvaal. The other industries of Johannesburg include brewing, printing and bookbinding, timber sawing, flour milling, iron and brass founding, brick making and the manufacture of tobacco.

Health, Education and Social Conditions.—The elevation of Johannesburg makes it, despite its nearness to the tropics, a healthy place for European habitation. Built on open undulating ground, the town is, however, subject to frequent dust storms and to considerable variations in the temperature. The nights in winter are frosty and snow falls occasionally. The average day temperature in winter is 53° F., in summer 75°; the average annual rainfall is 28 in. The death-rate among white inhabitants averages about 17 per thousand. The principal causes of death, both among the white and coloured inhabitants, are diseases of the lungs—including miners' phthisis and pneumonia—diarrhoea, dysentery and enteric. The death-rate among young children is very high.

Education is provided in primary and secondary schools maintained by the state. In the primary schools education is

free but not compulsory. The Transvaal university college, founded in 1904 as the technical institute (the change of title being made in 1906), provides full courses in science, mining, engineering and law. In 1906 Alfred Beit (*q.v.*) bequeathed £200,000 towards the cost of erecting and equipping university buildings.

In its social life Johannesburg differs widely from Cape Town and Durban. The white population is not only far larger but more cosmopolitan, less stationary and more dependent on a single industry; it has few links with the past, and both city and citizens bear the marks of youth. The cost of living is much higher than in London or New York. House rent, provisions, clothing, are all very dear, and more than counterbalance the lowness of rates. The customary unit of expenditure is the threepenny-bit or "tickey."

Sanitary and other Services.—There is an ample supply of water to the town and mines, under a water board representing all the Rand municipalities and the mining companies. A water-borne sewerage system began to be introduced in 1906. The general illuminant is electricity, and both electrical and gas services are owned by the municipality. The tramway service, opened in 1891, was taken over by the municipality in 1904. Up to 1906 the trams were horse-drawn; in that year electric cars began running. Rickshaws are also a favourite means of conveyance. The police force is controlled by the government.

Area, Government and Rateable Value.—The city proper covers about 6 sq. m. The municipal boundary extends in every direction some 5 m. from Market Square, encloses about 82 sq. m. and includes several of the largest mines. The local government is carried on by an elected municipal council, the franchise being restricted to white British subjects (men and women) who rent or own property of a certain value. In 1908 the rateable value of the municipality was £36,466,644, the rate 2¼d. in the £, and the town debt £5,500,000.

Population.—In 1887 the population was about 3000. By the beginning of 1890 it had increased to over 25,000. A census taken in July 1896 showed a population within a radius of 3 m. from Market Square of 102,078, of whom 50,907 were whites. At the census of April 1904 the inhabitants of the city proper numbered 99,022, the population within the municipal area being 155,642, of whom 83,363 were whites. Of the white inhabitants, 35% were of British origin, 51,629 were males, and 31,734 females. Of persons aged sixteen or over, the number of males was almost double the number of females. The coloured population included about 7000 British Indians—chiefly small traders. A municipal census taken in August 1908 gave the following result: whites 95,162; natives and coloured 78,781; Asiatics 6780—total 180,687.

History.—Johannesburg owes its existence to the discovery of gold in the Witwatersrand reefs. The town, named after Johannes Rissik, then surveyor-general of the Transvaal, was founded in September 1886, the first buildings being erected on the part of the reef where are now the Ferreira and Wemmer mines. These buildings were found to cover valuable ore, and in December following the Boer government marked out the site of the city proper, and possession of the plots was given to purchasers on the 1st of January 1887. The exploitation of the mines led to a rapid development of the town during the next three years. The year 1890 was one of great depression following the exhaustion of the surface ore, but the provision of better machinery and cheaper coal led to a revival in 1891. By 1892 the leading mines had proved their dividend-earning capacity, and in 1895 there was a great "boom" in the shares of the mining companies. The linking of the town to the seaports by railways during 1892–1895 gave considerable impetus to the gold-mining industry. Material prosperity was accompanied, however, by political, educational and other disadvantages, and the desire of the Johannesburgers—most of whom were foreigners or "Uitlanders"—to remedy the grievances under which they suffered led, in January 1896, to an abortive rising against the Boer government (see TRANSVAAL: *History*). One result of this movement was a slight advance in municipal self-government. Since 1887 the management of the town had been entrusted to a nominated sanitary board, under the chairmanship of the mining commissioner appointed by the South African Republic. In 1890 elected members had been admitted to this board, but at the end of 1897 an elective *stadsraad* (town council) was constituted, though its functions were strictly limited. There was a great development in the mining industry during 1897–1898 and 1899, the value of the gold extracted in 1898 exceeding £15,000,000, but the political situation grew worse, and in September 1899, owing to the imminence of war between the Transvaal and Great Britain, the majority of the Uitlanders fled from the city. Between October 1899, when war broke out, and the 31st of May 1900, when the city was taken by the British, the Boer government worked certain mines for their own benefit. After a period of military administration and of government by a nominated town council, an ordinance was passed in June 1903 providing for elective municipal councils, and in December following the first election to the new council took place. In 1905 the town was divided into wards. In that year the number of municipal voters was 23,338. In 1909 the proportional representation system was adopted in the election of town councillors.

During 1901–1903, while the war was still in progress or but recently concluded, the gold output was comparatively slight. The difficulty in obtaining sufficient labour for the mines led to a successful agitation for the importation of coolies from China (see TRANSVAAL: *History*). During 1904–1906 over 50,000 coolies were brought to the mines, a greatly increased output being the result, the value of the gold extracted in 1905 exceeding £20,000,000. Notwithstanding the increased production of gold, Johannesburg during 1905–1907 passed through a period of severe commercial depression, the result in part of the unsettled political situation. In June 1907 the repatriation of the Chinese coolies began; it was completed in February 1910.

An excellent compilation, entitled *Johannesburg Statistics*, dealing with almost every phase of the city's life, is issued monthly (since January 1905) by the town council. See also the *Post Office Directory, Transvaal* (Johannesburg, annually), which contains specially prepared maps, and the annual reports of the Johannesburg chamber of commerce. For the political history of Johannesburg, see the bibliography under TRANSVAAL.

JOHANNISBERG, a village of Germany, in the Prussian province of Hesse-Nassau, in the Rheingau, on the right bank of the Rhine, 6 m. S. of Rüdesheim by railway. The place is mainly celebrated for the beautiful Schloss which crowns a hill overlooking the Rhine valley, and is surrounded by vineyards yielding the famous Johannisberger wine. The Schloss, built in 1757–1759 by the abbots of Fulda on the site of a Benedictine monastery founded in 1090, was bestowed, in 1807, by Napoleon upon Marshal Kellermann. In 1814 it was given by Francis, emperor of Austria, to Prince Metternich, in whose family it still remains.

JOHN (Heb. יוֹחָנָן), *Yōḥānān*, "Yahweh has been gracious," Gr. Ἰωάννης, Lat. *Joannes*, Ital. *Giovanni*, Span. *Juan*, Port. *João*, Fr. *Jean*, Ger. *Johannes*, *Johann* [abbr. *Hans*], Gael. *Ian*, Pol. and Czech *Jan*, Hung. *János*), a masculine proper name common in all Christian countries, its popularity being due to its having been borne by the "Beloved Disciple" of Christ, St John the Evangelist, and by the forerunner of Christ, St John the Baptist. It has been the name of twenty-two popes—the style of Popes John XXII. and XXIII. being due to an error in the number assumed by John XXI. (*q.v.*)—and of many sovereigns, princes, &c. The order followed in the biographical notices below is as follows: (1) the Apostle, (2) the Baptist, (3) popes, (4) Roman emperors, (5) kings; John of England first, the rest in the alphabetical order of their countries, (6) other sovereign princes, (7) non-sovereign princes, (8) saints, (9) theologians, chroniclers, &c. Those princes who are known by a name in addition to John (John Albert, &c.) will be found after the article JOHN, GOSPEL OF.

JOHN, THE APOSTLE, in the Bible, was the son of Zebedee, a Galilean fisherman, and Salome. It is probable that he was born at Bethsaida, where along with his brother James he followed

his father's occupation. The family appears to have been in easy circumstances; at least we find that Zebedee employed hired servants, and that Salome was among those women who contributed to the maintenance of Jesus (Mark i. 20, xv. 40, 41, xvi. 1). John's "call" to follow our Lord occurred simultaneously with that addressed to his brother, and shortly after that addressed to the brothers Andrew and Simon Peter (Mark i. 19, 20). John speedily took his place among the twelve apostles, sharing with James the title of Boanerges ("sons of thunder," perhaps strictly "sons of anger," *i.e.* men readily angered), and became a member of that inner circle to which, in addition to his brother, Peter alone belonged (Mark v. 37, ix. 2, xiv. 33). John appears throughout the synoptic record as a zealous, fiery Jew-Christian. It is he who indignantly complains to Jesus, "We saw one casting out devils in Thy name, and he followeth not us," and tells Him, "We forbade him" for that reason (Mark ix. 38); and who with his brother, when a Samaritan village will not receive Jesus, asks Him, "Wilt thou that we command fire to come down from heaven and consume them?" (Luke ix. 54). The book of Acts confirms this tradition. After the departure of Jesus, John appears as present in Jerusalem with Peter and the other apostles (i. 13); is next to Peter the most prominent among those who bear testimony to the fact of the resurrection (iii. 12–26, iv. 13, 19–22); and is sent with Peter to Samaria, to confirm the newly converted Christians there (viii. 14, 25). St Paul tells us similarly that when, on his second visit to Jerusalem, "James," the Lord's brother, "and Cephas and John, who were considered pillars, perceived the grace that was given unto me, they gave to me and Barnabas the right hand of fellowship, that we should go unto the heathen, and they unto the circumcision" (Gal. ii. 9). John thus belonged in 46–47 to the Jewish-Christian school; but we do not know whether to the stricter group of James or to the milder group of Peter (ibid. ii. 11–14).

The subsequent history of the apostle is obscure. Polycrates, bishop of Ephesus (in Euseb., *H. E.* iii. 31; v. 24), attests in 196 that John "who lay on the bosom of the Lord rests at Ephesus"; but previously in this very sentence he has declared that "Philip one of the twelve apostles rests in Hierapolis," although Eusebius (doubtless rightly) identifies this Philip not with the apostle but with the deacon-evangelist of Acts xxi. 8. Polycrates also declares that John was a priest wearing the πέταλον (gold plate) that distinguished the high-priestly mitre. Irenaeus in various passages of his works, 181–191, holds a similar tradition. He says that John lived up to the time of Trajan and published his gospel in Ephesus, and identifies the apostle with John the disciple of the Lord, who wrote the Apocalypse under Domitian, whom Irenaeus's teacher Polycarp had known personally and of whom Polycarp had much to tell. These traditions are accepted and enlarged by later authors, Tertullian adding that John was banished to Patmos after he had miraculously survived the punishment of immersion in burning oil. As it is evident that legend was busy with John as early as the time of Polycrates, the real worth of these traditions requires to be tested by examination of their ultimate source. This inquiry has been pressed upon scholars since the apostolic authorship of the Apocalypse or of the Fourth Gospel, or of both these works, has been disputed. (See JOHN, GOSPEL OF, and REVELATION, BOOK OF.) The question has not been strictly one between advanced and conservative criticism, for the Tübingen school recognized the Apocalypse as apostolic, and found in it a confirmation of John's residence in Ephesus. On the other hand, Lützelberger (1840), Th. Keim (*Jesus v. Naz.*, vol. i., 1867), J. H. Scholten (1872), H. J. Holtzmann (esp. in *Einl. in d. N. T.*, 3rd ed., 1902), and other recent writers, wholly reject the tradition. It has had able defenders in Steitz (*Stud. u. Krit.*, 1868), Hilgenfeld (*Einl.*, 1875) and Lightfoot (*Essays on Supernatural Religion*, collected 1889). W. Sanday (*Criticism of Fourth Gospel*, 1905) makes passing admissions eloquent as to the strength of the negative position; whilst amongst Roman Catholic scholars, A. Loisy (*Le 4me. Ev.*, 1903) stands with Holtzmann, and Th. Calmes (*Ev. selon S. Jean*, 1904, 1906) and L. Duchesne (*Hist. anc. de l'Egl.*, 1906) exhibit, with papal approbation, the inconclusiveness of the conservative arguments.

The opponents of the tradition lay weight on the absence of positive evidence before the latter part of the 2nd century, especially in Papias and in the epistles of Ignatius and of Irenaeus's authority, Polycarp. They find it necessary to assume that Irenaeus mistook Polycarp; but this is not a difficult task, since already Eusebius (*c.* 310–313) is compelled to point out that Papias testifies to two Johns, the Apostle and a presbyter, and that Irenaeus is mistaken in identifying those two Johns, and in holding that Papias had seen John the Apostle (*H.E.* iii. 39, 5, 2). Irenaeus tells us, doubtless correctly, that Papias was "the companion of Polycarp": this fact alone would suffice, given his two mistakes concerning Papias, to make Irenaeus decide that Polycarp had seen John the Apostle. The chronicler George the Monk (Hamartolus) in the 9th century, and an epitome dating from the 7th or 8th century but probably based on the *Chronicle* of Philip of Side (*c.* 430), declare, on the authority of the second book of Papias, that John the Zebedean was killed by Jews (presumably in 60–70). Adolf Harnack, *Chron. d. altchr. Litt.* (1897), pp. 656–680), rejects the assertion; but the number of scholars who accept it as correct is distinctly on the increase. (F. v. H.)

JOHN THE BAPTIST, in the Bible, the "forerunner" of Jesus Christ in the Gospel story. By his preaching and teaching he evidently made a great impression upon his contemporaries (cf. Josephus, *Ant.* xviii., § 5). According to the birth-narrative embodied in Luke i. and ii., he was born in "a city of Judah" in "the hill country" (possibly Hebron [1]) of priestly parentage. His father Zacharias was a priest "of the course of Abijah," and his mother Elizabeth, who was also of priestly descent, was related to Mary, the mother of Jesus, whose senior John was by six months. This narrative of the Baptist's birth seems to embody some very primitive features, Hebraic and Palestinian in character, and possibly at one time independent of the Christian tradition. In the apocryphal gospels John is sometimes made the subject of special miraculous experiences (*e.g.* in the *Protevangelium Jacobi*, ch. xxii., where Elizabeth fleeing from Herod's assassins cried: "Mount of God, receive a mother with her child," and suddenly the mountain was divided and received her).

In his 30th year (15th year of the emperor Tiberius, ? A.D. 25–26) John began his public life in the "wilderness of Judaea," the wild district that lies between the Kedron and the Dead Sea, and particularly in the neighbourhood of the Jordan, where multitudes were attracted by his eloquence. The central theme of his preaching was, according to the Synoptic Gospels, the nearness of the coming of the Messianic kingdom, and the consequent urgency for preparation by repentance. John was evidently convinced that he himself had received the divine commission to bring to a close and complete the prophetic period, by inaugurating the Messianic age. He identified himself with the "voice" of Isa. xl. 3. Noteworthy features of his preaching were its original and prophetic character, and its high ethical tone, as shown *e.g.* in its anti-Pharisaic denunciation of trust in mere racial privilege (Matt. iii. 9). Herein also lay, probably, the true import of the baptism which he administered to those who accepted his message and confessed their sins. It was an act symbolizing moral purification (cf. Ezek. xxxvi. 25; Zech. xiii. 1) by way of preparation for the coming "kingdom of heaven," and implied that the Jew so baptized no longer rested in his privileged position as a child of Abraham. John's appearance, costume and habits of life, together with the tone of his preaching, all suggest the prophetic character. He was popularly regarded as a prophet, more especially as a second Elijah. His preaching awoke a great popular response, particularly among the masses of the people, "the people of the land." He had disciples who fasted (Mark ii. 18, &c.), who visited him

[1] There is no reason to suppose that Jutta is intended by the πόλις Ἰούδα of Luke i. 39: the tradition which makes 'Ain Karim, near Jerusalem, the birthplace of the Baptist only dates from the crusading period.

regularly in prison (Matt. xi. 2, xiv. 12), and to whom he taught special forms of prayer (Luke v. 33, xi. 1). Some of these afterwards became followers of Christ (John i. 37). John's activity indeed had far-reaching effects. It profoundly influenced the Messianic movement depicted in the Gospels. The preaching of Jesus shows traces of this, and the Fourth Gospel (as well as the Synoptists) displays a marked interest in connecting the Johannine movement with the beginnings of Christianity. The fact that after the lapse of a quarter of a century there were Christians in Ephesus who accepted John's baptism (Acts xviii. 25, xix. 3) is highly significant. This influence also persisted in later times. Christ's estimate of John (Matt. xi. 7 seq.) was a very high one. He also pointedly alludes to John's work and the people's relation to it, in many sayings and parables (sometimes in a tone of irony). The duration of John's ministry cannot be determined with certainty: it terminated in his imprisonment in the fortress of Machaerus, to which he had been committed by Herod Antipas, whose incestuous marriage with Herodias, the Baptist had sternly rebuked. His execution cannot with safety be placed later than A.D. 28.

In the church calendar this event is commemorated on the 29th of August. According to tradition he was buried at Samaria (Theodoret, *H.E.* iii. 3). (G. H. Bo.)

JOHN I., pope from 523 to 526, was a Tuscan by birth, and was consecrated pope on the death of Hormisdas. In 525 he was sent by Theodoric at the head of an embassy to Constantinople to obtain from the emperor Justin toleration for the Arians; but he succeeded so imperfectly in his mission that Theodoric on his return, suspecting that he had acted only half-heartedly, threw him into prison, where he shortly afterwards died, Felix IV. succeeding him. He was enrolled among the martyrs, his day being May 27.

JOHN II., pope from 533 to 535, also named Mercurius, was elevated to the papal chair on the death of Boniface II. During his pontificate a decree against simony was engraven on marble and placed before the altar of St Peter's. At the instance of the emperor Justinian he adopted the proposition *unus de Trinitate passus est in carne* as a test of the orthodoxy of certain Scythian monks accused of Nestorian tendencies. He was succeeded by Agapetus I.

JOHN III., pope from 561 to 574, successor to Pelagius, was descended from a noble Roman family. He is said to have been successful in preventing an invasion of Italy by the recall of the deposed exarch Narses, but the Lombards still continued their incursions, and, especially during the pontificate of his successor Benedict I., inflicted great miseries on the province.

JOHN IV., pope from 640 to 642, was a Dalmatian by birth, and succeeded Severinus after the papal chair had been vacant four months. While he adhered to the repudiation of the Monothelitic doctrine by Severinus, he endeavoured to explain away the connexion of Honorius I. with the heresy. His successor was Theodorus I.

JOHN V., pope from 685 to 686, was a Syrian by birth, and on account of his knowledge of Greek had in 680 been named papal legate to the sixth ecumenical council at Constantinople. He was the successor of Benedict II., and after a pontificate of little more than a year, passed chiefly in bed, was followed by Conon.

JOHN VI., pope from 701 to 705, was a native of Greece, and succeeded to the papal chair two months after the death of Sergius I. He assisted the exarch Theophylact, who had been sent into Italy by the emperor Justinian II., and prevented him from using violence against the Romans. Partly by persuasion and partly by means of a bribe, John succeeded in inducing Gisulf, duke of Benevento, to withdraw from the territories of the empire.

JOHN VII., pope from 705 to 707, successor of John VI., was also of Greek nationality. He seems to have acceded to the request of the emperor Justinian II. that he should give his sanction to the decrees of the Quinisext or Trullan council of 692. There are several monuments of John in the church of St Maria Antiqua at the foot of the Palatine hill; others were formerly in the chapel of the Virgin, built by him in the basilica of St Peter. He was succeeded by Sisinnius.

JOHN VIII., pope from 872 to 882, successor of Adrian II., was a Roman by birth. His chief aim during his pontificate was to defend the Roman state and the authority of the Holy See at Rome from the Saracens, and from the nascent feudalism which was represented outside by the dukes of Spoleto and the marquises of Tuscany and within by a party of Roman nobles. Events, however, were so fatally opposed to his designs that no sooner did one of his schemes begin to realize itself in fact than it was shattered by an unlooked-for chance. To obtain an influential alliance against his enemies, he agreed in 875, after death had deprived him of his natural protector, the emperor Louis II., to bestow the imperial crown on Charles the Bald; but that monarch was too much occupied in France to grant him much effectual aid, and about the time of the death of Charles he found it necessary to come to terms with the Saracens, who were only prevented from entering Rome by the promise of an annual tribute. Carloman, the opponent of Charles's son Louis, soon after invaded northern Italy, and, securing the support of the bishops and counts, demanded from the pope the imperial crown. John attempted to temporize, but Lambert, duke of Spoleto, a partisan of Carloman, whom sickness had recalled to Germany, entered Rome in 878 with an overwhelming force, and for thirty days virtually held John a prisoner in St Peter's. Lambert was, however, unsuccessful in winning any concession from the pope, who after his withdrawal carried out a previous purpose of going to France. There he presided at the council of Troyes, which promulgated a ban of excommunication against the supporters of Carloman—amongst others Adalbert of Tuscany, Lambert of Spoleto, and Formosus, bishop of Porto, who was afterwards elevated to the papal chair. In 879 John returned to Italy accompanied by Boso, duke of Provence, whom he adopted as his son, and made an unsuccessful attempt to get recognized as king of Italy. In the same year he was compelled to give a promise of his sanction to the claims of Charles the Fat, who received from him the imperial crown in 881. Before this, in order to secure the aid of the Greek emperor against the Saracens, he had agreed to sanction the restoration of Photius to the see of Constantinople, and had withdrawn his consent on finding that he reaped from the concession no substantial benefit. Charles the Fat, partly from unwillingness, partly from natural inability, gave him also no effectual aid, and the last years of John VIII. were spent chiefly in hurling vain anathemas against his various political enemies. According to the annalist of Fulda, he was murdered by members of his household. His successor was Marinus.

JOHN IX., pope from 898 to 900, not only confirmed the judgment of his predecessor Theodore II. in granting Christian burial to Formosus, but at a council held at Ravenna decreed that the records of the synod which had condemned him should be burned. Finding, however, that it was advisable to cement the ties between the empire and the papacy, John gave unhesitating support to Lambert in preference to Arnulf, and also induced the council to determine that henceforth the consecration of the popes should take place only in the presence of the imperial legates. The sudden death of Lambert shattered the hopes which this alliance seemed to promise. John was succeeded by Benedict IV.

JOHN X., pope from 914 to 928, was deacon at Bologna when he attracted the attention of Theodora, the wife of Theophylact, the most powerful noble in Rome, through whose influence he was elevated first to the see of Bologna and then to the archbishopric of Ravenna. In direct opposition to a decree of council, he was also at the instigation of Theodora promoted to the papal chair as the successor of Lando. Like John IX. he endeavoured to secure himself against his temporal enemies through a close alliance with Theophylact and Alberic, marquis of Camerino, then governor of the duchy of Spoleto. In December 915 he granted the imperial crown to Berengar, and with the assistance of the forces of all the princes of the Italian peninsula he took the field in person against the Saracens, over whom he gained a

great victory on the banks of the Garigliano. The defeat and death of Berengar through the combination of the Italian princes, again frustrated the hopes of a united Italy, and after witnessing several years of anarchy and confusion John perished through the intrigues of Marozia, daughter of Theodora. His successor was Leo VI.

JOHN XI., pope from 931 to 935, was the son of Marozia and the reputed son of Sergius III. Through the influence of his mother he was chosen to succeed Stephen VII. at the early age of twenty-one. He was the mere exponent of the purposes of his mother, until her son Alberic succeeded in 933 in overthrowing their authority. The pope was kept a virtual prisoner in the Lateran, where he is said to have died in 935, in which year Leo VII. was consecrated his successor.

JOHN XII., pope from 955 to 964, was the son of Alberic, whom he succeeded as patrician of Rome in 954, being then only sixteen years of age. His original name was Octavian, but when he assumed the papal tiara as successor to Agapetus II., he adopted the apostolic name of John, the first example, it is said, of the custom of altering the surname in connexion with elevation to the papal chair. As a temporal ruler John was devoid of the vigour and firmness of his father, and his union of the papal office—which through his scandalous private life he made a by-word of reproach—with his civil dignities proved a source of weakness rather than of strength. In order to protect himself against the intrigues in Rome and the power of Berengar II. of Italy, he called to his aid Otto the Great of Germany, to whom he granted the imperial crown in 962. Even before Otto left Rome the pope had, however, repented of his recognition of a power which threatened altogether to overshadow his authority, and had begun to conspire against the new emperor. His intrigues were discovered by Otto, who, after he had defeated and taken prisoner Berengar, returned to Rome and summoned a council which deposed John, who was in hiding in the mountains of Campania, and elected Leo VIII. in his stead. An attempt at an insurrection was made by the inhabitants of Rome even before Otto left the city, and on his departure John returned at the head of a formidable company of friends and retainers, and caused Leo to seek safety in immediate flight. Otto determined to make an effort in support of Leo, but before he reached the city John had died, in what manner is uncertain, and Benedict V. had mounted the papal chair.

JOHN XIII., pope from 965 to 972, was descended from a noble Roman family, and at the time of his election as successor to Leo VIII. was bishop of Narni. He had been somewhat inconsistent in his relations with his predecessor Leo, but his election was confirmed by the emperor Otto, and his submissive attitude towards the imperial power was so distasteful to the Romans that they expelled him from the city. On account of the threatening procedure of Otto, they permitted him shortly afterwards to return, upon which, with the sanction of Otto, he took savage vengeance on those who had formerly opposed him. Shortly after holding a council along with the emperor at Ravenna in 967, he gave the imperial crown to Otto II. at Rome in assurance of his succession to his father; and in 972 he also crowned Theophano as empress immediately before her marriage. On his death in the same year he was followed by Benedict VI.

JOHN XIV., pope from 983 to 984, successor to Benedict VII., was born at Pavia, and before his elevation to the papal chair was imperial chancellor of Otto II. Otto died shortly after his election, when Boniface VII., on the strength of the popular feeling against the new pope, returned from Constantinople and placed John in prison, where he died either by starvation or poison.

JOHN XV., pope from 985 to 996, generally recognized as the successor of Boniface VII., the pope John who was said to have ruled for four months after John XIV., being now omitted by the best authorities. John XV. was the son of Leo, a Roman presbyter. At the time he mounted the papal chair Crescentius was patrician of Rome, but, although his influence was on this account very much hampered, the presence of the empress Theophano in Rome from 989 to 991 restrained also the ambition of Crescentius. On her departure the pope, whose venality and nepotism had made him very unpopular with the citizens, died of fever before the arrival of Otto III., who elevated his own kinsman Bruno to the papal dignity under the name of Gregory V.

JOHN XVI., pope or antipope from 997 to 998, was a Calabrian Greek by birth, and a favourite of the empress Theophano, from whom he had received the bishopric of Placentia. His original name was Philagathus. In 995 he was sent by Otto III. on an embassy to Constantinople to negotiate a marriage with a Greek princess. On his way back he either accidentally or at the special request of Crescentius visited Rome. A little before this Gregory V., at the end of 996, had been compelled to flee from the city; and the wily and ambitious Greek had now no scruple in accepting the papal tiara from the hands of Crescentius. The arrival of Otto at Rome in the spring of 998 put a sudden end to the treacherous compact. John sought safety in flight, but was discovered in his place of hiding and brought back to Rome, where after enduring cruel and ignominious tortures he was immured in a dungeon.

JOHN XVII., whose original name was Sicco, succeeded Silvester II. as pope in June 1003, but died less than five months afterwards.

JOHN XVIII., pope from 1003 to 1009, was, during his whole pontificate, the mere creature of the patrician John Crescentius, and ultimately he abdicated and retired to a monastery, where he died shortly afterwards. His successor was Sergius IV.

JOHN XIX., pope from 1024 to 1033, succeeded his brother Benedict VIII., both being members of the powerful house of Tusculum. He merely took orders to enable him to ascend the papal chair, having previously been a consul and senator. He displayed his freedom from ecclesiastical prejudices, if also his utter ignorance of ecclesiastical history, by agreeing, on the payment of a large bribe, to grant to the patriarch of Constantinople the title of an ecumenical bishop, but the general indignation which the proposal excited throughout the church compelled him almost immediately to withdraw from his agreement. On the death of the emperor Henry II. in 1024 he gave his support to Conrad II., who along with his consort was crowned with great pomp at St Peter's in Easter of 1027. John died in 1033, in the full possession of his dignities. A successor was found for him in his nephew Benedict IX., a boy of only twelve years of age.

(L. D.*)

JOHN XXI. (Pedro Giuliano-Rebulo), pope from the 8th of September 1276 to the 20th of May 1277 (should be named John XX., but there is an error in the reckoning through the insertion of an antipope), a native of Portugal, educated for the church, became archdeacon and then archbishop of Braga, and so ingratiated himself with Gregory X. at the council of Lyons (1274) that he was taken to Rome as cardinal-bishop of Frascati, and succeeded Gregory after an interregnum of twenty days. As pope he excommunicated Alphonso III. of Portugal for interfering with episcopal elections and sent legates to the Great Khan. He was devoted to secular science, and his small affection for the monks awakened the distrust of a large portion of the clergy. His life was brought to a premature close through the fall of the roof in the palace he had built at Viterbo. His successor was Nicholas III.

John XXI. has been identified since the 14th century, most probably correctly, with Petrus Hispanus, a celebrated Portuguese physician and philosopher, author of several medical works—notably the curious *Liber de oculo*, trans. into German and well edited by A. M. Berger (Munich, 1899), and of a popular textbook in logic, the *Summulae logicales*. John XXI. is constantly referred to as a magician by ignorant chroniclers.

See *Les Registres de Grégoire X. et Jean XXI.*, published by J. Guiraud and E. Cadier in *Bibliothèque des écoles françaises d'Athènes et de Rome* (Paris, 1898); A. Potthast, *Regesta pontif. Roman.*, vol. 2 (Berlin, 1875); F. Gregorovius, *Rome in the Middle Ages*, vol. v., trans. by Mrs G. W. Hamilton (London, 1900–1902); R. Stapper, *Papst Johann XXI.* (Münster, 1898); J. T. Köhler, *Vollständige Nachricht von Papst Johann XXI.* (Göttingen, 1760). (C. H. Ha.)

JOHN XXII., pope from 1316 to 1334, was born at Cahors, France, in 1249. His original name was Jacques Duèse, and he came either of a family of petty nobility or else of well-to-do middle-class parents, and was not, as has been popularly supposed, the son of a shoemaker. He began his education with the Dominicans at Cahors, subsequently studied law at Montpellier, and law and medicine in Paris, and finally taught at Cahors and Toulouse. At Toulouse he became intimate with the bishop Louis, son of Charles II., king of Naples. In 1300 he was elevated to the episcopal see of Fréjus by Pope Boniface VIII. at the instance of the king of Naples, and in 1308 was made chancellor of Naples by Charles, retaining this office under Charles's successor, Robert of Anjou. In 1310 Pope Clement V. summoned Jacques to Avignon and instructed him to advise upon the affair of the Templars and also upon the question of condemning the memory of Boniface VIII. Jacques decided on the legality of suppressing the order of the Templars, holding that the pope would be serving the best interests of the church by pronouncing its suppression; but he rejected the condemnation of Boniface as a sacrilegious affront to the church and a monstrous abuse of the lay power. On the 23rd of December 1312 Clement appointed him cardinal-bishop of Porto, and it was while cardinal of Porto that he was elected pope, on the 7th of August 1316. Clement had died in April 1314, but the cardinals assembled at Carpentras were unable to agree as to his successor. As the two-thirds majority requisite for an election could not be obtained, the cardinals separated, and it was not until the 28th of June 1316 that they reassembled in the cloister of the Dominicans at Lyons, and then only in deference to the pressure exerted upon them by Philip V. of France. After deliberating for more than a month they elected Robert of Anjou's candidate, Jacques Duèse, who was crowned on the 5th of September, and on the 2nd of October arrived at Avignon, where he remained for the rest of his life.

More jurist than theologian, John defended the rights of the papacy with rigorous zeal and as rigorous logic. For the restoration of the papacy to its old independence, which had been so gravely compromised under his immediate predecessors, and for the execution of the vast enterprises which the papacy deemed useful for its prestige and for Christendom, considerable sums were required; and to raise the necessary money John burdened Christian Europe with new taxes and a complicated fiscal system, which was fraught with serious consequences. For his personal use, however, he retained but a very small fraction of the sums thus acquired, and at his death his private fortune amounted to scarce a million florins. The essentially practical character of his administration has led many historians to tax him with avarice, but later research on the fiscal system of the papacy of the period, particularly the joint work of Samaran and Mollat, enables us very sensibly to modify the severe judgment passed on John by Gregorovius and others.

John's pontificate was continually disturbed by his conflict with Louis of Bavaria and by the theological revolt of the Spiritual Franciscans. In October 1314 Louis of Bavaria and Frederick of Austria had each been elected German king by the divided electors. Louis was gradually recognized by the whole of Germany, especially after his victory at Mühldorf (1322), and gained numerous adherents in Italy, where he supported the Visconti, who had been condemned as heretics by the pope. John affected to ignore the successes of Louis, and on the 8th of October 1323 forbade his recognition as king of the Romans. After demanding a respite, Louis abruptly appealed at Nuremberg from the future sentence of the pope to a general council (December 8, 1323). The conflict then assumed a grave doctrinal character. The doctrine of the rights of the lay monarchy sustained by Occam and John of Paris, by Marsilius of Padua, John of Jandun and Leopold of Bamberg, was affirmed by the jurists and theologians, penetrated into the parlements and the universities, and was combated by the upholders of papal absolutism, such as Alvaro Pelayo and Alonzo Trionfo. Excommunicated on the 21st of March 1324, Louis retorted by appealing for a second time to a general council, which was held on the 22nd of May 1324, and accused John of being an enemy to the peace and the law, stigmatizing him as a heretic on the ground that he opposed the principle of evangelical poverty as professed by the strict Franciscans. From this moment Louis appeared in the character of the natural ally and even the protector of the Spirituals against the persecution of the pope. On the 11th of July 1324 the pope laid under an interdict the places where Louis or his adherents resided, but this bull had no effect in Germany. Equally futile was John's declaration (April 3, 1327) that Louis had forfeited his crown and abetted heresy by granting protection to Marsilius of Padua. Having reconciled himself with Frederick of Austria, Louis penetrated into Italy and seized Rome on the 7th of January 1328, with the help of the Roman Ghibellines led by Sciarra Colonna. After installing himself in the Vatican, Louis got himself crowned by the deputies of the Roman people; instituted proceedings for the deposition of John, whom the Roman people, displeased by the spectacle of the papacy abandoning Rome, declared to have forfeited the pontificate (April 18, 1328); and finally caused a Minorite friar, Pietro Rainalucci da Corvara, to be elected pope under the name of Nicholas V. John preached a platonic crusade against Louis, who burned the pope's effigy at Pisa and in Amelia. Soon, however, Louis felt his power waning, and quitted Rome and Italy (1329). Incapable of independent action, the antipope was abandoned by the Romans and handed over to John, who forced him to make a solemn submission with a halter round his neck (August 15, 1330). Nicholas was condemned to perpetual imprisonment, and died in obscurity at Avignon; while the Roman people submitted to King Robert, who governed the church through his vicars. In 1317, in execution of a bull of Clement V., the royal vicariate in Italy had been conferred by John on Robert of Anjou, and this appointment was renewed in 1322 and 1324, with threats of excommunication against any one who should seize the vicariate of Italy without the authorization of the pope. One of John's last acts was his decision to separate Italy from the Empire, but this bull was of no avail and fell into oblivion. After his death, however, the interdict was not removed from Germany, and the resistance of Louis and his theologians continued.

A violent manifestation of this resistance took place in connexion with the accusation of heresy brought against the pope. On the third Sunday in Advent 1329, and afterwards in public consistory, John had preached that the souls of those who have died in a state of grace go into Abraham's bosom, *sub altari Dei*, and do not enjoy the beatific vision (*visio facie ad faciem*) of the Lord until after the Last Judgment and the Resurrection; and he had even instructed a Minorite friar, Gauthier of Dijon, to collect the passages in the Fathers which were in favour of this doctrine. On the 27th of December 1331 a Dominican, Thomas of England, preached against this doctrine at Avignon itself and was thrown into prison. When news of this affair had reached Paris, the pope sent the general of the Minorites, Gerard Odonis, accompanied by a Dominican, to sustain his doctrine in that city, but King Philip VI., perhaps at the instigation of the refugee Spirituals in Paris, referred the question to the faculty of theology, which, on the 2nd of January 1333, declared that the souls of the blessed were elevated to the beatific vision immediately after death; the faculty, nevertheless, were of opinion that the pope should have propounded his erroneous doctrine only "*recitando*," and not "*determinando, asserendo, seu etiam opinando.*" The king notified this decision to the pope, who assembled his consistory in November 1333, and gave a haughty reply. The theologians in Louis's following who were opposed to papal absolutism already spoke of "the new heretic, Jacques de Cahors," and reiterated with increasing insistency their demands for the convocation of a general council to try the pope. John appears to have retracted shortly before his death, which occurred on the 4th of December 1334.[1]

[1] On the 29th of January 1336 Pope Benedict XII. pronounced a long judgment on this point of doctrine, a judgment which he declared had been included by John in a bull which death had prevented him from sealing.

John had kindled very keen animosity, not only among the upholders of the independence of the lay power, but also among the upholders of absolute religious poverty, the exalted Franciscans. Clement V., at the council of Vienne, had attempted to bring back the Spirituals to the common rule by concessions; John, on the other hand, in the bull *Quorundam exigit* (April 13, 1317), adopted an uncompromising and absolute attitude, and by the bull *Gloriosam ecclesiam* (January 23, 1318) condemned the protests which had been raised against the bull *Quorundam* by a group of seventy-four Spirituals and conveyed to Avignon by the monk Bernard Délicieux. Shortly afterwards four Spirituals were burned at Marseilles. These were immediately hailed as martyrs, and in the eyes of the exalted Franciscans at Naples and in Sicily and the south of France the pope was regarded as antichrist. In the bull *Sancta Romana et universa ecclesia* (December 28, 1318) John definitively excommunicated them and condemned their principal book, the *Postil* (commentary) on the Apocalypse (February 8, 1326). The bull *Quia nonnunquam* (March 26, 1322) defined the derogations from the rule punished by the pope, and the bull *Cum inter nonnullos* (November 12, 1323) condemned the proposition which had been admitted at the general chapter of the Franciscans held at Perugia in 1322, according to which Christ and the Apostles were represented as possessing no property, either personal or common. The minister general, Michael of Cesena, though opposed to the exaggerations of the Spirituals, joined with them in protesting against the condemnation of the fundamental principle of evangelical poverty, and the agitation gradually gained ground. The pope, by the bull *Quia quorundam* (November 10, 1324), cited Michael to appear at Avignon at the same time as Occam and Bonagratia. All three fled to the court of Louis of Bavaria (May 26, 1328), while the majority of the Franciscans made submission and elected a general entirely devoted to the pope. But the resistance, aided by Louis and merged as it now was in the cause sustained by Marsilius of Padua and John of Jandun, became daily bolder. Treatises on poverty appeared on every side; the party of Occam clamoured with increasing imperiousness for the condemnation of John by a general council; and the Spirituals, confounded in the persecution with the Beghards and with Fraticelli of every description, maintained themselves in the south of France in spite of the reign of terror instituted in that region by the Inquisition.

See M. Souchon, *Die Papstwahlen von Bonifaz VIII. bis Urban VI.* (Brunswick, 1888); Abbé Albe, *Autour de Jean XXII.* (Rome, 1904); K. Müller, *Der Kampf Ludwigs des Bayern mit der Curie* (Tübingen, 1879 seq.); W. Preger, "Mémoires sur la lutte entre Jean XXII. et Louis de Bavière" in *Abhandl. der bayr. Akad.*, hist. sec., xv., xvi., xvii.; S. Riezler, *Die litterar. Widersacher der Päpste zur Zeit Ludwigs des Baiers* (Leipzig, 1874); F. Ehrle, "Die Spiritualen" in *Archiv für Litteratur-und Kirchengeschichte des Mittelalters* (vols. i. and ii.); C. Samaran and G. Mollat, *La Fiscalité pontificale en France au xive siècle* (Paris, 1905); A. Coulon and G. Mollat, *Lettres secrètes et curiales de Jean XXII. se rapportant à la France* (Paris, 1899, seq.). (P. A.)

JOHN XXIII. (Baldassare Cossa), pope, or rather anti-pope from 1410 to 1415, was born of a good Neapolitan family, and began by leading the life of a corsair before entering the service of the Church under the pontificate of Boniface IX. His abilities, which were mainly of an administrative and military order, were soon rewarded by the cardinal's hat and the legation of Bologna. On the 29th of June 1408 he and seven of his colleagues broke away from Gregory XII., and together with six cardinals of the obedience of Avignon, who had in like manner separated from Benedict XIII., they agreed to aim at the assembling of a general council, setting aside the two rival pontiffs, an expedient which they considered would put an end to the great schism of the Western Church, but which resulted in the election of yet a third pope. This act was none the less decisive for Baldassare Cossa's future. Alexander V., the first pope elected at Pisa, was not perhaps, as has been maintained, merely a man of straw put forward by the ambitious cardinal of Bologna; but he reigned only ten months, and on his death, which happened rather suddenly on the 4th of May 1410, Baldassare Cossa succeeded him. Whether the latter had bought his electors by money and promises, or owed his success to his dominant position in Bologna, and to the support of Florence and of Louis II. of Anjou, he seems to have received the unanimous vote of all the seventeen cardinals gathered together at Bologna (May 17). He took the name of John XXIII., and France, England, and part of Italy and Germany recognized him as head of the Catholic church.

The struggle in which he and Louis II. of Anjou engaged with Ladislaus of Durazzo, king of Sicily, and Gregory XII.'s chief protector in Italy, at first went in John's favour. After the brilliant victory of Roccasecca (May 19, 1411) he had the satisfaction of dragging the standards of Pope Gregory and King Ladislaus through the streets of Rome. But the dispersion of Louis of Anjou's troops and his carelessness, together with the lack of success which attended the preaching of a crusade in Germany, France and England, finally decided John XXIII. to abandon the French claimant to the throne of Sicily; he recognized Ladislaus, his former enemy, as king of Naples, and Ladislaus did not fail to salute John XXIII. as pope, abandoning Gregory XII. (June 15, 1412). This was a fatal step: John XXIII. was trusting in a dishonest and insatiable prince; he would have acted more wisely in remaining the ally of the weak but loyal Louis of Anjou. However, it seemed desirable that the reforms announced by the council of Pisa, which the popes set up by this synod seemed in no hurry to carry into effect, should be further discussed in the new council which it had been agreed should be summoned about the spring of 1412. But John was anxious that this council should be held in Rome, a city where he alone was master; the few prelates and ambassadors who very slowly gathered there held only a small number of sessions, in which John again condemned the writings of Wycliffe. John was attacked by the representatives of the various nations and reprimanded even for his private conduct, but endeavoured to extricate himself from this uncomfortable position by gratifying their desires, if not by reforming abuses. It is, however, only fair to add that he took various half-measures and gave many promises which, if they had been put into execution, would have confirmed or completed the reforms inaugurated at Pisa. But on the 3rd of Mrach 1413 John adjourned the council of Rome till December, without even fixing the place where the next session should be held. It was held at Constance in Germany, and John could only have resigned himself to accepting such an uncertain meeting-place because he was forced by distress, isolation and fear to turn towards the head of the empire. Less than a year after the treaty concluded with Ladislaus of Durazzo, the latter forced his way into Rome (June 8, 1413), which he sacked, expelling John, to whom even the Florentines did not dare to throw open their gates for fear of the king of Sicily. Sigismund, king of the Romans, not only extorted, it is said, a sum of 50,000 florins from the pontiff in his extremity, but insisted upon his summoning the council at Constance (December 9). It was in vain that, on the death of Ladislaus, which took place unexpectedly (August 6, 1414), John was inspired with the idea of breaking his compact with Sigismund and returning to Rome, at the same time appealing to Louis of Anjou. It was too late. The cardinals forced him towards Germany by the most direct road, without allowing him to go by way of Avignon as he had projected, in order to make plans with the princes of France.

On the 5th of November 1414 John opened the council of Constance, where, on Christmas Day, he received the homage of the head of the empire, but where his lack of prestige, the defection of his allies, the fury of his adversaries, and the general sense of the necessity for union soon showed only too clearly how small was the chance of his retaining the tiara. He had to take a solemn oath to abdicate if his two rivals would do the same, and this concession, which was not very sincere, gained him for the last time the honour of seeing Sigismund prostrate at his feet (March 2, 1415). But on the night of the 20th–21st of March, having donned the garments of a layman, with a cross-bow slung at his side, he succeeded in making his escape

from Constance, accompanied only by a single servant, and took refuge first in the castle of Schaffhausen, then in that of Laufenburg, then at Freiburg-im-Breisgau, and finally at Brisach, whence he hoped to reach Alsace, and doubtless ultimately Avignon, under the protection of an escort sent by the duke of Burgundy. The news of the pope's escape was received at Constance with an extraordinary outburst of rage, and led to the subversive decrees of the 4th and 5th sessions, which proclaimed the superiority of the council over the pope. Duke Frederick of Austria had hitherto sheltered John's flight; but, laid under the ban of the empire, attacked by powerful armies, and feeling that he was courting ruin, he preferred to give up the pontiff who had trusted to him. John was brought back to Freiburg (April 27), and there in vain attempted to appease the wrath which he had aroused by more or less vague promises of resignation. His trial, however, was already beginning. The three cardinals whom he charged with his defence hastily declined this compromising task. Seventy-four charges were drawn up, only twenty of which were set aside after the witnesses had been heard. The accusation of having poisoned Alexander V. and his doctor at Bologna was not maintained. But enough deeds of immorality, tyranny, ambition and simony were found proved to justify the severest judgment. He was suspended from his functions as pope on the 14th of May 1415, and deposed on the following 29th of May.

However irregular this sentence may have been from the canonical point of view (for the accusers do not seem to have actually proved the crime of heresy, which was necessary, according to most scholars of the period, to justify the deposition of a sovereign pontiff), the condemned pope was not long in confirming it. Baldassare Cossa, now as humble and resigned as he had before been energetic and tenacious, on his transference to the castle of Rudolfzell admitted the wrong which he had done by his flight, refused to bring forward anything in his defence, acquiesced entirely in the judgment of the council which he declared to be infallible, and finally, as an extreme precaution, ratified *motu proprio* the sentence of deposition, declaring that he freely and willingly renounced any rights which he might still have in the papacy. This fact has subsequently been often quoted against those who have appealed to the events of 1415 to maintain that a council can depose a pope who is *scandalizator ecclesiae*.

Cossa kept his word never to appeal against the sentence which stripped him of the pontificate. He was held prisoner for three years in Germany, but in the end bought his liberty from the count palatine. He used this liberty only to go to Florence, in 1419, and throw himself on the mercy of the legitimate pope. Martin V. appointed him cardinal-bishop of Tusculum, a dignity which Cossa only enjoyed for a few months. He died on the 22nd of December 1419, and all visitors to the Baptistery at Florence may admire, under its high baldacchino, the sombre figure sculptured by Donatello of the dethroned pontiff, who had at least the merit of bowing his head under his chastisement, and of contributing by his passive resignation to the extinction of the series of popes which sprang from the council of Pisa. (N.V.)

JOHN I. (925–976), surnamed Tzimisces, East Roman emperor, was born of a distinguished Cappadocian family. After helping his uncle Nicephorus Phocas (*q.v.*) to obtain the throne and to restore the empire's eastern provinces he was deprived of his command by an intrigue, upon which he retaliated by conspiring with Nicephorus' wife Theophania to assassinate him. Elected ruler in his stead, John proceeded to justify his usurpation by the energy with which he repelled the foreign invaders of the empire. In a series of campaigns against the newly established Russian power (970–973) he drove the enemy out of Thrace, crossed Mt Haemus and besieged the fortress of Dorystolon on the Danube. In several hard-fought battles he broke the strength of the Russians so completely that they left him master of eastern Bulgaria. He further secured his northern frontier by transplanting to Thrace some colonies of Paulicians whom he suspected of sympathising with their Saracen neighbours in the east. In 974 he turned against the Abassid empire and easily recovered the inland parts of Syria and the middle reaches of the Euphrates. He died suddenly in 976 on his return from his second campaign against the Saracens. John's surname was apparently derived from the Armenian *tshemshkik* (red boot).

See E. Gibbon, *The Decline and Fall of the Roman Empire*, vol. vi. (ed. Bury, 1896); G. Finlay, *History of Greece*, ii. 334–360 (ed. 1877); G. Schlumberger, *L'Épopée Byzantine*, i. 1–326 (1896).

JOHN II. (1088–1143), surnamed Comnenus and also Kalojoannes (John the Good), East Roman emperor, was the eldest son of the East Roman emperor Alexius, whom he succeeded in 1118. On account of his mild and just reign he has been called the Byzantine Marcus Aurelius. By the personal purity of his character he effected a notable improvement in the manners of his age, but he displayed little vigour in internal administration or in extirpating the long-standing corruptions of the government. Nor did his various successes against the Hungarians, Servians and Seljuk Turks, whom he pressed hard in Asia Minor and proposed to expel from Jerusalem, add much to the stability of his empire. He was accidentally killed during a wild-boar hunt on Mt Taurus, on the 8th of April 1143.

See E. Gibbon, *The Decline and Fall of the Roman Empire*, v. 228 seq. (ed. Bury, 1896).

JOHN III. (1193–1254), surnamed Vatatzes and also Ducas, East Roman emperor, earned for himself such distinction as a soldier that in 1222 he was chosen to succeed his father-in-law Theodore I. Lascaris. He reorganized the remnant of the East Roman empire, and by his administrative skill made it the strongest and richest principality in the Levant. Having secured his eastern frontier by an agreement with the Turks, he set himself to recover the European possessions of his predecessors. While his fleet harassed the Latins in the Aegean Sea and extended his realm to Rhodes, his army, reinforced by Frankish mercenaries, defeated the Latin emperor's forces in the open field. Though unsuccessful in a siege of Constantinople, which he undertook in concert with the Bulgarians (1235), he obtained supremacy over the despotats of Thessalonica and Epirus. The ultimate recovery of Constantinople by the Rhomaic emperors is chiefly due to his exertions.

See E. Gibbon, *The Decline and Fall of the Roman Empire*, vi. 431–462 (ed. Bury, 1896); G. Finlay, *History of Greece*, iii. 196–320 (ed. 1877); A. Meliarakes, Ἱστορία τοῦ Βασιλείου τῆς Νικαίας καὶ τοῦ Δεσποτάτου τῆς Ἠπείρου, pp. 155–421 (1898).

JOHN IV. (*c.* 1250–*c.* 1300), surnamed Lascaris, East Roman emperor, son of Theodore II. His father dying in 1258, Michael Palaeologus conspired shortly after to make himself regent, and in 1261 dethroned and blinded the boy monarch, and imprisoned him in a remote castle, where he died a long time after.

See E. Gibbon, *The Decline and Fall of the Roman Empire*, vi. 459–466 (ed. Bury, 1896); A. Meliarakes, Ἱστορία τοῦ Βασιλείου τῆς Νικαίας (Athens, 1898), pp. 491–528.

JOHN V. or **VI.** (1332–1391), surnamed Palaeologus, East Roman emperor, was the son of Andronicus III., whom he succeeded in 1341. At first he shared his sovereignty with his father's friend John Cantacuzene, and after a quarrel with the latter was practically superseded by him for a number of years (1347–1355). His reign was marked by the gradual dissolution of the imperial power through the rebellion of his son Andronicus and by the encroachments of the Ottomans, to whom in 1381 John acknowledged himself tributary, after a vain attempt to secure the help of the popes by submitting to the supremacy of the Roman Church.

See E. Gibbon, *The Decline and Fall of the Roman Empire*, vi. 495 seq., vii. 38 seq. (ed. Bury, 1896); E. Pears, *The Destruction of the Greek Empire*, pp. 70–96 (1903).

JOHN VI. or **V.** (*c.* 1292–1383), surnamed Cantacuzene, East Roman emperor, was born at Constantinople. Connected with the house of Palaeologus on his mother's side, on the accession of Andronicus III. (1328) he was entrusted with the supreme administration of affairs. On the death of the emperor in 1341, Cantacuzene was left regent, and guardian of his son John Palaeologus, who was but nine years of age. Being suspected

by the empress and opposed by a powerful party at court, he rebelled, and got himself crowned emperor at Didymoteichos in Thrace, while John Palaeologus and his supporters maintained themselves at Constantinople. The civil war which ensued lasted six years, during which the rival parties called in the aid of the Servians and Turks, and engaged mercenaries of every description. It was only by the aid of the Turks, with whom he made a disgraceful bargain, that Cantacuzene brought the war to a termination favourable to himself. In 1347 he entered Constantinople in triumph, and forced his opponents to an arrangement by which he became joint emperor with John Palaeologus and sole administrator during the minority of his colleague. During this period, the empire, already broken up and reduced to the narrowest limits, was assailed on every side. There were wars with the Genoese, who had a colony at Galata and had money transactions with the court; and with the Servians, who were at that time establishing an extensive empire on the north-western frontiers; and there was a hazardous alliance with the Turks, who made their first permanent settlement in Europe, at Callipolis in Thrace, towards the end of the reign (1354). Cantacuzene was far too ready to invoke the aid of foreigners in his European quarrels; and as he had no money to pay them, this gave them a ready pretext for seizing upon a European town. The financial burdens imposed by him had long been displeasing to his subjects, and a strong party had always favoured John Palaeologus. Hence, when the latter entered Constantinople at the end of 1354, his success was easy. Cantacuzene retired to a monastery (where he assumed the name of Joasaph Christodulus)and occupied himself in literary labours. He died in the Peloponnese and was buried by his sons at Mysithra in Laconia. His *History* in four books deals with the years 1320–1356. Really an apologia for his own actions, it needs to be read with caution; fortunately it can be supplemented and corrected by the work of a contemporary, Nicephorus Gregoras. It possesses the merit of being well arranged and homogeneous, the incidents being grouped round the chief actor in the person of the author, but the information is defective on matters with which he is not directly concerned.

Cantacuzene was also the author of a commentary on the first five books of Aristotle's *Ethics*, and of several controversial theological treatises, one of which (*Against Mohammedanism*) is printed in Migne (*Patrologia Graeca*, cliv.). *History*, ed. pr. by J. Pontanus (1603); in Bonn, *Corpus scriptorum hist. Byz.*, by J. Schopen (1828–1832) and Migne, cliii., cliv. See also Val Parisot, *Cantacuzène, homme d'état et historien* (1845); E. Gibbon, *Decline and Fall*, ch. lxiii.; and C. Krumbacher, *Geschichte der byzantinischen Litteratur* (1897).

JOHN VI. or **VII.** (1390–1448), surnamed Palaeologus, East Roman emperor, son of Manuel II., succeeded to the throne in 1425. To secure protection against the Turks he visited the pope and consented to the union of the Greek and Roman churches, which was ratified at Florence in 1439. The union failed of its purpose, but by his prudent conduct towards the Ottomans he succeeded in holding possession of Constantinople, and in 1432 withstood a siege by Sultan Murad I.

See TURKEY: *History*; and also E. Gibbon, *The Decline and Fall of the Roman Empire*, vi. 97–107 (ed. Bury, 1896); E. Pears, *The Destruction of the Greek Empire*, pp. 115–130 (1903).

JOHN (1167–1216), king of England, the youngest son of Henry II. by Eleanor of Aquitaine, was born at Oxford on the 24th of December 1167. He was given at an early age the nickname of Lackland because, unlike his elder brothers, he received no apanage in the continental provinces. But his future was a subject of anxious thought to Henry II. When only five years old John was betrothed (1173) to the heiress of Maurienne and Savoy, a principality which, as dominating the chief routes from France and Burgundy to Italy, enjoyed a consequence out of all proportion to its area. Later, when this plan had fallen through, he was endowed with castles, revenues and lands on both sides of the channel; the vacant earldom of Cornwall was reserved for him (1175); he was betrothed to Isabella the heiress of the earldom of Gloucester (1176); and he was granted the lordship of Ireland with the homage of the Anglo-Irish baronage (1177). Henry II. even provoked a civil war by attempting to transfer the duchy of Aquitaine from the hands of Richard Cœur de Lion to those of John (1183). In spite of the incapacity which he displayed in this war, John was sent a little later to govern Ireland (1185); but he returned in a few months covered with disgrace, having alienated the loyal chiefs by his childish insolence and entirely failed to defend the settlers from the hostile septs. Remaining henceforth at his father's side he was treated with the utmost indulgence. But he joined with his brother Richard and the French king Philip Augustus in the great conspiracy of 1189, and the discovery of his treason broke the heart of the old king (see HENRY II.).

Richard on his accession confirmed John's existing possessions; married him to Isabella of Gloucester; and gave him, besides other grants, the entire revenues of six English shires; but excluded him from any share in the regency which was appointed to govern England during the third crusade; and only allowed him to live in the kingdom because urged to this concession by their mother. Soon after the king's departure for the Holy Land it became known that he had designated his nephew, the young Arthur of Brittany, as his successor. John at once began to intrigue against the regents with the aim of securing England for himself. He picked a quarrel with the unpopular chancellor William Longchamp (*q.v.*), and succeeded, by the help of the barons and the Londoners, in expelling this minister, whose chief fault was that of fidelity to the absent Richard. Not being permitted to succeed Longchamp as the head of the administration, John next turned to Philip Augustus for help. A bargain was struck; and when Richard was captured by Leopold, duke of Austria (December 1192), the allies endeavoured to prevent his release, and planned a partition of his dominions. They were, however, unable to win either English or Norman support and their schemes collapsed with Richard's return (March 1194). He magnanimously pardoned his brother, and they lived on not unfriendly terms for the next five years. On his deathbed Richard, reversing his former arrangements, caused his barons to swear fealty to John (1199), although the hereditary claim of Arthur was by the law of primogeniture undoubtedly superior.

England and Normandy, after some hesitation, recognized John's title; the attempt of Anjou and Brittany to assert the rights of Arthur ended disastrously by the capture of the young prince at Mirebeau in Poitou (1202). But there was no part of his dominions in which John inspired personal devotion. Originally accepted as a political necessity, he soon came to be detested by the people as a tyrant and despised by the nobles for his cowardice and sloth. He inherited great difficulties—the feud with France, the dissensions of the continental provinces, the growing indifference of England to foreign conquests, the discontent of all his subjects with a strict executive and severe taxation. But he cannot be acquitted of personal responsibility for his misfortunes. Astute in small matters, he had no breadth of view or foresight; his policy was continually warped by his passions or caprices; he flaunted vices of the most sordid kind with a cynical indifference to public opinion, and shocked an age which was far from tenderhearted by his ferocity to vanquished enemies. He treated his most respectable supporters with base ingratitude, reserved his favour for unscrupulous adventurers, and gave a free rein to the licence of his mercenaries. While possessing considerable gifts of mind and a latent fund of energy, he seldom acted or reflected until the favourable moment had passed. Each of his great humiliations followed as the natural result of crimes or blunders. By his divorce from Isabella of Gloucester he offended the English baronage (1200); by his marriage with Isabella of Angoulême, the betrothed of Hugh of Lusignan, he gave an opportunity to the discontented Poitevins for invoking French assistance and to Philip Augustus for pronouncing against him a sentence of forfeiture. The murder of Arthur (1203) ruined his cause in Normandy and Anjou; the story that the court of the peers of France condemned him for the murder is a fable, but no legal process was needed to convince men of his guilt. In the later quarrel with Innocent III. (1207–1213; see LANGTON,

STEPHEN) he prejudiced his case by proposing a worthless favourite for the primacy and by plundering those of the clergy who bowed to the pope's sentences. Threatened with the desertion of his barons he drove all whom he suspected to desperation by his terrible severity towards the Braose family (1210); and by his continued misgovernment irrevocably estranged the lower classes. When submission to Rome had somewhat improved his position he squandered his last resources in a new and unsuccessful war with France (1214), and enraged the feudal classes by new claims for military service and scutages. The barons were consequently able to exact, in Magna Carta (June 1215), much more than the redress of legitimate grievances; and the people allowed the crown to be placed under the control of an oligarchical committee. When once the sovereign power had been thus divided, the natural consequence was civil war and the intervention of the French king, who had long watched for some such opportunity. John's struggle against the barons and Prince Louis (1216), afterwards King Louis VIII., was the most creditable episode of his career. But the calamitous situation of England at the moment of his death, on the 19th of October 1216, was in the main his work; and while he lived a national reaction in favour of the dynasty was out of the question.

John's second wife, Isabella of Angoulême (d. 1246), who married her former lover, Hugh of Lusignan, after the English king's death, bore the king two sons, Henry III. and Richard, earl of Cornwall; and three daughters, Joan (1210–1238), wife of Alexander II., king of Scotland, Isabella (d. 1241), wife of the emperor Frederick II., and Eleanor (d. 1274), wife of William Marshal, earl of Pembroke, and then of Simon de Montfort, earl of Leicester. John had also two illegitimate sons, Richard and Oliver, and a daughter, Joan or Joanna, who married Llewelyn I. ab Iorwerth, prince of North Wales, and who died in 1236 or 1237.

AUTHORITIES.—The chief chronicles for the reign are Gervase of Canterbury's *Gesta regum*, Ralf of Coggeshall's *Chronicon*, Walter of Coventry's *Memoriale*, Roger of Wendover's *Flores historiarum*, the Annals of Burton, Dunstaple and Margan—all these in the Rolls Series. The French chronicle of the so-called "Anonyme de Béthune" (Bouquet, *Recueil des historiens des Gaules et de la France*, vol. xxiv.), the *Histoire des ducs de Normandie et des rois d'Angleterre* (ed. F. Michel, Paris, 1840) and the metrical biography of William the Marshal (*Histoire de Guillaume le Maréchal*, ed. Paul Meyer, 3 vols., Paris, 1891, &c.) throw valuable light on certain episodes. H. S. Sweetman's *Calendar of Documents relating to Ireland*, vol. i. (Rolls Series); W.H. Bliss's *Calendar of Entries in the Papal Registers*, vol. i. (Rolls Series); Potthast's *Regesta pontificum*, vol. i. (Berlin, 1874); Sir T. D. Hardy's *Rotuli litterarum clausarum* (Rec. Commission, 1835) and *Rotuli litterarum patentium* (Rec. Commission, 1835) and L. Delisle's *Catalogue des actes de Philippe Auguste* (Paris, 1856) are the most important guides to the documents. Of modern works W. Stubbs's *Constitutional history*, vol. i. (Oxford, 1897); the same writer's preface to *Walter of Coventry*, vol. ii. (Rolls Series); Miss K. Norgate's *John Lackland* (London, 1902); C. Petit-Dutaillis' *Étude sur la vie et le règne de Louis VIII.* (Paris, 1894) and W. S. McKechnie's *Magna Carta* (Glasgow, 1905) are among the most useful. (H. W. C. D.)

JOHN I. (1350–1395), king of Aragon, was the son of Peter IV. and his third wife Eleanor of Sicily. He was born on the 27th of December 1350, and died by a fall from his horse, like his namesake, cousin and contemporary of Castile. He was a man of insignificant character, with a taste for artificial verse.

JOHN II. (1397–1479), king of Aragon, son of Ferdinand I. and of his wife Eleanor of Albuquerque, born on the 29th of June 1397, was one of the most stirring and most unscrupulous kings of the 15th century. In his youth he was one of the *infantes* (princes) of Aragon who took part in the dissensions of Castile during the minority and reign of John II. Till middle life he was also lieutenant-general in Aragon for his brother and predecessor Alphonso V., whose reign was mainly spent in Italy. In his old age he was engaged in incessant conflicts with his Aragonese and Catalan subjects, with Louis XI. of France, and in preparing the way for the marriage of his son Ferdinand with Isabella of Castile, which brought about the union of the crowns. His troubles with his subjects were closely connected with the tragic dissensions in his own family. John was first married to Blanche of Navarre, of the house of Evreux. By right of Blanche he became king of Navarre, and on her death in 1441 he was left in possession of the kingdom for his life. But a son Charles, called, as heir of Navarre, prince of Viana, had been born of the marriage. John from the first regarded his son with jealousy, which after his second marriage with Joan Henriquez, and under her influence, grew into absolute hatred. He endeavoured to deprive his son of his constitutional right to act as lieutenant-general of Aragon during his father's absence. The cause of the son was taken up by the Aragonese, and the king's attempt to join his second wife in the lieutenant-generalship was set aside. There followed a long conflict, with alternations of success and defeat, which was not terminated till the death of the prince of Viana, perhaps by poison given him by his stepmother, in 1461. The Catalans, who had adopted the cause of Charles and who had grievances of their own, called in a succession of foreign pretenders. In conflict with these the last years of King John were spent. He was forced to pawn Rousillon, his possession on the north-east of the Pyrenees, to Louis XI., who refused to part with it. In his old age he was blinded by cataract, but recovered his eyesight by the operation of couching. The Catalan revolt was pacified in 1472, but John had war, in which he was generally unfortunate, with his neighbour the French king till his death on the 20th of January 1479. He was succeeded by Ferdinand, his son by his second marriage, who was already associated with his wife Isabella as joint sovereign of Castile.

For the history, see Rivadeneyra, "Cronicás de los reyes de Castilla," *Biblioteca de autores españoles*, vols. lxvi, lxviii (Madrid, 1845, &c.); G. Zurita, *Anales de Aragon* (Saragossa, 1610). The reign of John II. of Aragon is largely dealt with in W. H. Prescott's *History of the Reign of Ferdinand and Isabella* (1854).

JOHN (1296–1346), king of Bohemia, was a son of the emperor Henry VII. by his wife Margaret, daughter of John I., duke of Brabant, and was a member of the family of Luxemburg. Born on the 10th of August 1296, he became count of Luxemburg in 1309, and about the same time was offered the crown of Bohemia, which, after the death of Wenceslas III., the last king of the Premyslides dynasty in 1306, had passed to Henry, duke of Carinthia, under whose weak rule the country was in a very disturbed condition. The emperor accepted this offer on behalf of his son, who married Elizabeth (d. 1330), a sister of Wenceslas, and after Henry's departure for Italy, John was crowned king of Bohemia at Prague in February 1311. Henry of Carinthia was driven from the land, where a certain measure of order was restored, and Moravia was again united with Bohemia. As imperial vicar John represented his father at the diet of Nuremberg in January 1313, and was leading an army to his assistance in Italy when he heard of the emperor's death, which took place in August 1313. John was now a candidate for the imperial throne; but, on account of his youth, his claim was not regarded seriously, and he was persuaded to give his support to Louis, duke of Upper Bavaria, afterwards the emperor Louis the Bavarian. At Esslingen and elsewhere he aided Louis in his struggle with Frederick the Fair, duke of Austria, who also claimed the Empire; but his time was mainly passed in quelling disturbances in Bohemia, where his German followers were greatly disliked and where he himself soon became unpopular, especially among the nobles; or in Luxemburg, the borders of which county he was constantly and successfully striving to extend. Restless, adventurous and warlike, John had soon tired of governing his kingdom, and even discussed exchanging it with the emperor Louis for the Palatinate; and while Bohemia was again relapsing into a state of anarchy, her king was winning fame as a warrior in almost every part of Europe. He fought against the citizens of Metz and against his kinsman, John III., duke of Brabant; he led the knights of the Teutonic Order against the heathen in Lithuania and Pomerania and promised Pope John XXII. to head a crusade; and claiming to be king of Poland he attacked the Poles and brought Silesia under his rule. He obtained Tirol by marrying his son, John Henry, to Margaret Maultasch, the heiress of the county, assisted the emperor to defeat and capture Frederick the Fair at the battle of Mühldorf in 1322, and was alternately at peace and at war with the dukes

of Austria and with his former foe, Henry of Carinthia. He was a frequent and welcome visitor to France, in which country he had a personal and hereditary interest; and on several occasions his prowess was serviceable to his brother-in-law King Charles IV., and to Charles's successor Philip VI., whose son John, afterwards King John II., married a daughter of the Bohemian king. Soon after the battle of Mühldorf, the relations between John and the emperor became somewhat strained, partly owing to the king's growing friendship with the Papacy and with France, and partly owing to territorial disputes. An agreement, however, was concluded, and John undertook his invasion of Italy, which was perhaps the most dazzling of his exploits. Invited by the citizens of Brescia, he crossed the Alps with a meagre following in 1331, quickly received the homage of many of the cities of northern Italy, and soon found himself the ruler of a great part of the peninsula. But his soldiers were few and his enemies were many, and a second invasion of Italy in 1333 was followed by the dissipation of his dreams of making himself king of Lombardy and Tuscany, and even of supplanting Louis on the imperial throne. The fresh trouble between king and emperor, caused by this enterprise, was intensified by a quarrel over the lands left by Henry of Carinthia, and still later by the interference of Louis in Tirol; and with bewildering rapidity John was allying himself with the kings of Hungary and Poland, fighting against the emperor and his Austrian allies, defending Bohemia, governing Luxemburg, visiting France and negotiating with the pope. About 1340 the king was overtaken by blindness, but he continued to lead an active life, successfully resisting the attacks of Louis and his allies, and campaigning in Lithuania. In 1346 he made a decisive move against the emperor. Acting in union with Pope Clement VI. he secured the formal deposition of Louis and the election of his own son Charles, margrave of Moravia, as German king, or king of the Romans, in July 1346. Then journeying to help Philip of France against the English, he fought at the battle of Crécy, where his heroic death on the 26th of August 1346 was a fitting conclusion to his adventurous life.

John was a chivalrous and romantic personage, who enjoyed a great reputation for valour both before and after his death; but as a ruler he was careless and extravagant, interested only in his kingdom when seeking relief from his constant pecuniary embarrassments. After the death of his first wife, who bore him two sons, Charles, afterwards the emperor Charles IV., and John Henry (d. 1375), and who had been separated from her husband for some years, the king married Beatrice (d. 1383), daughter of Louis I., duke of Bourbon, by whom he had a son, Wenceslas (d. 1383). According to Camden the crest or badge of three ostrich feathers, with the motto *Ich dien*, borne by the prince of Wales was originally that of John of Bohemia and was first assumed by Edward the Black Prince after the battle of Crécy. There is no proof, however, that this badge was ever worn by John—it certainly was not his crest—and its origin must be sought elsewhere.

See J. Schötter, *Johann, Graf von Luxemburg and König von Böhmen* (Luxemburg, 1865); F. von Weech, *Kaiser Ludwig der Bayer und König Johann von Böhmen* (Munich, 1860), and U. Chevalier, *Répertoire des sources historiques*, tome v. (Paris, 1905).

JOHN I. (1358–1390), king of Castile, was the son of Henry II., and of his wife Joan, daughter of John Manuel of Villena, head of a younger branch of the royal house of Castile. In the beginning of his reign he had to contend with the hostility of John of Gaunt, who claimed the crown by right of his wife Constance, daughter of Peter the Cruel. The king of Castile finally bought off the claim of his English competitor by arranging a marriage between his son Henry and Catherine, daughter of John of Gaunt, in 1387. Before this date he had been engaged in hostilities with Portugal which was in alliance with John of Gaunt. His first quarrel with Portugal was settled by his marriage, in 1382, with Beatrix, daughter of the Portuguese king Ferdinand. On the death of his father-in-law in 1383, John endeavoured to enforce the claims of his wife, Ferdinand's only child, to the crown of Portugal. He was resisted by the national sentiment of the people, and was utterly defeated at the battle of Aljubarrota, on the 14th of August 1385. King John was killed at Alcalá on the 9th of October 1390 by the fall of his horse, while he was riding in a *fantasia* with some of the light horsemen known as the *farfanes*, who were mounted and equipped in the Arab style.

JOHN II. (1405–1454), king of Castile, was born on the 6th of March 1405, the son of Henry III. of Castile and of his wife Catherine, daughter of John of Gaunt. He succeeded his father on the 25th of December 1406 at the age of a year and ten months. It was one of the many misfortunes of Castile that the long reign of John II.—forty-nine years—should have been granted to one of the most incapable of her kings. John was amiable, weak and dependent on those about him. He had no taste except for ornament, and no serious interest except in amusements, verse-making, hunting and tournaments. He was entirely under the influence of his favourite, Alvaro de Luna, till his second wife, Isabella of Portugal, obtained control of his feeble will. At her instigation he threw over his faithful and able favourite, a meanness which is said to have caused him well-deserved remorse. He died on the 20th of July 1454 at Valladolid. By his second marriage he was the father of Isabella "the Catholic."

JOHN I. (b. and d. 1316), king of France, son of Louis X. and Clemence, daughter of Charles Martel, who claimed to be king of Hungary, was born, after his father's death, on the 15th of November 1316, and only lived seven days. His uncle, afterwards Philip V. has been accused of having caused his death, or of having substituted a dead child in his place; but nothing was ever proved. An impostor calling himself John I., appeared in Provence, in the reign of John II., but he was captured and died in prison.

JOHN II. (1319–1364), surnamed the Good, king of France, son of Philip VI. and Jeanne of Burgundy, succeeded his father in 1350. At the age of 13 he married Bona of Luxemburg, daughter of John, king of Bohemia. His early exploits against the English were failures and revealed in the young prince both avarice and stubborn persistence in projects obviously ill-advised. It was especially the latter quality which brought about his ruin. His first act upon becoming king was to order the execution of the constable, Raoul de Brienne. The reasons for this are unknown, but from the secrecy with which it was carried out and the readiness with which the honour was transferred to the king's close friend Charles of La Cesda, it has been attributed to the influence and ambition of the latter. John surrounded himself with evil counsellors, Simon de Buci, Robert de Lorris, Nicolas Braque, men of low origin who robbed the treasury and oppressed the people, while the king gave himself up to tournaments and festivities. In imitation of the English order of the Garter, he established the knightly order of the Star, and celebrated its festivals with great display. Raids of the Black Prince in Languedoc led to the states-general of 1355, which readily voted money, but sanctioned the right of resistance against all kinds of pillage—a distinct commentary on the incompetence of the king. In September 1356 John gathered the flower of his chivalry and attacked the Black Prince at Poitiers. The utter defeat of the French was made the more humiliating by the capture of their king, who had bravely led the third line of battle. Taken to England to await ransom, John was at first installed in the Savoy Palace, then at Windsor, Hertford, Somerton, and at last in the Tower. He was granted royal state with his captive companions, made a guest at tournaments, and supplied with luxuries imported by him from France. The treaty of Brétigny (1360), which fixed his ransom at 3,000,000 crowns, enabled him to return to France, but although he married his daughter Isabella to Gian Galeazzo Visconti of Milan, for a gift of 600,000 golden crowns, imposed a heavy feudal "aid" on merchandise, and various other taxes, John was unable to pay more than 400,000 crowns to Edward III. His son Louis of Anjou, who had been left as hostage, escaped from Calais in the summer of 1363, and John, far in arrears in the payments of the ransom, surrendered himself again "to maintain his royal honour which his son had sullied." He landed in England in January 1364 and was received with great honour, lodged again in the Savoy, and was a

frequent guest of Edward at Westminster. He died on the 8th of April, and the body was sent back to France with royal honours.

See Froissart's *Chronicles*; Duc d'Aumale, *Notes et documents relatifs à Jean, roi de France, et à sa captivité* (1856); A. Coville, in Lavisse's *Histoire de France*, vol. iv., and authorities cited there.

JOHN (ZAPOLYA) (1487–1540), king of Hungary, was the son of the palatine Stephen Zapolya and the princess Hedwig of Teschen, and was born at the castle of Szepesvár. He began his public career at the famous Rákos diet of 1505, when, on his motion, the assembly decided that after the death of the reigning king, Wladislaus II., no foreign prince should be elected king of Hungary. Henceforth he became the national candidate for the throne, which his family had long coveted. As far back as 1491 his mother had proposed to the sick king that his daughter Anne should be committed to her care in order, subsequently, to be married to her son; but Wladislaus frustrated this project by contracting a matrimonial alliance with the Habsburgs. In 1510 Zapolya sued in person for the hand of the Princess Anne in vain, and his appointment to the voivody of Transylvania (1511) was with the evident intention of removing him far from court. In 1513, after a successful raid in Turkish territory, he hastened to Buda at the head of 1000 horsemen and renewed his suit, which was again rejected. In 1514 he stamped out the dangerous peasant rising under Dozsa (*q.v.*) and the infernal torments by means of which the rebel leader was slowly done to death were the invention of Zapolya. With the gentry, whose hideous oppression had moved the peasantry to revolt, he was now more than ever popular, and, on the death of Wladislaus II., the second diet of Rákos (1516) appointed him the governor of the infant king Louis II. He now aimed at the dignity of palatine also, but the council of state and the court party combined against him and appointed István Báthory instead (1519). The strife of factions now burnt more fiercely than ever at the very time when the pressure of the Turk demanded the combination of all the national forces against a common danger. It was entirely due to the dilatoriness and dissensions of Zapolya and Báthory that the great fortress of Belgrade was captured in 1521, a loss which really sealed the fate of Hungary. In 1522 the diet would have appointed both Zapolya and Báthory captains-general of the realm, but the court set Zapolya aside and chose Báthory only. At the diets of Hátvan and Rákos in 1522, Zapolya placed himself at the head of a confederation to depose the palatine and the other great officers of state, but the attempt failed. In the following year, however, the revolutionary Hátvan diet drove out all the members of the council of state and made István Verböczy, the great jurist, and a friend of Zapolya, palatine. In the midst of this hopeless anarchy, Suleiman I., the Magnificent, invaded Hungary with a countless army, and the young king perished on the field of Mohács in a vain attempt to stay his progress, the contradictory orders of Louis II. preventing Zapolya from arriving in time to turn the fortunes of the day. The court party accused him of deliberate treachery on this occasion; but the charge must be pronounced groundless. His younger brother George was killed at Mohács, where he was second commander-in-chief. Zapolya was elected king of Hungary at the subsequent diet of Tokaj (Oct. 14), the election was confirmed by the diet of Székesfehérvár (10th of November), and he was crowned on the following day with the holy crown.

A struggle with the rival candidate, the German king Ferdinand I., at once ensued (see HUNGARY: *History*) and it was only with the aid of the Turks that king John was able to exhaust his opponent and compel him to come to terms. Finally, in 1538, by the compact of Nagyvárad, Ferdinand recognized John as king of Hungary, but secured the right of succession on his death. Nevertheless John broke the compact by bequeathing the kingdom to his infant son John Sigismund under Turkish protection. John was the last national king of Hungary. His merit, as a statesman, lies in his stout vindication of the national independence, though without the assistance of his great minister György Utiesenovich, better known as "Frater George" (Cardinal Martinuzzi *q.v.*), this would have been impossible. Indirectly he contributed to the subsequent conquest of Hungary by admitting the Turk as a friend.

See Vilmos Fraknoi, *Ungarn vor der Schlacht bei Mohács* (Budapest, 1886); L. Kupelwieser, *Die Kämpfe Ungarns mit den Osmanen bis zur Schlacht bei Mohács* (Vienna, 1895); Ignacz Acsády, *History of the Hungarian Realm*, vol. i. (Hung.) (Budapest, 1902–1904).

JOHN OF BRIENNE (*c.* 1148–1237), king of Jerusalem and Latin emperor of Constantinople, was a man of sixty years of age before he began to play any considerable part in history. Destined originally for the Church, he had preferred to become a knight, and in forty years of tournaments and fights he had won himself a considerable reputation, when in 1208 envoys came from the Holy Land to ask Philip Augustus, king of France, to select one of his barons as husband to the heiress, and ruler of the kingdom, of Jerusalem. Philip selected John of Brienne, and promised to support him in his new dignity. In 1210 John married the heiress Mary (daughter of Isabella and Conrad of Montferrat), assuming the title of king in right of his wife. In 1211, after some desultory operations, he concluded a six years' truce with Malik-el-Adil; in 1212 he lost his wife, who left him a daughter, Isabella; soon afterwards he married an Armenian princess. In the fifth crusade (1218–1221) he was a prominent figure. The legate Pelagius, however, claimed the command; and insisting on the advance from Damietta, in spite of the warnings of King John, he refused to accept the favourable terms of the sultan, as the king advised, until it was too late. After the failure of the crusade, King John came to the West to obtain help for his kingdom. In 1223 he met Honorius III. and the emperor Frederick II. at Ferentino, where, in order that he might be connected more closely with the Holy Land, Frederick was betrothed to John's daughter Isabella, now heiress of the kingdom. After the meeting at Ferentino, John went to France and England, finding little consolation; and thence he travelled to Compostella, where he married a new wife, Berengaria of Castile. After a visit to Germany he returned to Rome (1225). Here he received a demand from Frederick II. (who had now married Isabella) that he should abandon his title and dignity of king, which—so Frederick claimed—had passed to himself along with the heiress of the kingdom. John was now a septuagenarian "king in exile," but he was still vigorous enough to revenge himself on Frederick, by commanding the papal troops which attacked southern Italy during the emperor's absence on the sixth crusade (1228–1229). In 1229 John, now eighty years of age, was invited by the barons of the Latin empire of Constantinople to become emperor, on condition that Baldwin of Courtenay should marry his second daughter and succeed him. For nine years he ruled in Constantinople, and in 1235, with a few troops, he repelled a great siege of the city by Vataces of Nicaea and Azen of Bulgaria. After this last feat of arms, which has perhaps been exaggerated by the Latin chroniclers, who compare him to Hector and the Maccabees, John died in the habit of a Franciscan friar. An aged paladin, somewhat uxorious and always penniless, he was a typical knight errant, whose wanderings led him all over Europe, and planted him successively on the thrones of Jerusalem and Constantinople.

The story of John's career must be sought partly in histories of the kingdom of Jerusalem and of the Latin Empire of the East, partly in monographs. Among these, of which R. Röhricht gives a list (*Geschichte des Königreichs Jerusalem*, p. 699, n. 3), see especially that of E. de Montcarmet, *Un chevalier du temps passé* (Limoges, 1876 and 1881).

JOHN III. (SOBIESKI) (1624–1696), king of Poland, was the eldest son of James Sobieski, castellan of Cracow, and Theofila Danillowiczowna, grand-daughter of the great Hetman Zolkiewski. After being educated at Cracow, he made the grand tour with his brother Mark and returned to Poland in 1648. He served against Chmielnicki and the Cossacks and was present at the battles of Beresteczko (1651) and Batoka (1652), but was one of the first to desert his unhappy country when invaded by the Swedes in 1654, and actually assisted them to conquer the Prussian provinces in 1655. He returned to his lawful allegiance

in the following year and assisted Czarniecki in his difficult task of expelling Charles X. of Sweden from the central Polish provinces. For his subsequent services to King John Casimir, especially in the Ukraine against the Tatars and Cossacks, he received the grand bâton of the crown, or commandership-in-chief (1668). He had already (1665) succeeded Czarniecki as acting commander-in-chief. Sobieski had well earned these distinctions by his extraordinary military capacity, but he was now to exhibit a less pleasing side of his character. He was in fact a typical representative of the unscrupulous self-seeking Polish magnates of the 17th century who were always ready to sacrifice everything, their country included, to their own private ambition. At the election diet of 1669 he accepted large bribes from Louis XIV. to support one of the French candidates; after the election of Michael Wisniowiecki (June 19, 1669) he openly conspired, again in the French interest, against his lawful sovereign, and that too at the very time when the Turk was ravaging the southern frontier of the republic. Michael was the feeblest monarch the Poles could have placed upon the throne, and Sobieski deliberately attempted to make government of any kind impossible. He formed a league with the primate Prazmowski and other traitors to dethrone the king; when (1670) the plot was discovered and participation in it repudiated by Louis XIV., the traitors sought the help of the elector of Brandenburg against their own justly indignant countrymen. Two years later the same traitors again conspired against the king, at the very time when the Turks had defeated Sobieski's unsupported lieutenant, Luzecki, at Czertwertyworska and captured the fortress of Kamieniec (Kamenetz-Podolskiy), the key of south-eastern Poland, while Lemberg was only saved by the valour of Elias Lancki. The unhappy king did the only thing possible in the circumstances. He summoned the *tuszenia pospolite*, or national armed assembly; but it failed to assemble in time, whereupon Michael was constrained to sign the disgraceful peace of Buczacz (Oct. 17, 1672) whereby Poland ceded to the Porte the whole of the Ukraine with Podolia and Kamieniec. Aroused to duty by a series of disasters for which he himself was primarily responsible, Sobieski now hastened to the frontier, and won four victories in ten days. But he could not recover Kamieniec, and when the *tuszenia pospolite* met at Golenba and ordered an inquiry into the conduct of Sobieski and his accomplices he frustrated all their efforts by summoning a counter confederation to meet at Szczebrzeszyn. Powerless to oppose a rebel who was at the same time commander-in-chief, both the king and the diet had to give way, and a compromise was come to whereby the peace of Buczacz was repudiated and Sobieski was given a chance of rehabilitating himself, which he did by his brilliant victory over an immense Turkish host at Khotin (Nov. 10, 1673). The same day King Michael died and Sobieski, determined to secure the throne for himself, hastened to the capital, though Tatar bands were swarming over the frontier and the whole situation was acutely perilous. Appearing at the elective diet of 1674 at the head of 6000 veterans he overawed every other competitor, and despite the persistent opposition of the Lithuanians was elected king on the 21st of May. By this time, however, the state of things in the Ukraine was so alarming that the new king had to hasten to the front. Assisted by French diplomacy at the Porte (Louis XIV. desiring to employ Poland against Austria), and his own skilful negotiations with the Tatar khan, John III. now tried to follow the example of Wladislaus IV. by leaving the guardianship of the Ukraine entirely in the hands of the Cossacks, while he assembled as many regulars and militiamen as possible at Lemberg, whence he might hasten with adequate forces to defend whichever of the provinces of the Republic might be in most danger. But the appeal of the king was like the voice of one crying in the wilderness, and not one gentleman in a hundred hastened to the assistance of the fatherland. Even at the end of August Sobieski had but 3000 men at his disposal to oppose to 60,000 Turks. Only his superb strategy and the heroic devotion of his lieutenants—notably the converted Jew, Jan Samuel Chrzanowski, who held the Ottoman army at bay for eleven days behind the walls of Trembowla—enabled the king to remove "the pagan yoke from our shoulders"; and he returned to be crowned at Cracow on the 14th of February 1676. In October 1676, in his entrenched camp at Zaravno, he with 13,000 men withstood 80,000 Turks for three weeks, and recovered by special treaty two-thirds of the Ukraine, but without Kamieniec (treaty of Zaravno, Oct. 16, 1676).

Having now secured peace abroad Sobieski was desirous of strengthening Poland at home by establishing absolute monarchy; but Louis XIV. looked coldly on the project, and from this time forth the old familiar relations between the republic and the French monarchy were strained to breaking point, though the final rupture did not come till 1682 on the arrival of the Austrian minister, Zerowski, at Warsaw. After resisting every attempt of the French court to draw him into the anti-Habsburg league, Sobieski signed the famous treaty of alliance with the emperor Leopold against the Turks (March 31, 1683), which was the prelude to the most glorious episode of his life, the relief of Vienna and the liberation of Hungary from the Ottoman yoke. The epoch-making victory of the 12th of September 1683 was ultimately decided by the charge of the Polish cavalry led by Sobieski in person. Unfortunately Poland profited little or nothing by this great triumph, and now that she had broken the back of the enemy she was left to fight the common enemy in the Ukraine with whatever assistance she could obtain from the unwilling and unready Muscovites. The last twelve years of the reign of John III. were a period of unmitigated humiliation and disaster. He now reaped to the full the harvest of treason and rebellion which he himself had sown so abundantly during the first forty years of his life. A treasonable senate secretly plotting his dethronement, a mutinous diet rejecting the most necessary reforms for fear of "absolutism," ungrateful allies who profited exclusively by his victories —these were his inseparable companions during the remainder of his life. Nay, at last his evil destiny pursued him to the battle-field and his own home. His last campaign (in 1690) was an utter failure, and the last years of his life were embittered by the violence and the intrigues of his dotingly beloved wife, Marya Kazimiera d'Arquien, by whom he had three sons, James, Alexander and Constantine. He died on the 17th of June 1696, a disillusioned and broken-hearted old man.

See Tadeusz Korzon, *Fortunes and Misfortunes of John Sobieski* (Pol.) (Cracow, 1898); E. H. R. Tatham, *John Sobieski* (Oxford, 1881); Kazimierz Waliszewski, *Archives of French Foreign Affairs*, 1674–1696, v. (Cracow, 1881); Ludwik Piotr Leliwa, *John Sobieski and His Times* (Pol.) (Cracow, 1882–1885); Kazimierz Waliszewski, *Marysienka Queen of Poland* (London, 1898); Georg Rieder, *Johann Sobieski in Wien* (Vienna, 1882). (R. N. B.)

JOHN I. (1357–1433), king of Portugal, the natural son of Pedro I. (*el Justicieiro*), was born at Lisbon on the 22nd of April 1357, and in 1364 was created grand-master of Aviz. On the death of his lawful brother Ferdinand I., without male issue, in October 1383, strenuous efforts were made to secure the succession for Beatrice, the only child of Ferdinand I., who as heiress-apparent had been married to John I. of Castile (Spain), but the popular voice declared against an arrangement by which Portugal would virtually have become a Spanish province, and John was after violent tumults proclaimed protector and regent in the following December. In April 1385 he was unanimously chosen king by the estates of the realm at Coimbra. The king of Castile invaded Portugal, but his army was compelled by pestilence to withdraw, and subsequently by the decisive battle of Aljubarrota (Aug. 14, 1385) the stability of John's throne was permanently secured. Hostilities continued intermittently until John of Castile died, without leaving issue by Beatrice, in 1390. Meanwhile the king of Portugal went on consolidating the power of the crown at home and the influence of the nation abroad. In 1415 Ceuta was taken from the Moors by his sons who had been born to him by his wife Philippa, daughter of John, duke of Lancaster; specially distinguished in the siege was Prince Henry (*q.v.*) afterwards generally known as "the Navigator." John I., sometimes surnamed "the Great," and sometimes "father of his country," died on the

11th of August 1433, in the forty-eighth year of a reign which had been characterized by great prudence, ability and success; he was succeeded by his son Edward or Duarte, so named out of compliment to Edward III. of England.

See J. P. Oliveira Martins, *Os filhos de D. João I.* and *A vida de Nun' Alvares* (Lisbon, 2nd ed. 1894).

JOHN II. (1455–1495), the Perfect, king of Portugal, succeeded his father, Alphonso V., in August 1481. His first business was to curtail the overgrown power of his aristocracy; noteworthy incidents in the contest were the execution (1483) of the duke of Braganza for correspondence with Castile, and the murder, by the king's own hand, of the youthful duke of Viseu for conspiracy. This reign was signalized by Bartholomeu Diaz's discovery of the Cape of Good Hope in 1488. Maritime rivalry led to disputes between Portugal and Castile until their claims were adjusted by the famous treaty of Tordesillas (June 7, 1494). John II. died, without leaving male issue, in October 1495, and was succeeded by his brother-in-law Emmanuel (Manoel) I.

See J. P. Oliveira Martins, *O principe perfeito* (Lisbon, 1895).

JOHN III. (1502–1557), king of Portugal, was born at Lisbon, on the 6th of June 1502, and ascended the throne as successor of his father Emmanuel I. in December 1521. In 1524 he married Catherine, sister to the Emperor Charles V., who shortly afterwards married the infanta Isabella, John's sister. Succeeding to the crown at a time when Portugal was at the height of its political power, and Lisbon in a position of commercial importance previously unknown, John III., unfortunately for his dominions, became subservient to the clerical party among his subjects, with disastrous consequences to the commercial and social prosperity of his kingdom. He died of apoplexy on the 6th of June 1557, and was succeeded by his grandson Sebastian, then a child of only three years.

JOHN IV. (1603–1656), the Fortunate, king of Portugal, was born at Villaviciosa in March 1603, succeeded to the dukedom of Braganza in 1630, and married Luisa de Guzman, eldest daughter of the duke of Medina Sidonia, in 1633. By the unanimous voice of the people he was raised to the throne of Portugal (of which he was held to be the legitimate heir) at the revolution effected in December 1640 against the Spanish king, Philip IV. His accession led to a protracted war with Spain, which only ended with the recognition of Portuguese independence in a subsequent reign (1668). He died on the 6th of November 1656, and was succeeded by his son Alphonso VI.

JOHN V. (1689–1750), king of Portugal, was born at Lisbon on the 22nd of October 1689, and succeeded his father Pedro II. in December 1706, being proclaimed on the 1st of January 1707. One of his first acts was to intimate his adherence to the Grand Alliance, which his father had joined in 1703. Accordingly his general Das Minas, along with Lord Galway, advanced into Castile, but sustained the defeat of Almanza (April 14). In October 1708 he married Maria Anna, daughter of Leopold I., thus strengthening the alliance with Austria; the series of unsuccessful campaigns which ensued ultimately terminated in a favourable peace with France in 1713 and with Spain in 1715. The rest of his long reign was characterized by royal subservience to the clergy, the kingdom being administered by ecclesiastical persons and for ecclesiastical objects to an extent that gave him the best of rights to the title "Most Faithful King," bestowed upon him and his successors by a bull of Pope Benedict XIV. in 1748. John V. died on the 31st of July 1750, and was succeeded by his son Joseph.

JOHN VI. (1769–1826), king of Portugal, was born at Lisbon on the 13th of May 1769, and received the title of prince of Brazil in 1788. In 1792 he assumed the reins of government in name of his mother Queen Mary I., who had become insane. He had been brought up in an ecclesiastical atmosphere, and, being naturally of a somewhat weak and helpless character, was but ill adapted for the responsibilities he was thus called on to undertake. In 1799 he assumed the title of regent, which he retained until his mother's death in 1816. (For the political history of his regency, see PORTUGAL.) In 1816 he was recognized as king of Portugal but he continued to reside in Brazil; the consequent spread of dissatisfaction resulted in the peaceful revolution of 1820, and the proclamation of a constitutional government, to which he swore fidelity on his return to Portugal in 1822. In the same year, and again in 1823, he had to suppress a rebellion led by his son Dom Miguel, whom he ultimately was compelled to banish in 1824. He died at Lisbon on the 26th of March 1826, and was succeeded by Pedro IV.

JOHN (1801–1873), king of Saxony, son of Prince Maximilian of Saxony and his wife Caroline of Parma (d. 1804), was born at Dresden on the 12th of December 1801. As a boy he took a keen interest in literature and art (also in history, law, and political science), and studied with the greatest ardour classical and German literature (Herder, Schiller, Goethe). He soon began to compose poetry himself, and drew great inspiration from a journey in Italy (1821–1822), the pleasure of which was however darkened by the death of his brother Clemens. In Pavia the prince met with Biagioli's edition of Dante, and this gave rise to his lifelong and fruitful studies of Dante. The first part of his German translation of Dante was published in 1828, and in 1833 appeared the complete work, with a valuable commentary, which met with a great success. Several new editions appeared under his constant supervision, and he collected a complete library of works on Dante.

On his return from Italy he was betrothed to Princess Amalia of Bavaria, daughter of King Maximilian Joseph. He thus became the brother-in-law of Frederick William IV., king of Prussia, with whom he had a deep and lasting friendship. His wife Amalia died on the 8th of November 1877, having borne him nine children, two of whom, Albert and George, later became kings of Saxony.

On his return to Dresden, John was called in 1822 to the privy board of finance (*Geheimes Finanzkollegium*) and in 1825 became its vice-president. Under the leadership of the president, Freiherr von Manteuffel, he acquired a thorough knowledge of administration and of political economy, and laid the foundations of that conservatism which he retained throughout life. These new activities did not, however, interrupt his literary and artistic studies. He came into still closer relations with politics and government after his entry into the privy council in 1830. During the revolution in Saxony he helped in the pacification of the country, became commandant of the new national guard, the political tendencies of which he tried to check, and took an exceptionally active part in the organization of the constitution of the 4th of September 1831 and especially in the deliberations of the upper chamber, where he worked with unflagging energy and great ability. Following the example of his father, he taught his children in person, and had a great influence on their education. On the 12th of August 1845, during a stay at Leipzig, the prince was the object of hostile public demonstrations, the people holding him to be the head of an alleged ultramontane party at court, and the revolution of 1848 compelled him to interrupt his activities in the upper chamber. Immediately after the suppression of the revolution he resumed his place and took part chiefly in the discussion of legal questions. He was also interested in the amalgamation of the German historical and archaeological societies. On the death of his brother Frederick Augustus II., John became, on the 9th of August 1854, king of Saxony. As king he soon won great popularity owing to his simplicity, graciousness and increasingly evident knowledge of affairs. In his policy as regards the German confederation he was entirely on the side of Austria. Though not opposed to a reform of the federal constitution, he held that its maintenance under the presidency of Austria was essential. This view he supported at the assembly of princes at Frankfort in August and September 1863. He was unable to uphold his views against Prussia, and in the war of 1866 fought on the side of Austria. It was with difficulty that, on the conclusion of peace, Austrian diplomacy succeeded in enabling the king to retain his crown. After 1866 King John gradually became reconciled to the new state of affairs. He entered the North German

confederation, and in the war of 1870–71 with France his troops fought with conspicuous courage. He died at Dresden on the 29th of October 1873.

See J. Petzholdt, "Zur Litteratur des Königs Johann," *Neuer Anzeiger für Bibliographie* (1858,1859,1871,1873,1874); "Aphorismen über unsern König J.," *Bote von Geising* (1866–1869); *Das Büchlein vom König Johann* (Leipzig, 1867); H. v. Treitschke, *Preussische Jahrbücher* 23 (1869); A. Reumont, "Elogio di Giovanni, Rè di Sassonia," *Dagli Atti della Accademia della Crusca* (Florence, 1874); J. P. von Winterstein, *Johann, König von Sachsen* (Dresden, 1878), and in *Allgemeine Deutsche Biographie* (1881); H. Ermisch, *Die Wettiner und die Landesgeschichte* (Leipzig, 1902); O. Kaemmel, *Sächsische Geschichte* (Leipzig, 1899, Sammlung Göschen). (J. Hn.)

JOHN I. (d. 1294), duke of Brabant and Lorraine, surnamed the Victorious, one of the most gifted and chivalrous princes of his time, was the second son of Duke Henry III. and Aleidis of Burgundy. In 1267 his elder brother Henry, being infirm of mind and body, was deposed in his favour. In 1271 John married Margaret, daughter of Louis IX. of France, and on her death in childbirth he took as his second wife (1273) Margaret of Flanders, daughter of Guy de Dampierre. His sister Marie was espoused in 1275 to Philip III. (the Bold) of France, and during the reign of Philip and his son Philip IV. there were close relations of friendship and alliance between Brabant and France. In 1285 John accompanied Philip III. in his expedition against Peter III., king of Aragon, but the duchy of Limburg was the scene of his chief activity and greatest successes. After the death of Waleran IV. in 1279 the succession to this duchy was disputed. His heiress, Ermengarde, had married Reinald I. count of Gelderland. She died childless, but her husband continued to rule in Limburg, although his rights were disputed by Count Adolph of Berg, nephew to Waleran IV. (see Limburg). Not being strong enough to eject his rival, Adolph sold his rights to John of Brabant, and hostilities broke out in 1283. Harassed by desultory warfare and endless negotiations, and seeing no prospect of holding his own against the powerful duke of Brabant, Reinald made over his rights to Henry III. count of Luxemburg, who was a descendant of Waleran III. of Limburg. Henry III. was sustained by the archbishop of Cologne and other allies, as well as by Reinald of Gelderland. The duke of Brabant at once invaded the Rhineland and laid siege to the castle of Woeringen near Bonn. Here he was attacked by the forces of the confederacy on the 5th of June 1288. After a bloody struggle John of Brabant, though at the head of far inferior numbers, was completely victorious. Limburg was henceforth attached to the duchy of Brabant. John consolidated his conquest by giving his daughter in marriage to Henry of Luxemburg (1291). John the Victorious was a perfect model of a feudal prince in the days of chivalry, brave, adventurous, excelling in every form of active exercise, fond of display, generous in temper. He delighted in tournaments, and was always eager personally to take part in jousts. On the 3rd of May 1294, on the occasion of some marriage festivities at Bar, he was wounded in the arm in an encounter by Pierre de Bausner, and died from the effects of the hurt.

Bibliography.—H. Barlandus, *Rerum gestarum a Brabantiae ducibus historia usque in annum 1526* (Louvain, 1566); G. C. van der Berghe, *Jean le Victorieux, duc de Brabant* (1259–1294), (Louvain, 1857); K. F. Stallaert, *Gesch. v. Jan I. van Braband en zijne tijdvak* (Brussels, 1861); A. Wauters, *Le Duc Jean 1er et le Brabant sous le règne de ce prince* (Brussels, 1859).

JOHN, or Hans (1513–1571), margrave of Brandenburg-Cüstrin, was the younger son of Joachim I., elector of Brandenburg, and was born at Tangermünde on the 3rd of August 1513. In spite of the *dispositio Achillea* which decreed the indivisibility of the electorate, John inherited the new mark of Brandenburg on his father's death in July 1535. He had been brought up as a strict Catholic, but soon wavered in his allegiance, and in 1538 ranged himself definitely on the side of the Reformers. About the same time he joined the league of Schmalkalden; but before the war broke out between the league and the emperor Charles V. the promises of the emperor had won him over to the imperial side. After the conclusion of the war, the relations between John and Charles became somewhat strained. The margrave opposed the *Interim*, issued from Augsburg in May 1548; and he was the leader of the princes who formed a league for the defence of the Lutheran doctrines in February 1550. The alliance of these princes, however, with Henry II., king of France, does not appear to have commended itself to him and after some differences of opinion with Maurice, elector of Saxony, he returned to the emperor's side. His remaining years were mainly spent in the new mark, which he ruled carefully and economically. He added to its extent by the purchase of Beeskow and Storkow, and fortified the towns of Cüstrin and Peitz. He died at Cüstrin on the 13th of January 1571. His wife Catherine was a daughter of Henry II., duke of Brunswick, and as he left no sons the new mark passed on his death to his nephew John George, elector of Brandenburg.

See Berg, *Beiträge zur Geschichte des Markgrafen Johann von Küstrin* (Landsberg, 1903).

JOHN (1371–1419), called the Fearless (*Sans Peur*), duke of Burgundy, son of Philip the Bold, duke of Burgundy, and Margaret of Flanders, was born at Dijon on the 28th of May 1371. On the death of his maternal grandfather in 1384 he received the title of count of Nevers, which he bore until his father's death. Though originally destined to be the husband of Catherine, sister of Charles VI. of France, he married in 1385 Margaret, daughter of Duke Albert of Bavaria, an alliance which consolidated his position in the Netherlands. In the spring of 1396 he took arms for Hungary against the Turks and on the 28th of September was taken prisoner by the Sultan Bayezid I. at the bloody battle of Nicopolis, where he earned his surname of "the Fearless." He did not recover his liberty until 1397, and then only by paying an enormous ransom. He succeeded his father in 1404, and immediately found himself in conflict with Louis of Orleans, the young brother of Charles VI. The history of the following years is filled with the struggles between these two princes and with their attempts to seize the authority in the name of the demented king. John endeavoured to strengthen his position by marrying his daughter Margaret to the dauphin Louis, and by betrothing his son Philip to a daughter of Charles VI. Like his father, he looked for support to the popular party, to the tradesmen, particularly the powerful gild of the butchers, and also to the university of Paris. In 1405 he opposed in the royal council a scheme of taxation proposed by the duke of Orleans, which was nevertheless adopted. Louis retaliated by refusing to sanction the duke of Burgundy's projected expedition against Calais, whereupon John quitted the court in chagrin on the pretext of taking up his mother's heritage. He was, however, called back to the council to find that the duke of Orleans and the queen had carried off the dauphin. John succeeded in bringing back the dauphin to Paris, and open war seemed imminent between the two princes. But an arrangement was effected in October 1405, and in 1406 John was made by royal decree guardian of the dauphin and the king's children.

The struggle, however, soon revived with increased force. Hostilities had been resumed with England; the duke of Orleans had squandered the money raised for John's expedition against Calais; and the two rivals broke out into open threats. On the 20th of November 1407 their uncle, the duke of Berry, brought about a solemn reconciliation, but three days later Louis was assassinated by John's orders in the Rue Barbette, Paris. John at first sought to conceal his share in the murder, but ultimately decided to confess to his uncles, and abruptly left Paris. His vassals, however, showed themselves determined to support him in his struggle against the avengers of the duke of Orleans. The court decided to negotiate, and called upon the duke to return. John entered Paris in triumph, and instructed the Franciscan theologian Jean Petit (d. 1411) to pronounce an apology for the murder. But he was soon called back to his estates by a rising of the people of Liége against his brother-in-law, the bishop of that town. The queen and the Orleans party took every advantage of his absence and had Petit's discourse solemnly refuted. John's victory over the Liégeois at Hasbain on the 23rd of September 1408, enabled him to return to Paris, where he

was reinstated in his ancient privileges. By the peace of Chartres (March 9, 1409) the king absolved him from the crime, and Valentina Visconti, the widow of the murdered duke, and her children pledged themselves to a reconciliation; while an edict of the 27th of December 1409 gave John the guardianship of the dauphin. Nevertheless, a new league was formed against the duke of Burgundy in the following year, principally at the instance of Bernard, count of Armagnac, from whom the party opposed to the Burgundians took its name. The peace of Bicêtre (Nov. 2, 1410) prevented the outbreak of hostilities, inasmuch as the parties were enjoined by its terms to return to their estates; but in 1411, in consequence of ravages committed by the Armagnacs in the environs of Paris, the duke of Burgundy was called back to Paris. He relied more than ever on the support of the popular party, which then obtained the reforming *Ordonnance Cabochienne* (so called from Simon Caboche, a prominent member of the gild of the butchers). But the bloodthirsty excesses of the populace brought a change. John was forced to withdraw to Burgundy (August 1413), and the university of Paris and John Gerson once more censured Petit's propositions, which, but for the lavish bribes of money and wines offered by John to the prelates, would have been solemnly condemned at the council of Constance. John's attitude was undecided; he negotiated with the court and also with the English, who had just renewed hostilities with France. Although he talked of helping his sovereign, his troops took no part in the battle of Agincourt (1415), where, however, two of his brothers, Anthony, duke of Brabant, and Philip, count of Nevers, fell fighting for France.

In 1417 John made an attack on Paris, which failed through his loitering at Lagny;[1] but on the 30th of May 1418 a traitor, one Perrinet Leclerc, opened the gates of Paris to the Burgundian captain, Villiers de l'Isle Adam. The dauphin, afterwards King Charles VI., fled from the town, and John betook himself to the king, who promised to forget the past. John, however, did nothing to prevent the surrender of Rouen, which had been besieged by the English, and on which the fate of the kingdom seemed to depend; and the town was taken in 1419. The dauphin then decided on a reconciliation, and on the 11th of July the two princes swore peace on the bridge of Pouilly, near Melun. On the ground that peace was not sufficiently assured by the Pouilly meeting, a fresh interview was proposed by the dauphin and took place on the 10th of September 1419 on the bridge of Montereau, when the duke of Burgundy was felled with an axe by Tanneguy du Chastel, one of the dauphin's companions, and done to death by the other members of the dauphin's escort. His body was first buried at Montereau and afterwards removed to the Chartreuse of Dijon and placed in a magnificent tomb sculptured by Juan de la Huerta; the tomb was afterwards transferred to the museum in the *hôtel de ville*.

By his wife, Margaret of Bavaria, he had one son, Philip the Good, who succeeded him; and seven daughters—Margaret, who married in 1404 Louis, son of Charles VI., and in 1423 Arthur, earl of Richmond and afterwards duke of Brittany; Mary, wife of Adolph of Cleves; Catherine, promised in 1410 to a son of Louis of Anjou; Isabella, wife of Olivier de Châtillon, count of Penthièvre; Joanna, who died young; Anne, who married John, duke of Bedford, in 1423; and Agnes, who married Charles I., duke of Bourbon, in 1425.

See A. G. P. Baron de Barante, *Histoire des ducs de Bourgogne*, (Brussels, 1835–1836); B. Zeller, *Louis de France et Jean sans Peur* (Paris, 1886); and E. Petit, *Itinéraire de Philippe le Hardi et de Jean sans Peur* (Paris, 1888). (R. Po.)

JOHN (1468–1532), called the Steadfast, elector of Saxony, fourth son of the elector Ernest, was born on the 30th of June 1468. In 1486, when his eldest brother became elector as Frederick III., John received a part of the paternal inheritance and afterwards assisted his kinsman, the German king Maximilian I., in several campaigns. He was an early adherent of Luther, and, becoming elector of Saxony by his brother's death in May 1525, was soon prominent among the Reformers. Having assisted to suppress the rising led by Thomas Munzer in 1525, he helped Philip, landgrave of Hesse, to found the league of Gotha, formed in 1526 for the protection of the Reformers. He was active at the diet of Spires in 1526, and the "recess" of this diet gave him an opportunity to reform the church in Saxony, where a plan for divine service was drawn up by Luther. The assertions of Otto von Pack that a league had been formed against the elector and his friends induced John to ally himself again with Philip of Hesse in March 1528, but he restrained Philip from making an immediate attack upon their opponents. He signed the protest against the "recess" of the diet of Spires in 1529, being thus one of the original Protestants, and was actively hostile to Charles V. at the diet of Augsburg in 1530. Having signed the confession of Augsburg, he was alone among the electors in objecting to the election of Ferdinand, afterwards the emperor Ferdinand I., as king of the Romans. He was among the first members of the league of Schmalkalden, assented to the religious peace of Nuremberg in 1532, and died at Schweidnitz on the 16th of August 1532. John was twice married and left two sons and two daughters. His elder son, John Frederick, succeeded him as elector, and his younger son was John Ernest (d. 1553). He rendered great services to the Protestant cause in its infancy, but as a Lutheran resolutely refused to come to any understanding with other opponents of the older faith.

See J. Becker, *Kurfürst Johann von Sachsen und seine Beziehungen zu Luther* (Leipzig, 1890); J. Janssen, *History of the German People* (English translation), vol. v. (London, 1903); L. von Ranke, *Deutsche Geschichte im Zeitaller der Reformation* (Leipzig, 1882).

JOHN, DON (1545–1578), of Austria, was the natural son of the emperor Charles V. by Barbara Blomberg, the daughter of an opulent citizen of Regensburg. He was born in that free imperial city on the 24th of February 1545, the anniversary of his father's birth and coronation and of the battle of Pavia, and was at first confided under the name of Geronimo to foster parents of humble birth, living at a village near Madrid; but in 1554 he was transferred to the charge of Madalena da Ulloa, the wife of Don Luis de Quijada, and was brought up in ignorance of his parentage at Quijada's castle of Villagarcia not far from Valladolid. Charles V. in a codicil of his will recognized Geronimo as his son, and recommended him to the care of his successor. In September 1559 Philip II. of Spain publicly recognized the boy as a member of the royal family, and he was known at court as Don Juan de Austria. For three years he was educated at Alcalá, and had as school companions his nephews, the infante Don Carlos and Alexander Farnese, prince of Parma. With Don Carlos his relations were especially friendly. It had been Philip's intention that Don John should become a monk, but he showed a strong inclination for a soldier's career and the king yielded. In 1568 Don John was appointed to the command of a squadron of 33 galleys, and his first operations were against the Algerian pirates. His next services were (1569–70) against the rebel Moriscos in Granada. In 1571 a nobler field of action was opened to him. The conquest of Cyprus by the Turks had led the Christian powers of the Mediterranean to fear for the safety of the Adriatic. A league between Spain and Venice was effected by the efforts of Pope Pius V. to resist the Turkish advance to the west, and Don John was named admiral in chief of the combined fleets. At the head of 208 galleys, 6 galleasses and a number of smaller craft, Don John encountered the Turkish fleet at Lepanto on the 7th of October 1571, and gained a complete victory. Only forty Turkish vessels effected their escape, and it was computed that 35,000 of their men were slain or captured while 15,000 Christian galley slaves were released. Unfortunately, through divisions and jealousies between the allies, the fruits of one of the most decisive naval victories in history were to a great extent lost.

This great triumph aroused Don John's ambition and filled his imagination with schemes of personal aggrandizement. He thought of erecting first a principality in Albania and the Morea, and then a kingdom in Tunis. But the conclusion by Venice of a separate peace with the sultan put an end to the

[1] This incident earned for him among the Parisians the contemptuous nickname of "John of Lagny, who does not hurry."

league, and though Don John captured Tunis in 1573, it was again speedily lost. The schemes of Don John found no support in Philip II., who refused to entertain them, and even withheld from his half-brother the title of infante of Spain. At last, however, he was appointed (1576) governor-general of the Netherlands, in succession to Luis de Requesens. The administration of the latter had not been successful, the revolt headed by the prince of Orange had spread, and at the time of Don John's nomination the Pacification of Ghent appeared to have united the whole of the seventeen provinces of the Netherlands in determined opposition to Spanish rule and the policy of Philip II. The magic of Don John's name, and the great qualities of which he had given proof, were to recover what had been lost. He was, however, now brought into contact with an adversary of a very different calibre from himself. This was William of Orange, whose influence was now supreme throughout the Netherlands. The Pacification of Ghent, which was really a treaty between Holland and Zeeland and the other provinces for the defence of their common interests against Spanish oppression, had been followed by an agreement between the southern provinces, known as the Union of Brussels, which, though maintaining the Catholic religion and the king's authority, aimed at the expulsion of the Spanish soldiery and officials from the Netherlands. Confronted by the refusal of the states general to accept him as governor unless he assented to the conditions of the Pacification of Ghent, swore to maintain the rights and privileges of the provinces, and to employ only Netherlanders in his service, Don John, after some months of fruitless negotiations, saw himself compelled to give way. At Huey on the 12th of February 1577 he signed a treaty, known as the "Perpetual Edict," in which he complied with these terms. On the 1st of May he made his entry into Brussels, but he found himself governor-general only in name, and the prince of Orange master of the situation. In July he suddenly betook himself to Namur and withdrew his concessions. William of Orange forthwith took up his residence at Brussels, and gave his support to the archduke Matthias, afterwards emperor, whom the states-general accepted as their sovereign. Meanwhile Philip had sent large reinforcements to Don John under the leadership of his cousin Alexander Farnese. At the head of a powerful force Don John now suddenly attacked the patriot army at Gembloux, where, chiefly by the skill and daring of Farnese, a complete victory was gained on the 31st of January 1578. He could not, however, follow up his success for lack of funds, and was compelled to remain inactive all the summer, chafing with impatience at the cold indifference with which his appeals for the sinews of war were treated by Philip. His health gave way, he was attacked with fever, and on the 1st of October 1578, at the early age of 33, Don John died, heartbroken at the failure of all his soaring ambitions, and at the repeated proofs that he had received of the king his brother's jealousy and neglect.

See Sir W. Stirling Maxwell, *Don John of Austria 1547–1575* (1883) and the bibliography under PHILIP II. OF SPAIN.

JOHN, DON (1629–1679), of Austria, the younger, recognized as the natural son of Philip IV., king of Spain, his mother, Maria Calderon, or Calderona, being an actress. Scandal accused her of a prodigality of favours which must have rendered the paternity of Don John very dubious. He was, however, recognized by the king, received a princely education at Ocaña, and was amply endowed with commanderies in the military orders, and other forms of income. Don John was sent in 1647 to Naples—then in the throes of the popular rising first led by Masaniello—with a squadron and a military force, to support the viceroy. The restoration of royal authority was due rather to the exhaustion of the insurgents and the follies of their French leader, the duke of Guise, than to the forces of Don John. He was next sent as viceroy to Sicily, whence he was recalled in 1651 to complete the pacification of Catalonia, which had been in revolt since 1640. The excesses of the French, whom the Catalans had called in, had produced a reaction, and Don John had not much more to do than to preside over the final siege of Barcelona and the convention which terminated the revolt in October 1652. On both occasions he had played the peacemaker, and this sympathetic part, combined with his own pleasant manners and handsome person with bright eyes and abundant raven-black hair—a complete contrast to the fair complexions of the Habsburgs—made him a popular favourite. In 1656 he was sent to command in Flanders, in combination with the prince of Condé, then in revolt against his own sovereign. At the storming of the French camp at Valenciennes in 1656, Don John displayed brilliant personal courage at the head of a cavalry charge. When, however, he took a part in the leadership of the army at the Dunes in the battle fought against Turenne and the British forces sent over by Cromwell in 1658, he was completely beaten, in spite of the efforts of Condé, whose advice he neglected, and of the hard fighting of English Royalist exiles. During 1661 and 1662 he commanded against the Portuguese in Estremadura. The Spanish troops were ill-appointed, irregularly paid and untrustworthy, but they were superior in numbers and some successes were gained. If Don John had not suffered from the indolence which Clarendon, who knew him, considered his chief defect, the Portuguese would have been hard pressed. The greater part of the south of Portugal was overrun, but in 1663 the Portuguese were reinforced by a body of English troops, and were put under the command of the Huguenot Schomberg. By him Don John was completely beaten at Estremos. Even now he might not have lost the confidence of his father, if Queen Mariana, mother of the sickly infante Carlos, the only surviving legitimate son of the king, had not regarded the bastard with distrust and dislike. Don John was removed from command and sent to his commandery at Consuegra. After the death of Philip IV. in 1665 Don John became the recognized leader of the opposition to the government of Philip's widow, the queen regent. She and her favourite, the German Jesuit Nithard, seized and put to death one of his most trusted servants, Don José Malladas. Don John, in return, put himself at the head of a rising of Aragon and Catalonia, which led to the expulsion of Nithard on the 25th of February 1669. Don John was, however, forced to content himself with the viceroyalty of Aragon. In 1677, the queen mother having aroused universal opposition by her shameless favour for Fernando de Valenzuela, Don John was able to drive her from court, and establish himself as prime minister. Great hopes were entertained of his administration, but it proved disappointing and short. Don John died on the 17th of September 1679.

The career of Don John can be followed in J. C. Dunlop's *Memoirs of Spain 1621–1700* (Edin. 1834).

JOHN OF BEVERLEY, ST (d. 721), English bishop, is said to have been born of noble parents at Harpham, in the east riding of Yorkshire. He received his education at Canterbury under Archbishop Theodore, the statement that he was educated at Oxford being of course untrue. He was for a time a member of the Whitby community, under St Hilda, and in 687 he was consecrated bishop of Hexham and in 705 was promoted to the bishopric of York. He resigned the latter see in 718, and retired to a monastery which he had founded at Beverley, where he died on the 7th of May 721. He was canonized in 1037, and his feast is celebrated annually in the Roman Church on the 7th of May. Many miracles of healing are ascribed to John, whose pupils were numerous and devoted to him. He was celebrated for his scholarship as well as for his virtues.

The following works are ascribed to John by J. Bale: *Pro Luca exponendo* (an exposition of Luke); *Homiliae in Evangelia; Epistolae ad Herebaldum, Audenam, et Bertinum*; and *Epistolae ad Hyldam abbatissam*. See life by Folcard, based on Bede, in *Acta SS. Bolland.*; and J. Raine's *Fasti eboracenses* (1863).

JOHN OF THE CROSS, ST (1542–1591), Spanish mystic, was born at Ontiveros (Old Castile) on the 24th of June 1542. He became a professed Carmelite in 1564, and was ordained priest at Salamanca in 1567. He met with much opposition in his efforts to introduce the reforms proposed by St Theresa, and was more than once imprisoned. His real name was Juan de Yepez y Álvarez; in religion he was known as Juan de San Matias till 1568, when he adopted the name of Juan de la Cruz.

Broken by persecution, he was sent to the monastery of Ubeda, where he died in 1591; his *Obras espirituales* were published posthumously in 1618. He was beatified in 1674 and canonized on the 27th of December 1726. The lofty symbolism of his prose is frequently obscure, but his lyrical verses are distinguished for their rapturous ecstasy and beauty of expression.

Some of his poems have been translated with great success by Arthur Symons in *Images of Good and Evil*; the most convenient edition of his works, which have been frequently reprinted, is that contained in vol. xvi. of the *Biblioteca de autores españoles*.

JOHN OF ASIA (or OF EPHESUS), a leader of the Monophysite Syriac-speaking Church in the 6th century, and one of the earliest and most important of Syriac historians. Born at Āmid (Diarbekr) about 505, he was there ordained as a deacon in 529: but in 534 we find him in Palestine, and in 535 he passed to Constantinople. The cause of his leaving Āmid was probably either the great pestilence which broke out there in 534 or the furious persecution directed against the Monophysites by Ephraim (patriarch of Antioch 529–544) and Abraham (bishop of Āmid *c.* 520–541). In Constantinople he seems to have early won the notice of Justinian, one of the main objects of whose policy was the consolidation of Eastern Christianity as a bulwark against the heathen power of Persia. John is said by Barhebraeus (*Chron. eccl.* i. 195) to have succeeded Anthimus as Monophysite bishop of Constantinople, but this is probably a mistake.[1] Anyhow he enjoyed the emperor's favour until the death of the latter in 565 and (as he himself tells us) was entrusted with the administration of the entire revenues of the Monophysite Church. He was also sent, with the rank of bishop, on a mission for the conversion of such heathen as remained in Asia Minor, and informs us that the number of those whom he baptized amounted to 70,000. He also built a large monastery at Tralles on the hills skirting the valley of the Meander, and more than 90 other monasteries. Of the mission to the Nubians which he promoted, though he did not himself visit their country, an interesting account is given in the 4th book of the 3rd part of his *History*.[2] In 546 the emperor entrusted him with the task of rooting out the secret practice of idolatry in Constantinople and its neighbourhood. But his fortunes changed soon after the accession of Justin II. About 571 Paul of Asia, the orthodox or Chalcedonian patriarch, began (with the sanction of the emperor) a rigorous persecution of the Monophysite Church leaders, and John was among those who suffered most. He gives us a detailed account of his sufferings in prison, his loss of civil rights, &c., in the third part of his *History*. The latest events recorded are of the date 585, and the author cannot have lived much longer; but of the circumstances of his death nothing is known.

John's main work was his *Ecclesiastical History*, which covered more than six centuries, from the time of Julius Caesar to 585. It was composed in three parts, each containing six books. The first part seems to have wholly perished. The second, which extended from Theodosius II. to the 6th or 7th year of Justin II., was (as F. Nau has recently proved) [3] reproduced in full or almost in full, in John's own words, in the third part of the *Chronicle* which was till lately attributed to the patriarch Dionysius Telmaharensis, but is really the work of an unknown compiler. Of this second division of John's *History*, in which he had probably incorporated the so-called *Chronicle* of Joshua the Stylite, considerable portions are found in the British Museum MSS. Add. 14647 and 14650, and these have been published in the second volume of Land's *Anecdota Syriaca*. But the whole is more completely presented in the Vatican MS. (clxii.), which contains the third part of the *Chronicle* of pseudo-Dionysius. The third part of John's history, which is a detailed account of the ecclesiastical events which happened in 571–585, as well as of some earlier occurrences, survives in a fairly complete state in Add. 14640, a British Museum MS. of the 7th century. It forms a contemporary record of great value to the historian. Its somewhat disordered state, the want of chronological arrangement, and the occasional repetition of accounts of the same events are due, as the author himself informs us (ii. 50), to the work being almost entirely composed during the times of persecution. The same cause may account for the somewhat slovenly Syriac style. The writer claims to have treated his subject impartially, and though written from the narrow point of view of one to whom Monophysite "orthodoxy" was all-important, it is evidently a faithful reproduction of events as they occurred. This third part was edited by Cureton (Oxford, 1853), and was translated into English by R. Payne-Smith (Oxford, 1860) and into German by J. M. Schönfelder (Munich, 1862).

John's other known work was a series of *Biographies of Eastern Saints*, compiled about 569. These have been edited by Land in *Anecdota Syriaca*, ii. 1–288, and translated into Latin by Douwen and Land (Amsterdam, 1889). An interesting estimate of John as an ecclesiastic and author was given by the Abbé Duchesne in a memoir read before the five French Academies on the 25th of October 1892.

JOHN OF DAMASCUS (JOHANNES DAMASCENUS) (d. before 754), an eminent theologian of the Eastern Church, derives his surname from Damascus, where he was born about the close of the 7th century. His Arabic name was Mansur (the victor), and he received the epithet Chrysorrhoas (gold-pouring) on account of his eloquence. The principal account of his life is contained in a narrative of the 10th century, much of which is obviously legendary. His father Sergius was a Christian, but notwithstanding held a high office under the Saracen caliph, in which he was succeeded by his son. John is said to have owed his education in philosophy, mathematics and theology to an Italian monk named Cosmas, whom Sergius had redeemed from a band of captive slaves. About the year 730 he wrote several treatises in defence of image-worship, which the emperor, Leo the Isaurian, was making strenuous efforts to suppress.

Various pieces of evidence go to show that it was shortly after this date that he resolved to forsake the world, divided his fortune among his friends and the poor, and betook himself to the monastery of St Sabas, near Jerusalem, where he spent the rest of his life. After the customary probation he was ordained priest by the patriarch of Jerusalem. In his last years he travelled through Syria contending against the iconoclasts, and in the same cause he visited Constantinople at the imminent risk of his life during the reign of Constantine Copronymus. With him the "mysteries," the entire ritual, are an integral part of the Orthodox system, and all dogma culminates in image-worship. The date of his death is uncertain; it is probably about 752. John Damascenus is a saint both in the Greek and in the Latin Churches, his festival being observed in the former on the 29th of November and on the 4th of December, and in the latter on the 6th of May.

The works of Damascenus give him a foremost place among the theologians of the early Eastern Church, and, according to Dorner, he "remains in later times the highest authority in the theological literature of the Greeks." This is not because he is an original thinker but because he compiled into systematic form the scattered teaching of his theological predecessors. Several treatises attributed to him are probably spurious, but his undoubted works are numerous and embrace a wide range. The most important contains three parts under the general title Πηγὴ γνώσεως ("The Fountain of Knowledge"). The first part, entitled Κεφάλαια φιλοσοφικά, is an exposition and application of theology of Aristotle's *Dialectic*. The second, entitled Περὶ αἱρέσεων ("Of Heresies"), is a reproduction of the earlier work of Epiphanius, with a continuation giving an account of the heresies that arose after the time of that writer. The third part, entitled Ἔκδοσις ἀκριβὴς τῆς ὀρθοδόξου πίστεως ("An Accurate Exposition of the Orthodox Faith"), is much the most important, containing as it does a complete system of theology founded on the teaching of the fathers and church councils, from the 4th to the 7th century. It thus embodies the finished result of the theological thought of the early Greek Church. Through a Latin translation made by Burgundio of Pisa in the 12th century, it was well known to Peter Lombard and Aquinas, and in this way it influenced the scholastic theology of the West. Another well-known work is the *Sacra parallela*, a collection of biblical passages followed by illustrations drawn from other scriptural sources and from the fathers. There is much merit in his hymns and "canons" one of the latter is very familiar as the hymn "The Day of Resurrection, Earth tell it out abroad." John of Damascus has sometimes been called the "Father of Scholasticism," and the "Lombard of the Greeks," but these epithets are appropriate only in a limited sense.

The Christological position of John may be summed up in the following description: [4] "He tries to secure the unity of the two

[1] See Land, *Joannes Bischof von Ephesos*, pp. 57 seq.

[2] Cf. Land's Appendix (*op. cit.* 172–193).

[3] See *Bulletin critique*, 15th June and 25th Aug. 1896, and 25th Jan. 1897; *Journal asiatique*, 9th series, vol. viii. (1896) pp. 346 sqq. and vol. ix. (1897) p. 529; also *Revue de l'Orient chrétien, Suppl. trimestriel* (1897), pp. 41–54, 455–493; and compare Nöldeke in *Vienna Oriental Journal* (1896), pp. 160 sqq. The facts are briefly stated in Duval's *Littérature syriaque*, p. 192. A full analysis of this second part of John's history has been given by M. Nau.

[4] G. P. Fisher, *Hist. of Chr. Doctrine*, 159 seq. More fully in R. L. Ottley, *The Doctrine of the Incarnation*, ii. 138–146.

natures by relegating to the divine Logos the formative and controlling agency. It is not a human individual that the Logos assumes, nor is it humanity, or human nature in general. It is rather a potential human individual, a nature not yet developed into a person or hypostasis. The hypostasis through which this takes place is the personal Logos through whose union with this potential man, in the womb of Mary, the potential man acquires a concrete reality, an individual existence. He has, therefore, no hypostasis of himself but only in and through the Logos. It is denied that he is *non-hypostatic* (ἀνυπόστατος); it is affirmed that he is *en-hypostatic* (ἐνυπόστατος). Two natures may form a unity, as the body and soul in man. So man, both soul and body, is brought into unity with the Logos; there being then one hypostasis for both natures." There is an interchange of the divine and human attributes, a communication of the former which deifies the receptive and passive human nature. In Christ the human will has become the organ of the divine will. Thus while John is an adherent of Chalcedon and a dyothelite, the drift of his teaching is in the monophysite direction. "The Chalcedonian *Definition* is victorious, but Apollinaris is not overcome"; what John gives with the one hand he takes away with the other. On the question of the Atonement he regards the death of Christ as a sacrifice offered to God and not a ransom paid to the devil.

LITERATURE.—The *Life* of John of Damascus was written by John, patriarch of Jerusalem in the 10th century (Migne, *Patrol. Graec.*, xciv. 429–489). The works were edited by Le Quien (2 vols., fol., Paris, 1712) and form vols. 94 to 96 in Migne's Greek series. A monograph by J. Langen was published in 1879. A. Harnack's *History of Dogma* is very full (see especially vols. iii. and iv.; on the image-worship controversy, iv. 322 seq.), and so are the similar works of F. Loofs-Seeberg and A. Dorner. See also O. Bardenhewer's *Patrologie*, and other literature cited in F. Kattenbusch's excellent article in Hauck-Herzog, *Realencyklopädie*, vol. ix.

JOHN OF HEXHAM (*c.* 1160–1209), English chronicler, is known to us merely as the author of a work called the *Historia XXV. annorum*, which continues the *Historia regum* of Simeon of Durham and contains an account of English events 1130–1153. From the title, as given in the only manuscript, we learn John's name and the fact that he was prior of Hexham. It must have been between 1160 and 1209 that he held this position; but the date at which he lived and wrote cannot be more accurately determined. Up to the year 1139 he follows closely the history written by his predecessor, Prior Richard; thenceforward he is an independent though not a very valuable authority. He is best informed as to the events of the north country; his want of care, when he ventures farther afield, may be illustrated by the fact that he places in 1145 King Stephen's siege of Oxford, which really occurred in 1142. Even for northern affairs his chronology is faulty; from 1140 onwards his dates are uniformly one year too late. Prior Richard is not the only author to whom John is indebted; he incorporates in the annal of 1138 two other narratives of the battle of the Standard, one in verse by the monk Serlo, another in prose by Abbot Ailred of Rievaux; and also a poem, by a Glasgow clerk, on the death of Sumerled of the Isles.

The one manuscript of John's chronicle is a 13th century copy; MS. C. C. C. Cambridge, cxxxix. 8. The best edition is that of T. Arnold in *Symeonis monachi opera*, vol. ii. (Rolls Series, 1885). There is an English translation in J. Stevenson's *Church Historians of England*, vol. iv. (London, 1856). (H. W. C. D.)

JOHN OF IRELAND (JOHANNIS DE IRLANDIA), (*fl.* 1480), Scottish writer, perhaps of Lowland origin, was resident for thirty years in Paris and later a professor of theology. He was confessor to James IV. and also to Louis XI. of France, and was rector of Yarrow (de Foresta) when he completed, at Edinburgh, the work on which rests his sole claim as a vernacular writer. This book, preserved in MS. in the Advocates' Library, Edinburgh (MS. 18, 2, 8), and labelled "Johannis de Irlandia opera theologica," is a treatise in Scots on the wisdom and discipline necessary to a prince, especially intended for the use of the young James IV. The book is the earliest extant example of original Scots prose. It was still in MS. in 1910, but an edition was promised by the Scottish Text Society. In this book John refers to two other vernacular writings, one "of the commandementis and uthir thingis pretenand to the salvacioune of man," the other, "of the tabill of confessioune." No traces of these have been discovered. The author's name appears on the registers of the university of Paris and on the rolls of the Scottish parliaments, and he is referred to by the Scottish historians, Leslie and Dempster.

See the notices in John Lyden's Introduction to his edition of the *Complaynt of Scotlande* (1801), pp. 85 seq.; *The Scottish Antiquary*, xiii. 111–115 and xv. 1–14. Annotated extracts are given in Gregory Smith's *Specimens of Middle Scots* (1902).

JOHN OF RAVENNA. Two distinct persons of this name, formerly confused and identified with a third (anonymous) Ravennese in Petrarch's letters, lived at the end of the 14th and the beginning of the 15th century.

1. A young Ravennese born about 1347, who in 1364 went to live with Petrarch as secretary. In 1367 he set out to see the world and make a name for himself, returned in a state of destitution, but, growing restless again, left his employer for good in 1368. He is not mentioned again in Petrarch's correspondence, unless a letter "to a certain wanderer" (*vago cuidam*), congratulating him on his arrival at Rome in 1373, is addressed to him.

2. Son of Conversanus (Conversinus, Convertinus). He is first heard of (Nov. 17, 1368) as appointed to the professorship of rhetoric at Florence, where he had for some time held the post of notary at the courts of justice. This differentiates him from (1). He entered (*c.* 1370) the service of the ducal house of Padua, the Carraras, in which he continued at least until 1404, although the whole of that period was not spent in Padua. From 1375 to 1379 he was a schoolmaster at Belluno, and was dismissed as too good for his post and not adapted for teaching boys. On the 22nd of March 1382, he was appointed professor of rhetoric at Padua. During the struggle between the Carraras and Viscontis, he spent five years at Udine (1387–1392). From 1395–1404 he was chancellor of Francis of Carrara, and is heard of for the last time in 1406 as living at Venice. His history of the Carraras, a tasteless production in barbarous Latin, says little for his literary capacity; but as a teacher he enjoyed a great reputation, amongst his pupils being Vittorino da Feltre and Guarino of Verona.

3. Malpaghini (De Malpaghinis), the most important. Born about 1356, he was a pupil of Petrarch from a very early age to 1374. On the 19th of September 1397 he was appointed professor of rhetoric and eloquence at Florence. On the 9th of June 1412, on the re-opening of the studio, which had been shut from 1405 to 1411 owing to the plague, his appointment was renewed for five years, before the expiration of which period he died (May 1417). Although Malpaghini left nothing behind him, he did much to encourage the study of Latin; among his pupils was Poggio Bracciolini.

The local documents and other authorities on the subject will be found in E. T. Klette, *Beiträge zur Geschichte und Litteratur der italienischen Gelehrtenrenaissance*, vol. i. (1888); see also G. Voigt, *Die Wiederbelebung des klassischen Altertums*, who, however, identifies (1) and (2).

JOHN OF SALISBURY (*c.* 1115–1180), English author, diplomatist and bishop, was born at Salisbury between the years 1115 and 1120. Beyond the fact that he was of Saxon, not of Norman race, and applies to himself the cognomen of *Parvus*, "short," or "small," few details are known regarding his early life; but from his own statements it is gathered that he crossed to France about 1136, and began regular studies in Paris under Abelard, who had there for a brief period re-opened his famous school on Mont St Geneviève. After Abelard's retirement, John carried on his studies under Alberich of Reims and Robert of Melun. From 1138 to 1140 he studied grammar and the classics under William of Conches and Richard l'Evêque, the disciples of Bernard of Chartres, though it is still a matter of controversy whether it was in Chartres or not (cf. A. Clerval, *Les Écoles de Chartres au moyen âge*, 1895). Bernard's teaching was distinguished partly by its pronounced Platonic tendency, partly by the stress laid upon literary study of the greater Latin writers; and the influence of the latter feature is noticeable in all John of Salisbury's works. About 1140 he was at Paris studying theology under Gilbert de la Porrée, then under Robert Pullus and Simon of Poissy. In 1148 he resided at

Moûtiers la Celle in the diocese of Troyes, with his friend Peter of Celle. He was present at the council of Reims, presided over by Pope Eugenius III., and was probably presented by Bernard of Clairvaux to Theobald, archbishop of Canterbury, at whose court he settled, probably about 1150. Appointed secretary to Theobald, he was frequently sent on missions to the papal see. During this time he composed his greatest works, published almost certainly in 1159, the *Policraticus, sive de nugis curialium et de vestigiis philosophorum* and the *Metalogicus*, writings invaluable as storehouses of information regarding the matter and form of scholastic education, and remarkable for their cultivated style and humanist tendency. After the death of Theobald in 1161, John continued as secretary to Thomas Becket, and took an active part in the long disputes between that primate and his sovereign, Henry II. His letters throw light on the constitutional struggle then agitating the English world. With Becket he withdrew to France during the king's displeasure; he returned with him in 1170, and was present at his assassination. In the following years, during which he continued in an influential situation in Canterbury, but at what precise date is unknown, he drew up the *Life of Thomas Becket*. In 1176 he was made bishop of Chartres, where he passed the remainder of his life. In 1179 he took an active part in the council of the Lateran. He died at or near Chartres on the 25th of October 1180.

John's writings enable us to understand with much completeness the literary and scientific position of the 12th century. His views imply a cultivated intelligence well versed in practical affairs, opposing to the extremes of both nominalism and realism a practical common sense. His doctrine is a kind of utilitarianism, with a strong leaning on the speculative side to the modified literary scepticism of Cicero, for whom he had unbounded admiration. He was a humanist before the Renaissance, surpassing all other representatives of the school of Chartres in his knowledge of the Latin classics, as in the purity of his style, which was evidently moulded on that of Cicero. Of Greek writers he appears to have known nothing at first hand, and very little in translations. The *Timaeus* of Plato in the Latin version of Chalcidius was known to him as to his contemporaries and predecessors, and probably he had access to translations of the *Phaedo* and *Meno*. Of Aristotle he possessed the whole of the *Organon* in Latin; he is, indeed, the first of the medieval writers of note to whom the whole was known. Of other Aristotelian writings he appears to have known nothing.

The collected editions of the works are by J. A. Giles (5 vols., Oxford, 1848), and by Migne, in the *Patrologiae cursus*, vol. 199: neither accurate. The *Policraticus* was edited with notes and introductions by C. C. I. Webb, *Ioannis Saresberiensis episcopi Carnotensis Policratici* (Oxford, 1909), 2 vols. The most complete study of John of Salisbury is the monograph by C. Schaarschmidt, *Johannes Sarisberiensis nach Leben und Studien, Schriften und Philosophie*, 1862, which is a model of accurate and complete workmanship. See also the article in the *Dict. Nat. Biog.*

JOHN (1290–*c.* 1320), surnamed the Parricide, and called also John of Swabia, was a son of Rudolph II. count of Habsburg and Agnes daughter of Ottakar II. king of Bohemia, and consequently a grandson of the German king Rudolph I. Having passed his early days at the Bohemian court, when he came of age he demanded a portion of the family estates from his uncle, the German king Albert I. His wishes were not gratified, and with three companions he formed a plan to murder the king. On the 1st of May 1308 Albert in crossing the river Reuss at Windisch became separated from his attendants, and was at once attacked and killed by the four conspirators. John escaped the vengeance of Albert's sons, and was afterwards found in a monastery at Pisa, where in 1313 he is said to have been visited by the emperor Henry VII., who had placed him under the ban. From this time he vanishes from history. The character of John is used by Schiller in his play *Wilhelm Tell*.

JOHN, THE EPISTLES OF. The so-called epistles of John, in the Bible, are not epistles in the strict sense of the term, for the first is a homily, and encyclical or pastoral (as has been recognized since the days of Bretschneider and Michaelis), while the other two are brief notes or letters. Nor are they John's, if John means the son of Zebedee. The latter conclusion depends upon the particular hypothesis adopted with regard to the general Johannine problem, yet even when it is held that John the apostle (*q.v.*) survived to old age in Ephesus, the second and third epistles may be fairly ascribed (with Erasmus, Grotius, Credner, Bretschneider, Reuss, &c.) to John the presbyter[1], as several circles in the early church held ("Opinio a plerisque tradita," Jerome: *De vir. ill.* 18). An apostle indeed might call himself a presbyter (cf. 1 Pet. v. 1). But these notes imply no apostolic claim on the part of the author, and, although their author is anonymous, the likelihood is that their composition by the great Asiatic presbyter John led afterwards to their incorporation in the "instrumentum" of John the apostle's writings, when the prestige of the latter had obscured the former. All hypotheses as to their pseudonymity or composition by different hands may be dismissed. They would never have floated down the stream of tradition except on the support of some primitive authority. If this was not connected with John the apostle the only feasible alternative is to think of John the presbyter, for Papias refers to the latter in precisely this fashion (Euseb. *H.E.* iii. 39, 15; καὶ τοῦτο ὁ π. ἔλεγε).

The period of all three lies somewhere within the last decade of the 1st century and the first decade of the 2nd. No evidence is available to determine in what precise order they were written, but it will be convenient to take the two smaller notes before the larger. The so-called Second Epistle of John is one of the excommunicating notes occasionally despatched by early Christian leaders to a community (cf. 2 Cor. v. 9). The presbyter or elder warns a Christian community, figuratively addressed as "the elect lady" (cf. 13 with 1 Pet. i. 1; v, 13; also the plural of 6, 8, 10 and 13), against some itinerant (cf. *Didache* xi. 1–2) teachers who were promulgating advanced Docetic views (7) upon the person of Christ. The note is merely designed to serve (12) until the writer arrives in person. He sends greetings to his correspondents from some community in which he is residing at present (13), and with which they had evidently some connexion.

The note was familiar to Irenaeus[2] who twice (i. 16, 3, iii. 16, 8) cites 10–11, once quoting it from the first epistle by mistake, but no tradition has preserved the name of the community in question, and all opinions on the matter are guess-work. The reference to "all who know the truth" (ver. 1) is, of course, to be taken relatively (cf. Rev. ii. 23); it does not necessarily imply a centre like Antioch or Rome (Chapman). Whiston thought of Philadelphia, and probably it must have been one of the Asiatic churches.

The so-called Third Epistle of John belongs to the ἐπίστολαι συστάτικαι (2 Cor. iii. 1) of the early church, like Rom. xvi. It is a private note addressed by the presbyter to a certain Gaius, a member of the same community or house-church (9) as that to which 2 John is written. A local errorist, Diotrephes (9–10) had repudiated the authority of the writer and his party, threatening even to excommunicate Gaius and others from the church (cf. Abbott's *Diatessarica*, § 2258). With this opponent the writer promises (10) to deal sharply in person before very long. Meantime (14) he despatches the present note, in hearty appreciation of his correspondent's attitude and character.

The allusion in 9 (ἔγραψα) refers in all likelihood to the "second" epistle (so Ewald, Wolf, Salmon, &c.). In order to avoid the suggestion that it implied a lost epistle, ἄν was inserted at an early stage in the textual history of the note. If ἐκκλήσιας could be read in 12, Demetrius would be a presbyter; in any case, he is not to be identified with Demas (Chapman), nor is

[1] So Selwyn, *Christian Prophets* (pp. 133–145), Harnack, Heinrici (*Das Urchristenthum*, 1902, pp. 129 seq.), and von Soden (*History of Early Christian Literature*, pp. 445–446), after Renan (*L'Église chrétienne*, pp. 78 seq.). Von Dobschütz (*Christian Life in the Primitive Church*, pp. 218 seq.) and R. Knopf (*Das nachapost. Zeitalter*, 1905, pp. 32 seq., &c.) are among the most recent critics who ascribe all three epistles to the presbyter.

[2] On the early allusions to these brief notes, cf. Gregory: *The Canon and Text of the New Testament* (1907), pp. 131, 190 seq., Westcott's *Canon of the New Testament*, pp. 218 seq., 355, 357, 366, &c., and Leipoldt's *Geschichte d. neut. Kanons* (1907), i. pp. 66 seq., 78 seq., 99 seq., 151 seq., 192 seq., 232 seq.

there any reason to suppose (with Harnack)[1] that the note of 9 was written to, and suppressed by, him. What the presbyter is afraid of is not so much that his note would not be read (Ewald, Harnack), as that it would not be acted upon.

These notes, written originally on small sheets of papyrus, reveal the anonymous presbyter travelling (so Clem. Alex. *Quis dives salv.* xlii.) in his circuit or diocese of churches, and writing occasional pastoral letters, in which he speaks not only in his own name but in that of a coterie of like-minded Christians.[2] It is otherwise with the brochure or manifesto known as the "first epistle." This was written neither at the request of its readers nor to meet any definite local emergency, but on the initiative of its author (i. 4) who was evidently concerned about the effect produced upon the Church in general by certain contemporary phases of semi-gnostic teaching. The polemic is directed against a dualism which developed theoretically into docetic views of Christ's person (ii. 22, iv. 2, &c.), and practically into libertinism (ii. 4, &c.).[3] It is natural to think, primarily, of the churches in Asia Minor as the circle addressed, but all indications of date or place are absent, except those which may be inferred from its inner connexion with the Fourth Gospel.

The plan of the brochure is unstudied and unpremeditated, resembling a series of variations upon one or two favourite themes rather than a carefully constructed melody. Fellowship (κοινωνία) with God and man is its dominant note. After defining the essence of Christian κοινωνία (i. 1–3),[4] the writer passes on to its conditions (i. 5–ii. 17), under the antithesis of light and darkness. These conditions are twofold: (*a*) a sense of sin, which leads Christians to a sense of forgiveness[5] through Jesus Christ, (*b*) and obedience to the supreme law of brotherly love (cf. Ignat. *Ad Smyrn.* 6). If these conditions are unfulfilled, moral darkness is the issue, a darkness which spells ruin to the soul. This prompts the writer to explain the dangers of κοινωνία (ii. 18–29), under the antithesis of truth and falsehood, the immediate peril being a novel heretical view of the person of Christ. The characteristics of the fellowship are then developed (iii. 1–12), as sinlessness and brotherly love, under the antithesis of children of God (cf. ii. 29, "born of Him") and children of the devil. This brotherly love bulks so largely in the writer's mind that he proceeds to enlarge upon its main elements of confidence towards God (iii. 13–24), moral discernment (iv. 1–6), and assurance of union with God (iv. 7–21), all these being bound up with a true faith in Jesus as the Christ (v. 1–12).[8] A brief epilogue gives what is for the most part a summary (v. 13–21) of the leading ideas of the homily.[7]

Disjointed as the cause of the argument may seem, a close scrutiny of the context often reveals a subtle connexion between paragraphs which at first sight appear unlinked. Thus the idea of the κόσμος passing away (ii. 17) suggests the following sentences upon the nearness of the παρούσια (ii. 18 seq.), whose signs are carefully noted in order to reassure believers, and whose moral demands are underlined (ii. 28, iii. 3). Within this paragraph[8] even the abrupt mention of the χρίσμα has its genetical place (ii. 20). The heretical ἀντίχριστοι, it is implied, have no χρίσμα from God; Christians have (note the emphasis on ὑμεῖς), owing to their union with the true Χρίστος. Again, the genetic relation of iii. 4 seq. to what precedes becomes evident when we consider that the norm of Christian purity (iii. 3) is the keeping of the divine commandments, or conduct resembling Christ's on earth (iii. 3–ii. 4–6), so that the Gnostic[9] breach of this law not only puts a man out of touch with Christ (iii. 6 seq.), but defeats the very end of Christ's work, *i.e.* the abolition of sin (iii. 8). Thus iii. 7–10 resumes and completes the idea of ii. 29; the Gnostic is shown to be out of touch with the righteous God, partly because he will not share the brotherly love which is the expression of the righteousness, and partly because his claims to sinlessness render God's righteous forgiveness (i. 9) superfluous. Similarly the mention of the Spirit (iii. 24) opens naturally into a discussion of the decisive test for the false claims of the heretics or gnostic *illuminati* to spiritual powers and gifts (iv. 1 seq.); and, as this test of the genuine Spirit of God is the confession of Jesus Christ as really human and incarnate, the writer, on returning (in iv. 17 seq.) to his cardinal idea of brotherly love, expresses it in view of the incarnate Son (iv. 9),

[1] In his ingenious study (*Texte und Untersuchungen*, xv. 3), whose main contention is adopted by von Dobschütz and Knopf. On this view (for criticism see Belser in the *Tübing. Quartalschrift*, 1897, pp. 150 seq., Krüger in *Zeitschrift für die wiss. Theologie*, 1898, pp. 307–311, and Hilgenfeld: ibid. 316–320), Diotrephes was voicing a successful protest of the local monarchical bishops against the older itinerant authorities (cf. Schmiedel, *Ency. Bib.*, 3146–3147). As Wilamowitz-Moellendorf (*Hermes*, 1898, pp. 529 seq.) points out, there is a close connexion between ver. 11 and ver. 10. The same writer argues that, as the substitution of ἀγαπήτος for φίλτατος (ver. 1) "ist Schönrednerei und nicht vom besten Geschmacke," the writer adds ὃν ἐγὼ ἀγαπῶ ἐν ἀληθείᾳ.

[2] This is the force of the ἡμεῖς in 3 John 9–10 (cf. 1 John iv. 6, 14) "The truth" (3 John 3–5) seems to mean a life answering to the apostolic standard thus enforced and exemplified.

[3] Several of these traits were reproduced in the teaching of Cerinthus, others may have been directly Jewish or Jewish Christian. The opposition to the Messianic rôle of Jesus had varied adherents. The denial of the Virgin-birth, which also formed part of the system of Cerinthus, was met by anticipation in the stories of Matthew and Luke, which pushed back the reception of the spirit from the baptism to the birth, but the Johannine school evidently preferred to answer this heresy by developing the theory of the Logos, with its implicate of pre-existence.

[4] On the vexed question whether the language of this paragraph is purely spiritual or includes a realistic reference, cf. G. E. Findlay (*Expositor*, 1893, pp. 97 seq.), and Dr E. A. Abbott's recent study in *Diatessarica*, §§ 1615–1620. The writer is controverting the Docetic heresy, and at the same time keeping up the line of communications with the apostolic base.

[5] The universal range (ii. 2) ascribed to the redeeming work of Christ is directed against Gnostic dualism and the Ebionitic narrowing of salvation to Israel; only ἡμεῖς here denotes Christians in general, not Jewish Christians. On the answer to the Gnostic pride of perfectionism (i. 8), cf. Epict. iv. 12, 19. The emphasis on "you all" (ii. 20) hints at the Gnostic aristocratic system of degrees among believers, which naturally tended to break up brotherly love (cf. 1 Cor. viii. 1 seq.). The Gnostics also held that a spiritual seed cf. iii. 9) was implanted in man, as the germ of his higher development into the divine life; for the Valentinian idea cf. Iren. *Adv. Haer.* i. 64, and Tertull. *De anima*, 11 [haeretici] "nescio quod spiritale semen infulciunt animae"). Cf. the general discussions by Häring in *Theologische Abhandlungen C. von Weizsäcker gewidmet* (1892), pp. 188 seq., and Zahn in *Wanderungen durch Schrift u. Geschichte* (1892), pp. 3–74.

[6] Cf. Denney, *The Death of Christ* (1902), pp. 269–281. The polemical reference to Cerinthus is specially clear at this point. The death of Jesus was not that of a phantom, nor was his ministry from the baptism to the crucifixion that of a heavenly aeon which suffered nothing: such is the writer's contention. "In every case the historical is asserted, but care is taken that it shall not be materialized: a primacy is given to the spiritual. . . . Except through the historical, there is no Christianity at all, but neither is there any Christianity till the historical has been spiritually comprehended." The well-known interpolation of the three heavenly witnesses (v. 7) has now been proved by Karl Künstle (*Das Comma Johanneum*, 1905) to have originally come from the pen of the 4th century Spaniard, Priscillian, who himself denied all distinctions of person in the Godhead.

[7] On the "sin to death" (v. 16) cf. Jubilees xxi. 22, xxvi. 34 with Karl's *Johann. Studien* (1898), i. 97 seq. and M. Goguel's *La Notion johannique de l'esprit* (1902), pp. 147–153, for the general theology of the epistle. The conceptions of light and life are best handled by Grill in his *Untersuchungen über die Entstehung des vierten Evgliums* (1902), pp. 301 seq., 312 seq.

[8] In Preuschen's *Zeitschrift für die neutest. Wissenschaft* (1907), pp. 1–8, von Dobschütz tries to show that the present text of ii. 28–iii. 12 indicates a revision or rearrangement of an earlier text. Cludius (*Uransichten des Christentums*, Altona, 1808) had already conjectured that a Gnostic editor must have worked over a Jewish Christian document.

[9] Dr Alois Wurm's attempt (*Die Irrlehrer im ersten Johannesbriefe*, 1903) to read the references to errorists solely in the light of Jewish Christianity ignores or underrates several of the data. He is supported on the whole by Clemen, in Preuschen's *Zeitschrift* (1905), pp. 271–281. There is certainly an anti-Jewish touch, *e.g.* in the claim of iii. 1 (note the emphatic ἡμῖν), when one recollects the saying of Aqiba (Aboth iii. 12) and Philo's remark, καὶ γὰρ εἰ μήτω ἱκανοι θεοῦ παῖδες νομίζεσθαι γεγόναμεν, ἀλλά τοι τῆς ἀειδοῦς εἰκόνος αὐτοῦ, λόγου τοῦ ἱερωτ ἀτου· θεοῦ γὰρ εἰκὼν λόγος ὁ πρεσβύτατος (*De conf. ling.* 28). But the antithesis of John and Cerinthus, unlike that of Paul and Cerinthus (Epiph. *Haer.* xxviii.), is too well based in the tradition of the early Church to be dismissed as a later dogmatic reflection, and the internal evidence of this manifesto corroborates it clearly.

whose mission furnishes the proof of God's love as well as the example and the energy of man's (iv. 10 seq.). The same conception of the real humanity of Jesus Christ as essential to faith's being and well-being is worked out in the following paragraph (v. 1–12), while the allusion to eternal life (v. 11–12) leads to the closing recapitulation (v. 13–21) of the homily's leading ideas under this special category.

The curious idea, mentioned by Augustine (*Quaest. evang.* ii. 39), that the writing was addressed *ad Parthos*, has been literally taken by several Latin fathers and later writers (*e.g.* Grotius, Paulus, Hammond), but this title probably was a corruption of *ad sparsos* (Wetstein, Wegschneider) or of *πρὸς παρθένους* (Whiston: the Christians addressed as virgin, *i.e.* free from heresy), if not of *παρθένος*, as applied in early tradition to John the apostle. The circle for which the homily was meant was probably, in the first instance, that of the Fourth Gospel, but it is impossible to determine whether the epistle preceded or followed the larger treatise. The division of opinion on this point (cf. J. Moffat, *Historical New Testament*, 1901, p. 534) is serious, but the evidence for either position is purely subjective. There are sufficient peculiarities of style and conception[1] to justify provisionally some hesitation on the matter of the authorship. The epistle may have been written by a different author, or, from a more popular standpoint, by the author of the gospel, possibly (as some critics hold) by the author of John xxi. But *res lubrica, opinio incerta.*

It is unsafe to lay much stress upon the apparent reminiscence of iv. 2-3 (or of 2 John 7) in Polycarp, *ad Phil.* 7 reading ἐληλυθότα instead of ἐληλυθέναι), though, if a literary filiation is assumed, the probability is that Polycarp is quoting from the epistle, not vice versa (as Volkmar contends, in his *Ursprung d. unseren Evglien* 47 seq.). But Papias is said by Eusebius (*H. E.* iii. 39) to have used ἡ Ἰωάννου προτέρα (= ἡ Ἰωάννου πρώτη, v. 8?), *i.e.* the anonymous tract, which, by the time of Eusebius, had come to be known as 1 John, and we have no reason to suspect or reject this statement, particularly as Justin Martyr, another Asiatic writer, furnishes clear echoes of the epistle (*Dial.* 123). The tract must have been in circulation throughout Asia Minor at any rate before the end of the first quarter of the 2nd century.[2] The *terminus a quo* is approximately the period of the Fourth Gospel's composition, but there is no valid evidence to indicate the priority of either, even upon the hypothesis that both came from the same pen. The aim of each is too special to warrant the conclusion that the epistle was intended to accompany or to introduce the gospel.

LITERATURE.—The most adequate modern editions of the three epistles are by Westcott (3rd ed., 1892), H. J. Holtzmann (*Hand-Commentar zum N. T.*, 3rd ed., 1908), B. Weiss (in Meyer, 6th ed., 1900), Baljon (1904) and J. E. Belser (Freiburg im Breisgau, 1906). Briefer English notes are furnished by W. Alexander (*Speaker's Commentary*, 1881), W. H. Bennett (*Century Bible*, 1901) and H. P. Forbes (*Internat. Handbooks to New Testament*, vol. iv. 1907), while Plummer has a concise edition of the Greek text (in *The Cambridge Greek Testament*, 1886). Huther's edition (in Meyer, 1880) has been translated into English (Edinburgh, 1882), like Rothe's (1878) invaluable commentary on the first epistle (cf. *Expository Times*, vols. iii. v.). Otto Baumgarten's popular edition in *Die Schriften des N.T.* (1907) is, like that of Forbes, written from practically the same standpoint as Holtzmann's. The earlier commentaries of Alford (2nd ed., 1862), C. A. Wolf (2nd ed., 1885), Ewald (*Die Joh. Briefe übersetzt und erklaert*, Göttingen, 1861–1862), and Lücke (3rd ed., revised by Bertheau, 1856) still repay the reader, and among previous editions those of W. Whiston (*Comm. on St John's Three Catholic Epistles*, 1719) and de Wette (1837, &c.) contain material of real exegetical interest. Special editions of the first epistle have been published by John Cotton (London, 1655), Neander (1851; Eng. trans. New York, 1853), E. Haupt (1869; Eng. trans. 1879), Lias (1887) and C. Watson (1891, expository) among others. Special studies by F. H. Kern (*De epistolae Joh. consilio*, Tübingen, 1830), Erdmann (*Primae Joh. epistolae argumentum, nexus et consilium*, Berlin, 1855), C. E. Luthardt (De *primae Joannis epistolae compositione*, 1860), J. Stockmeyer (*Die Structur des ersten Joh. Briefes*, Basel, 1873) and, most elaborately, by H. J. Holtzmann (*Jahrb. für protest. Theologie*, 1881, pp. 690 seq.; 1882, pp. 128 seq., 316 seq., 460 seq.). To the monographs already noted in the course of this article may be added the essays by Wiesinger (*Studien und Kritiken*, 1899, pp. 575 seq.) and Wohlenberg ("Glossen zum ersten Johannisbrief," *Neue Kirchliche Zeitschrift*, 1902, pp. 233 seq., 632 seq.). On 2 John there are special commentaries and studies by Ritmeier (*De electa domina*, 1706), C. A. Kriegele (*De κυρία Johannis*, 1758), Carpzov (*Theolog. exegetica*, pp. 105–208), H. G. B. Müller (*Comment. in secundam epistolam Joannis*, 1783), C. Klug (*De authentia*, &c., 1823), J. Rendel Harris (*Expositor*, 6th series, 1901, pp. 194 seq.), W. M. Ramsay (ibid., pp. 354 seq.) and Gibbins (ibid., 1902, pp. 228–236), while, in addition to Hermann's *Comment. in Joan. ep. III.* (1778), P. L. Gachon (*Authenticité de la deuxième et troisième épîtres de Jean*, 1851), Poggel (*Der zweite und dritte Briefe d. Apostel Johannis*, 1896), and Chapman (*Journal of Theological Studies*, 1904, "The Historical Setting of the Second and the Third Epistles of St John"), have discussed both of the minor epistles together. General studies of all three are furnished by H. J. Holtzmann in Schenkel's *Bibel-Lexicon*, iii. 342–352, Sabatier (*Encyclop. des sciences religieuses*, vii. 177 seq.), S. Cox (*The Private Letters of St Paul and St John*, 1867), Farrar (*Early Days of Christianity*, chs. xxxi., xxxiv. seq.), Gloag (*Introduction to Catholic Epistles*, 1887, pp. 256–350), S. D. F. Salmond in Hasting's *Dict. Bible* (vol. ii), G. H. Gilbert (*The First Interpreters of Jesus*, 1901, pp. 301–332), and V. Bartlet (*The Apostolic Age*, 1900, pp. 418 seq.; from a more advanced critical position by Cone (*The Gospel and its Earliest Interpretations*, 1893, pp. 320–327), P. W. Schmiedel (*Ency. Bib.*, 2556–2562, also in a pamphlet, *Evangelium, Briefe, und Offenbarung des Johannes*, 1906; Eng. trans. 1908), J. Réville (*Le Quatrième Evangile*, 1901, pp. 49 seq.) and Pfleiderer (*Das Urchristentum*, 2nd ed., 1902, pp. 390 seq.). The problem of the epistles is discussed incidentally by many writers on the Fourth Gospel, as well as by writers on New Testament introduction like Zahn, Jacquier, Barth and Belser, on the Conservative side, and Hilgenfeld, Jülicher and von Soden on the Liberal. On the older Syriac version of 2 and 3 John, see Gwynn's article in *Hermathena* (1890), pp. 281 seq. On the general reception of the three epistles in the early Church, Zahn's paragraphs (in his *Geschichte d. N. T. Kanons*, i. 209 seq., 374 seq., 905 seq.; ii. 48 seq., 88 seq.) are the most adequate. (J. MT.)

JOHN, GOSPEL OF ST, the fourth and latest of the Gospels, in the Bible, and, next to that of St Mark, the shortest. The present article will first describe its general structure and more obvious contents; compare it with the Synoptic Gospels; and draw out its leading characteristics and final object. It will then apply the tests thus gained to the narratives special to this Gospel; and point out the book's special difficulties and limits, and its abiding appeal and greatness. And it will finally consider the questions of its origin and authorship.

Analysis of Contents.—The book's chief break is at xiii. 1, the solemn introduction to the feet-washing: all up to here reports Jesus' signs and apologetic or polemical discourses to the outer world; hence onwards it pictures the manifestation of His glory to the inner circle of His disciples. These two parts contain three sections each.

1. (i.) Introduces the whole work (i. 1–ii. 11). (*a*) The prologue, i. 1–18. The Logos existed before creation and time; was with the very God and was God; and all things were made through Him. For in this Logos is Life, and this Life is a Light which, though shining in darkness, cannot be suppressed by it. This true Light became flesh and tabernacled amongst us; and we beheld His glory, as of an Only-Begotten from the Father, full of grace and truth. John the Baptist testified concerning Him, the Logos-Light and Logos-Life incarnate; but this Logos alone, who is in the bosom of the Father, hath declared the very God. (*b*) The four days' work (i. 19–51). On the first three days John declares that he is not the Christ, proclaims Jesus to be the Christ, and sends his own disciples away to Jesus. On the fourth day, Jesus Himself calls Philip and Nathanael. (*c*) The seventh day's first manifestation of the Incarnate Light's glory (ii. 1–11); Jesus at Cana turns water into wine.

(ii.) Records the manifestations of the Light's and Life's glory and power to friend and foe (ii. 22–vi. 71). (*d*) Solemn inauguration of the Messianic ministry (ii. 12–iii. 21): cleansing of the Temple and prophecy of His resurrection; discourse to Nicodemus on baptismal regeneration. (*e*) Three scenes in Judea, Samaria, Galilee respectively (iii. 32–iv. 54): the Baptist's second testimony; Jesus' discourse

[1] "The style is not flowing and articulated; the sentences come like minute-guns, as they would drop from a natural Hebrew. The writer moves, indeed, amidst that order of religious ideas which meets us in the Fourth Gospel, and which was that of the Greek world wherein he found himself. He moves amongst these new ideas, however, not with the practised felicity of the evangelist, but with something of helplessness, although the depth and serene beauty of his spirit give to all he says an infinite impressiveness and charm" (M. Arnold; *God and the Bible*, ch. vi.).

[2] By the end of the 2nd century it appears to have been fairly well-known, to judge from Origen, Irenaeus (iii. 16, 8), and Clement of Alexandria (*Stran.* ii. 15, 66). In the Muratorian canon, which mentions two epistles of John, it seems to be reckoned (cf. Kuhn, *Das Murat. Fragment*, pp. 58 f.) as an appendix or sequel to the Fourth Gospel. The apparent traces of its use in Ignatius (cf. *Smyrn.* vi. 2 = 1 John iii. 17; *Smyrn.* vii = 1 John iii. 14, and *Eph.* xviii. = 1 John v. 6) seem too insecure, of themselves, to warrant any hypothesis of filiation.

with the woman at the well concerning the spiritual, universal character of the new religion; and cure of the ruler's son, the reward of faith in the simple word of Jesus. (*f*) Manifestation of Jesus as the vivifying Life-Logos and its contradiction in Judea, v.: the paralytic's cure. (*g*) Manifestation of Jesus as the heaven-descended living Bread and its contradiction in Galilee, vi.: multiplication of the loaves; walking on the waters; and His discourse on the holy Eucharist.

(iii.) Acute conflict between the New Light and the old darkness (vii.–xii). (*h*) Self-manifestation of the Logos-Light in the Temple (vii. 1–x. 39). Journey to the feast of tabernacles; invitation to the soul athirst to come to Him (the fountain of Life) and drink, and proclamation of Himself as the Light of the world; cure of the man born blind; allegory of the good shepherd. The allegory continued at the feast of the dedication. They strive to stone or to take Him. (*i*) The Logos-Life brings Lazarus to life; effects of the act (x. 40–xii. 50). Jesus withdraws beyond Jordan, and then comes to Bethany, His friend Lazarus being buried three days; proclaims Himself the Resurrection and the Life; and calls Lazarus back to life. Some who saw it report the act to the Pharisees; the Sanhedrim meets, Caiaphas declares that one man must die for the people, and henceforward they ceaselessly plan His death. Jesus withdraws to the Judaean desert, but soon returns, six days before Passover, to Bethany; Mary anoints Him, a crowd comes to see Him and Lazarus, and the hierarchs then plan the killing of Lazarus also. Next morning He rides into Jerusalem on an ass's colt. Certain Greeks desire to see Him: He declares the hour of His glorification to have come: "Now My soul is troubled. . . . Father, save Me from this hour. But for this have I come unto this hour: Father, glorify Thy Name." A voice answers, "I have glorified it and will glorify it again": some think that an angel spoke; but Jesus explains that this voice was not for His sake but for theirs. When lifted up from earth, He will draw all men to Himself; they are to believe in Him, the Light. The writer's concluding reflection: the small success of Jesus' activity among the Jews. Once again He cries: "I am come a Light into the world, that whoso believeth in Me should not abide in darkness."

2. The Logos-Christ's manifestation of His life and love to His disciples, during the last supper, the passion, the risen life (xiii.–xx).

(iv.) The Last Supper (xiii.–xvii.) (*j*) Solemn washing of the disciples' feet; the beloved disciple; designates the traitor; Judas goes forth, it is night (xiii. 1–30). (*k*) Last discourses, first series (xiii. 31–xiv. 31): the new commandment, the other helper; "Arise, let us go hence." Second series (xv. 1–xvi. 33): allegory of the true vine; "Greater love than this hath no man, that he lay down his life for his friend"; the world's hatred; the spirit of truth shall lead them into all truth; "I came forth from the Father and am come into the world, again I leave the world and go to the Father"; "Be of good cheer, I have overcome the world." (*l*) The high-priestly prayer (xvii). "Father, glorify Thy Son . . . with the glory which I had with Thee before the world was . . . that to as many as Thou hast given Him, He should give eternal life." "I pray for them, I pray not for the world. I pray also for them that shall believe in Me through their word, that they may be all one, as Thou Father art in Me, and I in Thee."

(v.) The Passion (xviii. xix.). (*m*) In the garden: the Roman soldiers come to apprehend Him, fall back upon the ground at His declaration "I am He." Peter and Malchus. (*n*) Before Annas at night and Caiaphas at dawn; Peter's denials (xviii. 12–27). (*o*) Before Pilate (xviii. 28–40). Jesus declares, "My kingdom is not of this world. I have come into the world that I may bear witness to the truth: everyone that is of the truth, heareth My voice"; Pilate asks sceptically "What is truth?" and the crowd prefers Barabbas. (*p*) The true king presented to the people as a mock-king; His rejection by the Jews and abandonment to them (xix. 1–16). (*q*) Jesus carries His cross to Golgotha, and is crucified there between two others; the cross's title and Pilate's refusal to alter it (xix. 17–22). (*r*) The soldiers cast lots upon His garments and seamless tunic; His mother with two faithful women and the beloved disciple at the cross's foot; His commendation of His mother and the disciple to each other; His last two sayings in deliberate accomplishment of scripture "I thirst," "It is accomplished." He gives up the spirit; His bones remain unbroken; and from His spear-lanced side blood and water issue (xix. 23–37). (*s*) The two nobles, Joseph of Arimathaea and Nicodemus, bind the dead body in a winding sheet with one hundred pounds of precious spices, and place it in a new monument in a near garden, since the sabbath is at hand.

(vi.) The risen Jesus, Lord and God (xx.). (*t*) At early dawn on the first day of the week, Mary Magdalen, finding the stone rolled away from the monument, runs to tell Peter and the beloved disciple that the Lord's body has been removed. Peter and the other disciple run to the grave; the latter, arriving first, enters only after Peter has gone in and noted the empty grave-clothes—enters and believes. After their departure, Mary sees two angels where His body had lain and turning away beholds Jesus standing, yet recognizes Him only when He addresses her. He bids her "Do not touch Me, for I have not yet ascended"; but to tell His brethren "I ascend to My Father and to your Father, to My God and to your God." And she does so. (*u*) Second apparition (xx. 19–23). Later on the same day, the doors being shut, Jesus appears amongst His disciples, shows them His (pierced) hands and side, and solemnly commissions and endows them for the apostolate by the words, "As the Father hath sent Me, so I send you," and by breathing upon them saying "Receive the Holy Spirit: whose sins ye remit, they are remitted to them; whose sins ye retain, they are retained." (*v*) Third apparition and culminating saying; conclusion of entire book (xx. 24–31). Thomas, who had been absent, doubts the resurrection; Jesus comes and submits to the doubter's tests. Thomas exclaims, "My Lord and my God"; but Jesus declares "Blessed are they that have not seen and yet have believed." "Now Jesus," concludes the writer, "did many other signs, . . . but these are written, that ye may believe that Jesus is the Christ, the Son of God, and that believing ye may have life in His name."

The above analysis is rough, since even distantly placed sections, indeed the two parts themselves, are interrelated by delicate complex references on and back. And it omits the account of the adulteress (vii. 53–viii. 11): (a valuable report of an actual occurrence which probably belonged to some primitive document otherwise incorporated by the Synoptists), because it is quite un-Johannine in vocabulary, style and character, intercepts the Gospel's thread wherever placed, and is absent from its best MSS. It also omits xxi. This chapter's first two stages contain an important early historical document of Synoptic type: Jesus' apparition to seven disciples by the Lake of Galilee and the miraculous draught of fishes; and Peter's threefold confession and Jesus' threefold commission to him. And its third stage, Jesus' prophecies to Peter and to the beloved disciple concerning their future, and the declaration "This is the disciple who testifies to these things and who has written them, and we know that his testimony is true," is doubtless written by the redactor of the previous two stages. This writer imitates, but is different from, the great author of the first twenty chapters.

Comparison with the Synoptists.—The following are the most obvious differences between the original book and the Synoptists. John has a metaphysical prologue; Matthew and Luke have historical prologues; and Mark is without any prologue. The earthly scene is here Judea, indeed Jerusalem, with but five breaks (vi. 1–vii. 10) is the only long one; whilst over two-thirds of each Synoptist deal with Galilee or Samaria. The ministry here lasts about three and a half years (it begins some months before the first Passover, ii. 13; the feast of v. 1 is probably a second; the third occurs vi. 4; and on the fourth, xi. 55, He dies): whilst the Synoptists have but the one Passover of His death, after barely a year of ministry. Here Jesus' teaching contains no parables and but three allegories, the Synoptists present it as parabolic through and through. Here not one exorcism occurs; in the Synoptists the exorcisms are as prominent as the cures and the preaching. John has, besides the passion, seven accounts in common with the Synoptists: the Baptist and Jesus, (i. 19–34); cleansing of the Temple (ii. 13–16); cure of the centurion's (ruler's) servant (son) (iv. 46–54); multiplication of the loaves (vi. 1–13); walking upon the water (vi. 16–21); anointing at Bethany, (xii. 1–8); entry into Jerusalem (xii. 12–16): all unique occurrences. In the first, John describes how the Baptist, on Jesus' approach, cries "Behold the Lamb of God, which taketh away the sins of the world"; and how he says "I saw the spirit descending upon Him, and I bore witness that this is the Son of God." But the Synoptists, especially Mark, give the slow steps in even the apostles' realization of Jesus' Messianic character; only at Caesarea Philippi Simon alone, for the first time, clearly discerns it, Jesus declaring that His Father has revealed it to Him, and yet Simon is still scandalized at the thought of a suffering Messiah (Mark viii. 28–34). Only some two weeks before the end is He proclaimed Messiah at Jericho (x. 46–48); then in Jerusalem, five days before dying for this upon the cross (xi. 1–10, xv. 37). As to the Baptist, in all three Synoptists, he baptizes Jesus, and in Mark i. 10, 11 it is Jesus who sees the Spirit descending upon Himself on His emerging from beneath the water, and it is to Himself that God's voice is addressed; in John, Jesus' baptism is ignored, only the Spirit remains hovering above Him, as a sign for the Baptist's instruction. And in Matt. xi. 2–6, the Baptist, several months after the Jordan scene, sends from his prison to ascertain if Jesus is indeed the Messiah; in John, the Baptist remains at large so as again (iii. 22–36) to proclaim Jesus' heavenly provenance. The cleansing of the Temple occurs in the Synoptists four days before His death, and instantly determines the hierarchs to seek His destruction (Mark xi. 15–18); John puts it three years back, as an appropriate frontispiece to His complete claims and work.

The passion-narratives reveal the following main differences. John omits, at the last supper, its central point, the great historic act of the holy eucharist, carefully given by the Synoptists and St Paul, having provided a highly doctrinal equivalent in the discourse on the living bread, here spoken by Jesus in Capernaum over a year before the passion (vi. 4), the day after the multiplication of the loaves. This transference is doubtless connected with the change in the relations between the time of the Passover meal and that of His death: in the Synoptists, the Thursday evening's supper is a true Passover meal, the lamb had been slain that afternoon and Jesus dies some twenty-four hours later; in John, the supper is not a Passover-meal, the Passover is celebrated on Friday, and Jesus, proclaimed here from the first, the Lamb of God, dies whilst the paschal lambs, His prototypes, are being slain. The scene in the garden is without the agony of Gethsemane; a faint echo of this historic anguish appears in the scene with the Greeks four days earlier, and even that peaceful

appeal to, and answer of, the Father occurs only for His followers' sakes. In the garden Jesus here Himself goes forth to meet His captors, and these fall back upon the ground, on His revealing Himself as Jesus of Nazareth. The long scenes with Pilate culminate in the great sayings concerning His kingdom not being of this world and the object of this His coming being to bear witness to the truth, thus explaining how, though affirming kingship (Mark xv. 2) He could be innocent. In John He does not declare Himself Messiah before the Jewish Sanhedrin (Mark xiv. 61) but declares Himself supermundane regal witness to the truth before the Roman governor. The scene on Calvary differs as follows: In the Synoptists the soldiers divide His garments among them, casting lots (Mark xv. 24); in John they make four parts of them and cast lots concerning His seamless tunic, thus fulfilling the text, "They divided My garments among them and upon My vesture they cast lots": the parallelism of Hebrew poetry, which twice describes one fact, being taken as witnessing to two, and the tunic doubtless symbolizing the unity of the Church, as in Philo the high priest's seamless robe symbolizes the indivisible unity of the universe, expressive of the Logos (*De ebrietate*, xxi.). In the Synoptists, of His followers only women—the careful, seemingly exhaustive lists do not include His mother—remain, looking on "from afar" (Mark xv. 40); in John, His mother stands with the two other Marys and the beloved disciple beneath the cross, and "from that hour the disciple took her unto his own (house)," while in the older literature His mother does not appear in Jerusalem till just before Pentecost, and with "His brethren" (Acts i. 14). And John alone tells how the bones of the dead body remained unbroken, fulfilling the ordinance as to the paschal lamb (Exod. xii. 46) and how blood and water flow from His spear-pierced side: thus the Lamb "taketh away the sins of the world" by shedding His blood which "cleanseth us from every sin"; and "He cometh by water and blood," historically at His baptism and crucifixion, and mystically to each faithful soul in baptism and the eucharist. The story of the risen Christ (xx.) shows dependence on and contrast to the Synoptic accounts. Its two halves have each a negative and a positive scene. The empty grave (1–10) and the apparition to the Magdalen (11–18) together correspond to the message brought by the women (Matt. xxviii. 1–10); and the apparition to the ten joyously believing apostles (19–23) and then to the sadly doubting Thomas (24–29) together correspond to Luke xxiv. 36–43, where the eleven apostles jointly receive one visit from the risen One, and both doubt and believe, mourn and rejoice.

The Johannine discourses reveal differences from the Synoptists so profound as to be admitted by all. Here Jesus, the Baptist and the writer speak so much alike that it is sometimes impossible to say where each speaker begins and ends: *e.g.* in iii. 27–30, 31–36. The speeches dwell upon Jesus' person and work, as we shall find, with a didactic directness, philosophical terminology and denunciatory exclusiveness unmatched in the Synoptist sayings. "This is eternal life, that they may know Thee the only true God and Jesus Christ whom Thou hast sent" (xvii. 3), is part of the high-priestly prayer; yet Père Calmes, with the papal censor's approbation, says, "It seems to us impossible not to admit that we have here dogmatic developments explicable rather by the evangelist's habits of mind than by the actual words of Jesus." "I have told you of earthly things and you believe not; how shall ye believe if I tell you of heavenly things?" (iii. 12), and "Ye are from beneath, I am from above" (viii. 23), give us a Plato-(Philo-) like upper, "true" world, and a lower, delusive world. "Ye shall die in your sins" (viii. 21); "ye are from your father the devil" (viii. 44); "I am the door of the sheep, all they that came before Me are thieves and robbers," (x. 7, 8); "they have no excuse for their sin" (xv. 22)—contrast strongly with the yearning over Jerusalem: "The blood of Abel the just" and "the blood of Zacharias son of Barachias" (Matt. xxiii. 35–37; and "Father, forgive them; for they know not what they do" Luke xxiii. 34). And whilst the Synoptist speeches and actions stand in loose and natural relation to each other, the Johannine deeds so closely illustrate the sayings that each set everywhere supplements the other: the history itself here tends to become one long allegory. So with the woman at the well and "the living water"; the multiplication of the loaves and "the living Bread"; "I am the Light of the world" and the blind man's cure; "I am the Resurrection and the Life" and the raising of Lazarus; indeed even with the Temple-cleansing and the prophecy as to His resurrection, Nicodemus's night visit and "men loved the darkness rather than the light," the cure of the inoperative paralytic and "My Father and I work hitherto," the walking phantom-like upon the waters (John vi. 15–21; Mark vi. 49), and the declaration concerning the eucharist, "the spirit it is that quickeneth" (John vi. 63). Only some sixteen Synoptic sayings reappear here; but we are given some great new sayings full of the Synoptic spirit.

Characteristics and Object.—The book's character results from the continuous operation of four great tendencies. There is everywhere a readiness to handle traditional, largely historical, materials with a sovereign freedom, controlled and limited by doctrinal convictions and devotional experiences alone. There is everywhere the mystic's deep love for double, even treble meanings: *e.g.* the "again" in iii. 2, means, literally, "from the beginning," to be physically born again; morally, to become as a little child; mystically, "from heaven, God," to be spiritually renewed. "Judgment" (κρίσις), in the popular sense, condemnation, a future act; in the mystical sense, discrimination, a present fact. There is everywhere the influence of certain central ideas, partly identical with, but largely developments of, those less reflectively operative in the Synoptists. Thus six great terms are characteristic of, or even special to, this Gospel. "The Only-Begotten" is most nearly reached by St Paul's term "His own Son." The "Word," or "Logos," is a term derived from Heracleitus of Ephesus and the Stoics, through the Alexandrian Jew Philo, but conceived here throughout as definitely personal. "The Light of the World" the Jesus-Logos here proclaims Himself to be; in the Synoptists He only declares His disciples to be such. "The Paraclete," as in Philo, is a "helper," "intercessor"; but in Philo he is the intelligible universe, whilst here He is a self-conscious Spirit. "Truth," "the truth," "to know," have here a prominence and significance far beyond their Synoptic or even their Pauline use. And above all stand the uses of "Life," "Eternal Life." The living ever-working Father (vi. 57; v. 17) has a Logos in whom is Life (i. 4), an ever-working Son (v. 17), who declares Himself "the living Bread," "the Resurrection and the Life," "the Way, the Truth and the Life" (vi. 51; xi. 25; xiv. 16): so that Father and Son quicken whom they will (v. 21); the Father's commandment is life everlasting, and Jesus' words are spirit and life (xii. 50; vi. 63, 68). The term, already Synoptic, takes over here most of the connotations of the "Kingdom of God," the standing Synoptic expression, which appears here only in iii. 3–5; xviii. 36. Note that the term "the Logos" is peculiar to the Apocalypse (xix. 13), and the prologue here; but that, as Light and Life, the Logos-conception is present throughout the book. And thus there is everywhere a striving to contemplate history *sub specie aeternitatis* and to englobe the successiveness of man in the simultaneity of God.

Narratives Peculiar to John.—Of his seven great symbolical, doctrinally interpreted "signs," John shares three, the cure of the ruler's son, the multiplication of the loaves, the walking on the waters, with the Synoptists: yet here the first is transformed almost beyond recognition; and the two others only typify and prepare the eucharistic discourse. Of the four purely Johannine signs, two—the cures of the paralytic (v. 1–16), and of the man born blind (ix. 1–34)—are, admittedly, profoundly symbolical. In the first case, the man's physical and spiritual lethargy are closely interconnected and strongly contrasted with the ever-active God and His Logos. In the second case there is also the closest parallel between physical blindness cured, and spiritual darkness dispelled, by the Logos-Light as described in the accompanying discourse. Both narratives are doubtless based upon actual occurrences—the cures narrated in Mark ii., iii., viii., x. and scenes witnessed by the writer in later times; yet here they do but picture our Lord's spiritual work in the human soul achieved throughout Christian history. We cannot well claim more than these three kinds of reality for the first and the last signs, the miracle at Cana and the resurrection of Lazarus.

For the marriage-feast sign yields throughout an allegorical meaning. Water stands in this Gospel for what is still but symbol; thus the water-pots serve here the external Jewish ablutions—old bottles which the "new wine" of the Gospel is to burst (Mark ii. 22). Wine is the blood of the new covenant, and He will drink the fruit of the vine new in the Kingdom of God (Mark xiv. 23–25); the vineyard where He Himself is the true Vine (Mark xii. 1; John xv. 1). And "the kingdom of heaven is like to a marriage-feast" (Matt. xxii. 2); Jesus is the Bridegroom (Mark ii. 19); "the marriage of the Lamb has come" (Rev. xix. 7). "They have no wine": the hopelessness of the old conditions is announced here by the true Israel, the Messiah's spiritual mother, the same "woman" who in Rev. xii. 2, 5 "brought forth a man-child who was to rule all nations." Cardinal Newman admits that the latter woman "represents the church, this is the real or direct sense"; yet as her man-child

is certainly the Messiah, this church must be the faithful Jewish church. Thus also the "woman" at the wedding and beneath the cross stands primarily for the faithful Old Testament community, corresponding to the beloved disciple, the typical New Testament follower of her Son, the Messiah: in each case the devotional accommodation to His earthly mother is equally ancient and legitimate. He answers her "My hour is not yet come," *i.e.* in the symbolic story, the moment for working the miracle; in the symbolized reality, the hour of His death, condition for the spirit's advent; and "what is there between Me and thee?" *i.e.* "My motives spring no more from the old religion," words devoid of difficulty, if spoken thus by the Eternal Logos to the passing Jewish church. The transformation is soon afterwards accomplished, but in symbol only; the "hour" of the full sense is still over three years off. Already Philo says "the Logos is the master of the spiritual drinking-feast," and "let Melchisedeck"—the Logos—"in lieu of water offer wine to souls and inebriate them" (*De somn.* ii. 37; *Legg. all.* iii. 26). But in John this symbolism figures a great historic fact, the joyous freshness of Jesus' ministerial beginnings, as indicated in the sayings of the Bridegroom and of the new wine, a freshness typical of Jesus' ceaseless renovation of souls.

The raising of Lazarus, in appearance a massive, definitely localized historical fact, requires a similar interpretation, unless we would, in favour of the direct historicity of a story peculiar to a profoundly allegorical treatise, ruin the historical trustworthiness of the largely historical Synoptists in precisely their most complete and verisimilar part. For especially in Mark, the passing through Jericho, the entry into Jerusalem, the Temple-cleansing and its immediate effect upon the hierarchs, their next day's interrogatory, "By what authority doest thou these things?" *i.e.* the cleansing (x. 46–xi. 33), are all closely interdependent and lead at once to His discussions with His Jerusalem opponents (xii. xiii.), and to the anointing, last supper, and passion (xiv. xv). John's last and greatest symbolic sign replaces those historic motives, since here it is the raising of Lazarus which determines the hierarchs to kill Jesus (xi. 46–52), and occasions the crowds which accompany and meet Him on His entry (xii. 9–19). The intrinsic improbabilities of the narrative, if taken as direct history, are also great: Jesus' deliberate delay of two days to secure His friend's dying, and His rejoicing at the death, since thus He can revivify His friend and bring His disciples to believe in Himself as the Life; His deliberate weeping over the death which He has thus let happen, yet His anger at the similar tears of Lazarus's other friends; and His praying, as He tells the Father in the prayer itself, simply to edify the bystanders: all point to a doctrinal allegory. Indeed the climax of the whole account is already reached in Jesus' great saying: "I am the Resurrection and the Life; he that believeth in Me . . . shall not die for ever," and in Martha's answer: "I believe that Thou art the Christ, the Son of God, who hast come into the world" (xi. 26, 27); the sign which follows is but the pictorial representation of this abiding truth. The materials for the allegory will have been certain Old Testament narratives, but especially the Synoptic accounts of Jesus' raisings of Jairus's daughter and of the widow's son (Mark v.; (Luke vii.). Mary and Martha are admittedly identical with the sisters in Luke x. 38–42; and already some Greek fathers connect the Lazarus of this allegory with the Lazarus of the parable (Luke xvi. 19–31). In the parable Lazarus returns not to earth, since Abraham foresees that the rich man's brethren would disbelieve even if one rose from the dead; in the corresponding allegory, Lazarus does actually return to life, and the Jews believe so little as to determine upon killing the very Life Himself.

Special Difficulties and Special Greatness.—The difficulties, limitations and temporary means special to the book are closely connected with its ready appeal and abiding power; let us take both sets of things together, in three couples of interrelated price and gift.

The book's method and form are pervadingly allegorical; its instinct and aim are profoundly mystical. Now from Philo to Origen we have a long Hellenistic, Jewish and Christian application of that all-embracing allegorism, where one thing stands for another and where no factual details resist resolution into a symbol of religious ideas and forces. Thus Philo had, in his life of Moses, allegorized the Pentateuchal narratives so as to represent him as mediator, saviour, intercessor of his people, the one great organ of revelation, and the soul's guide from the false lower world into the upper true one. The Fourth Gospel is the noblest instance of this kind of literature, of which the truth depends not on the factual accuracy of the symbolizing appearances but on the truth of the ideas and experiences thus symbolized. And Origen is still full of spontaneous sympathy with its pervading allegorism. But this method has lost its attraction; the Synoptists, with their rarer and slighter pragmatic rearrangements and their greater closeness to our Lord's actual words, deeds, experiences, environment, now come home to us as indefinitely richer in content and stimulative appeal. Yet mysticism persists, as the intuitive and emotional apprehension of the most specifically religious of all truths, viz. the already full, operative existence of eternal beauty, truth and goodness, of infinite Personality and Spirit independently of our action, and not, as in ethics, the simple possibility and obligation for ourselves to produce such-like things. And of this elemental mode of apprehension and root-truth, the Johannine Gospel is the greatest literary document and incentive extant: its ultimate aim and deepest content retain all their potency.

The book contains an intellectualist, static, determinist, abstractive trend. In Luke x. 25–28, eternal life depends upon loving God and man; here it consists in knowing the one true God and Christ whom He has sent. In the Synoptists, Jesus "grows in favour with God and man," passes through true human experiences and trials, prays alone on the mountain-side, and dies with a cry of desolation; here the Logos' watchword is "I am," He has deliberately to stir up emotion in Himself, never prays for Himself, and in the garden and on the cross shows but power and self-possession. Here we find "ye cannot hear, cannot believe, because ye are not from God, not of My sheep" (viii. 47, x. 26); "the world cannot receive the spirit of truth" (xiv. 17). Yet the ethical current appears here also strongly: "he who doeth the truth, cometh to the light" (iii. 21), "if you love Me, keep My commandments" (xiv. 15). Libertarianism is here: "the light came, but men loved the darkness better than the light," "ye will not come to Me" (iii. 19, v. 40); hence the appeal "abide in Me"—the branch can cease to be in Him the Vine (xv. 4, 2). Indeed even those first currents stand here for the deepest religious truths, the prevenience of God and man's affinity to Him. "Not we loved God (first), but He (first) loved us"; "let us love Him, because He first loved us" (1 John iv. 10, 19); "no man can come to Me, unless the Father draw him" (vi. 44), a drawing which effects a hunger and thirst for Christ and God (iv. 14, vi. 35). Thus man's spirit, ever largely but potential, can respond actively to the historic Jesus, because already touched and made hungry by the all-actual Spirit-God who made that soul akin unto Himself.

The book has an outer protective shell of acutely polemical and exclusive moods and insistences, whilst certain splendid Synoptic breadths and reconciliations are nowhere reached; but this is primarily because it is fighting, more consciously than they, for that inalienable ideal of all deepest religion, unity, even external and corporate, amongst all believers. The "Pneumatic" Gospel comes thus specially to emphasize certain central historical facts; and, the most explicitly institutional and sacramental of the four, to proclaim the most universalistic and developmental of all Biblical sayings. Here indeed Jesus will not pray for the world (xvii. 9); "ye shall die in your sins," He insists to His opponents (viii. 44, 24); it is the Jews generally who appear throughout as such; nowhere is there a word as to forgiving our enemies; and the commandment of love is designated by Jesus as His, as new, and as binding the disciples to "love one another" within the community to which He gives His "example" (xv. 12, xiii. 34, 15). In the Synoptists, the

disciples' intolerance is rebuked (Mark ix. 38–41); Jesus' opposition is everywhere restricted to the Pharisees and the worldly Sadducees; He ever longs for the conversion of Jerusalem; the great double commandment of love is proclaimed as already formulated in the Mosaic law (Mark xii. 28–34); the neighbour to be thus loved and served is simply any and every suffering fellow-man; and the pattern for such perfect love is found in a schismatical Samaritan (Luke x. 25–37). Yet the deepest strain here is more serenely universalist even than St Paul, for here Jesus says: "God so loved the world, that He gave His only begotten Son, that whosoever believeth in Him should . . . have everlasting life" (iii. 16). True, the great prologue passage (i. 9) probably reads "He was the true Light coming into the world, that enlighteneth every man," so that the writer would everywhere concentrate his mind upon the grace attendant upon explicit knowledge of the incarnate, historic Christ. Yet Christian orthodoxy, which itself has, all but uniformly, understood this passage of the spiritual radiation throughout the world of the Word before His incarnation, has been aided towards such breadth as to the past by the Johannine outlook into the future. For, in contrast to the earliest Synoptic tradition, where the full Christian truth and its first form remain undistinguished, and where its earthly future appears restricted to that generation, in John the Eternal Life conception largely absorbs the attention away from all successiveness; Jesus' earthly life does not limit the religion's assimilation of further truth and experience: "I have many things to tell you, but you cannot bear them now," "the Father will give you another Helper, the spirit of truth, who will abide with you for ever" (xvi. 12, xiv. 15). This universalism is not simply spiritual; the external element, presupposed in the Synoptists as that of the Jewish church within which Jesus' earthly life was spent, is here that of the now separate Christian community: He has other sheep not of this fold—them also He must bring, there will be one fold, one shepherd; and His seamless tunic, and Peter's net which, holding every kind of fish, is not rent, are symbols of this visible unity. Ministerial gradations exist in this church; Jesus begins the feet-washing with Peter, who alone speaks and is spoken to; the beloved disciple outruns Peter to Jesus' monument, yet waits to go in till Peter has done so first; and in the appendix the treble pastoral commission is to Peter alone: a Petrine pre-eminence which but echoes the Synoptists. And sacramentalism informs the great discourses concerning rebirth by water and the spirit, and feeding on the Living Bread, Jesus' flesh and blood, and the narrative of the issue of blood and water from the dead Jesus' side. Indeed so severe a stress is laid upon the explicitly Christian life and its specific means, that orthodoxy itself interprets the rebirth by water and spirit, and the eating the flesh and drinking the blood to which entrance into the Kingdom and possession of interior life are here exclusively attached, as often represented by a simple sincere desire and will for spiritual purification and a keen hunger and thirst for God's aid, together with such cultual acts as such souls can know or find, even without any knowledge of the Christian rites. Thus there is many "a pedagogue to Christ," and the Christian visible means and expressions are the culmination and measure of what, in various degrees and forms, accompanies every sincerely striving soul throughout all human history.

Origin and Authorship.—The question as to the book's origin has lost its poignancy through the ever-increasing recognition of the book's intrinsic character. Thus the recent defenders of the apostolic authorship, the Unitarian James Drummond (1903), the Anglican William Sanday (1905), the Roman Catholic Theodore Calmes (1904), can tell us, the first, that "the evangelist did not aim at an illustrative picture of what was most characteristic of Jesus"; the second, that "the author sank into his own consciousness and at last brought to light what he found there"; the third, that "the Gospel contains an entire theological system," "history is seen through the intervening dogmatic development," "the Samaritan woman is . . . a personification," "the behaviour of the Greeks is entirely natural in such a book." We thus get at cross-purposes with this powerful, profound work. Only some such position as Abbé Loisy's critical summing up (1903) brings out its specific greatness. "What the author was, his book, in spite of himself, tells us to some extent: a Christian of Judeo-Alexandrine formation; a believer without, apparently, any personal reminiscence of what had actually been the life, preaching and death of Jesus; a theologian far removed from every historical preoccupation, though he retains certain principal facts of tradition without which Christianity would evaporate into pure ideas; and a seer who has lived the Gospel which he propounds." "To find his book beautiful and true, we need but take it as it is and understand it." "The church, which has never discussed the literary problem of this Gospel, in nowise erred as to its worth."

Several traditional positions have indeed been approximately maintained or reconquered against the critics. As to the Gospel's date, critics have returned from 160–170 (Baur), 150 (Zeller), 130 (Keim), to 110–115 (Renan) and 80–110 (Harnack): since Irenaeus says its author lived into the times of Trajan (90–117), a date somewhere about 105 would satisfy tradition. As to the place, the critics accept proconsular Asia with practical unanimity, thus endorsing Irenaeus's declaration that the Gospel was published in Ephesus. As to the author's antecedents, critics have ceased to hold that he could not have been a Jew-Christian (so Bretschneider, 1820), and admit (so Schmiedel, (1901) that he must have been by birth a Jew of the Dispersion, or the son of Christian parents who had been such Jews. And as to the vivid accuracy of many of his topographical and social details, the predominant critical verdict now is that he betrays an eye-witness's knowledge of the country between Sichem and Jordan and as to Jerusalem; he will have visited these places, say in 90, or may have lived in Jerusalem shortly before its fall. But the reasons against the author being John the Zebedean or any other eyewitness of Jesus' earthly life have accumulated to a practical demonstration.

As to the external evidence for the book's early date, we must remember that the Epistle to the Hebrews and the Book of Revelation, though admittedly earlier, are of the same school, and, with the great Pauline Epistles, show many preformations of Johannine phrases and ideas. Other slighter prolusions will have circulated in that Philonian centre Ephesus, before the great Gospel englobed and superseded them. Hence the precariousness of the proofs derived from more or less close parallels to Johannine passages in the apostolic fathers. Justin Martyr (163–167) certainly uses the Gospel; but his conception of Jesus' life is so strictly Synoptic that he can hardly have accepted it as from an apostolic eyewitness. Papias of Hierapolis, in his *Exposition of the Lord's Sayings* (145–160) appears nowhere to have mentioned it, and clearly distinguishes between "what Andrew, Peter, . . . John or Matthew or any other of the Lord's disciples spoke," and "what Aristion and the presbyter John, the Lord's disciples, say." Thus Papias, as Eusebius about 314 insists, knew two Johns, and the apostle was to him a far-away figure; indeed early medieval chroniclers recount that Papias "in the second book of the Lord's sayings" asserted that both the sons of Zebedee were "slain by Jews," so that the apostle John would have died before 70. Irenaeus's testimony is the earliest and admittedly the strongest we possess for the Zebedean authorship; yet, as Calmes admits, "it cannot be considered decisive." In his work against the Heresies and in his letter to Florinus, about 185–191, he tells how he had himself known Bishop Polycarp of Smyrna, and how Polycarp "used to recount his familiar intercourse with John and the others who had seen the Lord"; and explicitly identifies this John with the Zebedean and the evangelist. But Irenaeus was at most fifteen when thus frequenting Polycarp; writes thirty-five to fifty years later in Lyons, admitting that he noted down nothing at the time; and, since his mistaken description of Papias as "a hearer of John" the Zebedean was certainly reached by mistaking the presbyter for the apostle, his additional words "and a companion of Polycarp" point to this same mistaken identification having also operated in his mind with regard to Polycarp. In any case,

the very real and important presbyter is completely unknown to Irenaeus, and his conclusion as to the book's authorship resulted apparently from a comparison of its contents with Polycarp's teaching. If the presbyter wrote Revelation and was Polycarp's master, such a mistake could easily arise. Certainly Polycrates, bishop of Ephesus, made a precisely similar mistake when about 190 he described the Philip "who rests in Hierapolis" as "one of the twelve apostles," since Eusebius rightly identifies this Philip with the deacon of Acts xxi. A positive testimony for the critical conclusion is derived from the existence of a group of Asia Minor Christians who about 165 rejected the Gospel as not by John but by Cerinthus. The attribution is doubtless mistaken. But could Christians sufficiently numerous to deserve a long discussion by St Epiphanius in 374–377, who upheld the Synoptists, stoutly opposed the Gnostics and Montanists, and had escaped every special designation till the bishop nicknamed them the "Alogoi" (irrational rejectors of the Logos-Gospel), dare, in such a time and country, to hold such views, had the apostolic origin been incontestable? Surely not. The Alexandrian Clement, Tertullian, Origen, Eusebius, Jerome and Augustine only tell of the Zebedean what is traceable to stories told by Papias of others, to passages of Revelation and the Gospel, or to the assured fact of the long-lived Asian presbyter.

As to the internal evidence, if the Gospel typifies various imperfect or sinful attitudes in Nicodemus, the Samaritan woman and Thomas; if even the mother appears to symbolize faithful Israel: then, profoundly spiritual and forward-looking as it is, a type of the perfect disciple, not all unlike Clement's perfect "Gnostic," could hardly be omitted by it; and the precise details of this figure may well be only ideally, mystically true. The original work nowhere identifies this disciple with any particular historic figure. "He who saw" the lance-thrust "hath borne witness, and his witness is true," is asserted (xix. 35) of the disciple. Yet "to see" is said also of intuitive faith, "whoso hath seen Me, hath seen the Father" (xiv. 9); and "true" appears also in "the true Light," "the true Bread from heaven," as characterizing the realities of the upper, alone fully true world, and equals "heavenly" (iii. 12); thus a "true witness" testifies to some heavenly reality, and appeals to the reader's "pneumatic," *i.e.* allegorical, understanding.

Only in the appendix do we find any deliberate identification with a particular historic person: "this is the disciple who witnessed to and who wrote these things" (24) refers doubtless to the whole previous work and to "the disciple whom Jesus loved," identified here with an unnamed historic personage whose recent death had created a shock, evidently because he was the last of that apostolic generation which had so keenly expected the second coming (18–23). This man was so great that the writer strives to win his authority for this Gospel; and yet this man was not John the Zebedean, else why, now he is dead and gone, not proclaim the fact? If the dead man was John the presbyter—if this John had in youth just seen Jesus and the Zebedean, and in extreme old age had still seen and approved the Gospel—to attribute this Gospel to him, as is done here, would not violate the literary ethics of those times. Thus the heathen philosopher Iamblichus (d. *c.* 330) declares: "this was admirable" amongst the Neo-Pythagoreans "that they ascribed everything to Pythagoras; but few of them acknowledge their own works as their own" (*de Pythag. vita*, 198). And as to Christians, Tertullian about 210 tells how the presbyter who, in proconsular Asia, had "composed the *Acts of Paul and Thecla*" was convicted and deposed, for how could it be credible that Paul should confer upon women the power to "teach and baptize" as these *Acts* averred? The attribution as such, then, was not condemned.

The facts of the problem would all appear covered by the hypothesis that John the presbyter, the eleven being all dead, wrote the book of Revelation (its more ancient Christian portions) say in 69, and died at Ephesus say in 100; that the author of the Gospel wrote the first draft, here, say in 97; that this book, expanded by him, first circulated within a select Ephesian Christian circle; and that the Ephesian church officials added to it the appendix and published it in 110–120. But however different or more complicated may have been the actual origins, three points remain certain. The real situation that confronts us is not an unbroken tradition of apostolic eye-witnesses, incapable of re-statement with any hope of ecclesiastical acceptance, except by another apostolic eye-witness. On one side indeed there was the record, underlying the Synoptists, of at least two eye-witnesses, and the necessity of its preservation and transmission; but on the other side a profound double change had come over the Christian outlook and requirements. St Paul's heroic labours (30–64) had gradually gained full recognition and separate organization for the universalist strain in our Lord's teaching; and he who had never seen the earthly Jesus, but only the heavenly Christ, could even declare that Christ "though from the Jewish fathers according to the flesh" had died, "so that henceforth, even if we have known Christ according to the flesh, now we no further know Him thus," "the Lord is the Spirit," and "where the Spirit of the Lord is, there is liberty." And the Jewish church, within which Christianity had first lived and moved, ceased to have a visible centre. Thus a super-spatial and super-temporal interpretation of that first markedly Jewish setting and apprehension of the Christian truth became as necessary as the attachment to the original contingencies. The Fourth Gospel, inexplicable without St Paul and the fall of Jerusalem, is fully understandable with them. The attribution of the book to an eye-witness nowhere resolves, it everywhere increases, the real difficulties; and by insisting upon having history in the same degree and way in John as in the Synoptists, we cease to get it sufficiently anywhere at all. And the Fourth Gospel's true greatness lies well within the range of this its special character. In character it is profoundly "pneumatic"; Paul's super-earthly Spirit-Christ here breathes and speaks, and invites a corresponding spiritual comprehension. And its greatness appears in its inexhaustibly deep teachings concerning Christ's sheep and fold; the Father's drawing of souls to Christ; the dependence of knowledge as to Christ's doctrine upon the doing of God's will; the fulfilling of the commandment of love, as the test of true discipleship; eternal life, begun even here and now; and God a Spirit, to be served in spirit and in truth.

BIBLIOGRAPHY.—See also the independent discussion, under REVELATION, BOOK OF, of the authorship of that work. Among the immense literature of the subject, the following books will be found especially instructive by the classically trained reader: Origen's commentary, finished (only to John xiii. 33) in 235–237 (best ed. by Preuschen, 1903). St Augustine's *Tractatus in Joannis Ev. et Ep.*, about 416. The Spanish Jesuit Juan Maldonatus' Latin commentary, published 1596 (critical reprint, edited by Raich, 1874), a pathfinder on many obscure points, is still a model for tenacious penetration of Johannine ideas. Bretschneider's short *Probabilia de Evangelii . . . Joannis Apostoli indole et origine* (1820), the first systematic assault on the traditional attribution, remains unrefuted in its main contention. The best summing up and ripest fruit of the critical labour since then are Professor H. J. Holtzmann's *Handkommentar* (2nd ed., 1893) and the respective sections in his *Einleitung in d. N. T.* (3rd ed., 1892) and his *Lehrbuch der N. T. Theologie* (1897), vol. 2. Professor C. E. Luthardt's *St John, Author of the Fourth Gospel* (Eng. trans., with admirable bibliography by C. R. Gregory, 1875), still remains the best conservative statement. Among the few critically satisfactory French books, Abbé Loisy's *Le Quatrième évangile* (1903) stands pre-eminent for delicate psychological analysis and continuous sense of the book's closely knit unity; whilst Père Th. Calmes' *Évangile selon S. Jean* (1904) indicates how numerous are the admissions as to the book's character and the evidences for its authorship, made by intelligent Roman Catholic apologists with Rome's explicit approbation. In England a considerably less docile conservatism has been predominant. Bp Lightfoot's *Essays on . . . Supernatural Religion* (1874–1877; collected 1889) are often masterly conservative interpretations of the external evidence; but they leave this evidence still inconclusive, and the formidable contrary internal evidence remains practically untouched. Much the same applies to Bp Westcott's *Gospel according to St John* (1882), devotionally so attractive, and in textual criticism excellent. Dr James Drummond's *Inquiry into the Character and Authorship of the Fourth Gospel* (1903) does not, by its valuable survey of the external evidence, succeed in giving credibility to the eyewitness origin of such a book as this is admitted to be. Professor W. Sanday's slighter *Criticism of the Fourth Gospel* (1905) is in a similar position. Professor P. W. Schmiedel's

article " John s. of Zebedee " in the *Ency. Bib.* (1901) is the work of a German of the advanced left. Dr E. A. Abbott's laborious *From Letter to Spirit* (1903), *Joannine Vocabulary* (1904) and *Grammar* (1906) overflow with statistical details and ever acute, often fanciful, conjecture. Professor F. C. Burkitt's *The Gospel History* (1906) vigorously sketches the book's dominant characteristics and true function. E. F. Scott's *The Fourth Gospel* (1906) gives a lucid, critical and religiously tempered account of the Gospel's ideas, aims, affinities, difficulties and abiding significance. (F. v. H.)

JOHN ALBERT (1459–1501), king of Poland, third son of Casimir IV. king of Poland and Elizabeth of Austria. As crown prince he distinguished himself by his brilliant victory over the Tatars at Kopersztyn in 1487. He succeeded his father in 1492. The loss of revenue consequent upon the secession of Lithuania placed John Albert at the mercy of the Polish Sejmiki or local diets, where the *szlachta*, or country gentry, made their subsidies dependent upon the king's subservience. Primarily a warrior with a strong taste for heroic adventure, John Albert desired to pose as the champion of Christendom against the Turks. Circumstances seemed, moreover, to favour him. In his brother Wladislaus, who as king of Hungary and Bohemia possessed a dominant influence in Central Europe, he found a counterpoise to the machinations of the emperor Maximilian, who in 1492 had concluded an alliance against him with Ivan III. of Muscovy, while, as suzerain of Moldavia, John Albert was favourably situated for attacking the Turks. At the conference of Leutschau in 1494 the details of the expedition were arranged between the kings of Poland and Hungary and the elector Frederick of Brandenburg, with the co-operation of Stephen, hospodar of Moldavia, who had appealed to John Albert for assistance. In the course of 1496 John Albert with great difficulty collected an army of 80,000 men in Poland, but the crusade was deflected from its proper course by the sudden invasion of Galicia by the hospodar, who apparently—for the whole subject is still very obscure—had been misled by reports from Hungary that John Albert was bent upon placing his younger brother Sigismund on the throne of Moldavia. Be that as it may, the Poles entered Moldavia not as friends, but as foes, and, after the abortive siege of Suczawa, were compelled to retreat through the Bukowina to Sniatyn, harassed all the way by the forces of the hospodar. The insubordination of the *szlachta* seems to have been one cause of this disgraceful collapse, for John Albert confiscated hundreds of their estates after his return; in spite of which, to the end of his life he retained his extraordinary popularity. When the new grand master of the Teutonic order, Frederic of Saxony, refused to render homage to the Polish crown, John Albert compelled him to do so. His intention of still further humiliating the Teutonic order was frustrated by his sudden death in 1501. A valiant soldier and a man of much enlightenment, John Albert was a poor politician, recklessly sacrificing the future to the present.

See V. Czerny, *The Reigns of John Albert and Alexander Jagiello* (Pol.) (Cracow, 1882).

JOHN ANGELUS (d. 1244), emperor of Thessalonica. In 1232 he received the throne from his father Theodore, who, after a period of exile, had re-established his authority, but owing to his loss of eyesight resolved to make John the nominal sovereign. His reign is chiefly marked by the aggressions of the rival emperor of Nicaea, John Vatatzes, who laid siege to Thessalonica in 1243 and only withdrew upon John Angelus consenting to exchange the title " emperor " for the subordinate one of "despot."

See G. Finlay, *History of Greece*, vol. iii. (1877).

JOHN FREDERICK I. (1503–1554), called the Magnanimous, elector of Saxony, was the elder son of the elector, John the Steadfast, and belonged to the Ernestine branch of the Wettin family. Born at Torgau on the 30th of June 1503 and educated as a Lutheran, he took some part in imperial politics and in the business of the league of Schmalkalden before he became elector by his father's death in August 1532. His lands comprised the western part of Saxony, and included Thuringia, but in 1542 Coburg was surrendered to form an apanage for his brother, John Ernest (d. 1553). John Frederick, who was an ardent Lutheran and had a high regard for Luther, continued the religious policy of his father. In 1534 he assisted to make peace between the German king Ferdinand I. and Ulrich, duke of Württemberg, but his general attitude was one of vacillation between the emperor and his own impetuous colleague in the league of Schmalkalden, Philip, landgrave of Hesse. He was often at variance with Philip, whose bigamy he disliked, and his belief in the pacific intentions of Charles V. and his loyalty to the Empire prevented him from pursuing any definite policy for the defence of Protestantism. In 1541 his kinsman Maurice became duke of Saxony, and cast covetous eyes upon the electoral dignity. A cause of quarrel soon arose. In 1541 John Frederick forced Nicholas Amsdorf into the see of Naumburg in spite of the chapter, who had elected a Roman Catholic, Julius von Pflug; and about the same time he seized Wurzen, the property of the bishop of Meissen, whose see was under the joint protection of electoral and ducal Saxony. Maurice took up arms, and war was only averted by the efforts of Philip of Hesse and Luther. In 1542 the elector assisted to drive Henry, duke of Brunswick-Wolfenbüttel, from his duchy, but in spite of this his relations with Charles V. at the diet of Spires in 1544 were very amicable. This was, however, only a lull in the storm, and the emperor soon began to make preparations for attacking the league of Schmalkalden, and especially John Frederick and Philip of Hesse. The support, or at least the neutrality, of Maurice was won by the hope of the electoral dignity, and in July 1546 war broke out between Charles and the league. In September John Frederick was placed under the imperial ban, and in November Maurice invaded the electorate. Hastening from southern Germany the elector drove Maurice from the land, took his ally, Albert Alcibiades, prince of Bayreuth, prisoner at Rochlitz, and overran ducal Saxony. His progress, however, was checked by the advance of Charles V. Notwithstanding his valour he was wounded and taken prisoner at Mühlberg on the 24th of April 1547, and was condemned to death in order to induce Wittenberg to surrender. The sentence was not carried out, but by the capitulation of Wittenberg (May 1547) he renounced the electoral dignity and a part of his lands in favour of Maurice, steadfastly refusing however to make any concessions on religious matters, and remained in captivity until May 1552, when he returned to the Thuringian lands which his sons had been allowed to retain, his return being hailed with wild enthusiasm. During his imprisonment he had refused to accept the *Interim*, issued from Augsburg in May 1548, and had urged his sons to make no peace with Maurice. After his release the emperor had restored his dignities to him, and his assumption of the electoral arms and title prevented any arrangement with Maurice. However, after the death of this prince in July 1553, a treaty was made at Naumburg in February 1554 with his successor Augustus. John Frederick consented to the transfer of the electoral dignity, but retained for himself the title of " born elector," and received some lands and a sum of money. He was thus the last Ernestine elector of Saxony. He died at Weimar on the 3rd of March 1554, having had three sons by his wife, Sibylla (d. 1554), daughter of John III., duke of Cleves, whom he had married in 1527, and was succeeded by his eldest son, John Frederick. The elector was a great hunter and a hard drinker, whose brave and dignified bearing in a time of misfortune won for him his surname of Magnanimous, and drew eulogies from Roger Ascham and Melanchthon. He founded the university of Jena and was a benefactor to that of Leipzig.

See Mentz, *Johann Friedrich der Grossmütige* (Jena, 1903); Rogge, *Johann Friedrich der Grossmütige* (Halle, 1902) and L. von Ranke, *Deutsche Geschichte im Zeitalter der Reformation* (Leipzig, 1882).

JOHN FREDERICK (1529–1595), called *der Mittlere*, duke of Saxony, was the eldest son of John Frederick, who had been deprived of the Saxon electorate by the emperor Charles V. in 1547. Born at Torgau on the 8th of January 1529, he received a good education, and when his father was imprisoned in 1547

undertook the government of the remnant of electoral Saxony which the emperor allowed the Ernestine branch of the Wettin family to keep. Released in 1552 John Frederick the elder died two years later, and his three sons ruled Ernestine Saxony together until 1557, when John Frederick was made sole ruler. This arrangement lasted until 1565, when John Frederick shared his lands with his surviving brother, John William (1530–1573), retaining for himself Gotha and Weimar. The duke was a strong, even a fanatical, Lutheran, but his religious views were gradually subordinated to the one idea of regaining the electoral dignity then held by Augustus I. To attain this end he lent a willing ear to the schemes of Wilhelm von Grumbach, who came to his court about 1557 and offered to regain the electoral dignity and even to acquire the Empire for his patron. In spite of repeated warnings from the emperor Ferdinand I., John Frederick continued to protect Grumbach, and in 1566 his obstinacy caused him to be placed under the imperial ban. Its execution was entrusted to Augustus who, aided by the duke's brother, John William, marched against Gotha with a strong force. In consequence of a mutiny the town surrendered in April 1567, and John Frederick was delivered to the emperor Maximilian II. He was imprisoned in Vienna, his lands were given to his brother, and he remained in captivity until his death at Steyer on the 6th of May 1595. These years were mainly occupied with studying theology and in correspondence. John Frederick married firstly Agnes (d. 1555) daughter of Philip, landgrave of Hesse, and widow of Maurice, elector of Saxony, and secondly Elizabeth (d. 1594) daughter of Frederick III., elector palatine of the Rhine, by whom he left two sons, John Casimir (1564–1633) and John Ernest (1566–1638). Elizabeth shared her husband's imprisonment for twenty-two years.

See A. Beck, *Johann Friedrich der Mittlere, Herzog zu Sachsen* (Vienna, 1858); and F. Ortloff, *Geschichte der Grumbachischen Händel* (Jena, 1868–1870).

JOHN GEORGE I. (1585–1656), elector of Saxony, second son of the elector Christian I., was born on the 5th of March 1585, succeeding to the electorate in June 1611 on the death of his elder brother, Christian II. The geographical position of electoral Saxony hardly less than her high standing among the German Protestants gave her ruler much importance during the Thirty Years' War. At the beginning of his reign, however, the new elector took up a somewhat detached position. His personal allegiance to Lutheranism was sound, but he liked neither the growing strength of Brandenburg nor the increasing prestige of the Palatinate; the adherence of the other branches of the Saxon ruling house to Protestantism seemed to him to suggest that the head of electoral Saxony should throw his weight into the other scale, and he was prepared to favour the advances of the Habsburgs and the Roman Catholic party. Thus he was easily induced to vote for the election of Ferdinand, archduke of Styria, as emperor in August 1619, an action which nullified the anticipated opposition of the Protestant electors. The new emperor secured the help of John George for the impending campaign in Bohemia by promising that he should be undisturbed in his possession of certain ecclesiastical lands. Carrying out his share of the bargain by occupying Silesia and Lusatia, where he displayed much clemency, the Saxon elector had thus some part in driving Frederick V., elector palatine of the Rhine, from Bohemia and in crushing Protestantism in that country, the crown of which he himself had previously refused. Gradually, however, he was made uneasy by the obvious trend of the imperial policy towards the annihilation of Protestantism, and by a dread lest the ecclesiastical lands should be taken from him; and the issue of the edict of restitution in March 1629 put the coping-stone to his fears. Still, although clamouring vainly for the exemption of the electorate from the area covered by the edict, John George took no decided measures to break his alliance with the emperor. He did, indeed, in February 1631 call a meeting of Protestant princes at Leipzig, but in spite of the appeals of the preacher Matthias Hoë von Hohenegg (1580–1645) he contented himself with a formal protest. Meanwhile Gustavus Adolphus had landed in Germany, and the elector had refused to allow him to cross the Elbe at Wittenberg, thus hindering his attempt to relieve Magdeburg. But John George's reluctance to join the Protestants disappeared when the imperial troops under Tilly began to ravage Saxony, and in September 1631 he concluded an alliance with the Swedish king. The Saxon troops were present at the battle of Breitenfeld, but were routed by the imperialists, the elector himself seeking safety in flight. Nevertheless he soon took the offensive. Marching into Bohemia the Saxons occupied Prague, but John George soon began to negotiate for peace and consequently his soldiers offered little resistance to Wallenstein, who drove them back into Saxony. However, for the present the efforts of Gustavus Adolphus prevented the elector from deserting him, but the position was changed by the death of the king at Lützen in 1632, and the refusal of Saxony to join the Protestant league under Swedish leadership. Still letting his troops fight in a desultory fashion against the imperialists, John George again negotiated for peace, and in May 1635 he concluded the important treaty of Prague with Ferdinand II. His reward was Lusatia and certain other additions of territory; the retention by his son Augustus of the archbishopric of Magdeburg; and some concessions with regard to the edict of restitution. Almost at once he declared war upon the Swedes, but in October 1636 he was beaten at Wittstock; and Saxony, ravaged impartially by both sides, was soon in a deplorable condition. At length in September 1645 the elector was compelled to agree to a truce with the Swedes, who, however, retained Leipzig; and as far as Saxony was concerned this ended the Thirty Years' War. After the peace of Westphalia, which with regard to Saxony did little more than confirm the treaty of Prague, John George died on the 8th of October 1656. Although not without political acumen, he was not a great ruler; his character appears to have been harsh and unlovely, and he was addicted to drink. He was twice married, and in addition to his successor John George II. he left three sons, Augustus (1614–1680), Christian (d. 1691) and Maurice (d. 1681) who were all endowed with lands in Saxony, and who founded cadet branches of the Saxon house.

JOHN GEORGE II. (1613–1680), elector of Saxony, was born on the 31st of May 1613. In 1657, just after his accession, he made an arrangement with his three brothers with the object of preventing disputes over their separate territories, and in 1664 he entered into friendly relations with Louis XIV. He received money from the French king, but the existence of a strong anti-French party in Saxony induced him occasionally to respond to the overtures of the emperor Leopold I. The elector's primary interests were not in politics, but in music and art. He adorned Dresden, which under him became the musical centre of Germany; welcoming foreign musicians and others he gathered around him a large and splendid court, and his capital was the constant scene of musical and other festivals. His enormous expenditure compelled him in 1661 to grant greater control over monetary matters to the estates, a step which laid the foundation of the later system of finance in Saxony. John George died at Freiberg on the 22nd of August 1680.

JOHN GEORGE III. (1647–1691), elector of Saxony, the only son of John George II., was born on the 20th of June 1647. He forsook the vacillating foreign policy of his father and in June 1683 joined an alliance against France. Having raised the first standing army in the electorate he helped to drive the Turks from Vienna in September 1680, leading his men with great gallantry; but disgusted with the attitude of the emperor Leopold I. after the victory, he returned at once to Saxony. However, he sent aid to Leopold in 1685. When Louis XIV.'s armies invaded Germany in September 1688 John George was one of the first to take up arms against the French, and after sharing in the capture of Mainz he was appointed commander-in-chief of the imperial forces. He had not, however, met with any notable success when he died at Tübingen on the 12th of September 1691. Like his father, he was very fond of music, but he appears to have been less extravagant than John George II. His wife was Anna Sophia, daughter of Frederick III. king of

Denmark, and both his sons, John George and Frederick Augustus, became electors of Saxony, the latter also becoming king of Poland as Augustus II.

JOHN GEORGE IV. (1668–1694), elector of Saxony, was born on the 18th of October 1668. At the beginning of his reign his chief adviser was Hans Adam von Schöning (1641–1696), who counselled a union between Saxony and Brandenburg and a more independent attitude towards the emperor. In accordance with this advice certain proposals were put before Leopold I. to which he refused to agree; and consequently the Saxon troops withdrew from the imperial army, a proceeding which led the chagrined emperor to seize and imprison Schöning in July 1692. Although John George was unable to procure his minister's release, Leopold managed to allay the elector's anger, and early in 1693 the Saxon soldiers rejoined the imperialists. This elector is chiefly celebrated for his passion for Magdalene Sibylle von Neidschütz (d. 1694), created in 1693 countess of Rochlitz, whom on his accession he publicly established as his mistress. John George left no legitimate issue when he died on the 27th of April 1694.

JOHN[1] MAURICE OF NASSAU (1604–1679), surnamed the Brazilian, was the son of John the Younger, count of Nassau-Siegen-Dillenburg, and the grandson of John, the elder brother of William the Silent and the chief author of the Union of Utrecht. He distinguished himself in the campaigns of his cousin, the stadtholder Frederick Henry of Orange, and was by him recommended to the directors of the Dutch West India company in 1636 to be governor-general of the new dominion in Brazil recently conquered by the company. He landed at the Recife, the port of Pernambuco, and the chief stronghold of the Dutch, in January 1637. By a series of successful expeditions he gradually extended the Dutch possessions from Sergipe on the south to S. Luis de Maranham in the north. He likewise conquered the Portuguese possessions of St George del Mina and St Thomas on the west coast of Africa. With the assistance of the famous architect, Pieter Post of Haarlem, he transformed the Recife by building a new town adorned with splendid public edifices and gardens, which was called after his name Mauritstad. By his statesmanlike policy he brought the colony into a most flourishing condition and succeeded even in reconciling the Portuguese settlers to submit quietly to Dutch rule. His large schemes and lavish expenditure alarmed however the parsimonious directors of the West India company, but John Maurice refused to retain his post unless he was given a free hand, and he returned to Europe in July 1644. He was shortly afterwards appointed by Frederick Henry to the command of the cavalry in the States army, and he took part in the campaigns of 1645 and 1646. When the war was ended by the peace of Münster in January 1648, he accepted from the elector of Brandenburg the post of governor of Cleves, Mark and Ravensberg, and later also of Minden. His success in the Rhineland was as great as it had been in Brazil, and he proved himself a most able and wise ruler. At the end of 1652 he was appointed head of the order of St John and made a prince of the Empire. In 1664 he came back to Holland; when the war broke out with England supported by an invasion from the bishop of Münster, he was appointed commander-in-chief of the Dutch forces on land. Though hampered in his command by the restrictions of the states-general, he repelled the invasion, and the bishop, Christoph von Galen, was forced to conclude peace. His campaigning was not yet at an end, for in 1673 he was appointed by the stadtholder William III. to command the forces in Friesland and Groningen, and to defend the eastern frontier of the Provinces. In 1675 his health compelled him to give up active military service, and he spent his last years in his beloved Cleves, where he died on the 20th of December 1679. The house which he built at the Hague, named after him the Maurits-huis, now contains the splendid collections of pictures so well known to all admirers of Dutch art.

[1] This name is usually written Joan, the form used by the man himself in his signature—see the facsimile in Netscher's *Les Hollandais en Brésil*.

BIBLIOGRAPHY.—Caspar Barlaeus, *Rerum per octennium in Brasilia et alibi nuper gestarum historia, sub praefectura illustrissimi comitis J. Mauritii Nassoviae* (Amsterdam, 1647); L. Driessen, *Leben des Fürsten Johann Moritz von Nassau* (Berlin, 1849); D. Veegens, *Leven van Jaan Maurits, Graaf van Nassau-Siegen* (Haarlem, 1840).

JOHN O' GROAT'S HOUSE, a spot on the north coast of Caithness, Scotland, 14 m. N. of Wick and 1¾ m. W. of Duncansby Head. It is the mythical site of an octagonal house said to have been erected early in the 16th century by one John Groot, a Dutchman who had migrated to the north of Scotland by permission of James IV. According to the legend, other members of the Groot family followed John, and acquired lands around Duncansby. When there were eight Groot families, disputes began to arise as to precedence at annual feasts. These squabbles John Groot is said to have settled by building an octagonal house which had eight entrances and eight tables, so that the head of each family could enter by his own door and sit at the head of his own table. Being but a few miles south of Dunnet Head, John o' Groat's is a colloquial term for the most northerly point of Scotland. The site of the traditional building is marked by an outline traced in turf. Descendants of the Groot family, now Groat, still live in the neighbourhood. The cowry-shell, *Cypraea europaea*, is locally known as "John o' Groat's bucky."

JOHNS HOPKINS UNIVERSITY, an American educational institution at Baltimore, Maryland, U.S.A. Its trustees, chosen by Johns Hopkins (1794–1873), a successful Baltimore merchant, were incorporated on the 24th of August 1867 under a general act "for the promotion of education in the state of Maryland." But nothing was actually done until after the death of Johns Hopkins (Dec. 24, 1873), when his fortune of $7,000,000 was equally divided between the projected university and a hospital, also to bear his name, and intended to be an auxiliary to the medical school of the university. The trustees of the university consulted with many prominent educationists, notably Charles W. Eliot of Harvard, Andrew D. White of Cornell, and James B. Angell of the university of Michigan; on the 30th of December 1874 they elected Daniel Coit Gilman (*q.v.*) president. The university was formally opened on the 3rd of October 1876, when an address was delivered by T. H. Huxley. The first year was largely given up to consultation among the newly chosen professors, among whom were—in Greek, B. L. Gildersleeve; in mathematics, J. J. Sylvester; in chemistry, Ira Remsen; in biology, Henry Newell Martin (1848–1896); in zoology, William Keith Brooks (1848–1908); and in physics, Henry Augustus Rowland (1848–1901). Prominent among later teachers were Arthur Cayley in mathematics, the Semitic scholar Paul Haupt (b. 1858), Granville Stanley Hall in psychology, Maurice Bloomfield in Sanskrit and comparative philology, James Rendel Harris in Biblical philology, James Wilson Bright in English philology, Herbert B. Adams in history, and Richard T. Ely (b. 1854) in economics. The university at once became a pioneer in the United States in teaching by means of seminary courses and laboratories, and it has been eminently successful in encouraging research, in scientific production, and in preparing its students to become instructors in other colleges and universities. It includes a college in which each of five parallel courses leads to the degree of Bachelor of Arts, but its reputation has been established chiefly by its other two departments, the graduate school and the medical school. The graduate school offers courses in philosophy and psychology, physics, chemistry and biology, historical and economic science, language and literature, and confers the degree of Doctor of Philosophy after at least three years' residence. From its foundation the university had novel features and a liberal administration. Twenty annual fellowships of $500 each were opened to the graduates of any college. Petrography and laboratory psychology were among the new sciences fostered by the new university. Such eminent outsiders were secured for brief residence and lecture courses as J. R. Lowell, F. J. Child, Simon Newcomb, H. E. von Holst, F. A. Walker, William James, Sidney Lanier, James Bryce, E. A. Freeman, W. W. Goodwin, and Alfred Russel Wallace. President Gilman gave up his presidential duties on the 1st of

September 1901, Ira Remsen[1] succeeding him in the office. The medical department, inaugurated in 1893, is closely affiliated with the excellently equipped Johns Hopkins Hospital (opened in 1889), and is actually a graduate school, as it admits only students holding the bachelor's degree or its equivalent. The degree of Doctor of Medicine is conferred after four years of successful study, and advanced courses are offered. The department's greatest teachers have been William Osler (b. 1849) and William Henry Welch (b. 1850).

The buildings of the university were in 1901 an unpretentious group on crowded ground near the business centre of the city. In 1902 a new site was secured, containing about 125 acres amid pleasant surroundings in the northern suburbs, and new buildings were designed in accordance with a plan formed with a view to secure harmony and symmetry. In 1907 the library contained more than 133,000 bound volumes. Among the numerous publications issued by the university press are: *American Journal of Mathematics*, *Studies in Historical and Political Science*, *Reprint of Economic Tracts*, *American Journal of Philology*, *Contributions to Assyriology and Semitic Philology*, *Modern Language Notes*, *American Chemical Journal*, *American Journal of Insanity*, *Terrestrial Magnetism and Atmospheric Electricity*, *Reports of the Maryland Geological Survey*, and *Reports of the Maryland Weather Service*. The institution is maintained chiefly with the proceeds of the endowment fund. It also receives aid from the state, and charges tuition fees. Its government is entrusted to a board of trustees, while the direction of affairs of a strictly academic nature is delegated to an academic council and to department boards. In 1907–1908 the regular faculty numbered 175, and there was an enrolment of 683 students, of whom 518 were in post-graduate courses.

On the history of the university see Daniel C. Gilman, *The Launching of a University* (New York, 1906), and the annual reports of the president.

JOHNSON, ANDREW (1808–1875), seventeenth president of the United States, was born at Raleigh, North Carolina, on the 29th of December 1808. His parents were poor, and his father died when Andrew was four years old. At the age of ten he was apprenticed to a tailor, his spare hours being spent in acquiring the rudiments of an education. He learned to read from a book which contained selected orations of great British and American statesmen. The young tailor went to Laurens Court House, South Carolina, in 1824, to work at his trade, but returned to Raleigh in 1826 and soon afterward removed to Greeneville in the eastern part of Tennessee. He married during the same year Eliza McCardle (1810–1876), much his superior by birth and education, who taught him the common school branches of learning and was of great assistance in his later career. In East Tennessee most of the people were small farmers, while West Tennessee was a land of great slave plantations. Johnson began in politics to oppose the aristocratic element and became the spokesman and champion of the poorer and labouring classes. In 1828 he was elected an alderman of Greeneville and in 1830–1834 was mayor. In 1834, in the Tennessee constitutional convention he endeavoured to limit the influence of the slaveholders by basing representation in the state legislature on the white population alone. In 1835–1837 and 1839–1841 Johnson was a Democratic member of the state House of Representatives, and in 1841–1843 of the state Senate; in both houses he uniformly upheld the cause of the "common people," and, in addition, opposed legislation for "internal improvements." He soon was recognized as the political champion of East Tennessee. Though his favourite leaders became Whigs, Johnson remained a Democrat, and in 1840 canvassed the state for Van Buren for president.

[1] Ira Remsen was born in New York City on the 10th of February 1846, graduated at the college of the City of New York in 1865, studied at the New York college of physicians and surgeons and at the university of Göttingen, was professor of chemistry at Williams College in 1872–1876, and in 1876 became professor of chemistry at Johns Hopkins University. He published many textbooks of chemistry, organic and inorganic, which were republished in England and were translated abroad. In 1879 he founded the *American Chemical Journal*.

In 1843 he was elected to the national House of Representatives and there remained for ten years until his district was gerrymandered by the Whigs and he lost his seat. But he at once offered himself as a candidate for governor and was elected and re-elected, and was then sent to the United States Senate, serving from 1857 to 1862. As governor (1853–1857) he proved to be able and non-partisan. He championed popular education and recommended the homestead policy to the national government, and from his sympathy with the working classes and his oft-avowed pride in his former calling he became known as the "mechanic governor." In Congress he proved to be a tireless advocate of the claims of the poorer whites and an opponent of the aristocracy. He favoured the annexation of Texas, supported the Polk administration on the issues of the Mexican War and the Oregon boundary controversy, and though voting for the admission of free California demanded national protection for slavery. He also advocated the homestead law and low tariffs, opposed the policy of "internal improvements," and was a zealous worker for budget economies. Though opposed to a monopoly of political power in the South by the great slaveholders, he deprecated anti-slavery agitation (even favouring denial of the right of petition on that subject) as threatening abolition or the dissolution of the Union, and went with his sectional leaders so far as to demand freedom of choice for the Territories, and protection for slavery where it existed—this even so late as 1860. He supported in 1860 the ultra-Democratic ticket of Breckinridge and Lane, but he did not identify the election of Lincoln with the ruin of the South, though he thought the North should give renewed guarantees to slavery. But he followed Jackson rather than Calhoun, and above everything else set his love of the Union, though believing the South to be grievously wronged. He was the only Southern member of Congress who opposed secession and refused to "go with his state" when it withdrew from the Union in 1861. In the judgment of a leading opponent (O. P. Morton) "perhaps no man in Congress exerted the same influence on the public sentiment of the North at the beginning of the war" as Johnson. During the war he suffered much for his loyalty to the Union. In March 1862 Lincoln made him military governor of the part of Tennessee captured from the Confederates, and after two years of autocratic rule (with much danger to himself) he succeeded in organizing a Union government for the state. In 1864, to secure the votes of the war Democrats and to please the border states that had remained in the Union, Johnson was nominated for vice-president on the ticket with Lincoln.

A month after the inauguration the murder of Lincoln left him president, with the great problem to solve of reconstruction of the Union. All his past career and utterances seemed to indicate that he would favour the harshest measures toward ex-Confederates, hence his acceptability to the most radical republicans. But, whether because he drew a distinction between the treason of individuals and of states, or was influenced by Seward, or simply, once in responsible position, separated Republican party politics from the question of constitutional interpretation, at least he speedily showed that he would be influenced by no acrimony, and adopted the lenient reconstruction policy of Lincoln. In this he had for some time the cordial support of his cabinet. During the summer of 1865 he set up provisional civil governments in all the seceded states except Texas, and within a few months all those states were reorganized and applying for readmission to the Union. The radical congress (Republican by a large majority) sharply opposed this plan of restoration, as they had opposed Lincoln's plan: first, because the members of Congress from the Southern States (when readmitted) would almost certainly vote with the Democrats; secondly, because relatively few of the Confederates were punished; and thirdly, because the newly organized Southern States did not give political rights to the negroes. The question of the status of the negro proved the crux of the issue. Johnson was opposed to general or immediate negro suffrage. A bitter contest began in Feb. 1866, between the president and the Congress, which refused to admit representatives

from the South and during 1866 passed over his veto a number of important measures, such as the Freedmen's Bureau Act and the Civil Rights Act, and submitted to the States the Fourteenth Amendment to the Constitution. Johnson took a prominent and undignified part in the congressional campaign of 1866, in which his policies were voted down by the North. In 1867 Congress threw aside his work of restoration and proceeded with its own plan, the main features of which were the disfranchisement of ex-Confederates and the enfranchisement of negroes. On the 2nd of March 1867 Congress passed over the president's veto the Tenure of Office Act, prohibiting the president from dismissing from office without the consent of the Senate any officer appointed by and with the advice and consent of that body, and in addition a section was inserted in the army appropriation bill of this session designed to subordinate the president to the Senate and the general-in-chief of the army in military matters. The president was thus deprived of practically all power. Stanton and other members of his cabinet and General Grant became hostile to him, the president attempted to remove Stanton without regard to the Tenure of Office Act, and, finally, to get rid of the president, Congress in 1868 (February–May) made an attempt to impeach and remove him, his disregard of the Tenure of Office Act being the principal charge against him. The charges[1] were in part quite trivial, and the evidence was ridiculously inadequate for the graver charges. A two-thirds majority was necessary for conviction; and the votes being 35 to 19 (7 Republicans and 12 Democrats voting in his favour on the crucial clauses) he was acquitted. The misguided animus of the impeachment as a piece of partisan politics was soon very generally admitted; and the importance of its failure, in securing the continued power and independence of the presidential element in the constitutional system, can hardly be over-estimated. The rest of his term as president was comparatively quiet and uneventful. In 1869 he retired into private life in Tennessee, and after several unsuccessful efforts was elected to the United States Senate, free of party trammels, in 1875, but died at Carter's Station, Tenn., on the 31st of July 1875. The only speech he made was a skilful and temperate arraignment of President Grant's policy towards the South.

[1] The charges centred in the president's removal of Secretary Stanton, his *ad interim* appointment of Lorenzo Thomas, his campaign speeches in 1866, and the relation of these three things to the Tenure of Office Act. Of the eleven charges of impeachment the first was that Stanton's removal was contrary to the Tenure of Office Act; the second, that the appointment of Thomas was a violation of the same law; the third, that the appointment violated the Constitution; the fourth, that Johnson conspired with Thomas "to hinder and prevent Edwin M. Stanton ... from holding ... office of secretary for the department of war"; the fifth, that Johnson had conspired with Thomas to "prevent and hinder the execution" of the Tenure of Office Act; the sixth, that he had conspired with Thomas "to seize, take and possess the property of the United States in the department of war," in violation of the Tenure of Office Act; the seventh, that this action was "a high misdemeanour"; the eighth, that the appointment of Thomas was "with intent unlawfully to control the disbursements of the moneys appropriated for the military service and for the department of war"; the ninth, that he had instructed Major-General Emory, in command of the department of Washington, that an act of 1867 appropriating money for the army was unconstitutional; the tenth, that his speeches in 1866 constituted "a high misdemeanour in office"; and the eleventh, the "omnibus" article, that he had committed high misdemeanours in saying that the 39th Congress was not an authorized Congress, that its legislation was not binding upon him, and that it was incapable of proposing amendments. The actual trial began on the 30th of March (from the 5th of March it was adjourned to the 23rd, and on the 24th of March to the 30th). On the 16th of May, after sessions in which the Senate repeatedly reversed the rulings of the chief justice as to the admission of evidence, in which the president's counsel showed that their case was excellently prepared and the prosecuting counsel appealed in general to political passions rather than to judicial impartiality, the eleventh article was voted on and impeachment failed by a single vote (35 to 19; 7 republicans and 12 democrats voting "Not guilty") of the necessary two-thirds. After ten days' interval, during which B. F. Butler of the prosecuting counsel attempted to prove that corruption had been practised on some of those voting "Not guilty," on the 26th of May a vote was taken on the second and third articles with the same result as on the eleventh article. There was no vote on the other articles.

President Johnson's leading political principles were a reverence of Andrew Jackson, unlimited confidence in the people, and an intense veneration for the constitution. Throughout his life he remained in some respects a "backwoodsman." He lacked the finish of systematic education. But his whole career sufficiently proves him to have been a man of extraordinary qualities. He did not rise above untoward circumstances by favour, nor—until after his election as senator—by fortunate and fortuitous connexion with great events, but by strength of native talents, persistent purpose, and an iron will. He had strong, rugged powers, was a close reasoner and a forcible speaker. Unfortunately his extemporaneous speeches were commonplace, in very bad taste, fervently intemperate and denunciatory; and though this was probably due largely to temperament and habits of stump-speaking formed in early life, it was attributed by his enemies to drink. Resorting to stimulants after illness, his marked excess in this respect on the occasion of his inauguration as vice-president undoubtedly did him harm with the public. Faults of personality were his great handicap. Though approachable and not without kindliness of manner, he seemed hard and inflexible; and while president, physical pain and domestic anxieties, added to the struggles of public life, combined to accentuate a naturally somewhat severe temperament. A lifelong Southern Democrat, he was forced to lead (nominally at least) a party of Northern Republicans, with whom he had no bond of sympathy save a common opposition to secession; and his ardent, aggressive convictions and character, above all his complete lack of tact, unfitted him to deal successfully with the passionate partisanship of Congress. The absolute integrity and unflinching courage that marked his career were always ungrudgingly admitted by his greatest enemies.

See L. Foster, *The Life and Speeches of Andrew Johnson* (1866); D. M. De Witt, *The Impeachment and Trial of Andrew Johnson* (1903); C. E. Chadsey, *The Struggle between President Johnson and Congress over Reconstruction* (1896); and W. A. Dunning, *Essays on the Civil War and Reconstruction* (1898). Also see W. A. Dunning's paper "More Light on Andrew Johnson" (in the *American Historical Review*, April 1906), in which apparently conclusive evidence is presented to prove that Johnson's first inaugural, a notable state paper, was written by the historian George Bancroft.

JOHNSON, BENJAMIN (*c.* 1665–1742), English actor, was first a scene painter, then acted in the provinces, and appeared in London in 1695 at Drury Lane after Betterton's defection. He was the original Captain Driver in *Oronooko* (1696), Captain Fireball in Farquhar's *Sir Harry Wildair* (1701), Sable in Steele's *Funeral* (1702), &c.; as the First Gravedigger in *Hamlet* and in several characters in the plays of Ben Jonson he was particularly good. He succeeded, also, to Thomas Doggett's rôles.

JOHNSON, EASTMAN (1824–1906), American artist, was born at Lovell, Maine, on the 29th of July 1824. He studied at Düsseldorf, Paris, Rome and The Hague, the last city being his home for four years. In 1860 he was elected to the National Academy of Design, New York. A distinguished portrait and genre painter, he made distinctively American themes his own, depicting the negro, fisherfolk and farm life with unusual interest. Such pictures as "Old Kentucky Home" (1867), "Husking Bee" (1876), "Cranberry Harvest, Nantucket" (1880), and his portrait group "The Funding Bill" (1881) achieved a national reputation. Among his sitters were many prominent men, including Daniel Webster; Presidents Hayes, Arthur, Cleveland and Harrison; William M. Evarts, Charles J. Folger; Emerson, Longfellow, Hawthorne, James McCosh, Noah Porter and Sir Edward Archbald. He died in New York City on the 5th of April 1906.

JOHNSON, REVERDY (1796–1876), American political leader and jurist, was born at Annapolis, Maryland, on the 21st of May 1796. His father, John Johnson (1770–1824), was a distinguished lawyer, who served in both houses of the Maryland General Assembly, as attorney-general of the state (1806–1811), as a judge of the court of appeals (1811–1821), and as a chancellor of his state (1821–1824). Reverdy graduated from St John's college in 1812. He then studied law in his father's office, was admitted to the bar in 1815 and began to practise in Upper Marlborough,

Prince George's county. In 1817 he removed to Baltimore, where he became the professional associate of Luther Martin, William Pinkney and Roger B. Taney; with Thomas Harris he reported the decisions of the court of appeals in *Harris and Johnson's Reports* (1820–1827); and in 1818 he was appointed chief commissioner of insolvent debtors. From 1821 to 1825 he was a state senator; from 1825 to 1845 he devoted himself to his practice; from 1845 to 1849, as a Whig, he was a member of the United States Senate; and from March 1849 to July 1850 he was attorney-general of the United States. In 1856 he became identified with the conservative wing of the Democratic party, and four years later supported Stephen A. Douglas for the presidency. In 1861 he was a delegate from Maryland to the peace convention at Washington; in 1861–1862 he was a member of the Maryland House of Delegates. After the capture of New Orleans he was commissioned by Lincoln to revise the decisions of the military commandant, General B. F. Butler, in regard to foreign governments, and reversed all those decisions to the entire satisfaction of the administration. In 1863 he again took his seat in the United States Senate. In 1868 he was appointed minister to Great Britain and soon after his arrival in England negotiated the Johnson-Clarendon treaty for the settlement of disputes arising out of the Civil War; this, however, the Senate refused to ratify, and he returned home on the accession of General U. S. Grant to the presidency. Again resuming his practice he was engaged by the government in the prosecution of Ku-Klux cases. He died on the 10th of February 1876 at Annapolis. He repudiated the doctrine of secession, and pleaded for compromise and conciliation. Opposed to the Reconstruction measures, he voted for them on the ground that it was better to accept than reject them, since they were probably the best that could be obtained. As a lawyer he was engaged during his later years in most of the especially important cases in the Supreme Court of the United States and in the courts of Maryland.

JOHNSON, RICHARD (1573–1659?), English romance writer, was baptized in London on the 24th of May 1573. His most famous romance is *The Famous Historie of the Seaven Champions of Christendom* (1596?). The success of this book was so great that the author added a second and a third part in 1608 and 1616. His other stories include: *The Nine Worthies of London* (1592); *The Pleasant Walks of Moorefields* (1607); *The Pleasant Conceites of Old Hobson* (1607), the hero being a well-known haberdasher in the Poultry; *The Most Pleasant History of Tom a Lincolne* (1607); *A Remembrance of . . . Robert Earle of Salisbury* (1612); *Looke on Me, London* (1613); *The History of Tom Thumbe* (1621). *The Crown Garland of Golden Roses . . . set forth in Many Pleasant new Songs and Sonnets* (1612) was reprinted for the Percy Society (1842 and 1845).

JOHNSON, RICHARD MENTOR (1781–1850), ninth vice-president of the United States, was born at Bryant's Station, Kentucky, on the 17th of October 1781. He was admitted to the bar in 1800, and became prominent as a lawyer and Democratic politician, serving in the Federal House of Representatives and in the Senate for many years. From 1837 to 1841 he was vice-president of the United States, to which position he was elected over Francis Granger, by the Senate, none of the four candidates for the vice-presidency having received a majority of the electoral votes. The opposition to Johnson within the party greatly increased during his term, and the Democratic national convention of 1840 adopted the unprecedented course of refusing to nominate anyone for the vice-presidency. In the ensuing election Johnson received most of the Democratic electoral votes, but was defeated by the Whig candidate, John Tyler. He died in Frankfort, Kentucky, on the 19th of November 1850.

JOHNSON, SAMUEL (1709-1784), English writer and lexicographer, was the son of Michael Johnson (1656-1731), bookseller and magistrate of Lichfield, who married in 1706 Sarah Ford (1669–1759). Michael's abilities and attainments seem to have been considerable. He was so well acquainted with the contents of the volumes which he exposed for sale that the country rectors of Staffordshire and Worcestershire thought him an oracle on points of learning. Between him and the clergy, indeed, there was a strong religious and political sympathy. He was a zealous churchman, and, though he had qualified himself for municipal office by taking the oaths to the sovereigns in possession, was to the last a Jacobite in heart. The social position of Samuel's paternal grandfather, William Johnson, remains obscure; his mother was the daughter of Cornelius Ford, "a little Warwickshire Gent."

At a house (now the Johnson Museum) in the Market Square, Lichfield, Samuel Johnson was born on the 18th of September 1709 and baptized on the same day at St Mary's, Lichfield. In the child the physical, intellectual and moral peculiarities which afterwards distinguished the man were plainly discernible: great muscular strength accompanied by much awkwardness and many infirmities; great quickness of parts, with a morbid propensity to sloth and procrastination; a kind and generous heart, with a gloomy and irritable temper. He had inherited from his ancestors a scrofulous taint, and his parents were weak enough to believe that the royal touch would cure him. In his third year he was taken up to London, inspected by the court surgeon, prayed over by the court chaplains and stroked and presented with a piece of gold by Queen Anne. Her hand was applied in vain. The boy's features, which were originally noble and not irregular, were distorted by his malady. His cheeks were deeply scarred. He lost for a time the sight of one eye; and he saw but very imperfectly with the other. But the force of his mind overcame every impediment. Indolent as he was, he acquired knowledge with such ease and rapidity that at every school (such as those at Lichfield and Stourbridge) to which he was sent he was soon the best scholar. From sixteen to eighteen he resided at home, and was left to his own devices. He learned much at this time, though his studies were without guidance and without plan. He ransacked his father's shelves, dipped into a multitude of books, read what was interesting, and passed over what was dull An ordinary lad would have acquired little or no useful knowledge in such a way; but much that was dull to ordinary lads was interesting to Samuel. He read little Greek; for his proficiency in that language was not such that he could take much pleasure in the masters of Attic poetry and eloquence. But he had left school a good Latinist, and he soon acquired an extensive knowledge of Latin literature. He was peculiarly attracted by the works of the great restorers of learning. Once, while searching for some apples, he found a huge folio volume of Petrarch's works. The name excited his curiosity, and he eagerly devoured hundreds of pages. Indeed, the diction and versification of his own Latin compositions show that he had paid at least as much attention to modern copies from the antique as to the original models.

While he was thus irregularly educating himself, his family was sinking into hopeless poverty. Old Michael Johnson was much better qualified to pore over books, and to talk about them, than to trade in them. His business declined; his debts increased; it was with difficulty that the daily expenses of his household were defrayed. It was out of his power to support his son at either university; but a wealthy neighbour offered assistance; and, in reliance on promises which proved to be of very little value, Samuel was entered at Pembroke College, Oxford. When the young scholar presented himself to the rulers of that society, they were amazed not more by his ungainly figure and eccentric manners than by the quantity of extensive and curious information which he had picked up during many months of desultory but not unprofitable study. On the first day of his residence he surprised his teachers by quoting Macrobius; and one of the most learned among them declared that he had never known a freshman of equal attainments.

At Oxford Johnson resided barely over two years, possibly less. He was poor, even to raggedness; and his appearance excited a mirth and a pity which were equally intolerable to his haughty spirit. He was driven from the quadrangle of Christ Church by the sneering looks which the members of that aristocratical society cast at the holes in his shoes. Some charitable person placed a new pair at his door; but he spurned them away

in a fury. Distress made him, not servile, but reckless and ungovernable. No opulent gentleman commoner, panting for one-and-twenty, could have treated the academical authorities with more gross disrespect. The needy scholar was generally to be seen under the gate of Pembroke, a gate now adorned with his effigy, haranguing a circle of lads, over whom, in spite of his tattered gown and dirty linen, his wit and audacity gave him an undisputed ascendancy. In every mutiny against the discipline of the college he was the ringleader. Much was pardoned, however, to a youth so highly distinguished by abilities and acquirements. He had early made himself known by turning Pope's "Messiah" into Latin verse. The style and rhythm, indeed, were not exactly Virgilian; but the translation found many admirers, and was read with pleasure by Pope himself.

The time drew near at which Johnson would, in the ordinary course of things, have become a Bachelor of Arts; but he was at the end of his resources. Those promises of support on which he had relied had not been kept. His family could do nothing for him. His debts to Oxford tradesmen were small indeed, yet larger than he could pay. In the autumn of 1731 he was under the necessity of quitting the university without a degree. In the following winter his father died. The old man left but a pittance; and of that pittance almost the whole was appropriated to the support of his widow. The property to which Samuel succeeded amounted to no more than twenty pounds.

His life, during the thirty years which followed, was one hard struggle with poverty. The misery of that struggle needed no aggravation, but was aggravated by the sufferings of an unsound body and an unsound mind. Before the young man left the university, his hereditary malady had broken forth in a singularly cruel form. He had become an incurable hypochondriac. He said long after that he had been mad all his life, or at least not perfectly sane; and, in truth, eccentricities less strange than his have often been thought ground sufficient for absolving felons and for setting aside wills. His grimaces, his gestures, his mutterings, sometimes diverted and sometimes terrified people who did not know him. (At a dinner table he would, in a fit of absence, stoop down and twitch off a lady's shoe.) He would amaze a drawing-room by suddenly ejaculating a clause of the Lord's Prayer. He would conceive an unintelligible aversion to a particular alley, and perform a great circuit rather than see the hateful place. He would set his heart on touching every post in the streets through which he walked. If by any chance he missed a post, he would go back a hundred yards and repair the omission. Under the influence of his disease, his senses became morbidly torpid, and his imagination morbidly active. At one time he would stand poring on the town clock without being able to tell the hour. At another he would distinctly hear his mother, who was many miles off, calling him by his name. But this was not the worst. A deep melancholy took possession of him, and gave a dark tinge to all his views of human nature and of human destiny. Such wretchedness as he endured has driven many men to shoot themselves or drown themselves. But he was under no temptation to commit suicide. He was sick of life; but he was afraid of death; and he shuddered at every sight or sound which reminded him of the inevitable hour. In religion he found but little comfort during his long and frequent fits of dejection; for his religion partook of his own character. The light from heaven shone on him indeed, but not in a direct line, or with its own pure splendour. The rays had to struggle through a disturbing medium; they reached him refracted, dulled and discoloured by the thick gloom which had settled on his soul, and, though they might be sufficiently clear to guide him, were too dim to cheer him.

With such infirmities of body and of mind, he was left, at two-and-twenty, to fight his way through the world. He remained during about five years in the midland counties. At Lichfield, his birthplace and his early home, he had inherited some friends and acquired others. He was kindly noticed by Henry Hervey, a gay officer of noble family, who happened to be quartered there. Gilbert Walmesley, registrar of the ecclesiastical court of the diocese, a man of distinguished parts, learning and knowledge of the world, did himself honour by patronizing the young adventurer, whose repulsive person, unpolished manners and squalid garb moved many of the petty aristocracy of the neighbourhood to laughter or disgust. At Lichfield, however, Johnson could find no way of earning a livelihood. He became usher of a grammar school in Leicestershire; he resided as a humble companion in the house of a country gentleman; but a life of dependence was insupportable to his haughty spirit. He repaired to Birmingham, and there earned a few guineas by literary drudgery. In that town he printed a translation, little noticed at the time, and long forgotten, of a Latin book about Abyssinia. He then put forth proposals for publishing by subscription the poems of Politian, with notes containing a history of modern Latin verse; but subscriptions did not come in, and the volume never appeared.

While leading this vagrant and miserable life, Johnson fell in love. The object of his passion was Mrs Elizabeth Porter (1688–1752), widow of Harry Porter (d. 1734), whose daughter Lucy was born only six years after Johnson himself. To ordinary spectators the lady appeared to be a short, fat, coarse woman, painted half an inch thick, dressed in gaudy colours, and fond of exhibiting provincial airs and graces which were not exactly those of the Queensberrys and Lepels. To Johnson, however, whose passions were strong, whose eyesight was too weak to distinguish rouge from natural bloom, and who had seldom or never been in the same room with a woman of real fashion, his Tetty, as he called her, was the most beautiful, graceful and accomplished of her sex. That his admiration was unfeigned cannot be doubted; she had, however, a jointure of £600 and perhaps a little more; she came of a good family, and her son Jervis (d. 1763) commanded H.M.S. "Hercules." The marriage, in spite of occasional wranglings, proved happier than might have been expected. The lover continued to be under the illusions of the wedding-day (July 9, 1735) till the lady died in her sixty-fourth year. On her monument at Bromley he placed an inscription extolling the charms of her person and of her manners; and when, long after her decease, he had occasion to mention her, he exclaimed with a tenderness half ludicrous, half pathetic, "Pretty creature!"

His marriage made it necessary for him to exert himself more strenuously than he had hitherto done. He took a house at Edial near Lichfield and advertised for pupils. But eighteen months passed away, and only three pupils came to his academy. The "faces" that Johnson habitually made (probably nervous contortions due to his disorder) may well have alarmed parents. Good scholar though he was, these twitchings had lost him ushierships in 1735 and 1736. David Garrick, who was one of the pupils, used, many years later, to throw the best company of London into convulsions of laughter by mimicking the master and his lady.

At length Johnson, in the twenty-eighth year of his age, determined to seek his fortune in London as a literary adventurer. He set out with a few guineas, three acts of his tragedy of *Irene* in manuscript, and two or three letters of introduction from his friend Walmesley. Never since literature became a calling in England had it been a less gainful calling than at the time when Johnson took up his residence in London. In the preceding generation a writer of eminent merit was sure to be munificently rewarded by the Government. The least that he could expect was a pension or a sinecure place; and, if he showed any aptitude for politics, he might hope to be a member of parliament, a lord of the treasury, an ambassador, a secretary of state. But literature had ceased to flourish under the patronage of the great, and had not yet begun to flourish under the patronage of the public. One man of letters, indeed, Pope, had acquired by his pen what was then considered as a handsome fortune, and lived on a footing of equality with nobles and ministers of state. But this was a solitary exception. Even an author whose reputation was established, and whose works were popular—such an author as Thomson, whose *Seasons* was in every library, such an author as Fielding, whose *Pasquin* had had a greater run than any drama since *The Beggar's Opera*—was sometimes glad to obtain, by

pawning his best coat, the means of dining on tripe at a cookshop underground, where he could wipe his hands, after his greasy meal, on the back of a Newfoundland dog. It is easy, therefore, to imagine what humiliations and privations must have awaited the novice who had still to earn a name. One of the publishers to whom Johnson applied for employment measured with a scornful eye that athletic though uncouth frame, and exclaimed, "You had better get a porter's knot and carry trunks." Nor was the advice bad, for a porter was likely to be as plentifully fed, and as comfortably lodged, as a poet.

Some time appears to have elapsed before Johnson was able to form any literary connexion from which he could expect more than bread for the day which was passing over him. He never forgot the generosity with which Hervey, who was now residing in London, relieved his wants during this time of trial. "Harry Hervey," said Johnson many years later, "was a vicious man; but he was very kind to me. If you call a dog Hervey, I shall love him." At Hervey's table Johnson sometimes enjoyed feasts which were made more agreeable by contrast. But in general he dined, and thought that he dined well, on sixpennyworth of meat and a pennyworth of bread at an alehouse near Drury Lane.

The effect of the privations and sufferings which he endured at this time was discernible to the last in his temper and his deportment. His manners had never been courtly. They now became almost savage. Being frequently under the necessity of wearing shabby coats and dirty shirts, he became a confirmed sloven. Being often very hungry when he sat down to his meals, he contracted a habit of eating with ravenous greediness. Even to the end of his life, and even at the tables of the great, the sight of food affected him as it affects wild beasts and birds of prey. His taste in cookery, formed in subterranean ordinaries and *à la mode* beef shops, was far from delicate. Whenever he was so fortunate as to have near him a hare that had been kept too long, or a meat pie made with rancid butter, he gorged himself with such violence that his veins swelled and the moisture broke out on his forehead. The affronts which his poverty emboldened stupid and low-minded men to offer to him would have broken a mean spirit into sycophancy, but made him rude even to ferocity. Unhappily the insolence which, while it was defensive, was pardonable, and in some sense respectable, accompanied him into societies where he was treated with courtesy and kindness. He was repeatedly provoked into striking those who had taken liberties with him. All the sufferers, however, were wise enough to abstain from talking about their beatings, except Osborne, the most rapacious and brutal of booksellers, who proclaimed everywhere that he had been knocked down by the huge fellow whom he had hired to puff the Harleian Library.

About a year after Johnson had begun to reside in London he was fortunate enough to obtain regular employment from Edward Cave (*q. v.*) on the *Gentleman's Magazine*. That periodical, just entering on the ninth year of its long existence, was the only one in the kingdom which then had what would now be called a large circulation. Johnson was engaged to write the speeches in the "Reports of the Debates of the Senate of Lilliput" (see REPORTING), under which thin disguise the proceedings of parliament were published. He was generally furnished with notes, meagre indeed and inaccurate, of what had been said; but sometimes he had to find arguments and eloquence both for the ministry and for the opposition. He was himself a Tory, not from rational conviction—for his serious opinion was that one form of government was just as good or as bad as another—but from mere passion, such as inflamed the Capulets against the Montagues, or the Blues of the Roman circus against the Greens. In his infancy he had heard so much talk about the villainies of the Whigs, and the dangers of the Church, that he had become a furious partisan when he could scarcely speak. Before he was three he had insisted on being taken to hear Sacheverel preach at Lichfield Cathedral, and had listened to the sermon with as much respect and probably with as much intelligence, as any Staffordshire squire in the congregation. The work which had been begun in the nursery had been completed by the university. Oxford, when Johnson resided there, was the most Jacobitical place in England; and Pembroke was one of the most Jacobitical colleges in Oxford. The prejudices which he brought up to London were scarcely less absurd than those of his own Tom Tempest. Charles II. and James II. were two of the best kings that ever reigned. Laud was a prodigy of parts and learning over whose tomb Art and Genius still continued to weep. Hampden deserved no more honourable name than that of the "zealot of rebellion." Even the ship-money Johnson would not pronounce to have been an unconstitutional impost. Under a government which allowed to the people an unprecedented liberty of speech and action, he fancied that he was a slave. He hated Dissenters and stock-jobbers, the excise and the army, septennial parliaments, and Continental connexions. He long had an aversion to the Scots, an aversion of which he could not remember the commencement, but which, he owned, had probably originated in his abhorrence of the conduct of the nation during the Great Rebellion. It is easy to guess in what manner debates on great party questions were likely to be reported by a man whose judgment was so much disordered by party spirit. A show of fairness was indeed necessary to the prosperity of the *Magazine*. But Johnson long afterwards owned that, though he had saved appearances, he had taken care that the Whig dogs should not have the best of it; and, in fact, every passage which has lived, every passage which bears the marks of his higher faculties, is put into the mouth of some member of the opposition.

A few weeks after Johnson had entered on these obscure labours, he published a work which at once placed him high among the writers of his age. It is probable that what he had suffered during his first year in London had often reminded him of some parts of the satire in which Juvenal had described the misery and degradation of a needy man of letters, lodged among the pigeons' nests in the tottering garrets which overhung the streets of Rome. Pope's admirable imitations of Horace's *Satires* and *Epistles* had recently appeared, were in every hand, and were by many readers thought superior to the originals. What Pope had done for Horace, Johnson aspired to do for Juvenal.

Johnson's *London* appeared without his name in May 1738. He received only ten guineas for this stately and vigorous poem; but the sale was rapid and the success complete. A second edition was required within a week. Those small critics who are always desirous to lower established reputations ran about proclaiming that the anonymous satirist was superior to Pope in Pope's own peculiar department of literature. It ought to be remembered, to the honour of Pope, that he joined heartily in the applause with which the appearance of a rival genius was welcomed. He made inquiries about the author of *London*. Such a man, he said, could not long be concealed. The name was soon discovered; and Pope, with great kindness, exerted himself to obtain an academical degree and the mastership of a grammar school for the poor young poet. The attempt failed, and Johnson remained a bookseller's hack.

It does not appear that these two men, the most eminent writer of the generation which was going out, and the most eminent writer of the generation which was coming in, ever saw each other. They lived in very different circles, one surrounded by dukes and earls, the other by starving pamphleteers and index-makers. Among Johnson's associates at this time may be mentioned Boyse, who, when his shirts were pledged, scrawled Latin verses sitting up in bed with his arms through two holes in his blanket, who composed very respectable sacred poetry when he was sober, and who was at last run over by a hackney coach when he was drunk; Hoole, surnamed the metaphysical tailor, who, instead of attending to his measures, used to trace geometrical diagrams on the board where he sat cross-legged; and the penitent impostor, George Psalmanazar, who, after poring all day, in a humble lodging, on the folios of Jewish rabbis and Christian fathers, indulged himself at night with literary and theological conversation at an alehouse in the City. But the most remarkable of the persons with whom at this time Johnson consorted was Richard Savage, an earl's son, a shoemaker's apprentice,

who had seen life in all its forms, who had feasted among blue ribands in St James's Square, and had lain with fifty pounds weight of irons on his legs in the condemned ward of Newgate. This man had, after many vicissitudes of fortune, sunk at last into abject and hopeless poverty. His pen had failed him. His patrons had been taken away by death, or estranged by the riotous profusion with which he squandered their bounty, and the ungrateful insolence with which he rejected their advice. He now lived by begging. He dined on venison and champagne whenever he had been so fortunate as to borrow a guinea. If his questing had been unsuccessful, he appeased the rage of hunger with some scraps of broken meat, and lay down to rest under the piazza of Covent Garden in warm weather, and, in cold weather, as near as he could get to the furnace of a glass house. Yet in his misery he was still an agreeable companion. He had an inexhaustible store of anecdotes about that gay and brilliant world from which he was now an outcast. He had observed the great men of both parties in hours of careless relaxation, had seen the leaders of opposition without the mask of patriotism, and had heard the prime minister roar with laughter and tell stories not over-decent. During some months Savage lived in the closest familiarity with Johnson; and then the friends parted, not without tears. Johnson remained in London to drudge for Cave. Savage went to the west of England, lived there as he had lived everywhere, and in 1743 died, penniless and heartbroken, in Bristol Gaol.

Soon after his death, while the public curiosity was strongly excited about his extraordinary character and his not less extraordinary adventures, a life of him appeared widely different from the catchpenny lives of eminent men which were then a staple article of manufacture in Grub Street. The style was indeed deficient in ease and variety; and the writer was evidently too partial to the Latin element of our language. But the little work, with all its faults, was a masterpiece. No finer specimen of literary biography existed in any language, living or dead; and a discerning critic might have confidently predicted that the author was destined to be the founder of a new school of English eloquence.

The *Life of Savage* was anonymous; but it was well known in literary circles that Johnson was the writer. During the three years which followed, he produced no important work; but he was not, and indeed could not be, idle. The fame of his abilities and learning continued to grow. Warburton pronounced him a man of parts and genius; and the praise of Warburton was then no light thing. Such was Johnson's reputation that, in 1747, several eminent booksellers combined to employ him in the arduous work of preparing a *Dictionary of the English Language*, in two folio volumes. The sum which they agreed to pay him was only fifteen hundred guineas; and out of this sum he had to pay several poor men of letters who assisted him in the humbler parts of his task.

The prospectus of the *Dictionary* he addressed to the earl of Chesterfield. Chesterfield had long been celebrated for the politeness of his manners, the brilliancy of his wit, and the delicacy of his taste. He was acknowledged to be the finest speaker in the House of Lords. He had recently governed Ireland, at a momentous conjuncture, with eminent firmness, wisdom and humanity; and he had since become secretary of state. He received Johnson's homage with the most winning affability, and requited it with a few guineas, bestowed doubtless in a very graceful manner, but was by no means desirous to see all his carpets blackened with the London mud, and his soups and wines thrown to right and left over the gowns of fine ladies and the waistcoats of fine gentlemen, by an absent, awkward scholar, who gave strange starts and uttered strange growls, who dressed like a scarecrow and ate like a cormorant. During some time Johnson continued to call on his patron, but, after being repeatedly told by the porter that his lordship was not at home, took the hint, and ceased to present himself at the inhospitable door.

Johnson had flattered himself that he should have completed his *Dictionary* by the end of 1750; but it was not till 1755 that he at length gave his huge volumes to the world. During the seven years which he passed in the drudgery of penning definitions and marking quotations for transcription, he sought for relaxation in literary labour of a more agreeable kind. In January 1749 he published *The Vanity of Human Wishes*, an excellent imitation of the tenth satire of Juvenal, for which he received fifteen guineas.

A few days after the publication of this poem, his tragedy of *Irene*, begun many years before, was brought on the stage by his old pupil, David Garrick, now manager of Drury Lane Theatre. The relation between him and his old preceptor was of a very singular kind. They repelled each other strongly, and yet attracted each other strongly. Nature had made them of very different clay; and circumstances had fully brought out the natural peculiarities of both. Sudden prosperity had turned Garrick's head. Continued adversity had soured Johnson's temper. Johnson saw with more envy than became so great a man the villa, the plate, the china, the Brussels carpet, which the little mimic had got by repeating, with grimaces and gesticulations, what wiser men had written; and the exquisitely sensitive vanity of Garrick was galled by the thought that, while all the rest of the world was applauding him, he could obtain from one morose cynic, whose opinion it was impossible to despise, scarcely any compliment not acidulated with scorn. Yet the two Lichfield men had so many early recollections in common, and sympathized with each other on so many points on which they sympathized with nobody else in the vast population of the capital, that, though the master was often provoked by the monkey-like impertinence of the pupil, and the pupil by the bearish rudeness of the master, they remained friends till they were parted by death. Garrick now brought *Irene* out, with alterations sufficient to displease the author, yet not sufficient to make the piece pleasing to the audience. After nine representations the play was withdrawn. The poet however cleared by his benefit nights, and by the sale of the copyright of his tragedy, about three hundred pounds, then a great sum in his estimation.

About a year after the representation of *Irene*, he began to publish a series of short essays on morals, manners and literature. This species of composition had been brought into fashion by the success of the *Tatler*, and by the still more brilliant success of the *Spectator*. A crowd of small writers had vainly attempted to rival Addison. The *Lay Monastery*, the *Censor*, the *Freethinker*, the *Plain Dealer*, the *Champion*, and other works of the same kind had had their short day. At length Johnson undertook the adventure in which so many aspirants had failed. In the thirty-sixth year after the appearance of the last number of the *Spectator* appeared the first number of the *Rambler*. From March 1750 to March 1752 this paper continued to come out every Tuesday and Saturday.

From the first the *Rambler* was enthusiastically admired by a few eminent men. Richardson, when only five numbers had appeared, pronounced it equal if not superior to the *Spectator*. Young and Hartley expressed their approbation not less warmly. In consequence probably of the good offices of Bubb Dodington, who was then the confidential adviser of Prince Frederick, two of his royal highness's gentlemen carried a gracious message to the printing office, and ordered seven copies for Leicester House. But Johnson had had enough of the patronage of the great to last him all his life, and was not disposed to haunt any other door as he had haunted the door of Chesterfield.

By the public the *Rambler* was at first very coldly received. Though the price of a number was only twopence, the sale did not amount to five hundred. The profits were therefore very small. But as soon as the flying leaves were collected and reprinted they became popular. The author lived to see thirteen thousand copies spread over England alone. Separate editions were published for the Scotch and Irish markets. A large party pronounced the style perfect, so absolutely perfect that in some essays it would be impossible for the writer himself to alter a single word for the better. Another party, not less numerous, vehemently accused him of having corrupted the purity of the English tongue. The best critics admitted that his diction was too monotonous, too obviously artificial, and now and then turgid

even to absurdity. But they did justice to the acuteness of his observations on morals and manners, to the constant precision and frequent brilliancy of his language, to the weighty and magnificent eloquence of many serious passages, and to the solemn yet pleasing humour of some of the lighter papers.

The last *Rambler* was written in a sad and gloomy hour. Mrs Johnson had been given over by the physicians. Three days later she died. She left her husband almost broken-hearted. Many people had been surprised to see a man of his genius and learning stooping to every drudgery, and denying himself almost every comfort, for the purpose of supplying a silly, affected old woman with superfluities, which she accepted with but little gratitude. But all his affection had been concentrated on her. He had neither brother nor sister, neither son nor daughter. Her opinion of his writings was more important to him than the voice of the pit of Drury Lane Theatre, or the judgment of the *Monthly Review*. The chief support which had sustained him through the most arduous labour of his life was the hope that she would enjoy the fame and the profit which he anticipated from his *Dictionary*. She was gone; and in that vast labyrinth of streets, peopled by eight hundred thousand human beings, he was alone. Yet it was necessary for him to set himself, as he expressed it, doggedly to work. After three more laborious years, the *Dictionary* was at length complete.

It had been generally supposed that this great work would be dedicated to the eloquent and accomplished nobleman to whom the prospectus had been addressed. Lord Chesterfield well knew the value of such a compliment; and therefore, when the day of publication drew near, he exerted himself to soothe, by a show of zealous and at the same time of delicate and judicious kindness, the pride which he had so cruelly wounded. Since the *Rambler* had ceased to appear, the town had been entertained by a journal called the *World*, to which many men of high rank and fashion contributed. In two successive numbers of the *World*, the *Dictionary* was, to use the modern phrase, puffed with wonderful skill. The writings of Johnson were warmly praised. It was proposed that he should be invested with the authority of a dictator, nay, of a pope, over our language, and that his decisions about the meaning and the spelling of words should be received as final. His two folios, it was said, would of course be bought by everybody who could afford to buy them. It was soon known that these papers were written by Chesterfield. But the just resentment of Johnson was not to be so appeased. In a letter written with singular energy and dignity of thought and language, he repelled the tardy advances of his patron. The *Dictionary* came forth without a dedication. In the Preface the author truly declared that he owed nothing to the great, and described the difficulties with which he had been left to struggle so forcibly and pathetically that the ablest and most malevolent of all the enemies of his fame, Horne Tooke, never could read that passage without tears.

Johnson's *Dictionary* was hailed with an enthusiasm such as no similar work has ever excited. It was indeed the first dictionary which could be read with pleasure. The definitions show so much acuteness of thought and command of language, and the passages quoted from poets, divines and philosophers are so skilfully selected, that a leisure hour may always be very agreeably spent in turning over the pages. The faults of the book resolve themselves, for the most part, into one great fault. Johnson was a wretched etymologist. He knew little or nothing of any Teutonic language except English, which indeed, as he wrote it, was scarcely a Teutonic language; and thus he was absolutely at the mercy of Junius and Skinner.

The *Dictionary*, though it raised Johnson's fame, added nothing to his pecuniary means. The fifteen hundred guineas which the booksellers had agreed to pay him had been advanced and spent before the last sheets issued from the press. It is painful to relate that twice in the course of the year which followed the publication of this great work he was arrested and carried to sponging-houses, and that he was twice indebted for his liberty to his excellent friend Richardson. It was still necessary for the man who had been formerly saluted by the highest authority as dictator of the English language to supply his wants by constant toil. He abridged his *Dictionary*. He proposed to bring out an edition of Shakespeare by subscription, and many subscribers sent in their names and laid down their money; but he soon found the task so little to his taste that he turned to more attractive employments. He contributed many papers to a new monthly journal, which was called the *Literary Magazine*. Few of these papers have much interest; but among them was one of the best things that he ever wrote, a masterpiece both of reasoning and of satirical pleasantry, the review of Jenyns' *Inquiry into the Nature and Origin of Evil*.

In the spring of 1758 Johnson put forth the first of a series of essays, entitled the *Idler*. During two years these essays continued to appear weekly. They were eagerly read, widely circulated, and indeed impudently pirated, while they were still in the original form, and had a large sale when collected into volumes. The *Idler* may be described as a second part of the *Rambler*, somewhat livelier and somewhat weaker than the first part.

While Johnson was busied with his *Idlers*, his mother, who had accomplished her ninetieth year, died at Lichfield. It was long since he had seen her, but he had not failed to contribute largely out of his small means to her comfort. In order to defray the charges of her funeral, and to pay some debts which she had left, he wrote a little book in a single week, and sent off the sheets to the press without reading them over. A hundred pounds were paid him for the copyright, and the purchasers had great cause to be pleased with their bargain, for the book was *Rasselas*, and it had a great success.

The plan of *Rasselas* might, however, have seemed to invite severe criticism. Johnson has frequently blamed Shakespeare for neglecting the proprieties of time and place, and for ascribing to one age or nation the manners and opinions of another. Yet Shakespeare has not sinned in this way more grievously than Johnson. Rasselas and Imlac, Nekayah and Pekuah, are evidently meant to be Abyssinians of the 18th century; for the Europe which Imlac describes is the Europe of the 18th century, and the inmates of the Happy Valley talk familiarly of that law of gravitation which Newton discovered and which was not fully received even at Cambridge till the 18th century. Johnson, not content with turning filthy savages, ignorant of their letters, and gorged with raw steaks cut from living cows, into philosophers as eloquent and enlightened as himself or his friend Burke, and into ladies as highly accomplished as Mrs Lennox or Mrs Sheridan, transferred the whole domestic system of England to Egypt. Into a land of harems, a land of polygamy, a land where women are married without ever being seen, he introduced the flirtations and jealousies of our ball-rooms. In a land where there is boundless liberty of divorce, wedlock is described as the indissoluble compact. "A youth and maiden meeting by chance, or brought together by artifice, exchange glances, reciprocate civilities, go home, and dream of each other. Such," says Rasselas, "is the common process of marriage." A writer who was guilty of such improprieties had little right to blame the poet who made Hector quote Aristotle, and represented Julio Romano as flourishing in the days of the Oracle of Delphi.

By such exertions as have been described Johnson supported himself till the year 1762. In that year a great change in his circumstances took place. He had from a child been an enemy of the reigning dynasty. His Jacobite prejudices had been exhibited with little disguise both in his works and in his conversation. Even in his massy and elaborate *Dictionary* he had, with a strange want of taste and judgment, inserted bitter and contumelious reflexions on the Whig party. The excise, which was a favourite resource of Whig financiers, he had designated as a hateful tax. He had railed against the commissioners of excise in language so coarse that they had seriously thought of prosecuting him. He had with difficulty been prevented from holding up the lord privy seal by name as an example of the meaning of the word "renegade." A pension he had defined as pay given to a state hireling to betray his country; a pensioner as a slave of state hired by a stipend to obey a master. It

seemed unlikely that the author of these definitions would himself be pensioned. But that was a time of wonders. George III. had ascended the throne, and had, in the course of a few months, disgusted many of the old friends, and conciliated many of the old enemies of his house. The city was becoming mutinous; Oxford was becoming loyal. Cavendishes and Bentincks were murmuring; Somersets and Wyndhams were hastening to kiss hands. The head of the treasury was now Lord Bute, who was a Tory, and could have no objection to Johnson's Toryism. Bute wished to be thought a patron of men of letters; and Johnson was one of the most eminent and one of the most needy men of letters in Europe. A pension of three hundred a year was graciously offered, and with very little hesitation accepted.

This event produced a change in Johnson's whole way of life. For the first time since his boyhood he no longer felt the daily goad urging him to the daily toil. He was at liberty, after thirty years of anxiety and drudgery, to indulge his constitutional indolence, to lie in bed till two in the afternoon, and to sit up talking till four in the morning, without fearing either the printer's devil or the sheriff's officer.

One laborious task indeed he had bound himself to perform. He had received large subscriptions for his promised edition of Shakespeare; he had lived on those subscriptions during some years; and he could not without disgrace omit to perform his part of the contract. His friends repeatedly exhorted him to make an effort, and he repeatedly resolved to do so. But, notwithstanding their exhortations and his resolutions, month followed month, year followed year, and nothing was done. He prayed fervently against his idleness; he determined, as often as he received the sacrament, that he would no longer doze away and trifle away his time; but the spell under which he lay resisted prayer and sacrament. Happily for his honour, the charm which held him captive was at length broken by no gentle or friendly hand. He had been weak enough to pay serious attention to a story about a ghost which haunted a house in Cock Lane, and had actually gone himself, with some of his friends, at one in the morning, to St John's Church, Clerkenwell, in the hope of receiving a communication from the perturbed spirit. But the spirit, though adjured with all solemnity, remained obstinately silent; and it soon appeared that a naughty girl of eleven had been amusing herself by making fools of so many philosophers. Churchill, who, confident in his powers, drunk with popularity, and burning with party spirit, was looking for some man of established fame and Tory politics to insult, celebrated the Cock Lane ghost in three cantos, nicknamed Johnson Pomposo, asked where the book was which had been so long promised and so liberally paid for, and directly accused the great moralist of cheating. This terrible word proved effectual, and in October 1765 appeared, after a delay of nine years, the new edition of Shakespeare.

This publication saved Johnson's character for honesty, but added nothing to the fame of his abilities and learning. The Preface, though it contains some good passages, is not in his best manner. The most valuable notes are those in which he had an opportunity of showing how attentively he had during many years observed human life and human nature. The best specimen is the note on the character of Polonius. Nothing so good is to be found even in Wilhelm Meister's admirable examination of *Hamlet*. But here praise must end. It would be difficult to name a more slovenly, a more worthless edition of any great classic.[1] Johnson had, in his prospectus, told the world that he was peculiarly fitted for the task which he had undertaken, because he had, as a lexicographer, been under the necessity of taking a wider view of the English language than any of his predecessors. But, unfortunately, he had altogether neglected that very part of our literature with which it is especially desirable that an editor of Shakespeare should be conversant. In the two folio volumes of the *English Dictionary* there is not a single passage quoted from any dramatist of the Elizabethan age except Shakespeare and Ben Jonson. Even from Ben the quotations are few. Johnson might easily in a few months have made himself well acquainted with every old play that was extant. But it never seems to have occurred to him that this was a necessary preparation for the work which he had undertaken. He would doubtless have admitted that it would be the height of absurdity in a man who was not familiar with the works of Aeschylus and Euripides to publish an edition of Sophocles. Yet he ventured to publish an edition of Shakespeare, without having ever in his life, as far as can be discovered, read a single scene of Massinger, Ford, Dekker, Webster, Marlow, Beaumont or Fletcher. His detractors were noisy and scurrilous. He had, however, acquitted himself of a debt which had long lain heavy on his conscience and he sank back into the repose from which the sting of satire had roused him. He long continued to live upon the fame which he had already won. He was honoured by the university of Oxford with a doctor's degree, by the Royal Academy with a professorship, and by the king with an interview, in which his majesty most graciously expressed a hope that so excellent a writer would not cease to write. In the interval between 1765 and 1775 Johnson published only two or three political tracts.

But, though his pen was now idle, his tongue was active. The influence exercised by his conversation, directly upon those with whom he lived, and indirectly on the whole literary world, was altogether without a parallel. His colloquial talents were indeed of the highest order. He had strong sense, quick discernment, wit, humour, immense knowledge of literature and of life, and an infinite store of curious anecdotes. As respected style, he spoke far better than he wrote. Every sentence which dropped from his lips was as correct in structure as the most nicely balanced period of the *Rambler*. But in his talk there were no pompous triads, and little more than a fair proportion of words in *-osity* and *-ation*. All was simplicity, ease and vigour. He uttered his short, weighty, and pointed sentences with a power of voice, and a justness and energy of emphasis, of which the effect was rather increased than diminished by the rollings of his huge form, and by the asthmatic gaspings and puffings in which the peals of his eloquence generally ended. Nor did the laziness which made him unwilling to sit down to his desk prevent him from giving instruction or entertainment orally. To discuss questions of taste, of learning, of casuistry, in language so exact and so forcible that it might have been printed without the alteration of a word, was to him no exertion, but a pleasure. He loved, as he said, to fold his legs and have his talk out. He was ready to bestow the overflowings of his full mind on anybody who would start a subject: on a fellow-passenger in a stage coach, or on the person who sat at the same table with him in an eating-house. But his conversation was nowhere so brilliant and striking as when he was surrounded by a few friends, whose abilities and knowledge enabled them, as he once expressed it, to send him back every ball that he threw. Some of these, in 1764, formed themselves into a club, which gradually became a formidable power in the commonwealth of letters. The verdicts pronounced by this conclave on new books were speedily known over all London, and were sufficient to sell off a whole edition in a day, or to condemn the sheets to the service of the trunkmaker and the pastrycook. Goldsmith was the representative of poetry and light literature, Reynolds of the arts, Burke of political eloquence and political philosophy. There, too, were Gibbon the greatest historian and Sir William Jones the greatest linguist of the age. Garrick brought to the meetings his inexhaustible pleasantry, his incomparable mimicry, and his consummate knowledge of stage effect. Among the most constant attendants were two high-born and high-bred gentlemen, closely bound together by friendship, but of widely different characters and habits—Bennet Langton, distinguished by his skill in Greek literature, by the orthodoxy of his opinions, and by the sanctity of his life, and Topham Beauclerk, renowned for his amours, his knowledge of the gay world, his fastidious taste and his sarcastic wit.

Among the members of this celebrated body was one to whom it has owed the greater part of its celebrity, yet who was

[1] This famous dictum of Macaulay, though endorsed by Lord Rosebery, has been energetically rebutted by Professor W. Raleigh and others, who recognize both sagacity and scholarship in Johnson's Preface and Notes. Johnson's wide grasp of the discourse and knowledge of human nature enable him in a hundred entangled passages to go straight to the dramatist's meaning.—(T. Se.)

regarded with little respect by his brethren, and had not without difficulty obtained a seat among them. This was James Boswell (*q.v.*), a young Scots lawyer, heir to an honourable name and a fair estate. That he was a coxcomb and a bore, weak, vain, pushing, curious, garrulous, was obvious to all who were acquainted with him.

To a man of Johnson's strong understanding and irritable temper, the silly egotism and adulation of Boswell must have been as teasing as the constant buzz of a fly. Johnson hated to be questioned; and Boswell was eternally catechizing him on all kinds of subjects, and sometimes propounded such questions as, "What would you do, sir, if you were locked up in a tower with a baby?" Johnson was a water-drinker and Boswell was a wine-bibber, and indeed little better than an habitual sot. It was impossible that there should be perfect harmony between two such companions. Indeed, the great man was sometimes provoked into fits of passion, in which he said things which the small man, during a few hours, seriously resented. Every quarrel, however, was soon made up. During twenty years the disciple continued to worship the master; the master continued to scold the disciple, to sneer at him, and to love him. The two friends ordinarily resided at a great distance from each other. Boswell practised in the Parliament House of Edinburgh, and could pay only occasional visits to London. During those visits his chief business was to watch Johnson, to discover all Johnson's habits, to turn the conversation to subjects about which Johnson was likely to say something remarkable, and to fill quarto notebooks with minutes of what Johnson had said. In this way were gathered the materials out of which was afterwards constructed the most interesting biographical work in the world.

Soon after the club began to exist, Johnson formed a connexion less important indeed to his fame, but much more important to his happiness, than his connexion with Boswell. Henry Thrale, one of the most opulent brewers in the kingdom, a man of sound and cultivated understanding, rigid principles, and liberal spirit, was married to one of those clever, kind-hearted, engaging, vain, pert young women who are perpetually doing or saying what is not exactly right, but who, do or say what they may, are always agreeable. In 1765 the Thrales became acquainted with Johnson, and the acquaintance ripened fast into friendship. They were astonished and delighted by the brilliancy of his conversation. They were flattered by finding that a man so widely celebrated preferred their house to any other in London. Johnson soon had an apartment at the brewery in Southwark, and a still more pleasant apartment at the villa of his friends on Streatham Common. A large part of every year he passed in those abodes, which must have seemed magnificent and luxurious indeed, when compared with the dens in which he had generally been lodged. But his chief pleasures were derived from what the astronomer of his Abyssinian tale called "the endearing elegance of female friendship." Mrs Thrale rallied him, soothed him, coaxed him, and if she sometimes provoked him by her flippancy, made ample amends by listening to his reproofs with angelic sweetness of temper. When he was diseased in body and in mind, she was the most tender of nurses. No comfort that wealth could purchase, no contrivance that womanly ingenuity, set to work by womanly compassion, could devise, was wanting to his sick room. It would seem that a full half of Johnson's life during about sixteen years was passed under the roof of the Thrales. He accompanied the family sometimes to Bath, and sometimes to Brighton, once to Wales and once to Paris. But he had at the same time a house in one of the narrow and gloomy courts on the north of Fleet Street. In the garrets was his library, a large and miscellaneous collection of books, falling to pieces and begrimed with dust. On a lower floor he sometimes, but very rarely, regaled a friend with a plain dinner—a veal pie, or a leg of lamb and spinach, and a rice pudding. Nor was the dwelling uninhabited during his long absences. It was the home of the most extraordinary assemblage of inmates that ever was brought together. At the head of the establishment Johnson had placed an old lady named Williams, whose chief recommendations were her blindness and her poverty. But, in spite of her murmurs and reproaches, he gave an asylum to another lady who was as poor as herself, Mrs Desmoulins, whose family he had known many years before in Staffordshire. Room was found for the daughter of Mrs Desmoulins, and for another destitute damsel, who was generally addressed as Miss Carmichael, but whom her generous host called Polly. An old quack doctor named Levett, who had a wide practice, but among the very poorest class, poured out Johnson's tea in the morning and completed this strange menagerie. All these poor creatures were at constant war with each other, and with Johnson's negro servant Frank. Sometimes, indeed, they transferred their hostilities from the servant to the master, complained that a better table was not kept for them, and railed or maundered till their benefactor was glad to make his escape to Streatham or to the Mitre Tavern. And yet he, who was generally the haughtiest and most irritable of mankind, who was but too prompt to resent anything which looked like a slight on the part of a purse-proud bookseller, or of a noble and powerful patron, bore patiently from mendicants, who, but for his bounty, must have gone to the workhouse, insults more provoking than those for which he had knocked down Osborne and bidden defiance to Chesterfield. Year after year Mrs Williams and Mrs Desmoulins, Polly and Levett, continued to torment him and to live upon him.

The course of life which has been described was interrupted in Johnson's sixty-fourth year by an important event. He had early read an account of the Hebrides, and had been much interested by learning that there was so near him a land peopled by a race which was still as rude and simple as in the Middle Ages. A wish to become intimately acquainted with a state of society so utterly unlike all that he had ever seen frequently crossed his mind. But it is not probable that his curiosity would have overcome his habitual sluggishness, and his love of the smoke, the mud, and the cries of London, had not Boswell importuned him to attempt the adventure, and offered to be his squire. At length, in August 1773, Johnson crossed the Highland line, and plunged courageously into what was then considered, by most Englishmen, as a dreary and perilous wilderness. After wandering about two months through the Celtic region, sometimes in rude boats which did not protect him from the rain, and sometimes on small shaggy ponies which could hardly bear his weight, he returned to his old haunts with a mind full of new images and new theories. During the following year he employed himself in recording his adventures. About the beginning of 1775 his *Journey to the Hebrides* was published, and was, during some weeks, the chief subject of conversation in all circles in which any attention was paid to literature. His prejudice against the Scots had at length become little more than matter of jest; and whatever remained of the old feeling had been effectually removed by the kind and respectful hospitality with which he had been received in every part of Scotland. It was, of course, not to be expected that an Oxonian Tory should praise the Presbyterian polity and ritual, or that an eye accustomed to the hedgerows and parks of England should not be struck by the bareness of Berwickshire and East Lothian. But even in censure Johnson's tone is not unfriendly. The most enlightened Scotsmen, with Lord Mansfield at their head, were well pleased. But some foolish and ignorant Scotsmen were moved to anger by a little unpalatable truth which was mingled with much eulogy, and assailed him whom they chose to consider as the enemy of their country with libels much more dishonourable to their country than anything that he had ever said or written. They published paragraphs in the newspapers, articles in the magazines, sixpenny pamphlets, five-shilling books. One scribbler abused Johnson for being blear-eyed, another for being a pensioner; a third informed the world that one of the doctor's uncles had been convicted of felony in Scotland, and had found that there was in that country one tree capable of supporting the weight of an Englishman. Macpherson, whose *Fingal* had been treated in the *Journey* as an impudent forgery, threatened to take vengeance with a cane. The only effect of this threat was that Johnson reiterated the charge of forgery in the most contemptuous terms, and walked about, during some time, with a cudgel.

Of other assailants Johnson took no notice whatever. He had early resolved never to be drawn into controversy; and he adhered to his resolution with a steadfastness which is the more extraordinary because he was, both intellectually and morally, of the stuff of which controversialists are made. In conversation he was a singularly eager, acute and pertinacious disputant. When at a loss for good reasons, he had recourse to sophistry; and when heated by altercation, he made unsparing use of sarcasm and invective. But when he took his pen in his hand, his whole character seemed to be changed. A hundred bad writers misrepresented him and reviled him; but not one of the hundred could boast of having been thought by him worthy of a refutation, or even of a retort. One Scotsman, bent on vindicating the fame of Scots learning, defied him to the combat in a detestable Latin hexameter:—

"Maxime, si tu vis, cupio contendere tecum."

But Johnson took no notice of the challenge. He always maintained that fame was a shuttlecock which could be kept up only by being beaten back as well as beaten forward, and which would soon fall if there were only one battledore. No saying was oftener in his mouth than that fine apophthegm of Bentley, that no man was ever written down but by himself.

Unhappily, a few months after the appearance of the *Journey to the Hebrides*, Johnson did what none of his envious assailants could have done, and to a certain extent succeeded in writing himself down. The disputes between England and her American colonies had reached a point at which no amicable adjustment was possible. War was evidently impending; and the ministers seem to have thought that the eloquence of Johnson might with advantage be employed to inflame the nation against the opposition at home, and against the rebels beyond the Atlantic. He had already written two or three tracts in defence of the foreign and domestic policy of the government; and those tracts, though hardly worthy of him, were much superior to the crowd of pamphlets which lay on the counters of Almon and Stockdale. But his *Taxation no Tyranny* was a pitiable failure. Even Boswell was forced to own that in this unfortunate piece he could detect no trace of his master's powers. The general opinion was that the strong faculties which had produced the *Dictionary* and the *Rambler* were beginning to feel the effect of time and of disease, and that the old man would best consult his credit by writing no more. But this was a great mistake. Johnson had failed, not because his mind was less vigorous than when he wrote *Rasselas* in the evenings of a week, but because he had foolishly chosen, or suffered others to choose for him, a subject such as he would at no time have been competent to treat. He was in no sense a statesman. He never willingly read or thought or talked about affairs of state. He loved biography, literary history, the history of manners; but political history was positively distasteful to him. The question at issue between the colonies and the mother country was a question about which he had really nothing to say. Happily, Johnson soon had an opportunity of proving most signally that his failure was not to be ascribed to intellectual decay.

On Easter Eve 1777 some persons, deputed by a meeting which consisted of forty of the first booksellers in London, called upon him. Though he had some scruples about doing business at that season, he received his visitors with much civility. They came to inform him that a new edition of the English poets, from Cowley downwards, was in contemplation, and to ask him to furnish short biographical prefaces. He readily undertook the task for which he was pre-eminently qualified. His knowledge of the literary history of England since the Restoration was unrivalled. That knowledge he had derived partly from books, and partly from sources which had long been closed: from old Grub Street traditions; from the talk of forgotten poetasters and pamphleteers, who had long been lying in parish vaults; from the recollections of such men as Gilbert Walmesley, who had conversed with the wits of Button, Cibber, who had mutilated the plays of two generations of dramatists, Orrery, who had been admitted to the society of Swift and Savage, who had rendered services of no very honourable kind to Pope. The biographer therefore sat down to his task with a mind full of matter. He had at first intended to give only a paragraph to every minor poet, and only four or five pages to the greatest name. But the flood of anecdote and criticism overflowed the narrow channel. The work, which was originally meant to consist only of a few sheets, swelled into ten volumes—small volumes, it is true, and not closely printed. The first four appeared in 1779, the remaining six in 1781.

The *Lives of the Poets* are, on the whole, the best of Johnson's works. The narratives are as entertaining as any novel. The remarks on life and on human nature are eminently shrewd and profound. The criticisms are often excellent, and, even when grossly and provokingly unjust, well deserve to be studied. *Savage's Life* Johnson reprinted nearly as it had appeared in 1744. Whoever, after reading that life, will turn to the other lives will be struck by the difference of style. Since Johnson had been at ease in his circumstances he had written little and had talked much. When therefore he, after the lapse of years, resumed his pen, the mannerism which he had contracted while he was in the constant habit of elaborate composition was less perceptible than formerly, and his diction frequently had a colloquial ease which it had formerly wanted. The improvement may be discerned by a skilful critic in the *Journey to the Hebrides*, and in the *Lives of the Poets* is so obvious that it cannot escape the notice of the most careless reader. Among the *Lives* the best are perhaps those of Cowley, Dryden and Pope. The very worst is, beyond all doubt, that of Gray; the most controverted that of Milton.

This great work at once became popular. There was, indeed, much just and much unjust censure; but even those who were loudest in blame were attracted by the book in spite of themselves. Malone computed the gains of the publishers at five or six thousand pounds. But the writer was very poorly remunerated. Intending at first to write very short prefaces, he had stipulated for only two hundred guineas. The booksellers, when they saw how far his performance had surpassed his promise, added only another hundred. Indeed Johnson, though he did not despise or affect to despise money, and though his strong sense and long experience ought to have qualified him to protect his own interests, seems to have been singularly unskilful and unlucky in his literary bargains. He was generally reputed the first English writer of his time. Yet several writers of his time sold their copyrights for sums such as he never ventured to ask. To give a single instance, Robertson received £4500 for the *History of Charles V.*

Johnson was now in his seventy-second year. The infirmities of age were coming fast upon him. That inevitable event of which he never thought without horror was brought near to him; and his whole life was darkened by the shadow of death. The strange dependants to whom he had given shelter, and to whom, in spite of their faults, he was strongly attached by habit, dropped off one by one; and, in the silence of his home, he regretted even the noise of their scolding matches. The kind and generous Thrale was no more; and it was soon plain that the old Streatham intimacy could not be maintained upon the same footing. Mrs Thrale herself confessed that without her husband's assistance she did not feel able to entertain Johnson as a constant inmate of her house. Free from the yoke of the brewer, she fell in love with a music master, high in his profession, from Brescia, named Gabriel Piozzi, in whom nobody but herself could discover anything to admire. The secret of this attachment was soon discovered by Fanny Burney, but Johnson at most only suspected it.

In September 1782 the place at Streatham was from motives of economy let to Lord Shelburne, and Mrs Thrale took a house at Brighton, whither Johnson accompanied her; they remained for six weeks on the old familiar footing. In March 1783 Boswell was glad to discover Johnson well looked after and staying with Mrs Thrale in Argyll Street, but in a bad state of health. Impatience of Johnson's criticisms and infirmities had been steadily growing with Mrs Thrale since 1774. She now went to Bath with her daughters, partly to escape his supervision. Johnson

was very ill in his lodgings during the summer, but he still corresponded affectionately with his "mistress" and received many favours from her. He retained the full use of his senses during the paralytic attack, and in July he was sufficiently recovered to renew his old club life and to meditate further journeys. In June 1784 he went with Boswell to Oxford for the last time. In September he was in Lichfield. On his return his health was rather worse; but he would submit to no dietary régime. His asthma tormented him day and night, and dropsical symptoms made their appearance. His wrath was excited in no measured terms against the re-marriage of his old friend Mrs Thrale, the news of which he heard this summer. The whole dispute seems, to-day, entirely uncalled-for, but the marriage aroused some of Johnson's strongest prejudices. He wrote inconsiderately on the subject, but we must remember that he was at the time afflicted in body and mentally haunted by dread of impending change. Throughout all his troubles he had clung vehemently to life. The feeling described in that fine but gloomy paper which closes the series of his *Idlers* seemed to grow stronger in him as his last hour drew near. He fancied that he should be able to draw his breath more easily in a southern climate, and would probably have set out for Rome and Naples but for his fear of the expense of the journey. That expense, indeed, he had the means of defraying; for he had laid up about two thousand pounds, the fruit of labours which had made the fortune of several publishers. But he was unwilling to break in upon this hoard, and he seems to have wished even to keep its existence a secret. Some of his friends hoped that the Government might be induced to increase his pension to six hundred pounds a year, but this hope was disappointed, and he resolved to stand one English winter more.

That winter was his last. His legs grew weaker; his breath grew shorter; the fatal water gathered fast, in spite of incisions which he, courageous against pain but timid against death, urged his surgeons to make deeper and deeper. Though the tender care which had mitigated his sufferings during months of sickness at Streatham was withdrawn, and though Boswell was absent, he was not left desolate. The ablest physicians and surgeons attended him, and refused to accept fees from him. Burke parted from him with deep emotion. Windham sat much in the sick-room. Frances Burney, whom the old man had cherished with fatherly kindness, stood weeping at the door; while Langton, whose piety eminently qualified him to be an adviser and comforter at such a time, received the last pressure of his friend's hand within. When at length the moment, dreaded through so many years, came close, the dark cloud passed away from Johnson's mind. Windham's servant, who sat up with him during his last night, declared that "no man could appear more collected, more devout or less terrified at the thoughts of the approaching minute." At hour intervals, often of much pain, he was moved in bed and addressed himself vehemently to prayer. In the morning he was still able to give his blessing, but in the afternoon he became drowsy, and at a quarter past seven in the evening on the 13th of December 1784, in his seventy-sixth year, he passed away. He was laid, a week later, in Westminster Abbey, among the eminent men of whom he had been the historian—Cowley and Denham, Dryden and Congreve, Gay, Prior and Addison. (M.)

BIBLIOGRAPHY.—The splendid example of his style which Macaulay contributed in the article on Johnson to the 8th edition of this encyclopaedia has become classic, and has therefore been retained above with a few trifling modifications in those places in which his invincible love of the picturesque has drawn him demonstrably aside from the dull line of veracity. Macaulay, it must be noted, exaggerated persistently the poverty of Johnson's pedigree, the squalor of his early married life, the grotesqueness of his entourage in Fleet Street, the decline and fall from complete virtue of Mrs Thrale, the novelty and success of the *Dictionary*, the complete failure of the Shakespeare and the political tracts. Yet this contribution is far more mellow than the article contributed on Johnson twenty-five years before to the *Edinburgh Review* in correction of Croker. Matthew Arnold, who edited six selected *Lives* of the poets, regarded it as one of Macaulay's happiest and ripest efforts. It was written out of friendship for Adam Black, and "payment was not so much as mentioned." The big reviews, especially the quarterlies, have always been the natural home of Johnsonian study. Sir Walter Scott, Croker, Hayward, Macaulay, Thomas Carlyle (whose famous Fraser article was reprinted in 1853) and Whitwell Elwin have done as much as anybody perhaps to sustain the zest for Johnsonian studies. Macaulay's prediction that the interest in the man would supersede that in his "Works" seemed and seems likely enough to justify itself; but his theory that the man alone mattered and that a portrait painted by the hand of an inspired idiot was a true measure of the man has not worn better than the common run of literary propositions. Johnson's prose is not extensively read. But the same is true of nearly all the great prose masters of the 18th century. As in the case of all great men, Johnson has suffered a good deal at the hands of his imitators and admirers. His prose, though not nearly so uniformly monotonous or polysyllabic as the parodists would have us believe, was at one time greatly overpraised. From the "Life of Savage" to the "Life of Pope" it developed a great deal, and in the main improved. To the last he sacrificed expression rather too much to style, and he was perhaps over conscious of the balanced epithet. But he contributed both dignity and dialectical force to the prose movement of his period.

The best edition of his works is still the Oxford edition of 1825 in 9 vols. At the present day, however, his periodical writings are neglected, and all that can be said to excite interest are, first the *Lives of the Poets* (best edition by Birkbeck Hill and H. S. Scott, 3 vols., 1905), and then the *Letters*, the *Prayers* and *Meditations*, and the *Poems*, to which may doubtfully be added the once idolized *Rasselas*. The *Poems* and *Rasselas* have been reprinted times without number. The others have been re-edited with scrupulous care for the Oxford University Press by the pious diligence of that most enthusiastic of all Johnsonians, Dr Birkbeck Hill. But the tendency at the present day is undoubtedly to prize Johnson's personality and sayings more than any of his works. These are preserved to us in a body of biographical writing, the efficiency of which is unequalled in the whole range of literature. The chief constituents are Johnson's own *Letters* and *Account of his Life from his Birth to his Eleventh Year* (1805), a fragment saved from papers burned in 1784 and not seen by Boswell; the life by his old but not very sympathetic friend and club-fellow, Sir John Hawkins (1787); Mrs Thrale-Piozzi's *Anecdotes* (1785) and *Letters*; the *Diary* and *Letters* of Fanny Burney (D'Arblay) (1841); the shorter Lives of Arthur Murphy, T. Tyers, &c.; far above all, of course, the unique Life by James Boswell, first published in 1791, and subsequently encrusted with vast masses of Johnsoniana in the successive editions of Malone, Croker, Napier, Fitzgerald, Mowbray Morris (Globe), Birrell, Ingpen (copiously illustrated) and Dr Birkbeck Hill (the most exhaustive).

The sayings and Johnsoniana have been reprinted in very many and various forms. Valuable work has been done in Johnsonian genealogy and topography by Aleyn Lyell Reade in his *Johnsonian Gleanings*, &c., and in the *Memorials of Old Staffordshire* (ed. W. Beresford). The most excellent short Lives are those by F. Grant (Eng. Writers) and Sir Leslie Stephen (Eng. Men of Letters). Professor W. Raleigh's essay (Stephen Lecture), Lord Rosebery's estimate (1909), and Sir Leslie Stephen's article in the *Dictionary of National Biography*, with bibliography and list of portraits, should be consulted. Johnson's "Club" ("The Club") still exists, and has contained ever since his time a large proportion of the public celebrities of its day. A "Johnson Club," which has included many Johnson scholars and has published papers, was founded in 1885. Lichfield has taken an active part in the commemoration of Johnson since 1887, when Johnson's birthplace was secured as a municipal museum, and Lichfield was the chief scene of the Bicentenary Celebrations of September 1909 (fully described in A. M. Broadley's *Dr Johnson and Mrs Thrale*, 1909), containing, together with new materials and portraits, an essay dealing with Macaulay's treatment of the Johnson-Thrale episodes by T. Seccombe). Statues both of Johnson and Boswell are in the market-place at Lichfield. A statue was erected in St Paul's in 1825, and there are commemorative tablets in Lichfield Cathedral, St Nicholas (Brighton), Uttoxeter, St Clement Danes (London), Gwaynynog and elsewhere. (T. SE.)

JOHNSON, SIR THOMAS (1664–1729), English merchant, was born in Liverpool in November 1664. He succeeded his father in 1689 as bailiff and in 1695 as mayor. From 1701 to 1723 he represented Liverpool in parliament, and he was knighted by Queen Anne in 1708. He effected the separation of Liverpool from the parish of Walton-on-the-Hill; from the Crown he obtained the grant to the corporation of the site of the old castle where he planned the town market; while the construction of the first floating dock (1708) and the building of St Peter's and St George's churches were due in great measure to his efforts. He was interested in the tobacco trade; in 1715 he conveyed 130 Jacobite prisoners to the American plantations. In 1723, having lost in speculation the fortune which he had inherited from his father, he went himself to Virginia as collector of customs on the Rappahannock river. He died in Jamaica in 1729. A Liverpool street is named Sir Thomas Buildings after him.

JOHNSON, THOMAS, English 18th-century wood-carver and furniture designer. Of excellent repute as a craftsman and an artist in wood, his original conceptions and his adaptations of other men's ideas were remarkable for their extreme flamboyance, and for the merciless manner in which he overloaded them with thin and meretricious ornament. Perhaps his most inept design is that for a table in which a duck or goose is displacing water that falls upon a mandarin, seated, with his head on one side, upon the rail below. No local school of Italian rococo ever produced more extravagant absurdities. His clocks bore scythes and hour-glasses and flashing sunbeams, together with whirls and convolutions and floriated adornments without end. On the other hand, he occasionally produced a mirror frame or a mantelpiece which was simple and dignified. The art of artistic plagiarism has never been so well understood or so dexterously practised as by the 18th-century designers of English furniture, and Johnson appears to have so far exceeded his contemporaries that he must be called a barefaced thief. The three leading "motives" of the time—Chinese, Gothic and Louis Quatorze—were mixed up in his work in the most amazing manner; and he was exceedingly fond of introducing human figures, animals, birds and fishes in highly incongruous places. He appears to have defended his enormities on the ground that "all men vary in opinion, and a fault in the eye of one may be a beauty in that of another; 'tis a duty incumbent on an author to endeavour at pleasing every taste." Johnson, who was in business at the "Golden Boy" in Grafton Street, Westminster, published a folio volume of *Designs for Picture Frames, Candelabra, Ceilings, &c.* (1758); and *One Hundred and Fifty New Designs* (1761).

JOHNSON, SIR WILLIAM (1715–1774), British soldier and American pioneer, was born in Smithtown, County Meath, Ireland, in 1715, the son of Christopher Johnson, a country gentleman. As a boy he was educated for a commercial career, but in 1738 he removed to America for the purpose of managing a tract of land in the Mohawk Valley, New York, belonging to his uncle, Admiral Sir Peter Warren (1703–1752). He established himself on the south bank of the Mohawk river, about 25 m. W. of Schenectady. Before 1743 he removed to the north side of the river. The new settlement prospered from the start, and a valuable trade was built up with the Indians, over whom Johnson exercised an immense influence. The Mohawks adopted him and elected him a sachem. In 1744 he was appointed by Governor George Clinton (d. 1761) superintendent of the affairs of the Six Nations (Iroquois). In 1746 he was made commissary of the province for Indian affairs, and was influential in enlisting and equipping the Six Nations for participation in the warfare with French Canada, two years later (1748) being placed in command of a line of outposts on the New York frontier. The peace of Aix-la-Chapelle put a stop to offensive operations, which he had begun. In May 1750 by royal appointment he became a member for life of the governor's council, and in the same year he resigned the post of superintendent of Indian affairs. In 1754 he was one of the New York delegates to the inter-colonial convention at Albany, N.Y. In 1755 General Edward Braddock, the commander of the British forces in America, commissioned him major-general, in which capacity he directed the expedition against Crown Point, and in September defeated the French and Indians under Baron Ludwig A. Dieskau (1701–1767) at the battle of Lake George, where he himself was wounded. For this success he received the thanks of parliament, and was created a baronet (November 1755). From July 1756 until his death he was "sole superintendent of the Six Nations and other Northern Indians." He took part in General James Abercrombie's disastrous campaign against Ticonderoga (1758), and in 1759 he was second in command in General John Prideaux's expedition against Fort Niagara, succeeding to the chief command on that officer's death, and capturing the fort. In 1760 he was with General Jeffrey Amherst (1717–1797) at the capture of Montreal. As a reward for his services the king granted him a tract of 100,000 acres of land north of the Mohawk river. It was due to his influence that the Iroquois refused to join Pontiac in his conspiracy, and he was instrumental in arranging the treaty of Fort Stanwix in 1768. After the war Sir William retired to his estates, where, on the site of the present Johnstown, he built his residence, Johnson Hall, and lived in all the style of an English baron. He devoted himself to colonizing his extensive lands, and is said to have been the first to introduce sheep and blood horses into the province. He died at Johnstown, N.Y., on the 11th of July 1774. In 1739 Johnson had married Catherine Wisenberg, by whom he had three children. After her death he had various mistresses, including a niece of the Indian chief Hendrick, and Molly Brant, a sister of the famous chief Joseph Brant.

His son, SIR JOHN JOHNSON (1742–1830), who was knighted in 1765 and succeeded to the baronetcy on his father's death, took part in the French and Indian War and in the border warfare during the War of Independence, organizing a loyalist regiment known as the "Queen's Royal Greens," which he led at the battle of Oriskany and in the raids (1778 and 1780) on Cherry Valley and in the Mohawk Valley. He was also one of the officers of the force defeated by General John Sullivan in the engagement at Newtown (Elmira), N.Y., on the 29th of August 1779. He was made brigadier-general of provincial troops in 1782. His estates had been confiscated, and after the war he lived in Canada, where he held from 1791 until his death the office of superintendent-general of Indian affairs for British North America. He received £45,000 from the British government for his losses.

Sir William's nephew, GUY JOHNSON (1740–1788), succeeded his uncle as superintendent of Indian affairs in 1774, and served in the French and Indian War and, on the British side, in the War of Independence.

See W. L. Stone, *Life of Sir William Johnson* (2 vols., 1865); W. E. Griffis, *Sir William Johnson and the Six Nations* (1891) in "Makers of America" series; Augustus C. Buell, *Sir William Johnson* (1903) in "Historic Lives Series"; and J. Watts De Peyster, "The Life of Sir John Johnson, Bart.," in *The Orderly Book of Sir John Johnson during the Oriskany Campaign, 1776–1777*, annotated by William L. Stone (1882).

JOHNSTON, ALBERT SIDNEY (1803–1862), American Confederate general in the Civil War, was born at Washington, Mason county, Kentucky, on the 3rd of February 1803. He graduated from West Point in 1826, and served for eight years in the U.S. infantry as a company officer, adjutant, and staff officer. In 1834 he resigned his commission, emigrated in 1836 to Texas, then a republic, and joined its army as a private. His rise was very rapid, and before long he was serving as commander-in-chief in preference to General Felix Huston, with whom he fought a duel. From 1838 to 1840 he was Texan secretary for war, and in 1839 he led a successful expedition against the Cherokee Indians. From 1840 to the outbreak of the Mexican War he lived in retirement on his farm, but in 1846 he led a regiment of Texan volunteers in the field, and at Monterey, as a staff officer, he had three horses shot under him. In 1849 he returned to the United States army as major and paymaster, and in 1855 became colonel of the 2nd U.S. Cavalry (afterwards 5th), in which his lieut.-colonel was Robert E. Lee, and his majors were Hardee and Thomas. In 1857 he commanded the expedition sent against the Mormons, and performed his difficult and dangerous mission so successfully that the objects of the expedition were attained without bloodshed. He was rewarded with the brevet of brigadier-general. At the outbreak of the Civil War in 1861 Johnston, then in command of the Pacific department, resigned his commission and made his way to Richmond, where Pres. Jefferson Davis, whom he had known at West Point, at once made him a full general in the Confederate army and assigned him to command the department of Kentucky. Here he had to guard a long and weak line from the Mississippi to the Alleghany Mountains, which was dangerously advanced on account of the political necessity of covering friendly country. The first serious advance of the Federals forced him back at once, and he was freely criticized and denounced for what, in ignorance of the facts, the Southern press and people regarded as a weak and irresolute defence. Johnston himself, who had entered upon the Civil War with the reputation of being the foremost soldier on either side, bore with

fortitude the reproaches of his countrymen, and Davis loyally supported his old friend. Johnston then marched to join Beauregard at Corinth, Miss., and with the united forces took the offensive against Grant's army at Pittsburg Landing. The battle of Shiloh (*q.v.*) took place on the 6th and 7th of April, 1862. The Federals were completely surprised, and Johnston was in the full tide of success when he fell mortally wounded. He died a few minutes afterwards. President Davis said, in his message to the Confederate Congress, "Without doing injustice to the living, it may safely be said that our loss is irreparable," and the subsequent history of the war in the west went far to prove the truth of his eulogy.

His son, WILLIAM PRESTON JOHNSTON (1831–1899), who served on the staff of General Johnston and subsequently on that of President Davis, was a distinguished professor and president of Tulane University. His chief work is the *Life of General Albert Sidney Johnston* (1878), a most valuable and exhaustive biography.

JOHNSTON, ALEXANDER (1849–1889), American historian, was born in Brooklyn, New York, on the 29th of April 1849. He studied at the Polytechnic institute of Brooklyn, graduated at Rutgers College in 1870, and was admitted to the bar in 1875 in New Brunswick, New Jersey, where he taught in the Rutgers College grammar school from 1876 to 1879. He was principal of the Latin school of Norwalk, Connecticut, in 1879–1883, and was professor of jurisprudence and political economy in the College of New Jersey (Princeton University) from 1884 until his death in Princeton, N.J., on the 21st of July 1889. He wrote *A History of American Politics* (1881); *The Genesis of a New England State—Connecticut* (1883), in "Johns Hopkins University Studies"; *A History of the United States for Schools* (1886); *Connecticut* (1887) in the "American Commonwealths Series"; the article on the history of the United States for the 9th edition of the *Encyclopaedia Britannica*, reprinted as *The United States: Its History and Constitution* (1887); a chapter on the history of American political parties in the seventh volume of Winsor's *Narrative and Critical History of America*, and many articles on the history of American politics in Lalor's *Cyclopaedia of Political Science, Political Economy, and Political History of the United States* (1881–1884). These last articles, which like his other writings represent much original research and are excellent examples of Johnston's rare talent for terse narrative and keen analysis and interpretation of facts, were republished in two volumes entitled *American Political History 1763–1876* (1905–1906), edited by Professor J. A. Woodburn.

JOHNSTON, ALEXANDER KEITH (1804–1871), Scottish geographer, was born at Kirkhill near Edinburgh on the 28th of December 1804. After an education at the high school and the university of Edinburgh he was apprenticed to an engraver; and in 1826 joined his brother (afterwards Sir William Johnston, lord provost of Edinburgh) in a printing and engraving business, the well-known cartographical firm of W. and A. K. Johnston. His interest in geography had early developed, and his first important work was the *National Atlas* of general geography, which gained for him in 1843 the appointment of Geographer-Royal for Scotland. Johnston was the first to bring the study of physical geography into competent notice in England. His attention had been called to the subject by Humboldt; and after years of labour he published his magnificent *Physical Atlas* in 1848, followed by a second and enlarged edition in 1856. This, by means of maps with descriptive letterpress, illustrates the geology, hydrography, meteorology, botany, zoology, and ethnology of the globe. The rest of Johnston's life was devoted to geography, his later years to its educational aspects especially. His services were recognized by the leading scientific societies of Europe and America. He died at Ben Rhydding, Yorkshire, on the 9th of July 1871. Johnston published a *Dictionary of Geography* in 1850, with many later editions; *The Royal Atlas of Modern Geography*, begun in 1855; an atlas of military geography to accompany Alison's *History of Europe* in 1848 seq.; and a variety of other atlases and maps for educational or scientific purposes. His son of the same name (1844–1879) was also the author of various geographical works and papers; in 1873–1875 he was geographer to a commission for the survey of Paraguay; and he died in Africa while leading the Royal Geographical Society's expedition to Lake Nyasa.

JOHNSTON, ARTHUR (1587–1641), Scottish physician and writer of Latin verse, was the son of an Aberdeenshire laird Johnston of Johnston and Caskieben, and on his mother's side a grandson of the seventh Lord Forbes. It is probable that he began his university studies at one, or both, of the colleges at Aberdeen, but in 1608 he proceeded to Italy and graduated M.D. at Padua in 1610. Thereafter he resided at Sedan, in the company of the exiled Andrew Melville (*q.v.*), and in 1619 was in practice in Paris. He appears to have returned to England about the time of James I.'s death and to have been in Aberdeen about 1628. He met Laud in Edinburgh at the time of Charles I.'s Scottish coronation (1633) and was encouraged by him in his literary efforts, partly, it is said, for the undoing of Buchanan's reputation as a Latin poet. He was appointed rector of King's College, Aberdeen, in June 1637. Four years later he died at Oxford, on his way to London, whither Laud had invited him.

Johnston left more than ten works, all in Latin. On two of these, published in the same year, his reputation entirely rests: (*a*) his version of the Psalms (*Psalmorum Davidis paraphrasis poetica et canticorum evangelicorum*, Aberdeen, 1637), and (*b*) his anthology of contemporary Latin verse by Scottish poets (*Deliciae poetarum scotorum hujus aevi illustrium*, Amsterdam, 1637). He had published in 1633 a volume entitled *Cantici Salomonis paraphrasis poetica*, which, dedicated to Charles I., had brought him to the notice of Laud. The full version of the Psalms was the result of Laud's encouragement. The book was for some time a strong rival of Buchanan's work, though its good Latinity was not superior to that of the latter. The *Deliciae*, in two small thick volumes of 699 and 575 pages, was a patriotic effort in imitation of the various volumes (under a similar title) which had been popular on the Continent during the second decade of the century. The volumes are dedicated by Johnston to John Scot of Scotstarvet, at whose expense the collected works were published after Johnston's death, at Middelburg (1642). Selections from his own poems occupy pages 439–647 of the first volume, divided into three sections, *Parerga*, *Epigrammata* and *Musae Aulicae*. He published a volume of epigrams at Aberdeen in 1632. In these pieces he shows himself at his best. His sacred poems, which had appeared in the *Opera* (1642), were reprinted by Lauder in his *Poetarum Scotorum musae sacrae* (1739). The earliest lives are by Lauder (*u.s.*) and Benson (in *Psalmi Davidici*, 1741). Ruddiman's *Vindication of Mr George Buchanan's Paraphrase* (1745) began a pamphlet controversy regarding the merits of the rival poets.

JOHNSTON, SIR HENRY HAMILTON (1858–), British administrator and explorer, was born on the 12th of June 1858 at Kennington, London, and educated at Stockwell grammar school and King's College, London. He was a student for four years in the painting schools of the Royal Academy. At the age of eighteen he began a series of travels in Europe and North Africa, chiefly as a student of painting, architecture and languages. In 1879–1880 he visited the then little known interior of Tunisia. He had also a strong bent towards zoology and comparative anatomy, and carried on work of this description at the Royal College of Surgeons, of whose Hunterian Collection he afterwards became one of the trustees. In 1882 he joined the earl of Mayo in an expedition to the southern part of Angola, a district then much traversed by Transvaal Boers. In 1883 Johnston visited H. M. Stanley on the Congo, and was enabled by that explorer to visit the river above Stanley Pool at a time when it was scarcely known to other Europeans than Stanley and De Brazza. These journeys attracted the attention of the Royal Geographical Society and the British Association, and the last-named in concert with the Royal Society conferred on Johnston the leadership of the scientific expedition to Mount Kilimanjaro which started from Zanzibar in April 1884. Johnston's work in this region was also under the direction of Sir John Kirk, British consul at Zanzibar. While in the Kilimanjaro district Johnston concluded treaties with the chiefs of Moshi and Taveta (Taveita). These treaties or concessions were transferred to the merchants who founded the British East Africa Company, and in the final agreement with Germany Taveta fell to Great Britain. In October 1885 Johnston was appointed British vice-consul in

Cameroon and in the Niger delta, and he became in 1887 acting consul for that region. A British protectorate over the Niger delta had been notified in June 1885, and between the date of his appointment and 1888, together with the consul E. H. Hewett, Johnston laid the foundations of the British administration in that part of the delta not reserved for the Royal Niger Company. His action in removing the turbulent chief Ja-ja (an ex-slave who had risen to considerable power in the palm-oil trade) occasioned considerable criticism but was approved by the Foreign Office. It led to the complete pacification of a region long disturbed by trade disputes. During these three years of residence in the Gulf of Guinea Johnston ascended the Cameroon Mountain, and made large collections of the flora and fauna of Cameroon for the British Museum.

In the spring of 1889 he was sent to Lisbon to negotiate an arrangement for the delimitation of the British and Portuguese spheres of influence in South-East Africa, but the scheme drawn up, though very like the later arrangement of those regions, was not given effect to at the time. On his return from Lisbon he was despatched to Mozambique as consul for Portuguese East Africa, and was further charged with a mission to Lake Nyasa to pacify that region, then in a disturbed state owing to the attacks of slave-trading Arabs on the stations of the African Lakes Trading Company—an unofficial war, in which Captain (afterwards Colonel Sir Frederick) Lugard and Mr (afterwards Sir Alfred) Sharpe distinguished themselves. Owing to the unexpected arrival on the scene of Major Serpa Pinto, Johnston was compelled to declare a British protectorate over the Nyasa region, being assisted in this work by John Buchanan (vice-consul), Sir Alfred Sharpe, Alfred Swann and others. A truce was arranged with the Arabs on Lake Nyasa, and within twelve months the British flag, by agreement with the natives, had been hoisted over a very large region which extended north of Lake Tanganyika to the vicinity of Uganda, to Katanga in the Congo Free State, the Shiré Highlands and the central Zambezi. Johnston's scheme, in fact, was that known as the " Cape-to-Cairo," a phrase which he had brought into use in an article in *The Times* in August 1888. According to his arrangement there would have been an all-British route from Alexandria to Cape Town. But by the Anglo-German agreement of the 1st of July 1890 the British sphere north of Tanganyika was abandoned to Germany, and the Cape-to-Cairo route broken by a wedge of German territory. Johnston returned to British Central Africa as commissioner and consul-general in 1891, and retained that post till 1896, in which year he was made a K.C.B. His health having suffered much from African fever, he was transferred to Tunis as consul-general (1897). In the autumn of 1899 Sir Harry Johnston was despatched to Uganda as special commissioner to reorganize the administration of that protectorate after the suppression of the mutiny of the Sudanese soldiers and the long war with Unyoro. His two years' work in Uganda and a portion of what is now British East Africa were rewarded at the close of 1901 by a G.C.M.G. In the spring of the following year he retired from the consular service. After 1904 he interested himself greatly in the affairs of the Liberian republic, and negotiated various arrangements with that negro state by which order was brought into its finances, the frontier with France was delimited, and the development of the interior by means of roads was commenced. In 1903 he was defeated as Liberal candidate for parliament at a by-election at Rochester. He met with no better success at West Marylebone at the general election of 1906.

For his services to zoology he was awarded the gold medal of the Zoological Society in 1902, and in the same year was made an honorary doctor of science at Cambridge. He received the gold medal of the Royal Geographical and the Royal Scottish Geographical societies, and other medals for his artistic work from South Kensington and the Society of Arts. His pictures, chiefly dealing with African subjects, were frequently exhibited at the Royal Academy. He was the author of numerous books on Africa, including *British Central Africa* (1897); *The Colonization of Africa* (1899); *The Uganda Protectorate* (1902); *Liberia* (1906); *George Grenfell and the Congo* (1908). During his travels in the north-eastern part of the Congo Free State in 1900 he was instrumental in discovering and naming the okapi, a mammal nearly allied to the giraffe. His name has been connected with many other discoveries in the African fauna and flora.

JOHNSTON, JOSEPH EGGLESTON (1807–1891), American Confederate general in the Civil War, was born near Farmville, Prince Edward county, Virginia, on the 3rd of February 1807. His father, Peter Johnston (1763–1841), a Virginian of Scottish descent, served in the War of Independence, and afterwards became a distinguished jurist; his mother was a niece of Patrick Henry. He graduated at West Point, in the same class with Robert E. Lee, and was made brevet second lieutenant, 4th Artillery, in 1829. He served in the Black Hawk and Seminole wars, and left the army in 1837 to become a civil engineer, but a year afterwards he was reappointed to the army as first lieutenant, Topographical Engineers, and breveted captain for his conduct in the Seminole war. During the Mexican war he was twice severely wounded in a reconnaissance at Cerro Gordo, 1847, was engaged in the siege of Vera Cruz, the battles of Contreras, Churubusco, and Molino del Rey, the storming of Chapultepec, and the assault on the city of Mexico, and received three brevets for gallant and meritorious service. From 1853 to 1855 he was employed on Western river improvements, and in 1855 he became lieut.-colonel of the 1st U.S. Cavalry. In 1860 he was made quartermaster-general, with the rank of brigadier-general. In April 1861 he resigned from the United States army and entered the Confederate service. He was commissioned major-general of volunteers in the Army of Virginia, and assisted in organizing the volunteers. He was later appointed a general officer of the Confederacy, and assigned to the command of the Army of the Shenandoah, being opposed by the Federal army under Patterson. When McDowell advanced upon the Confederate forces under Beauregard at Manassas, Johnston moved from the Shenandoah Valley with great rapidity to Beauregard's assistance. As senior officer he took command on the field, and at Bull Run (Manassas) (*q.v.*) won the first important Confederate victory. In August 1861 he was made one of the five full generals of the Confederacy, remaining in command of the main army in Virginia. He commanded in the battle of Fair Oaks (May 31, 1862), and was so severely wounded as to be incapacitated for several months. In March 1863, still troubled by his wound, he was assigned to the command of the south-west, and in May was ordered to take immediate command of all the Confederate forces in Mississippi, then threatened by Grant's movement on Vicksburg. When Pemberton's army was besieged in Vicksburg by Grant, Johnston used every effort to relieve it, but his force was inadequate. Later in 1863, when the battle of Chattanooga brought the Federals to the borders of Georgia, Johnston was assigned to command the Army of Tennessee at Dalton, and in the early days of May 1864 the combined armies of the North under Sherman advanced against his lines. For the main outlines of the famous campaign between Sherman and Johnston see AMERICAN CIVIL WAR (§ 29). From the 9th of May to the 17th of July there were skirmishes, actions and combats almost daily. The great numerical superiority of the Federals enabled Sherman to press back the Confederates without a pitched battle, but the severity of the skirmishing may be judged from the casualties of the two armies (Sherman's about 26,000 men, Johnston's over 10,000), and the obstinate steadiness of Johnston by the fact that his opponent hardly progressed more than one mile a day. But a Fabian policy is never acceptable to an eager people, and when Johnston had been driven back to Atlanta he was superseded by Hood with orders to fight a battle. The wisdom of Johnston's plan was soon abundantly clear, and the Confederate cause was already lost when Lee reinstated him on the 23rd of February 1865. With a handful of men he opposed Sherman's march through the Carolinas, and at Bentonville, N.C., fought and almost won a most gallant and skilful battle against heavy odds. But the Union troops steadily advanced, growing in strength as they went, and a few days after Lee's surrender at

Appomattox Johnston advised President Davis that it was in his opinion wrong and useless to continue the conflict, and he was authorized to make terms with Sherman. The terms entered into between these generals, on the 18th of April, having been rejected by the United States government, another agreement was signed on the 26th of April, the new terms being similar to those of the surrender of Lee. After the close of the war Johnston engaged in civil pursuits. In 1874 he published a *Narrative of Military Operations during the Civil War*. In 1877 he was elected to represent the Richmond district of Virginia in Congress. In 1887 he was appointed by President Cleveland U.S. commissioner of railroads. Johnston was married in early life to Louisa (d. 1886), daughter of Louis M'Lane. He died at Washington, D.C., on the 21st of March 1891, leaving no children.

It was not the good fortune of Johnston to acquire the prestige which so much assisted Lee and Jackson, nor indeed did he possess the power of enforcing his will on others in the same degree, but his methods were exact, his strategy calm and balanced, and, if he showed himself less daring than his comrades, he was unsurpassed in steadiness. The duel of Sherman and Johnston is almost as personal a contest between two great captains as were the campaigns of Turenne and Montecucculi. To Montecucculi, indeed, both in his military character and in the incidents of his career, Joseph Johnston bears a striking resemblance.

See Hughes, *General Johnston*, in "Great Commanders Series" (1893).

JOHNSTONE, a police burgh of Renfrewshire, Scotland, on the Black Cart, 11 m. W. of Glasgow by the Glasgow & South-Western railway. Pop. (1901), 10,503. The leading industries include flax-spinning, cotton manufactures (with the introduction of which in 1781 the prosperity of the town began), paper-making, shoe-lace making, iron and brass foundries and engineering works. There are also coal mines and oil works in the vicinity. Elderslie, 1 m. E., is the reputed birthplace of Sir William Wallace, but it is doubtful if "Wallace's Yew," though of great age, and "Wallace's Oak," a fine old tree that perished in a storm in 1856, and the small castellated building (traditionally his house) which preceded the present mansion in the west end of the village, existed in his day.

JOHNSTOWN, a city and the county-seat of Fulton county, New York, U.S.A., on Cayadutta Creek, about 4 m. N. of the Mohawk river and about 48 m. N.W. of Albany. Pop. (1890), 7768; (1900), 10,130 (1653 foreign-born); (1905, state census), 9765; (1910) 10,447. It is served by the Fonda, Johnstown & Gloversville railroad, and by an electric line to Schenectady. The city has a Federal building, a Y.M.C.A. building, a city hall, and a Carnegie library (1902). The most interesting building is Johnson Hall, a fine old baronial mansion, built by Sir William Johnson in 1762 and his home until his death; his grave is just outside the present St John's episcopal church. Originally the hall was flanked by two stone forts, one of which is still standing. In 1907 the hall was bought by the state and was placed in the custody of the Johnstown Historical Society, which maintains a museum here. In the hall Johnson established in 1766 a Masonic lodge, one of the oldest in the United States. Other buildings of historical interest are the Drumm House and the Fulton county court house, built by Sir William Johnson in 1763 and 1772 respectively, and the gaol (1772), at first used for all New York west of Schenectady county, and during the War of Independence as a civil and a military prison. The court house is said to be the oldest in the United States. Three miles south of the city is the Butler House, built in 1742 by Colonel John Butler (d. 1794), a prominent Tory leader during the War of Independence. A free school, said to have been the first in New York state, was established at Johnstown by Sir William Johnson in 1764. The city is (after Gloversville, 3 m. distant) the principal glove-making centre in the United States, the product being valued at $2,581,274 in 1905 and being 14·6% of the total value of this industry in the United States. The manufacture of gloves in commercial quantities was introduced into the United States and Johnstown in 1809 by Talmadge Edwards, who was buried there in the colonial cemetery. The value of the total factory product in 1905 was $4,543,272 (a decrease of 11·3% since 1900). Johnstown was settled about 1760 by a colony of Scots brought to America by Sir William Johnson, within whose extensive grant it was situated, and in whose honour, in 1771, it was named. A number of important conferences between the colonial authorities and the Iroquois Indians were held here, and on the 28th of October 1781, during the War of Independence, Colonel Marinus Willett (1740–1830) defeated here a force of British and Indians, whose leader, Walter Butler, a son of Colonel John Butler, and, with him, a participant in the Wyoming massacres, was mortally wounded near West Canada creek during the pursuit. Johnstown was incorporated as a village in 1808, and was chartered as a city in 1895.

JOHNSTOWN, a city of Cambria county, Pennsylvania, U.S.A., at the confluence of the Conemaugh river and Stony creek, about 75 m. E. by S. of Pittsburg. Pop. (1890), 21,805; (1900), 35,936, of whom 7318 were foreign-born, 2017 being Hungarians, 1663 Germans, and 923 Austrians; (1910 census) 55,482. It is served by the Pennsylvania and the Baltimore & Ohio railways. The city lies about 1170 ft. above the sea, on level ground extending for some distance along the river, and nearly enclosed by high and precipitous hills. Among the public buildings and institutions are the Cambria free library (containing about 14,000 volumes in 1908), the city hall, a fine high school, and the Conemaugh Valley memorial hospital. Roxbury Park, about 3 m. from the city, is reached by electric lines. Coal, iron ore, fire clay and limestone abound in the vicinity, and the city has large plants for the manufacture of iron and steel. The total value of the factory product in 1905 was $28,891,806, an increase of 35·2% since 1900. A settlement was established here in 1791 by Joseph Jahns, in whose honour it was named, and the place was soon laid out as a town, but it was not incorporated as a city until 1889, the year of the disastrous Johnstown flood. In 1852 a dam (700 ft. long and 100 ft. high), intended to provide a storage reservoir for the Pennsylvania canal, had been built across the South Fork, a branch of the Conemaugh river, 12 m. above the city, but the Pennsylvania canal was subsequently abandoned, and in 1888 the dam was bought and repaired by the South Fork hunting and fishing club, and Conemaugh lake was formed. On the 31st of May 1889, during a heavy rainfall, the dam gave way and a mass of water 20 ft. or more in height at its head swept over Johnstown at a speed of about 20 m. an hour, almost completely destroying the city. The Pennsylvania railroad bridge withstood the strain, and against it the flood piled up a mass of wreckage many feet in height and several acres in area. On or in this confused mass many of the inhabitants were saved from drowning, only to be burned alive when it caught fire. Seven other towns and villages in the valley were also swept away, and the total loss of lives was 2000 or more. A relief fund of nearly $3,000,000 was raised, and the city was quickly rebuilt.

JOHOR (Johore is the local official, but incorrect spelling), an independent Malayan state at the southern end of the peninsula, stretching from 2° 40′ S. to Cape Romania (Ramūnya), the most southerly point on the mainland of Asia, and including all the small islands adjacent to the coast which lie to the south of parallel 2° 40′ S. It is bounded N. by the protected native state of Pahang, N.W. by the Negri Sembilan and the territory of Malacca, S. by the strait which divides Singapore island from the mainland, E. by the China Sea, and W. by the Straits of Malacca. The province of Mūar was placed under the administration of Johor by the British government as a temporary measure in 1877, and was still a portion of the sultan's dominions in 1910. The coast-line measures about 250 m. The greatest length from N.W. to S.E. is 165 m., the greatest breadth from E. to W. 100 m. The area is estimated at about 9000 sq. m. The principal rivers are the Mūar, the most important waterway in the south of the peninsula; the Johor, up which river the old capital of the state was situated; the Endau, which marks the boundary with Pahang; and the Bātu Pāhat and Sĕdĕli, of

comparative unimportance. Johor is less mountainous than any other state in the peninsula. The highest peak is Gūnong Lēdang, called Mt Ophir by Europeans, which measures some 4000 ft. in height. Like the rest of the peninsula, Johor is covered from end to end by one vast spread of forest, only broken here and there by clearings and settlements of insignificant area. The capital is Johor Bharu (pop. about 20,000), situated at the nearest point on the mainland to the island of Singapore. The fine palace built by the sultan Abubakar is the principal feature of the town. It is a kind of Oriental Monte Carlo, and is much resorted to from Singapore. The capital of the province of Mūar is Bandar Maharani, named after the wife of the sultan before he had assumed his final title. The climate of Johor is healthy and equable for a country situated so near to the equator; it is cooler than that of Singapore. The shade temperature varies from 98·5° F. to 68·2° F. The rainfall averages 97·28 in. per annum. No exact figures can be obtained as to the population of Johor, but the best estimates place it at about 200,000, of whom 150,000 are Chinese, 35,000 Malays, 15,000 Javanese. We are thus presented with the curious spectacle of a country under Malay rule in which the Chinese outnumber the people of the land by more than four to one. It is not possible to obtain any exact data on the subject of the revenue and expenditure of the state. The revenue, however, is probably about 750,000 dollars, and the expenditure under public service is comparatively small. The revenue is chiefly derived from the revenue farms for opium, spirits, gambling, &c., and from duty on pepper and gambier exported by the Chinese. The cultivation of these products forms the principal industry. Areca-nuts and copra are also exported in some quantities, more especially from Mūar. There is little mineral wealth of proved value.

History.—It is claimed that the Mahommedan empire of Johor was founded by the sultan of Malacca after his expulsion from his kingdom by the Portuguese in 1511. It is certain that Johor took an active part, only second to that of Achin, in the protracted war between the Portuguese and the Dutch for the possession of Malacca. Later we find Johor ruled by an officer of the sultan of Riouw (Rīau), bearing the title of Tumĕnggong, and owing feudal allegiance to his master in common with the Bĕndahāra of Pahang. In 1812, however, this officer seems to have thrown off the control of Riouw, and to have assumed the title of sultan, for one of his descendants, Sultan Husain, ceded the island of Singapore to the East India Company in 1819. In 1855 the then sultan, Ali, was deposed, and his principal chief, the Tumĕnggong, was given the supreme rule by the British. His son Tumĕnggong Abubakar proved to be a man of exceptional intelligence. He made numerous visits to Europe, took considerable interest in the government and development of his country, and was given by Queen Victoria the title of maharaja in 1879. On one of his visits to England he was made the defendant in a suit for breach of promise of marriage, but the plaintiff was non-suited, since it was decided that no action lay against a foreign sovereign in the English law courts. In 1885 he entered into a new agreement with the British government, and was allowed to assume the title of sultan of the state and territory of Johor. He was succeeded in 1895 by his son Sultan Ibrahīm. The government of Johor has been comparatively so free from abuses under its native rulers that it has never been found necessary to place it under the residential system in force in the other native states of the peninsula which are under British control, and on several occasions Abubakar used his influence with good effect on the side of law and order. The close proximity of Johor to Singapore has constantly subjected the rulers of the former state to the influence of European public opinion. None the less, the Malay is by nature but ill fitted for the drudgery which is necessary if proper attention is to be paid to the dull details whereby government is rendered good and efficient. Abubakar's principal adviser, the Dāto 'Mĕntri, was a worthy servant of his able master. Subsequently, however, the reins of government came chiefly into the hands of a set of young men who lacked either experience or the serious devotion to dull duties which is the distinguishing mark of the English civil service. Mūar, in imitation of the British system, is ruled by a rāja of the house of Johor, who bears the title of resident. (H. Cl.)

JOIGNY, a town of central France, capital of an arrondissement in the department of Yonne, 18 m. N.N.W. of Auxerre by the Paris-Lyon-Méditerranée railway. Pop. (1906), 4888. It is situated on the flank of the hill known as the Côte St Jacques on the right bank of the Yonne. Its streets are steep and narrow, and old houses with carved wooden façades are numerous. The church of St Jean (16th century), which once stood within the *enceinte* of the old castle, contains a representation (15th century) of the Holy Sepulchre in white marble. Other interesting buildings are the church of St André (12th, 16th and 17th centuries), of which the best feature is the Renaissance portal with its fine bas-reliefs; and the church of St Thibault (16th century), in which the stone crown suspended from the choir vaulting is chiefly noticeable. The Porte du Bois, a gateway with two massive flanking towers, is a relic of the 10th century castle; there is also a castle of the 16th and 17th centuries, in part demolished. The hôtel de ville (18th century) shelters the library; the law-court contains the sepulchral chapel of the Ferrands (16th century). The town is the seat of a sub-prefect and has tribunals of first instance and of commerce, and a communal college for boys. It is industrially unimportant, but the wine of the Côte St Jacques is much esteemed.

Joigny (*Joviniacum*) was probably of Roman origin. In the 10th century it became the seat of a countship dependent on that of Champagne, which after passing through several hands came in the 18th century into the possession of the family of Villeroi. A fragment of a ladder preserved in the church of St André commemorates the successful resistance offered by the town to the English in 1429.

JOINDER, in English law, a term used in several connexions.

Joinder of causes of action is the uniting in the same action several causes of action. Save in actions for the recovery of land and in actions by a trustee in bankruptcy a plaintiff may without leave join in one action, not several actions, but several "causes of action." Claims by or against husband and wife may be joined with claims by or against either of them separately. Claims by or against an executor or administrator as such may be joined with claims by or against him personally, provided such claims are alleged to arise with reference to the estate of which the plaintiff or defendant sues or is sued as executor or administrator. Claims by plaintiffs jointly may be joined with claims by them or any of them separately against the same defendant.

Joinder in pleading is the joining by the parties on the point of matter issuing out of the allegations and pleas of the plaintiff and the defendant in a cause and the putting the cause upon trial.

Joinder of parties.—Where parties may jointly, severally or in the alternative bring separate actions in respect of or arising out of the same transaction or series of transactions they may, by Order XVI. of the rules of the supreme court, be joined in one action as plaintiffs.

JOINERY, one of the useful arts which contribute to the comfort and convenience of man. As the arts of joinery and carpentry are often followed by the same individual, it appears natural to conclude that the same principles are common to both, but a closer examination leads to a different conclusion. The art of carpentry is directed almost wholly to the support of weight or pressure, and therefore its principles must be sought in the mechanical sciences. In a building it includes all the rough timber work necessary for support, division or connexion, and its proper object is to give firmness and stability. The art of joinery has for its object the addition in a building of all the fixed woodwork necessary for convenience or ornament. The joiner's works are in many cases of a complicated nature, and often require to be executed in an expensive material, therefore joinery requires much skill in that part of geometrical science which

treats of the projection and description of lines, surfaces and solids, as well as an intimate knowledge of the structure and nature of wood. A man may be a good carpenter without being a joiner at all, but he cannot be a joiner without being competent, at least, to supervise all the operations required in carpentry. The rough labour of the carpenter renders him in some degree unfit to produce that accurate and neat workmanship which is expected from a modern joiner, but it is no less true that the habit of neatness and the great precision of the joiner make him a much slower workman than the man practised in works of carpentry. In carpentry framing owes its strength mainly to the form and position of its parts, but in joinery the strength of a frame depends to a larger extent upon the strength of the joinings. The importance of fitting the joints together as accurately as possible is therefore obvious. It is very desirable that a joiner shall be a quick workman, but it is still more so that he shall be a good one, and that he should join his materials with firmness and accuracy. It is also of the greatest importance that the work when thus put together shall be constructed of such sound and dry materials, and on such principles, that the whole shall bear the various changes of temperature and of moisture and dryness, so that the least possible shrinkage or swelling shall take place; but provision must be made so that, if swelling or shrinking does occur, no damage shall be done to the work.

In early times every part was rude, and jointed in the most artless manner. The first dawnings of the art of modern joinery appear in the thrones, stalls, pulpits and screens of early Gothic cathedrals and churches, but even in these it is indebted to the carver for everything that is worthy of regard. With the revival of classic art, however, great changes took place in every sort of construction. Forms began to be introduced in architecture which could not be executed at a moderate expense without the aid of new principles, and these principles were discovered and published by practical joiners. These authors, with their scanty geometrical knowledge, had but confused notions of these principles, and accordingly their descriptions are often obscure, and sometimes erroneous. The framed wainscot of small panels gave way to the large bolection moulded panelling. Doors which were formerly heavily framed and hung on massive posts or in jambs of cut stone, were now framed in light panels and hung in moulded dressings of wood. The scarcity of oak timber, and the expense of working it, subsequently led to the importation of fir timber from northern Europe, and this gradually superseded all other material save for special work.

Tools and Materials.—The joiner operates with saws, planes, chisels, gouges, hatchet, adze, gimlets and other boring instruments (aided and directed by chalked lines), gauges, squares, hammers, wallets, floor cramps and a great many other tools. His operations consist principally of sawing and planing in all their varieties, and of setting out and making joints of all kinds. There is likewise a great range of other operations—such as paring, gluing up, wedging, pinning, fixing, fitting and hanging—and many which depend on nailing and screwing, such as laying floors, boarding ceilings, wainscoting walls, bracketing, cradling, firring, and the like. In addition to the wood on which the joiner works, he requires also glue, white lead, nails, brads, screws and hinges, and accessorily he applies bolts, locks, bars and other fastenings, together with pulleys, lines, weights, holdfasts, wall hooks, &c. The joiner's work for a house is for the most part prepared at the shop, where there should be convenience for doing everything in the best and readiest manner, so that little remains when the carcase is ready and the floors laid but to fit, fix and hang. The sashes, frames, doors, shutters, linings and soffits are all framed and put together, *i.e.* wedged up and cleaned off at the shop; the flooring is planed and prepared with rebated or grooved edges ready for laying, and the moulded work—the picture and dado rails, architraves, skirtings and panelling—is all got out at the shop. On a new building the joiner fits up a temporary workshop with benches, sawing stools and a stove for his glue pot. Here he adjusts the work for fitting up and makes any small portions that may still be required.

The preparation of joinery entirely by hand is now the exception—a fact due to the ever-increasing use of machines, which have remarkably shortened the time required to execute the ordinary operations. Various machines rapidly and perfectly execute planing and surfacing, mortising and moulding, leaving the craftsman merely to fit and glue up. Large quantities of machine-made flooring, window-frames and doors are now imported into England from Canada and the continent of Europe. The timber is grown near the place of manufacture, and this, coupled with the fact that labour at a low rate of wages is easily obtainable on the Continent, enables the cost of production to be kept very low.

The structure and properties of wood should be thoroughly understood by every joiner. The man who has made the nature of timber his study has always a decided advantage over those who have neglected this. Timber shrinks considerably in the width, but not appreciably in the length. Owing to this shrinkage certain joints and details, hereinafter described and illustrated, are in common use for the purpose of counteracting the bad effect this movement would otherwise have upon all joinery work.

The kinds of wood commonly employed in joinery are the different species of North European and North American pine, oak, teak and mahogany (see TIMBER). The greater part of English joiners' work is executed in the northern pine exported from the Baltic countries. Hence the joiner obtains the planks, deals, battens and strips from which he shapes his work. The timber reaches the workman from the sawmills in a size convenient for the use he intends, considerable time and labour being saved in this way.

A log of timber sawn to a square section is termed a *balk*. In section it may range from 1 to 1½ ft. square. *Planks* are formed by sawing the balk into sections from 11 to 18 in. wide and 3 to 6 in. thick, and the term *deal* is applied to sawn stuff 9 in. wide and 2 to 4½ in. thick. *Battens* are boards running not more than 3 in. thick and 4 to 7 in. wide. A *strip* is not thicker than 1½ in., the width being about 4 in.

Joints.—Side joints (fig. 1) are used for joining boards together edge to edge, and are widely employed in flooring. In the *square* joint the edges of the boards are carefully shot, the two edges to be joined brought together with glue applied hot, and the boards tightly clamped and left to dry, when the surface is cleaned off with the smoothing plane. A joint in general use for joining up boards for fascias, panels, linings, window-boards, and other work of a like nature is formed in a similar manner to the above, but with a cross-grained tongue inserted, thereby greatly strengthening the work at an otherwise naturally weak point. This is termed a *cross-tongued and glued* joint. The *dowelled* joint is a square glued joint strengthened with hard wood or iron dowels inserted in the edge of each board to a depth of about ¾ in. and placed about 18 in. apart. The *matched* joint is shown in two forms, beaded and jointed. Matched boarding is frequently used as a less expensive substitute for panelled framing. Although of course in appearance it cannot compare with the latter, it has a somewhat ornamental appearance, and the moulded joints allow shrinkage to take place without detriment to the appearance of the work. The *rebated* joint is used in the meeting styles of casements and folding doors, and it is useful in excluding draughts and preventing observation through the joint.

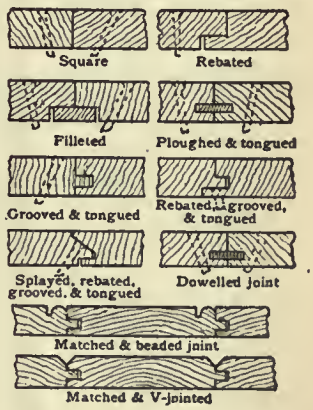


FIG. 1.

Of the *angle joints* (fig. 2) in common use by the joiner the following are the most important. The *mitre* is shown in the drawing, and is so well known as to need little description. Although simple, it needs a practised and accurate hand for its proper execution. The common mitre is essentially weak unless reinforced with blocks glued into the angle at the back of it, and is therefore often strengthened with a feather of wood or iron. Other variations of the mitre are the *mitre and butt*, used where the pieces connected are of unequal thickness; the *mitre and rebate*, with a square section which facilitates nailing or screwing; the *mitre rebate and feather*, similar to the latter, with a feather giving additional strength to the joint; and the *mitre groove and tongue*, having a tongue worked on the material itself in place of the feather of the last-named joint. The last two methods

are used in the best work, and, carefully worked and glued, with the assistance of angle blocks glued at the back, obviate the necessity of face screws or nails. The *keyed mitre* consists of a simple mitre joint, which after being glued up has a number of pairs of saw cuts made across the angle, into which are fitted and glued thin triangular slips of hard wood, or as an alternative, pieces of brass or other metal. Other forms of angle joints are based on the rebate with a bead worked on in such a position as to hide any bad effects caused by the joint opening by shrinkage. They may be secured either by nailing or screwing, or by glued angle blocks.

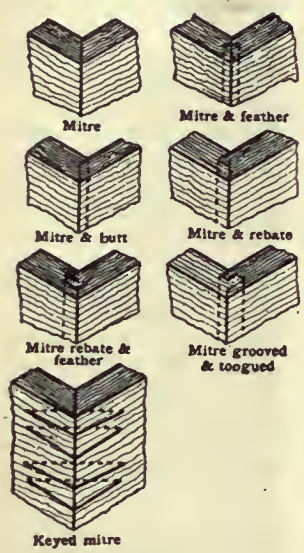


FIG. 2.

The *dovetail* is a most important joint; its most usual forms are illustrated in fig. 3. The *mitre dovetail* is used in the best work. It will be seen that the dovetail is a tenon, shaped as a wedge, and it is this distinguishing feature which gives it great strength irrespective of glue or screws. It is invaluable in framing together joiners' fittings; its use in drawers especially provides a good example of its purpose and structure.

Warping in Wide Boards.—It is necessary to prevent the tendency to warp, twist and split, which boards of great width, or several boards glued together edge to edge, naturally possess. On the other hand, swelling and shrinking due to changes in the humidity of the atmosphere must not be checked, or the result will be disastrous. To effect this end various simple devices are available. The direction

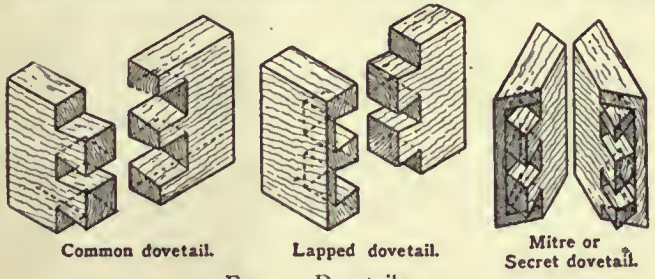


FIG. 3.—Dovetails.

of the annular rings in alternate boards may be reversed, and when the boards have been carefully jointed with tongues or dowels and glued up, a hard-wood tapering key, dovetail in section, may be let into a wide dovetail at the back (fig. 4). It must be accurately fitted and driven tightly home, but, of course, not glued. Battens of hard wood may be used for the same purpose, fixed either with hard-wood buttons or by means of brass slots and screws, the slots allowing for any slight movement that may take place. With boards of a substantial thickness light iron rods may be used, holes being bored through the thickness of the boards and rods passed through; the edges are then glued up. This method is very effective and neat in appearance, and is specially suitable when a smooth surface is desired on both sides of the work.

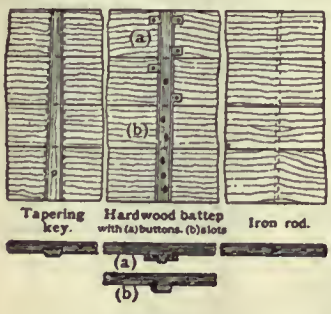


FIG. 4.—Prevention of Warping.

Mouldings are used in joinery to relieve plain surfaces by the contrasts of light and shade formed by their members, and to ornament or accentuate those particular portions which the designer may wish to bring into prominence. Great skill and discrimination are required in designing and applying mouldings, but that matter falls to the qualified designer and is perhaps outside the province of the practical workman, whose work is to carry out in an accurate and finished manner the ideas of the draughtsman. The character of a moulding is greatly affected by the nature and appearance of the wood in which it is worked. A section suitable for a hard regularly grained wood, such as mahogany, would probably look insignificant if worked in a softer wood with pronounced markings. Mouldings worked on woods of the former type may consist of small and delicate members; woods of the latter class require bold treatment.

The mouldings of joinery, as well as of all other moulded work used in connexion with a building, are usually worked in accordance with full-sized detail drawings prepared by the architect, and are designed by him to conform with the style and class of building. There are, however, a number of moulded forms in common use which have particular names; sections are shown of many of these in fig. 5. Most of them occur in the classic architecture of both Greeks and Romans. A striking distinction, however, existed in the mouldings of these two peoples; the curves of the Greek mouldings were either derived from conic sections or drawn in freehand, while in typical Roman work the curved components were segments of a circle. Numerous examples of the use of these forms occur in ordinary joinery work, and may be recognized on reference to the illustrations, which will be easily understood without further description.

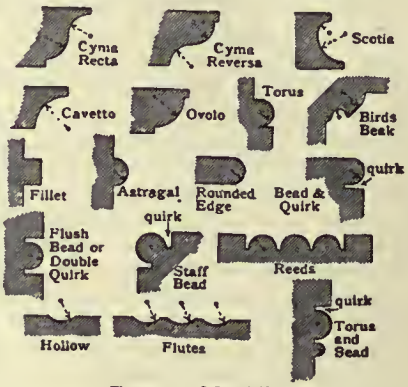


FIG. 5.—Mouldings.

Mouldings may be either stuck or planted on. A *stuck* moulding is worked directly on to the framing it is used to ornament; a *planted* moulding is separately worked and fixed in position with nails or screws. Beads and other small mouldings should always be stuck; larger ones are usually planted on. In the case of mouldings planted on panelled work, the nails should be driven through the moulding into the style or rail of the framing, and on no account into the panel. By adopting the former method the panel is free to shrink—as it undoubtedly will do—without altering the good appearance of the work, but should the moulding be fixed to the panel it will, when the latter shrinks, be pulled out of place, leaving an unsightly gap between it and the framing.

Flooring.—When the bricklayer, mason and carpenter have prepared the carcase of a building for the joiner, one of the first operations is that of laying the floor boards. They should have been stacked under cover on the site for some considerable time, in order to be thoroughly well seasoned when the time to use them arrives. The work of laying should take place in warm dry weather. The joints of flooring laid in winter time or during wet weather are sure to open in the following summer, however tightly they may be cramped up during the process of laying. An additional expense will then be incurred by the necessity of filling in the opened joints with wood slips glued and driven into place. Boards of narrow width are better and more expensive than wide ones. They may be of various woods, the kinds generally preferred, on account of their low comparative cost and ease of working, being yellow deal and white deal. White deal or spruce is an inferior wood, but is frequently used with good results for the floors of less important apartments. A better floor is obtained with yellow deal, which, when of good quality and well seasoned, is lasting and wears well. For floors where a fine appearance is desired, or which will be subjected to heavy wear, some harder and tougher material, such as pitch pine, oak, ash, maple or teak, should be laid. These woods are capable of taking a fine polish and, finished in this way, form a beautiful as well as a durable floor.

Many of the side joints illustrated in fig. 1 are applied to flooring boards, which, however, are not usually glued up. The heart side of the board should be placed downwards so that in drying the tendency will be for the edges to press more tightly to the joists instead of curling upwards. The square joint should be used only on ground floors; if it is used for the upper rooms, dust and water will drop through the crevices and damage the ceiling beneath. Dowelled joints are open to the same objection. One of the best and most economical methods is the *ploughed and tongued* joint. The tongue may be of hard wood or iron, preferably the latter, which is stronger and occupies very narrow grooves. The tongue should be placed as near the bottom of the board as is practicable, leaving as much wearing material as possible. Two varieties of secret joints are shown in fig. 1.—the *splayed, rebated, grooved and tongued*, and the *rebated, grooved and tongued*. Owing to the waste of material in forming these joints and the extra labour involved in laying the boards, they are costly and are only used when it is required that no heads of nails or screws should appear on the surface. The heading joints of flooring are often specified to be splayed or bevelled, but it is far better to rebate them.

Wood block floors are much used, and are exceedingly solid. The blocks are laid directly on a smoothed concrete bed or floor in a damp-proof mastic having bitumen as its base; this fulfils the double purpose of preventing the wood from rotting, and securing the blocks in their places. To check any inclination to warp and rise, however, the edges of the blocks in the better class of floors are connected by dowels of wood or metal, or by a tongued joint. The blocks may be from 1 to 3 in. thick, and are usually 9 or 12 in. long by 3 in. wide.

Parquet floors are made of hard woods of various kinds, laid in patterns on a deal sub-floor, and may be of any thickness from ¼ to

1¼ in. Great care should be taken in laying the sub-floor, especially for the thinner parquet. The boards should be in narrow widths of well-seasoned stuff and well nailed, for any movement in the sub-floor due to warping or shrinking may have disastrous results on the parquet which is laid upon it. *Plated parquet* consists of selected hard woods firmly fixed on a framed deal backing. It is made in sections for easy transport, and these are fitted together in the apartment for which they are intended. When secured to the joists these form a perfect floor.

Skirtings.—In joinery, the skirting is a board fixed around the base of internal walls to form an ornamental base for the wall (see fig. 7). It also covers the joint between the flooring and the wall, and protects the base of the wall from injury. Skirtings may be placed in two classes—those formed from a plain board with its upper edge either left square or moulded, and those formed of two or more separate members and termed a *built-up* skirting (fig. 6). Small angle fillets or mouldings are often used as skirtings. The skirting should be worked so as to allow it to be fixed with the heart side of the wood outwards; any tendency to warp will then only serve to press the top edge more closely to the wall. In good work a groove should be formed in the floor and the skirting tongued into it so that an open joint is avoided should shrinkage occur. The skirting should be nailed only near the top to wood grounds fixed to wood plugs in the joints of the brickwork. These grounds are about ¾ to 1 in. thick, *i.e.* the same thickness as the plaster, and are generally splayed or grooved on the edge to form a key for the plaster. A rough coat of plaster should always be laid on the wall behind the skirting in order to prevent the space becoming a harbourage for vermin.

FIG. 6.—Built-up Skirting tongued to floor.

Dados.—A dado, like a skirting, is useful both in a decorative and a protective sense. It is filled in to ornament and protect that portion of the wall between the *chair* or *dado rail* and the skirting. It may be of horizontal boards battened at the back and with cross tongued and glued joints, presenting a perfectly smooth surface, or of matched boarding fixed vertically, or of panelled framing. The last method is of course the most ornate and admits of great variety of design. The work is fixed to rough framed wood grounds which are nailed to plugs driven into the joints of the brickwork. Fig. 7 shows an example of a panelled dado with capping moulding and skirting. A *picture rail* also is shown; it is a small moulding with the top edge grooved to take the metal hooks from which pictures are hung.

Walls are sometimes entirely sheathed with panelling, and very fine effects are obtained in this way. The fixing is effected to rough grounds in a manner similar to that adopted in the case of dados. In England the architects of the Tudor period made great use of oak framing, panelled and richly carved, as a wall covering and decoration, and many beautiful examples may be seen in the remaining buildings of that period.

Windows.—The parts of a window sash are distinguished by the same terms as are applied to similar portions of ordinary framing, being formed of rails and styles, with sash bars rebated for glazing. The upright sides are *styles*; the horizontal ones, which are tenoned into the styles, are *rails* (fig. 7).

Sashes hung by one of their vertical edges are called *casements* (fig. 8). They are really a kind of glazed door and sometimes indeed are used as such, as for example *French casements* (fig. 9). They may be made to open either outwards or inwards. It is very difficult with the latter to form perfectly water-tight joints; with those opening outwards the trouble does not exist to so great an extent. This form of window, though almost superseded in England by the case frame with hung sashes, is in almost universal use on the Continent. *Yorkshire sliding sashes* move in a horizontal direction upon grooved runners with the meeting styles vertical. They are

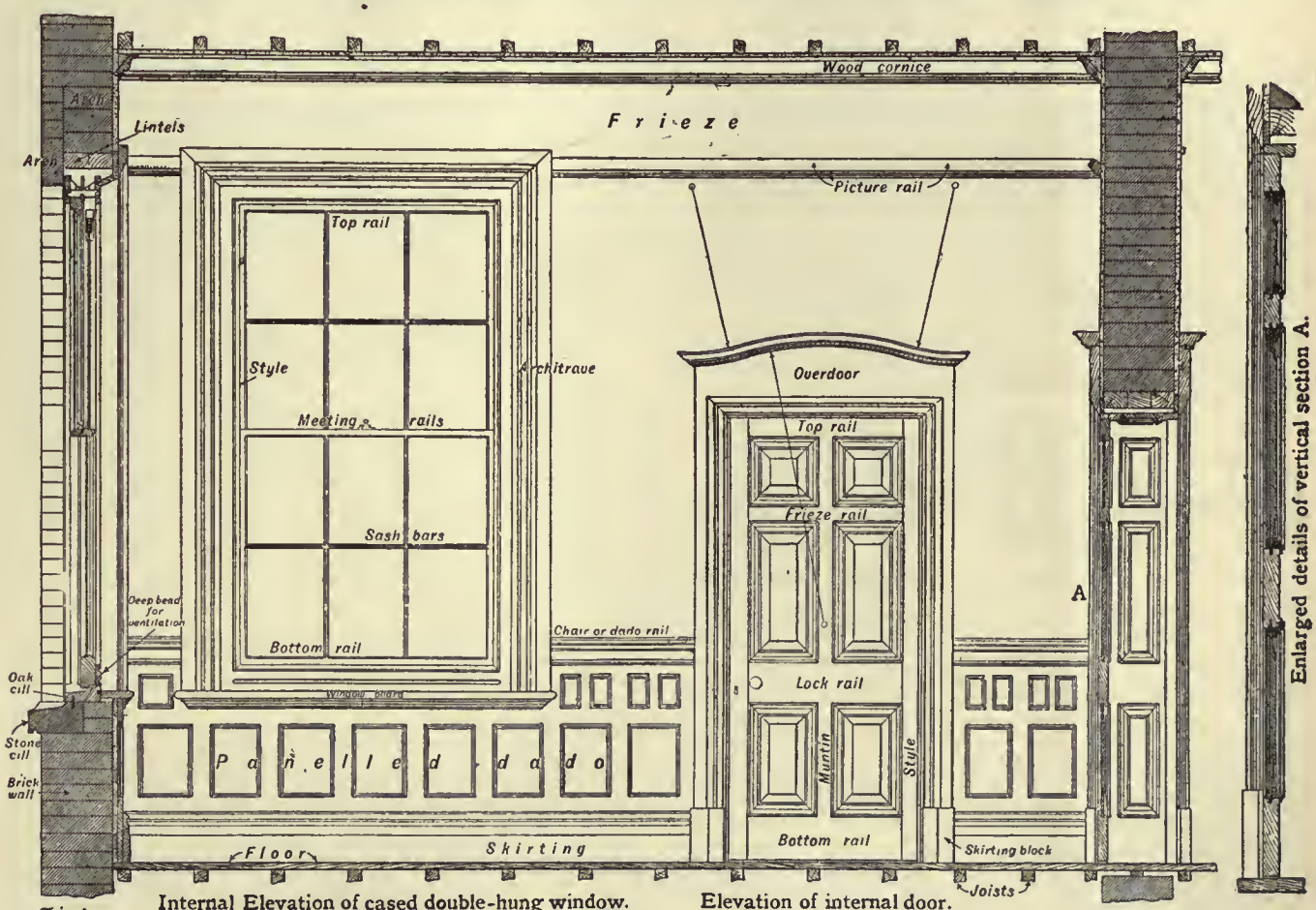


FIG. 7.

little used, and are apt to admit draughts and wet unless efficient checks are worked upon the sashes and frames.

Lights in a position difficult of access are often hung on *centre pivots*. An example of this method is shown in fig. 8; metal pivots are fixed to the frame and the sockets in which these pivots work are screwed to the sash. Movement is effected by means of a cord

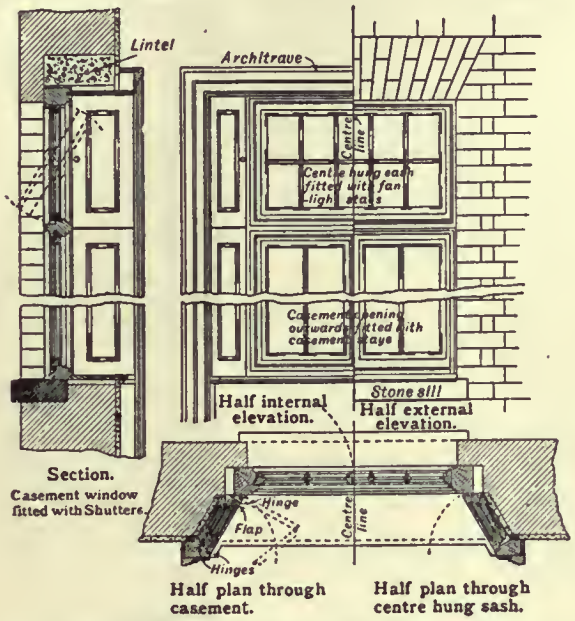


FIG. 8.—Casement window fitted with shutters.

fixed so that a slight pull opens or closes the window to the desired extent, and the cord is then held by being tied to, or twisted round, a small metal button or clip, or a geared fanlight opener may be used. For the side sashes of lantern lights and for stables and factories this form of window is in general use.

In the British Isles and in America the most usual form of window is the *cased frame with double hung sliding sashes*. This style has many advantages. It is efficient in excluding wet and draughts, ventilation may be easily regulated and the sashes can be lowered and raised with ease without interference with any blinds, curtains or other fittings, that may be applied to the windows. In the ordinary window of this style, however, difficulty is experienced in cleaning the external glass without assuming a dangerous position on the sill, but there are many excellent inventions now on the market which obviate this difficulty by allowing—usually on the removal of a small thumb-screw—the reversal of the sash on a pivot or hinge.

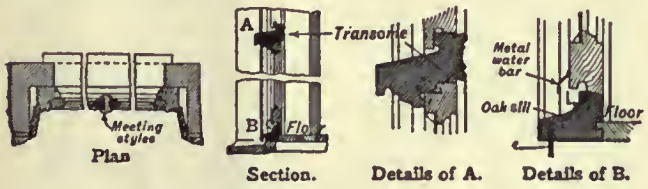


FIG. 9.—Details of French Casement to open inwards.

For a small extra cost these arrangements may be provided; they will be greatly appreciated by those who clean the windows. The cased frames are in the form of boxes to enclose the iron or lead weights which balance the sashes (fig. 7), and consist of a pulley style —which takes the wear of the sashes and is often of hard wood on this account—an inside lining, and an outside lining; these three members are continued to form the head of the frame. The sashes are connected with the weights by flax lines working over metal pulleys fixed in the pulley styles. For heavy sashes with plate glass, chains are sometimes used instead of lines. Access to the weights for the purpose of fitting new cords is obtained by removing the pocket piece. A thin back lining is provided to the sides only and is not required in the head. The sill is of oak weathered to throw off the water. A parting bead separates the sashes, and the inside bead keeps them in position. A parting slip hung from the head inside the cased frame separates the balancing weights and ensures their smooth working. The inside lining is usually grooved to take the elbow and soffit linings, and the window board is fitted into a groove formed in the sill. The example shown in fig. 7 has an extra deep bottom rail and bead; this enables the lower sash to be raised so as to permit of ventilation between the meeting rails without causing a draught at the bottom of the sash. This is a considerable improvement upon the ordinary form, and the cost of constructing the sashes in this manner is scarcely greater.

Bay windows with cased frames and double hung sashes often require the exercise of considerable ingenuity in their construction in order that the mullions shall be so small as not to intercept more light than necessary; at the same time the sashes must work easily and the whole framing be stable and strong. The sills should be mitred and tongued at the angles and secured by a hand-rail bolt. Frequently it is not desired to hang all the sashes of a bay window, the side lights being fixed. To enable smaller angle mullions to be obtained, the cords of the front windows may be taken by means of pulleys over the heads of the side lights and attached to counter-balance weights working in casings at the junction of the window with the wall. This enables solid angle mullions to be employed. If all the lights are required to be hung the difficulty may be surmounted by hanging two sashes to one weight. Lead weights take up less space than iron, and are used for heavy sashes.

In framing and fixing *skylights* and *lantern lights* also great care is necessary to ensure the result being capable of resisting rough weather and standing firm in high winds. Glue should not be used in any of the joints, as it would attract moisture from the atmosphere and set up decay. Provision must be made for the escape of the water which condenses on and runs down the under side of the glass, by means of a lead-lined channelled moulding, provided with zinc or copper pipe outlets. The skylight stands on a curb raised at least 6 in. to allow of the exclusion of rain by proper flashing. The sashes of the lantern usually take the form of fixed or hung casements fitted to solid mullions and angle posts which are framed into and support a solid head. The glazed framing of the roof is made up of moulded sash bars framed to hips and ridges of stronger section, these rest on the head, projecting well beyond it in order to throw off the water.

Shutters for domestic windows have practically fallen into disuse, but a reference to the different forms they may take is perhaps necessary. They may be divided into two classes—those fixed to the outside of the window and those fixed inside. They may be battened, panelled or formed with louvres, the latter form admitting air and a little light. External shutters are generally hung by means of hinges to the frame of the window: when the window is set in a reveal these hinges are necessarily of special shape, being of large projection to enable the shutters to fold back against the face of the wall. Internally fixed shutters may be hinged or may slide either vertically or horizontally. Hinged folding boxed shutters are shown in the illustration of a casement window (fig. 8), where the method of working is clearly indicated; they are usually held in position by means of a hinged iron bar secured with a special catch. Lifting shutters are usually fitted in a casing formed in the window back, and the window board is hinged to lift up, to allow the shutters to be raised by means of rings fixed in their upper edges. The shutters are balanced by weights enclosed with casings in the manner described for double hung sashes. The panels are of course filled in with wood and not glazed. The shutters are fixed by means of a thumb-screw through the meeting rails, the lower sash being supported on the window board which is closed down when the sashes have been lifted out. Shutters sliding horizontally are also used in some cases, but they are not so convenient as the forms described above.

Shop-fronts.—The forming of shop-fronts may almost be considered a separate branch of joiner's work. The design and construction are attended by many minor difficulties, and, the requirements greatly varying with almost every trade, careful study and close attention to detail are necessary. In the erection of shop-fronts, in order to allow the maximum width of glass with the minimum amount of obstruction, many special sections of sash bars and stanchions are used, the former often being reinforced by cast iron or steel of suitable form. For these reasons the construction of shop-fronts and fittings has been specialized by makers having a knowledge of the requirements of different trades and with facilities for making the special wood and metal fittings and casings necessary. Fig. 10 shows an example of a simple shop-front in Spanish mahogany with rolling shutters and spring roller blind; it indicates the typical construction of a front, and reference to it will inform the reader on many points which need no further description. The London Building Act 1894 requires the following regulations to be complied with in shop-fronts:—(1) In streets of a width not greater than 30 ft. a shop-front may project 5 in. beyond the external wall of the building to which it belongs, and the cornice may project 13 in. (2) In streets of a width greater than 30 ft., the projections of the shop-front may be 10 in. and of the cornice 18 in. beyond the building line. No woodwork of any shop-front shall be fixed higher than 25 ft. above the level of the public pavement. No woodwork shall be fixed nearer than 4 in. to the centre of the party wall. The pier of brick or stone must project at least an inch in front of the woodwork. These by-laws will be made clear on reference to fig. 10, which is of a shop-front designed to face on to a road more than 30 ft. wide.

Rolling shutters for shop-fronts are made by a number of firms, and are usually the subject of a separate estimate, being fixed by the makers themselves. The shutter consists of a number of narrow strips of wood, connected with each other by steel bands hinged at every joint, or it may be formed in iron or steel. This construction allows it to be coiled upon a cylinder containing a strong spring and usually fixed on strong brackets behind the fascia. The shutter

is guided into position by the edges working in metal grooves a little under an inch wide. When the width of the opening to be closed renders it necessary to divide the shutters into more than one portion, grooved movable pilasters are used, and when the shutters have to be lowered these are fixed in position with bolts, the shutter working on the grooved edges of the pilasters. *Spring roller canvas blinds* work on a similar principle. The wrought-iron blind arms are capable, when the blind is extended, of being pushed up by means of a sliding arrangement, and fixed with a pin at a level high enough to allow foot passengers to pass along the pavement under them.

The latter would need to be worked and framed in the shop and fixed entire. Polished hard wood architraves may be secretly fixed, *i.e.* without the heads of nails or screws showing on the face, by putting screws into the grounds with their heads slightly projecting, and hanging the moulding on them by means of keyhole slots formed in the back.

Doors may be made in a variety of ways. The simplest form, the *common ledged* door, consists of vertical boards with plain or matched joints nailed to horizontal battens which correspond to the rails in framed doors. For openings over 2 ft. 3 in. wide, the doors should be furnished with braces. *Ledged and braced* doors are

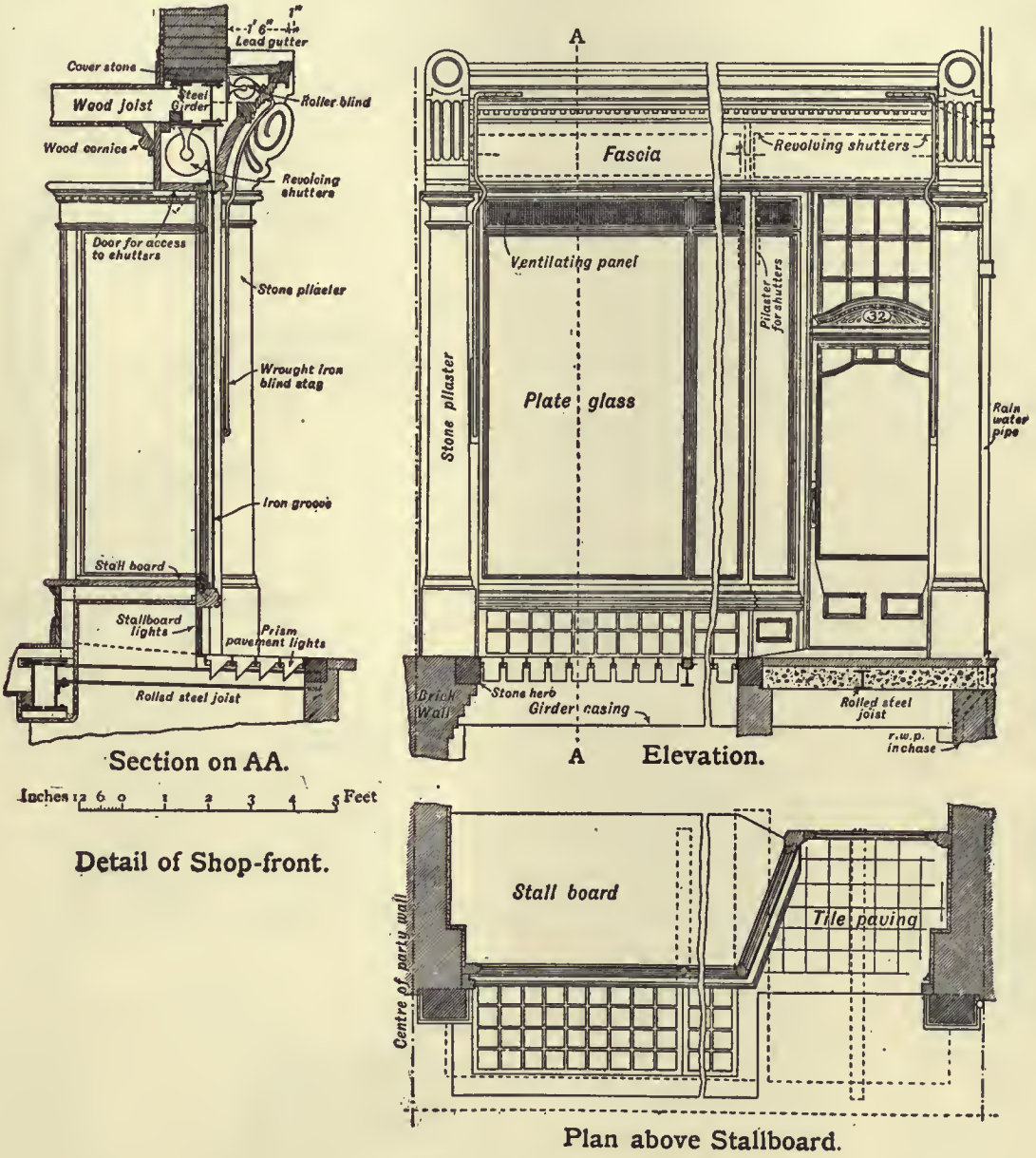


FIG. 10.—Shop-front.

Doors.—External doors are usually hung to solid frames placed in the reveals of the brick or stone wall. The frames are rebated for the door and ornamented by mouldings either stuck or planted on. The *jambs* or *posts* are tenoned, wedged and glued to the head, and the feet secured to the sill by stub tenons or dowels of iron. Solid window frames are of similar construction and are used chiefly for casements and sashes hung on centres as already described. Internal doors are hung to jamb linings (fig. 7). They are usually about 1½ in. thick and rebated for the door. When the width of jamb allows it, panelling may be introduced as in the example shown. The linings are nailed or screwed to rough framed grounds 1 in. in thickness plugged or nailed to the wall or partition. *Architraves* are the borders or finishing mouldings fixed around a window or door opening, and screwed or nailed to wood grounds. They are variously moulded according to the fancy of the designer. The ordinary form of architrave is shown in the illustration of a cased window frame (fig. 8), and a variation appears in the combined architrave and over door frieze and capping fitted around the six-panelled door (fig. 7).

similar, but have, in addition to the ledges at the back, oblique braces which prevent any tendency of the door to drop. The upper end of the brace is birdsmouthed into the under side of the rail near the lock edge of the door and crosses the door in an oblique direction to be birdsmouthed into the upper edge of the rail below, near the hanging edge of the door. This is done between each pair of rails. *Framed ledged and braced* doors are a further development of this form of door. The framing consists of lock and hanging styles, top, middle and bottom rails, with oblique braces between the rails. These members are tenoned together and the door sheathed with boarding. The top rail and styles are the full thickness of the door, the braces and middle and bottom rails being less by the thickness of the sheathing boards, which are tongued into the top rail and styles and carried down over the other members to the bottom of the door. The three forms of door described above are used mainly for temporary purposes, and stables, farm buildings and outhouses of all descriptions. They are usually hung by wrought-iron cross garnet or strap hinges fixed with screws or through bolts and nuts.

The doors in dwelling-houses and other buildings of a like character are commonly *framed and panelled* in one of the many ways possible. The framing consists of styles, rails and muntins or mountings, and these members are grooved to receive and hold the panels, which are inserted previously to the door being glued and wedged up. The common forms are doors in four or six rectangular panels, and although they may be made with any form and number of panels, the principles of construction remain the same. The example shown in fig. 7 is of a six-panel door, with bolection moulded raised panels on one side, and moulded and flat panels on the other (fig. 11).

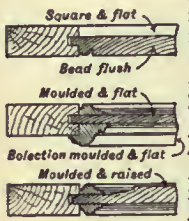


FIG. 11.—Forms of Panelling.

A clear idea of the method of jointing the various members may be obtained from fig. 12. The tongues of raised panels should be of parallel thickness, the bevels being stopped at the moulding. The projecting ends or *horns* of the styles are cut off after the door has been glued and wedged, as they prevent the ends of the styles being damaged by the wedging process.

Where there is a great deal of traffic in both directions *swing doors*, either single or double, are used. To open them it is necessary simply to push, the inconvenience of turning a handle and shutting the door after passing through being avoided, as a spring causes the door to return to its original position without noise. They are usually glazed and should be of substantial construction. The door is hinged at the top on a steel pivot; the bottom part fits into a metal shoe connected with the spring, which is placed in a box fixed below the floor.

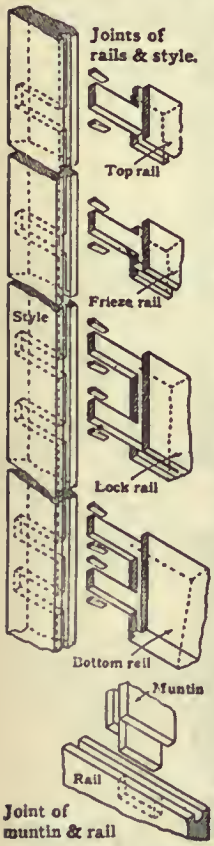


FIG. 12.—Joints.

For large entrances, notably for hotels and banks, a form of door working on the *turnstile* principle is frequently adopted. It is formed of four leaves fixed in the shape of a cross and working on top and bottom central ball-bearing steel pivots, in a circular framing which forms a kind of vestibule. The leaves of the door are fitted with slips of india-rubber at their edges which, fitting close to the circular framing, prevent draughts.

When an elegant appearance is desired, and it is at the same time necessary to keep the cost of production as low as possible, doors of pine or other soft wood are sometimes covered with a *veneer* or thin layer of hard wood, such as oak, mahogany or teak, giving the appearance of a solid door of the better material. Made in the ordinary way, however, the shrinkage or warping of the soft wood is very liable to cause the veneer to buckle and peel off. Veneered doors made on an improved method obviating this difficulty have been placed on the market by a Canadian company. The core is made up of strips of pine with the grain reversed, dried at a temperature of 200° F., and glued up under pressure. Both the core and the hard wood veneer are grooved over their surfaces, and a special damp-resisting glue is applied; the two portions are then welded together under hydraulic pressure. By reason of their construction these doors possess the advantages of freedom from shrinking, warping and splitting, defects which are all too common in the ordinary veneered and solid hard wood doors.

The best glue for internal woodwork is that made in Scotland. Ordinary animal glue should not be used in work exposed to the weather as it absorbs damp and thus hastens decay; in its place a compound termed *beaumontique*, composed of white lead, linseed oil and litharge, should be employed.

Church Work.—Joinery work in connexion with the fitting up of church interiors must be regarded as a separate branch of the joiner's art. Pitchpine is often used, but the best work is executed in English oak; and when the screens, stalls and seating are well designed and made in this material, a distinction and dignity of effect are added to the interior of the church which cannot be obtained in any other medium. The work is often of the richest character, and frequently enriched with elaborate carving (fig. 13). Many beautiful specimens of early work are to be seen in the English Gothic cathedrals and churches; good work of a later date will be found in many churches and public buildings erected in more recent years. Fine examples of Old English joinery exist at Hampton Court Palace, the Temple Church in London, the Chapel of Henry VII. in Westminster Abbey, and Haddon Hall. Specimens of modern work are to be seen in Beverley Minster in Yorkshire, the Church of St Etheldreda in Ely Place, London, and the Wycliffe Hall Chapel at Oxford. Other examples both ancient and modern abound in the country.

Carving is a trade apart from ordinary joinery, and requires a special ability and some artistic feeling for its successful execution. But even in this work machinery has found a place, and carved ornaments of all descriptions are rapidly wrought with its aid. Small carved mouldings especially are evolved in this manner, and, being incomparably cheaper than those worked by manual labour, are used freely where a rich effect is desired. Elaborately carved panels also are made by machines and a result almost equal to work done entirely by hand is obtained if, after machinery has done all in its power, the hand worker with his chisels and gouges puts the finishing touches to the work.

Ironmongery.—In regard to the finishing of a building, no detail calls for greater consideration than the selection and accurate fixing of suitable ironmongery, which includes the hinges, bolts, locks, door and window fittings, and the many varieties of metal finishings required for the completion of a building. The task of the selection belongs to the employer or the architect; the fixing is performed by the joiner.

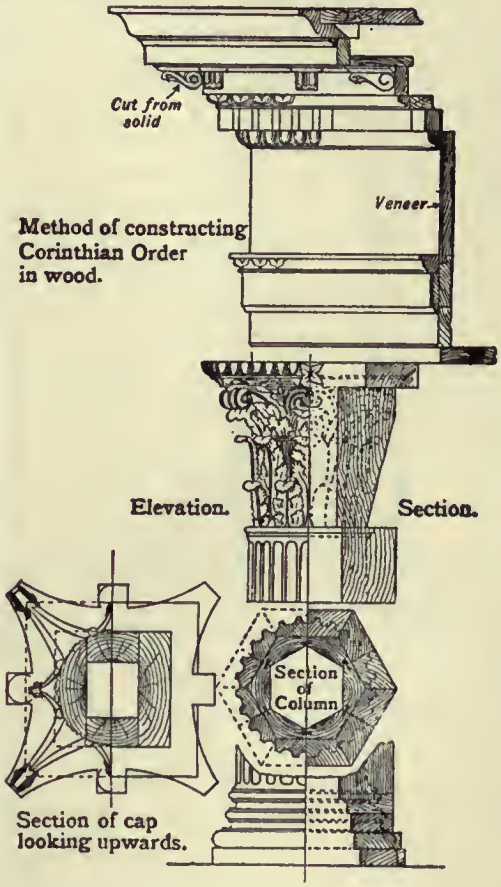


FIG. 13.

Of *hinges*, the variety termed *butts* are in general use for hanging doors, and are so called from being fitted to the butt edge of the door. They should be of wrought iron, cast-iron butts being liable to snap should they sustain a shock. *Lifting butts* are made with a removable pin to enable the door to be removed and replaced without unscrewing. *Rising butts* have oblique joints which cause the door to rise and clear a thick carpet and yet make a close joint with the floor when shut. Hinges of brass or gun-metal are used in special circumstances. Common forms of hinges used on ledged doors are the *cross garnet* and the *strap*. There are many varieties of *spring hinges* designed to bring the door automatically to a desired position. With such hinges a rubber stop should be fixed on the floor or other convenient place to prevent undue strain through the door being forced back.

Among *locks and fastenings* the ordinary *barrel* or *tower* bolt needs no description. The *flush barrel* is a bolt let in flush with the face of a door. The *espagnolette* is a development of the tower bolt and extends the whole height of the door; a handle at a convenient height, when turned, shooting bolts at the top and bottom simultaneously. Their chief use is for French casements. The *padlock* is used to secure doors by means of a staple and eye. The *stock* lock is a large rim lock with hard wood casing and is used for stables, church doors, &c.; it is in the form of a dead lock opened only by a key, and is often used in conjunction with a Norfolk latch. The *metal cased* rim lock is a cheap form for domestic and general use. The use of a rim lock obviates the necessity of forming a mortice in the thickness of the door which is required when a mortice lock is used. *Finger plates* add greatly to the good appearance of a door,

and protect the painted work. *Sash fasteners* are fixed at the meeting rails of double hung sashes to prevent the window being opened from the outside and serve also to clip the two sashes tightly together. They should be of a pattern to resist the attack of a knife inserted between the rails. *Sash lifts* and *pulls* of brass or bronze are fitted to large sashes. Ornamental *casement stays* and fasteners in many different metals are made in numerous designs and styles. *Fanlight openers* for single lights, or geared for a number of sashes, may be designed to suit positions difficult of access.

The following are the principal books of reference on this subject: J. Gwilt, *Encyclopaedia of Architecture*; Sutcliffe, *Modern House Construction*; Rivington, *Notes on Building Construction* (3 vols.); H. Adams, *Building Construction*; C. F. Mitchell, *Building Construction*; Robinson, *Carpentry and Joinery*; J. P. Allen, *Practical Building Construction*; J. Newlands, *Carpenter and Joiner's Assistant*; Bury, *Ecclesiastical Woodwork*; T. Tredgold and Young, *Joinery*; Peter Nicholson, *Carpenter and Joiner's Assistant*. (J. Bt.)

JOINT (through Fr. from Lat. *junctum, jungere*, to join), that which joins two parts together or the place where two parts are joined. (See Joinery; Joints.) In law, the word is used adjectivally as a term applied to obligations, estates, &c., implying that the rights in question relate to the aggregate of the parties joined. Obligations to which several are parties may be *several, i.e* enforceable against each independently of the others, or *joint, i.e.* enforceable only against all of them taken together, or *joint and several, i.e.* enforceable against each or all at the option of the claimant (see Guarantee). So an interest or estate given to two or more persons for their joint lives continues only so long as all the lives are in existence. *Joint-tenants* are co-owners who take together at the same time, by the same title, and without any difference in the quality or extent of their respective interests; and when one of the joint-tenants dies his share, instead of going to his own heirs, lapses to his co-tenants by survivorship. This estate is therefore to be carefully distinguished from *tenancy in common*, when the co-tenants have each a separate interest which on death passes to the heirs and not to the surviving tenants. When several take an estate together any words or facts implying severance will prevent the tenancy from being construed as joint.

JOINTS, in anatomy. The study of joints, or articulations, is known as Arthrology (Gr. ἄρθρον), and naturally begins with the definition of a joint. Anatomically the term is used for any connexion between two or more adjacent parts of the skeleton, whether they be bone or cartilage. Joints may be immovable, like those of the skull, or movable, like the knee.

Immovable joints, or *synarthroses*, are usually adaptations to growth rather than mobility, and are always between bones. When growth ceases the bones often unite, and the joint is then obliterated by a process known as *synostosis*, though whether the union of the bones is the cause or the effect of the stoppage of growth is obscure. Immovable joints never have a cavity between the two bones; there is simply a layer of the substance in which the bone has been laid down, and this remains unaltered. If the bone is being deposited in cartilage a layer of cartilage intervenes, and the joint is called *synchondrosis* (fig. 1), but if in membrane a thin layer of fibrous tissue persists, and the joint is then known as a *suture* (fig. 2). Good

Fig. 1.—Vertical section through a synchondrosis. *b, b*, the two bones; *Sc*, the interposed cartilage; *l*, the fibrous membrane which plays the part of a ligament.

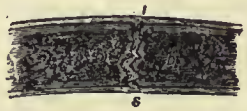


Fig. 2.—Vertical section through a cranial suture. *b, b*, the two bones; *s*, opposite the suture; *l*, the fibrous membrane, or periosteum, passing between the two bones, which plays the part of a ligament, and which is continuous with the interposed fibrous membrane.

examples of synchondroses are the epiphysial lines which separate the epiphyses from the shafts of developing long bones, or the occipito-sphenoid synchondrosis in the base of the skull. Examples of sutures are plentiful in the vault of the skull, and are given special names, such as sutura dentata, s. serrata, s. squamosa, according to the plan of their outline. There are two kinds of fibrous synarthroses, which differ from sutures in that they do not synostose. One of these is a *schindylesis*, in which a thin plate of one bone is received into a slot in another, as in the joint between the sphenoid and vomer. The other is a peg and socket joint, or *gomphosis*, found where the fangs of the teeth fit into the alveoli or tooth sockets in the jaws.

Movable joints, or *diarthroses*, are divided into those in which there is much and little movement. When there is little movement the term half-joint or *amphiarthrosis* is used. The simplest kind of amphiarthrosis is that in which two bones are connected by bundles of fibrous tissue which pass at right angles from the one to the other; such a joint only differs from a suture in the fact that the intervening fibrous tissue is more plentiful and is organized into definite bundles, to which the name of *interosseous ligaments* is given, and also that it does not synostose when growth stops. A joint of this kind is called a *syndesmosis*, though probably the distinction is a very arbitrary one, and depends upon the amount of movement which is brought about by the muscles on the two bones. As an instance of this the inferior tibiofibular joint of mammals may be cited. In man this is an excellent example of a syndesmosis, and there is only a slight play between the two bones. In the mouse there is no movement, and the two bones form a synchondrosis between them which speedily becomes a synostosis, while in many Marsupials there is free mobility between the tibia and fibula, and a definite synovial cavity is established. The other variety of amphiarthrosis or half-joint is the *symphysis*, which differs from the syndesmosis in having both bony surfaces lined with cartilage and between the two cartilages a layer of fibro-cartilage, the centre of which often softens and forms a small synovial cavity. Examples of this are the symphysis pubis, the mesosternal joint, and the joints between the bodies of the vertebrae (fig. 3).

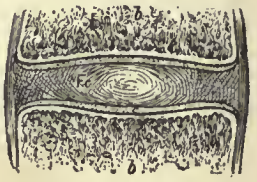


Fig. 3.—Vertical section through an amphiarthrodial joint. *b, b*, the two bones; *c, c*, the plate of cartilage on the articular surface of each bone; *Fc*, the intermediate fibro-cartilage; *l, l*, the external ligaments.

The *true diarthroses* are joints in which there is either fairly free or very free movement. The opposing surfaces of the bones are lined with articular cartilage, which is the unossified remnant of the cartilaginous model in which they are formed and is called the *cartilage of encrustment* (fig. 4, *c*). Between the two cartilages is the *joint cavity*, while surrounding the joint is the *capsule* (fig. 4, *l*), which is formed chiefly by the superficial layers of the original periosteum or perichondrium, but it may be strengthened externally by surrounding fibrous structures, such as the tendons of muscles, which become modified and acquire fresh attachments for the purpose. It may be said generally that the greater the intermittent strain on any part of the capsule the more it responds by increasing in thickness. Lining the interior of the capsule, and all other parts

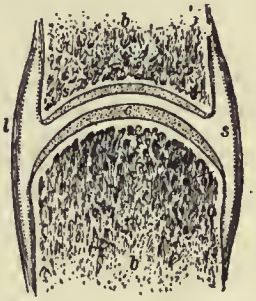


Fig. 4.—Vertical section through a diarthrodial joint. *b, b*, the two bones; *c, c*, the plate of cartilage on the articular surface of each bone; *l, l*, the investing ligament, the dotted line within which represents the synovial membrane. The letter *s* is placed in the cavity of the joint.

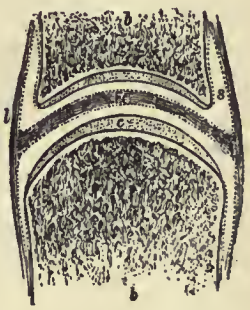


Fig. 5.—Vertical section through a diarthrodial joint, in which the cavity is subdivided into two by an interposed fibro-cartilage or meniscus, *Fc*. The other letters as in fig. 4.

of the joint cavity except where the articular cartilage is present, is the *synovial membrane* (fig. 4, dotted line); this is a layer of endothelial cells which secrete the synovial fluid to lubricate the interior of the joint by means of a small percentage of mucin, albumin and fatty matter which it contains.

A *compound diarthrodial joint* is one in which the joint cavity is divided partly or wholly into two by a *meniscus* or *inter-articular fibro-cartilage* (fig. 5, *Fc*).

The shape of the joint cavity varies greatly, and the different divisions of movable joints depend upon it. It is often assumed that the structure of a joint determines its movement, but there is something to be said for the view that the movements to which a joint is

subject determine its shape. As an example of this it has been found that the mobility of the metacarpo-phalangeal joint of the thumb in a large number of working men is less than it is in a large number of women who use needles and thread, or in a large number of medical students who use pens and scalpels, and that the slightly movable thumb has quite a differently shaped articular surface from the freely movable one (see *J. Anat. and Phys.* xxix. 446). R. Fick, too, has demonstrated that the concavity or convexity of the joint surface depends on the position of the chief muscles which move the joint, and has enunciated the law that when the chief muscle or muscles are attached close to the articular end of the skeletal element that end becomes concave, while, when they are attached far off or are not attached at all, as in the case of the phalanges, the articular end is convex. His mechanical explanation is ingenious and to the present writer convincing (see *Handbuch der Gelenke*, by R. Fick, Jena, 1904). Bernays, however, pointed out that the articular ends were moulded before the muscular tissue was differentiated (*Morph. Jahrb.* iv. 403), but to this Fick replies by pointing out that muscular movements begin before the muscle fibres are formed, and may be seen in the chick as early as the second day of incubation.

The freely movable joints (true diarthrosis) are classified as follows:—

(1) *Gliding joints* (*Arthrodia*), in which the articular surfaces are flat, as in the carpal and tarsal bones.

(2) *Hinge joints* (*Ginglymus*), such as the elbow and interphalangeal joints.

(3) *Condyloid joints* (*Condylarthrosis*), allowing flexion and extension as well as lateral movement, but no rotation. The metacarpo-phalangeal and wrist joints are examples of this.

(4) *Saddle-shaped joints* (*Articulus sellaris*), allowing the same movements as the last with greater strength. The carpo-metacarpal joint of the thumb is an example.

(5) *Ball and socket joints* (*Enarthrosis*), allowing free movement in any direction, as in the shoulder and hip,

(6) *Pivot-joint* (*Trochoides*), allowing only rotation round a longitudinal axis, as in the radio-ulnar joints.

Embryology.

Joints are developed in the mesenchyme, or that part of the mesoderm which is not concerned in the formation of the serous cavities. The synarthroses may be looked upon merely as a delay in development, because, as the embryonic tissue of the mesenchyme passes from a fibrous to a bony state, the fibrous tissue may remain along a certain line and so form a suture, or, when chondrification has preceded ossification, the cartilage may remain at a certain place and so form a synchondrosis. The diarthroses represent an arrest of development at an earlier stage, for a part of the original embryonic tissue remains as a plate of round cells, while the neighbouring two rods chondrify and ossify. This plate may become converted into fibro-cartilage, in which case an amphiarthrodial joint results, or it may become absorbed in the centre to form a joint cavity, or, if this absorption occurs in two places, two joint cavities with an intervening meniscus may result. Although, ontogenetically, there is little doubt that menisci arise in the way just mentioned, the teaching of comparative anatomy suggests that, phylogenetically, they originate as an ingrowth from the capsule pushing the synovial membrane in front of them. The subject will be returned to when the comparative anatomy of the individual joints is reviewed. In the human foetus the joint cavities are all formed by the tenth week of intra-uterine life.

Anatomy

Joints of the Axial Skeleton.

The bodies of the vertebrae except those of the sacrum and coccyx are separated, and at the same time connected, by the *intervertebral disks*. These are formed of alternating concentric rings of fibrous tissue and fibro-cartilage, with an elastic mass in the centre known as the *nucleus pulposus*. The bodies are also bound together by *anterior* and *posterior common ligaments*. The odontoid process of the axis fits into a pivot joint formed by the anterior arch of the atlas in front and the *transverse ligament* behind; it is attached to the basioccipital bone by two strong *lateral check ligaments*, and, in the mid line, by a feebler *middle check ligament* which is regarded morphologically as containing the remains of the notochord. This *atlanto-axial joint* is the one which allows the head to be shaken from side to side. Nodding the head occurs at the *occipito-atlantal joint*, which consists of the two occipital condyles received into the cup-shaped articular facets on the atlas and surrounded by capsular ligaments. The neural arches of the vertebrae articulate one with another by the *articular facets*, each of which has a capsular ligament. In addition to these the laminae are connected by the very elastic *ligamenta subflava*. The spinous processes are joined by *interspinous ligaments*, and their tips by a *supraspinous ligament*, which in the neck is continued from the spine of the seventh cervical vertebra to the external occipital crest and protuberance as the *ligamentum nuchae*, a thin, fibrous, median septum between the muscles of the back of the neck.

The combined effect of all these joints and ligaments is to allow the spinal column to be bent in any direction or to be rotated, though only a small amount of movement occurs between any two vertebrae.

The heads of the ribs articulate with the bodies of two contiguous thoracic vertebrae and the disk between. The ligaments which connect them are called *costo-central*, and are two in number. The anterior of these is the *stellate ligament*, which has three bands radiating from the head of the rib to the two vertebrae and the intervening disk. The other one is the *interarticular ligament*, which connects the ridge, dividing the two articular cavities on the head of the rib, to the disk; it is absent in the first and three lowest ribs.

The *costo-transverse ligaments* bind the ribs to the transverse processes of the thoracic vertebrae. The *superior costo-transverse ligament* binds the neck of the rib to the transverse process of the vertebra above; the *middle* or *interosseous* connects the back of the neck to the front of its own transverse process; while the *posterior* runs from the tip of the transverse process to the outer part of the tubercle of the rib. The inner and lower part of each tubercle forms a diarthrodial joint with the upper and fore part of its own transverse process, except in the eleventh and twelfth ribs. At the junction of the ribs with their cartilages no diarthrodial joint is formed; the periosteum simply becomes perichondrium and binds the two structures together. Where the cartilages, however, join the sternum, or where they join one another, diarthrodial joints with synovial cavities are established. In the case of the second rib this is double, and in that of the first usually wanting. The *mesosternal joint*, between the pre- and mesosternum, has already been given as an example of a symphysis.

Comparative Anatomy.—For the convexity or concavity of the vertebral centra in different classes of vertebrates, see Skeleton: *axial*. The intervertebral disks first appear in the Crocodilia, the highest existing order of reptilia. In many Mammals the middle fasciculus of the stellate ligament is continued right across the ventral surface of the disk into the ligament of the opposite side, and is probably serially homologous with the ventral arch of the atlas. A similar ligament joins the heads of the ribs dorsal to the disk. To these bands the names of anterior (ventral) and posterior (dorsal) *conjugal ligaments* have been given, and they may be demonstrated in a seven months' human foetus (see B. Sutton, *Ligaments*, London, 1902). The *ligamentum nuchae* is a strong elastic band in the Ungulata which supports the weight of the head. In the Carnivora it only reaches as far forward as the spine of the axis.

The Jaw Joint, or *temporo-mandibular articulation*, occurs between the sigmoid cavity of the temporal bone and the condyle of the jaw. Between the two there is an interarticular fibro-cartilage or meniscus, and the joint is surrounded by a capsule of which the outer part is the thickest. On first opening the mouth, the joint acts as a hinge, but very soon the condyle begins to glide forward on to the eminentia articularis (see Skull) and takes the meniscus with it. This gliding movement between the meniscus and temporal bone may be separately brought about by protruding the lower teeth in front of the upper, or, on one side only, by moving the jaw across to the opposite side.

Comparative Anatomy.—The joint between the temporal and mandibular bones is only found in Mammals; in the lower vertebrates the jaw opens between the quadrate and articular bones. In the Carnivora it is a perfect hinge; in many Rodents only the antero-posterior gliding movement is present; while in the Ruminants the lateralizing movement is the chief one. Sometimes, as in the Ornithorhynchus, the meniscus is absent.

Joints of the Upper Extremity.

The *sterno-clavicular articulation*, between the presternum and clavicle, is a gliding joint, and allows slight upward and downward and forward and backward movements. The two bony surfaces are separated by a meniscus, the vertical movements taking place outside and the antero-posterior inside this. There is a well-marked capsule, of which the anterior part is strongest. The two clavicles are joined across the top of the presternum by an *interclavicular ligament.*

The *acromio-clavicular articulation* is also a gliding joint, but allows a swinging or pendulum movement of the scapula on the clavicle. The upper part of the capsule is strongest, and from it hangs down a partial meniscus into the cavity.

Comparative Anatomy.—Bland Sutton regards the inter-clavicular ligament as a vestige of the interclavicle of Reptiles and Monotremes. The menisci are only found in the Primates, but it must be borne in mind that many Mammals have no clavicle, or a very rudimentary one. By some the meniscus of the sterno-clavicular joint is regarded as the homologue of the lateral part of the interclavicle, but the fact that it only occurs in the Primates where movements in different planes are fairly free is suggestive of a physiological rather than a morphological origin for it.

The SHOULDER JOINT is a good example of the ball and socket or enarthrodial variety. Its most striking characteristic is mobility at the expense of strength. The small size of the glenoid cavity in comparison with the head of the humerus, and the great laxity of the capsule, favour this, although the glenoid cavity is slightly deepened by a fibrous lip, called the *glenoid ligament*, round its margin. The presence of the coracoid and acromial processes of the scapula, with the *coraco-acromial ligament* between them, serves as an overhanging protection to the joint, while the biceps tendon runs over the head of the humerus, inside the capsule, though surrounded by a sheath of synovial membrane. Were it not for these two extra safeguards the shoulder would be even more liable to dislocation than it is. The upper part of the capsule, which is attached to the base of the coracoid process, is thickened, and known as the *coraco-humeral ligament*, while inside the front of the capsule are three folds of synovial membrane, called *gleno-humeral folds*.

Comparative Anatomy.—In the lower Vertebrates the shoulder is adapted to support rather than prehension and is not so freely movable as in the Primates. The tendon of the biceps has evidently sunk through the capsule into the joint, and even when it is intra-capsular there is usually a double fold connecting its sheath of synovial membrane with that lining the capsule. In Man this has been broken through, but remains of it persist in the *superior gleno-humeral fold*. The *middle gleno-humeral fold* is the vestige of a strong ligament which steadies and limits the range of movement of the joint in many lower Mammals.

The ELBOW JOINT is an excellent example of the ginglymus or hinge, though its transverse axis of movement is not quite at right angles to the central axis of the limb, but is lower internally than externally. This tends to bring the forearm towards the body when the elbow is bent. The elbow is a great contrast to the shoulder, as the trochlea and capitellum of the humerus are closely adapted to the sigmoid cavity of the ulna and head of the radius (see SKELETON: *appendicular*); consequently movement in one plane only is allowed, and the joint is a strong one. The capsule is divided into anterior, posterior, and two lateral ligaments, though these are all really continuous. The joint cavity communicates freely with that of the superior radio-ulnar articulation.

The *radio-ulnar joints* are three: the upper one is an example of a pivot joint, and in it the disk-shaped head of the radius rotates in a circle formed by the lesser sigmoid cavity of the ulna internally and the *orbicular ligament* in the other three quarters.

The *middle radio-ulnar articulation* is simply an interosseous membrane, the fibres of which run downward and inward from the radius to the ulna.

The *inferior radio-ulnar joint* is formed by the disk-shaped lower end of the ulna fitting into the slightly concave sigmoid cavity of the radius. Below, the cavity of this joint is shut off from that of the wrist by a *triangular fibro-cartilage*. The movements allowed at these three articulations are called pronation and supination of the radius. The head of that bone twists, in the orbicular ligament, round its central vertical axis for about half a circle. Below, however, the whole lower end of the radius circles round the lower end of the ulna, the centre of rotation being close to the styloid process of the ulna. The radius, therefore, in its pronation, describes half a cone, the base of which is below, and the hand follows the radius.

Comparative Anatomy.—In pronograde Mammals the forearm is usually permanently pronated, and the head of the radius, instead of being circular and at the side of the upper end of the ulna, is transversely oval and in front of that bone, occupying the same place that the coronoid process of the ulna does in Man. This type of elbow, which is adapted simply to support and progression, is best seen in the Ungulata; in them both lateral ligaments are attached to the head of the radius, and there is no orbicular ligament, since the shape of the head of the radius does not allow of any supination. The olecranon process of the ulna forms merely a posterior guide or guard to the joint, but transmits no weight. No better example of the maximum changes which the uses of support and prehension bring about can be found than in contrasting the elbow of the Sheep or other Ungulate with that of Man. Towards one or other of these types the elbows of all Mammals tend. It may be roughly stated that, when pronation and supination to the extent of a quarter of a circle are possible, an orbicular ligament appears.

The WRIST JOINT, or *radio-carpal articulation*, lies between the radius and triangular fibro-cartilage above, and the scaphoid, semilunar, and cuneiform bones below. It is a condyloid joint allowing flexion and extension round one axis, and slight lateral movement (abduction and adduction) round the other. There is a well-marked capsule, divided into anterior, posterior, and lateral ligaments. The joint cavity is shut off from the inferior radio-ulnar joint above, and the intercarpal joints below.

The *intercarpal joints* are gliding articulations, the various bones being connected by palmar, dorsal, and a few interosseous ligaments, but only those connecting the first row of bones are complete, and so isolate one joint cavity from another. That part of the intercarpal joints which lies between the first and second rows of carpal bones is called the *transverse carpal joint*, and at this a good deal of the movement which seems to take place at the wrist really occurs.

The *carpo-metacarpal articulations* are, with the exception of that of the thumb, gliding joints, and continuous with the great intercarpal joint cavity. The carpo-metacarpal joint of the thumb is the best example of a saddle-shaped joint in Man. It allows forward and backward and lateral movement, and is very strong.

The *metacarpo-phalangeal joints* are condyloid joints like the wrist, and are remarkable for the great thickness of the palmar ligaments of their capsules. In the four inner fingers these *glenoid ligaments*, as they are called, are joined together by the *transverse metacarpal ligament.*

The *interphalangeal articulations* are simple hinges surrounded by a capsule, of which the dorsal part is very thin.

Comparative Anatomy.—The wrist joint of the lower Mammals allows less lateral movement than does that of Man, while the lower end of the ulna is better developed and is received into a cup-shaped socket formed by the cuneiform and pisiform bones. At the same time, unless there is pretty free pronation and supination, the triangular fibro-cartilage is only represented by an interosseous ligament, which may be continuous above with the interosseous membrane between the radius and ulna, and suggests the possibility that the fibro-cartilage is largely a derivative of this membrane. In most Mammals the wrist is divided into two lateral parts, as it is in the human foetus, but free pronation and supination seem to cause the disappearance of the septum.

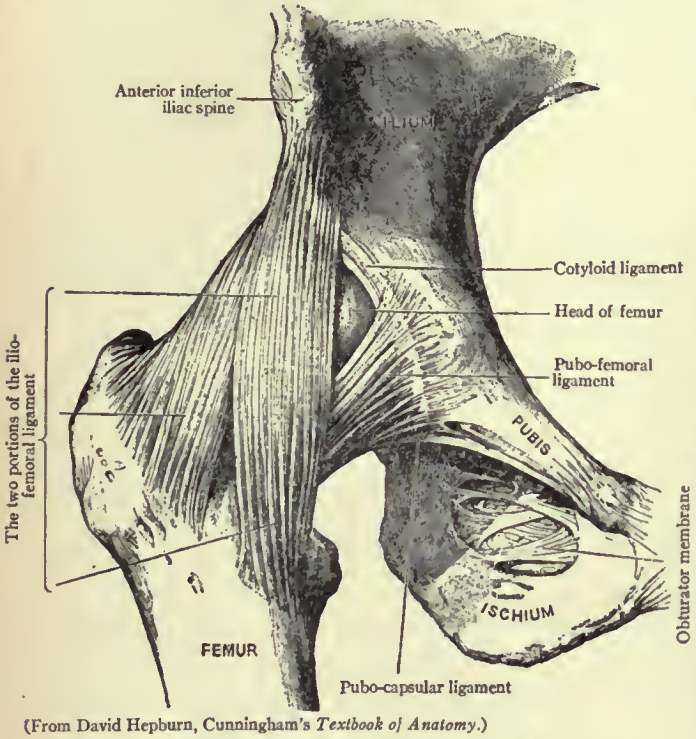
Joints of the Lower Extremity.

The *sacro-innominate articulation* consists of the *sacro-iliac joint* and the *sacro-sciatic ligaments*. The former is one of the amphiarthroses or half-joints by which the sacrum is bound to the ilium. The mechanism of the human sacrum is that of a suspension bridge slung between the two pillars or ilia by the very strong *posterior sacro-iliac ligaments* which represent the chains. The axis of the joint passes through the second sacral vertebra, but the sacrum is so nearly horizontal that the weight of the body, which is transmitted to the first sacral vertebra, tends to tilt that part down. This tendency is corrected by the

great and small *sacro-sciatic ligaments*, which fasten the lower part of the sacrum to the tuberosity and spine of the ischium respectively, so that, although the sacrum is a suspension bridge when looked at from behind, it is a lever of the first kind when seen from the side or in sagittal section.

The *pubic symphysis* is the union between the two pubic bones. It has all the characteristics of a symphysis, already described, and may have a small median cavity.

The HIP JOINT, like the shoulder, is a ball and socket, but does not allow such free movement; this is due to the fact that the socket or acetabulum is deeper than the glenoid cavity and that the capsule is not so lax. At the same time the loss of mobility is made up for by increased strength. The capsule has three



(From David Hepburn, Cunningham's *Textbook of Anatomy*.)

FIG. 6.—Dissection of the Hip Joint from the front.

thickened bands, of which the most important is the *ilio-femoral* or *Y-shaped ligament of Bigelow*. The stalk of the Y is attached to the anterior inferior spine of the ilium, while the two limbs are fastened to the upper and lower parts of the spiral line of the femur. The ligament is so strong that it hardly ever ruptures in a dislocation of the hip. As a plumb-line, dropped from the centre of gravity of the body, passes behind the centre of the hip joint, this ligament, lying as it does in front of the joint, takes the strain in Man's erect position. The other two thickened parts of the capsule are known as *pubo-femoral* and *ischio-femoral*, from their attachments. Inside the capsule, and deepening the margin of the acetabulum, is a fibrous rim known as the *cotyloid ligament*, which grips the spherical head of the femur and is continued across the cotyloid notch as the *transverse ligament*. The floor of the acetabulum has a horseshoe-shaped surface of articular cartilage, concave downward, and, occupying the " frog " of the horse's hoof, is a mass of fat called the *Haversian pad*. Attached to the inner margin of the horseshoe, and to the transverse ligament where that is deficient, is a reflexion of synovial membrane which forms a covering for the pad and is continued as a tube to the depression on the head of the femur called the *fossa capitis*. This reflexion carries blood-vessels and nerves to the femur, and also contains fibrous tissue from outside the joint. It is known as the *ligamentum teres*.

Comparative Anatomy.—Bland Sutton regards the *ilio-femoral ligament* as an altered muscle, the scansorius, though against this is the fact that, in those cases in which a scansorius is present in Man, the ligament is as strong as usual, and indeed, if it were not there in these cases, the erect position would be difficult to maintain. He also looks upon the *ligamentum teres* as the divorced tendon of the pectineus muscle. The subject requires much more investigation, but there is every reason to believe that it is a tendon which has sunk into the joint, though whether that of the pectineus is doubtful, since the intra-capsular tendon comes from the ischium in Reptiles. In many Mammals, and among them the Orang, there is no ligamentum teres. In others, such as the Armadillo, the structure has not sunk right into the joint, but is connected with the pubo-femoral part of the capsule.

The KNEE JOINT is a hinge formed by the condyles and trochlea of the femur, the patella, and the head of the tibia. The capsule is formed in front by the ligamentum patellae, and on each side special bands form the lateral ligaments. On the outer side there are two of these: the anterior or *long external lateral ligament* is a round cord running from the external condyle to the head of the fibula, while the posterior is slighter and passes from the same place to the styloid process of the fibula. The *internal lateral ligament* is a flat band which runs from the inner condyle of the femur to the internal surface of the tibia some two inches below the level of the knee joint. The posterior part of the capsule is strengthened by an oblique bundle of fibres running upward and outward from the semimembranosus tendon, and called the *posterior ligament of Winslow*.

The intra-articular structures are numerous and interesting. Passing from the head of the tibia, in front and behind the spine, are the *anterior* and *posterior crucial ligaments*; the former is attached to the outer side of the intercondylar notch above, and the latter to the inner side. These two ligaments cross like an X. The *semilunar fibro-cartilages*—external and internal—are partial menisci, each of which has an anterior and a posterior cornu by which they are attached to the head of the tibia in front and behind the spine. They are also attached round the margin of the tibial head by a *coronary ligament*, but the external one is more movable than the internal, and this perhaps accounts for its coronary ligament being less often ruptured and the cartilage displaced than the inner one is. In addition to these the external cartilage has a fibrous band, called the *ligament of Wrisberg*, which runs up to the femur just behind the posterior crucial ligament. The external cartilage is broader, and forms more of a circle than the internal. The synovial cavity of the knee runs up, deep to the extensor muscles of the thigh, for about two inches above the top of the patella, forming the *bursa suprapatellaris*. At the lower part of the patella it covers a pad of fat, which lies between the ligamentum patellae and the front of the head of the tibia, and is carried up as a narrow tube to the lower margin of the trochlear surface of the femur. This prolongation is known as the *ligamentum mucosum*, and from the sides of its base spring two lateral folds called the *ligamenta alaria*. The tendon of the popliteus muscle is an intracapsular structure, and is therefore covered with a synovial sheath. There are a large number of bursae near the knee joint, one of which, common to the inner head of the gastrocnemius and the semimembranosus, often communicates with the joint. The hinge movement of the knee is accompanied by a small amount of external rotation at the end of extension, and a compensatory internal rotation during flexion. This slight twist is enough to tighten up almost all the ligaments so that they may take a share in resisting over-extension, because, in the erect position, a vertical line from the centre of gravity of the body passes in front of the knee.

Comparative Anatomy.—In some Mammals, *e.g.* Bradypus and Ornithorhynchus, the knee is divided into three parts, two condylo-tibial and one trochleo-patellar, by synovial folds which in Man are represented by the ligamentum mucosum. In a typical Mammal the external *semilunar cartilage* is attached by its posterior horn to the internal condyle of the femur only, and this explains the *ligament of Wrisberg* already mentioned. In the Monkeys and anthropoid Apes this cartilage is circular. The *semilunar cartilages* first appear in the Amphibia, and, according to B. Sutton, are derived from muscles which are drawn into the joint. When only one kind of movement (hinge) is allowed, as in the fruit bat, the cartilages are not found. In most Mammals the superior tibio-fibular joint communicates with the knee.

The *tibio-fibular articulations* resemble the radio-ulnar in position but are much less movable. The superior in Man is usually cut off from the knee and is a gliding joint; the middle is the interosseous

membrane, while the lower has been already used as an example of a syndesmosis or fibrous half joint.

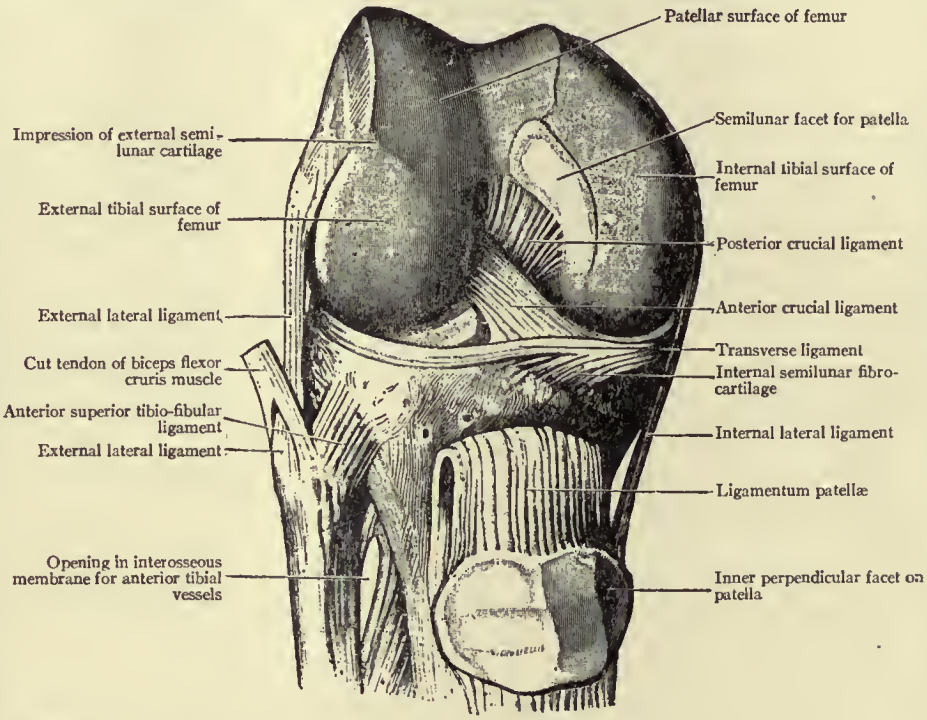
The ANKLE JOINT is a hinge, the astragalus being received into a lateral arch formed by the lower ends of the tibia and fibula. Backward dislocation is prevented by the articular surface of the astragalus being broader in front than behind. The anterior and posterior parts of the capsule are feeble, but the lateral ligaments are very strong, the external consisting of three separate fasciculi which bind the fibula to the astragalus and calcaneum. To avoid confusion it is best to speak of the movements of the ankle as dorsal and plantar flexion.

The *tarsal joints* resemble the carpal in being gliding articulations. There are two between the astragalus and calcaneum, and at these inversion and eversion of the foot largely occur. The inner arch of the foot is maintained by a very important ligament called the *calcaneo-navicular* or *spring ligament;* it connects the sustentaculum tali of the calcaneum with the navicular, and upon it the head of the astragalus rests. When it becomes stretched, flat-foot results. The tarsal bones are connected by dorsal, plantar and interosseous ligaments. The *long* and *short calcaneo-cuboid* are plantar ligaments of special importance, and maintain the outer arch of the foot.

The *tarso-metatarsal, metatarso-phalangeal* and *interphalangeal joints* closely resemble those of the hand, except that the tarso-metatarsal joint of the great toe is not saddle-shaped.

Comparative Anatomy.—The anterior fasciculus of the external lateral ligament of the ankle is only found in Man, and is probably an adaptation to the erect position. In animals with a long foot, such as the Ungulates and the Kangaroo, the lateral ligaments of the ankle are in the form of an X, to give greater protection against lateral movement. In certain marsupials a fibro-cartilage is developed between the external malleolus and the astragalus, and its origin from the deeper fibres of the external lateral ligament of the ankle can be traced. These animals have a rotatory movement of the fibula on its long axis, in addition to the hinge movement of the ankle.

For further details of joints see R. Fick, *Handbuch der Gelenke* (Jena, 1904); H. Morris, *Anatomy of the Joints* (London, 1879); Quain's, Gray's and Cunningham's *Text-books of Anatomy*; J. Bland Sutton, *Ligaments, their Nature and Morphology* (London, 1902); F. G. Parsons, "Hunterian Lectures on the Joints of Mammals," *Journ. Anat. & Phys.*, xxxiv. 41 and 301. (F. G. P.)


Patellar surface of femur
Semilunar facet for patella
Internal tibial surface of femur
Posterior crucial ligament
Anterior crucial ligament
Transverse ligament
Internal semilunar fibro-cartilage
Internal lateral ligament
Ligamentum patellæ
Inner perpendicular facet on patella
Impression of external semi-lunar cartilage
External tibial surface of femur
External lateral ligament
Cut tendon of biceps flexor cruris muscle
Anterior superior tibio-fibular ligament
External lateral ligament
Opening in interosseous membrane for anterior tibial vessels

(From D. Hepburn, Cunningham's *Text-book of Anatomy*.)

FIG. 7.—Dissection of the Knee-joint from the front: Patella thrown down.

DISEASES AND INJURIES OF JOINTS

The affection of the joints of the human body by specific diseases is dealt with under various headings (RHEUMATISM, &c.); in the present article the more direct forms of ailment are discussed. In most joint-diseases the trouble starts either in the synovial lining or in the bone—rarely in the articular cartilage or ligaments. As a rule, the disease begins after an injury. There are three principal types of injury: (1) sprain or strain, in which the ligamentous and tendinous structures are stretched or lacerated; (2) contusion, in which the opposing bones are driven forcibly together; (3) dislocation, in which the articular surfaces are separated from one another.

A *sprain* or *strain* of a joint means that as the result of violence the ligaments holding the bones together have been suddenly stretched or even torn. On the inner aspect the ligaments are lined by a synovial membrane, so when the ligaments are stretched the synovial membrane is necessarily damaged. Small blood-vessels are also torn, and bleeding occurs into the joint, which may become full and distended. If, however, bleeding does not take place, the swelling is not immediate, but synovitis having been set up, serous effusion comes on sooner or later. There is often a good deal of heat of the surrounding skin and of pain accompanying the synovitis. In the case of a healthy individual the effects of a sprain may quickly pass off, but in a rheumatic or gouty person chronic synovitis may obstinately remain. In a person with a tuberculous history, or of tuberculous descent, a sprain is apt to be the beginning of serious disease of the joint, and it should, therefore, be treated with continuous rest and prolonged supervision. In a person of health and vigour, a sprained joint should be at once bandaged. This may be the only treatment needed. It gives support and comfort, and the even pressure around the joint checks effusion into it. Wide pieces of adhesive strapping, layer on layer, form a still more useful support, and with the joint so treated the person may be able at once to use the limb. If strapping is not employed, the bandage may be taken off from time to time in order that the limb and the joint may be massaged. If the sprain is followed by much synovitis a plaster of Paris or leather splint may be applied, complete rest being secured for the limb. Later on, blistering or even "firing" may be found advisable.

Synovitis. — When a joint has been injured, inflammation occurs in the damaged tissue; that is inevitable. But sometimes the attack of inflammation is so slight and transitory as to be scarcely noticeable. This is specially likely to occur if the joint-tissues were in a state of perfect nutrition at the time of the hurt. But if the individual or the joint were at that time in a state of imperfect nutrition, the effects are likely to be more serious. As a rule, it is the synovial membrane lining the fibrous capsule of the joint which first and chiefly suffers; the condition is termed *synovitis*. Synovitis may, however, be due to other causes than mechanical injury, as when the interior of the joint is attacked by the micro-organisms of pyæmia (blood-poisoning), typhoid fever, pneumonia, rheumatism, gonorrhœa or syphilis. Under judicious treatment the synovitis generally clears up, but it may linger on and cause the formation of adhesions which may temporarily stiffen the joint; or it may, especially in tuberculous, septic or pyæmic infections, involve the cartilages, ligaments and bones in such serious changes as to destroy the joint, and possibly call for resection or amputation.

The symptoms of synovitis include stiffness and tenderness in the joint. The patient notices that movements cause pain. Effusion of fluid takes place, and there is marked fullness in the neighbourhood. If the inflammation is advancing, the skin over the joint may be flushed, and if the hand is placed on the skin it feels hot. Especially is this the case if the joint is near the surface, as at the knee, wrist or ankle.

The treatment of an inflamed joint demands rest. This may be conveniently obtained by the use of a light wooden splint, padding and bandages. Slight compression of the joint by a bandage is useful in promoting absorption of the fluid. If the inflamed joint is in the lower extremity, the patient had best remain in bed, or on the sofa; if in the upper extremity, he should wear his arm in a sling. The muscles acting on the joint must be kept in complete control. If the inflammation is extremely acute,

a few leeches, followed by a fomentation, will give relief; or an ice-bag or an evaporating lotion may, by causing constriction of the blood-vessels, lessen the congestion of the part and the associated pain. As the inflammation is passing off, massage of the limb and of the joint will prove useful. If the inflammation is long continued, the limb must still be kept at rest. By this time it may be found that some other material for the retentive apparatus is more convenient and comfortable, as, for instance, undressed leather which has been moulded on wet and allowed to dry and harden; poro-plastic felt, which has been softened by heat and applied limp, or house-flannel which has been dipped in a creamy mixture of plaster-of-Paris and water, and secured by a bandage.

Chronic Disease of a Joint may be the tailing off of an acute affection, and under the influence of alternate douchings of hot and cold water, of counter-irritation by blistering or "firing," and of massage, it may eventually clear up, especially if the general health of the individual is looked after. But if chronic disease lingers in the joint of a child or young person, the probability of its being under the influence of tuberculous infection must be considered. In such a case prolonged and absolute rest is the one thing necessary. If the disease be in the hip, knee, ankle or foot, the patient may be fitted with an appropriate Thomas's splint and allowed to walk about, for it is highly important to have these patients out in the fresh air. If the disease be in the shoulder, elbow, wrist or hand, a leather or poro-plastic splint should be moulded on, and the arm worn in a sling. There must be no hurry; convalescence will needs be slow. And if the child can be sent to a bracing sea-side place it will be much in his favour.

As the disease clears up, the surface heat, the pains and the tenderness having disappeared, and the joint having so diminished in size as to be scarcely larger than its fellow—though the wasting of the muscles of the limb may cause it still to appear considerably enlarged—the splint may be gradually left off. This remission may be for an hour or two every other day; then every other night; then every other day, and so on, the freedom being gained little by little, and the surgeon watching the case carefully. On the slightest indication of return of trouble, the former restrictive measures must be again resorted to. Massage and gentle exercises may be given day by day, but there must be no thought of "breaking down the stiffness." Many a joint has in such circumstances been wrecked by the manipulations of a "bone-setter."

Permanent Stiffness.—During the treatment of a case of chronic disease of a joint, the question naturally arises as to whether the joint will be left permanently stiff. People have the idea that if an inflamed joint is kept long on a splint, it may eventually be found permanently stiff. And this is quite correct. But it should be clearly understood that it is not the *rest* of the inflamed joint which causes the stiffness. The matter should be put thus: in tuberculous and other forms of chronic disease stiffness may ensue in spite of long-continued rest. It is the destructive disease, not the enforced rest which causes it; for inflammation of a joint rest is absolutely necessary.

The *Causes of permanent Stiffness* are the destructive changes wrought by the inflammation. In one case it may be that the synovial membranc is so far destroyed by the tuberculous or septic invasion that its future usefulness is lost, and the joint ever afterwards creaks at its work and easily becomes tired and painful. Thus the joint is crippled but not destroyed. In another case the ligaments and the cartilages are implicated as well as the synovial membrane, and when the disease clears up, the bones are more or less locked, only a small range of motion being left, which forcible flexion and other methods of vigorous treatment are unable materially to improve. In another set of cases the inflammatory germs quickly destroy the soft tissues of the joint, and then invade the bones, and, the disease having at last come to an end, the softened ends of the bones solidly join together like the broken fragments in simple fracture. As a result, osseous solidification of the joint (*synostosis*) ensues without, of course, the possibility of any movement. And, inasmuch as the surgeon cannot tell in any case whether the disease may not advance in this direction, he is careful to place the limb in that position in which it will be most useful if the bony union should occur. Thus, the leg is kept straight, and the elbow bent.

In the course of a tuberculous or other chronic disease of a joint, the germs of septic disease may find access to the inflamed area, through a wound or ulceration into the joint, or by the germs being carried thither by the blood-stream. A *joint-abscess* results, which has to be treated by incision and fomentations. If chronic suppuration continues, it may become necessary to scrape out or to excise the joint, or even to amputate the limb. And if tuberculous disease of the joint is steadily progressing in spite of treatment, vigorous measures may be needed to prevent the fluid from quietly ulcerating its way out and thus inviting the entrance of septic germs. The fluid may need to be drawn off by aspiration, and direct treatment of the diseased synovial membrane may be undertaken by injections of chloride of zinc or some other reagent. Or the joint may need scraping out with a sharp spoon with the view of getting rid of the tuberculous material. Later, excision may be deemed necessary, or in extreme cases, amputation. But before these measures are considered, A. C. G. Bier's method of treatment by passive congestion, and the treatment by serum injection, will probably have been tried. If a joint is left permanently stiff in an awkward and useless position, the limb may be greatly improved by excision of the joint. Thus, if the knee is left bent and the joint is excised a useful, straight limb may be obtained, somewhat shortened, and, of course, permanently stiff. If after disease of the hip-joint the thigh remains fixed in a faulty position, it may be brought down straight by dividing the bone near the upper end. A stiff shoulder or elbow may be converted into a useful, movable joint by excision of the articular ends of the bones.

A *stiff joint* may remain as the result of long continued inflammation; the unused muscles are wasted and the joint in consequence looks large. Careful measurement, however, may show that it is not materially larger than its fellow. And though all tenderness may have passed away, and though the neighbouring skin is no longer hot, still the joint remains stiff and useless. No progress being made under the influence of massage, or of gentle exercises, the surgeon may advise that the lingering adhesion be broken down under an anaesthetic, after which the function of the joint may quickly return.

There are the cases over which the "bone-setter" secures his greatest triumphs. A qualified practitioner may have been for months judiciously treating an inflamed joint by rest, and then feels a hesitation with regard to suddenly flexing the stiffened limb. The "bone-setter," however, has no such qualms, and when the case passes out of the hands of the perhaps over-careful surgeon, the unqualified practitioner (because he, from a scientific point of view, knows nothing) fears nothing, and, breaking down inflammatory adhesions, sets the joint free. And his manipulations prove triumphantly successful. But, knowing nothing and fearing nothing, he is apt to do grievous harm in carrying out his rough treatment in other cases. Malignant disease at the end of a bone (sarcoma), tuberculosis of a joint, and a joint stiffened by old inflammation are to him the same thing. "A small bone is out of place," or, "The bone is out of its socket; it has never been put in," and a breaking down of everything that resists his force is the result of the case being taken to him. For the "bone-setter" has only one line of treatment. Of the improvement which he often effects as if by magic the public are told much. Of the cases over which the doctor has been too long devoting skill and care, and which are set free by the "bone-setter," everybody hears—and sometimes to the discomfiture of the medical man. But of the cases in which irreparable damage follows his vigorous manipulation nothing is said—of his rough usage of a tuberculous hip, or of a sarcomatous shoulder-joint, and of the inevitable disaster and disappointment, those most concerned are least inclined to talk! A practical surgeon with commonsense has nothing to learn from the "bone-setter."

Rheumatoid Arthritis, or chronic *Osteo-arthritis*, is generally found in persons beyond middle age; but it is not rare in young people, though with them it need not be the progressive disease which it too often is in their elders. It is an obscure affection of the cartilage covering the joint surfaces of the bones, and it eventually involves the bones and the ligaments. A favourite joint for it is the knee or hip, and when one large joint is thus affected the other joints may escape. But when the hands or feet are implicated pretty nearly all the small joints are apt to suffer. Whether the joint is large or small, the cartilages wear away and new bone is developed about the ends of the bones, so that the joint is large and mis-shapen, the fingers being knotted and the hands deformed. When the spine is affected it becomes bowed and stiff. This is the disease which has crippled the old people in the workhouses and almshouses, and with them it is steadily progressive. Its early signs are stiffness and creaking or cracking in the joints, with discomfort and pain after exercise, and with a little effusion into the capsule of the joint. As regards *treatment*, medicines are of no great value. Wet, cold and damp being bad for the patient, he should be, if possible, got into a dry, bright, sunny place, and he should dress warmly. Perhaps there is no better place for him in the winter than Assuan. Cairo is not so suitable as it used to be before the dam was made, when its climate was drier. For the spring and summer certain British and Continental watering-places serve well. But if this luxury cannot be afforded, the patient must make himself as happy as he can with such hot douchings and massage as he can obtain, keeping himself warm, and his joints covered by flannel bandages and rubbed with stimulating liniments. In people advanced or advancing in years, the disease, as a rule, gets slowly worse, sometimes very slowly, but sometimes rapidly, especially when its makes its appearance in the hip, shoulder or knee as the result of an injury. In young people, however, its course may be cut short by attention being given to the principles stated above.

Charcot's Disease resembles osteo-arthritis in that it causes destruction of a joint and greatly deforms it. The deformity, however, comes on rapidly and without pain or tenderness. It is usually associated with the symptoms of locomotor ataxy, and depends upon disease of the nerves which preside over the nutrition of the joints. It is incurable.

A Loose Cartilage, or a Displaced Cartilage in the Knee Joint is apt to become caught in the hinge between the thigh bone and the leg bone, and by causing a sudden stretching of the ligaments of the joint to give rise to intense pain. When this happens the individual is

apt to be thrown down as he walks, for it comes on with great suddenness. And thus he feels himself to be in a condition of perpetual insecurity. After the joint has thus gone wrong, bleeding and serous effusion take place into it, and it becomes greatly swollen. And if the cartilage still remains in the grip of the bones he is unable to straighten or bend his knee. But the surgeon by suddenly flexing and twisting the leg may manage to unhitch the cartilage and restore comfort and usefulness to the limb. As a rule, the slipping of a cartilage first occurs as the result of a serious fall or of a sudden and violent action—often it happens when the man is "dodging" at football, the foot being firmly fixed on the ground and the body being violently twisted at the knee. After the slipping has occurred many times, the amount of swelling, distress and lameness may diminish with each subsequent slipping, and the individual may become somewhat reconciled to his condition. As regards *treatment*, a tightly fitting steel cage-like splint, which, gripping the thigh and leg, limits the movements of the knee to flexion and extension, may prove useful. But for a muscular, athletic individual the wearing of this apparatus may prove vexatious and disappointing. The only alternative is to open the joint and remove the loose cartilage. The cartilage may be found on operation to be split, torn or crumpled, and lying right across between the joint-surfaces of the bones, from which nothing but an operation could possibly have removed it. The operation is almost sure to give complete and permanent relief to the condition, the individual being able to resume his old exercises and amusements without fear of the knee playing him false. It is, however, one that should not be undertaken without due consideration and circumspection, and the details of the operation should be carried out with the utmost care and cleanliness.

An accidental *wound of a joint*, as from the blade of a knife, or a spike, entering the knee is a very serious affair, because of the risk of septic germs entering the synovial cavity either at the time of the injury or later. If the joint becomes thus infected there is great swelling of the part, with redness of the skin, and with the escape of blood-stained or purulent synovia. Absorption takes place of the poisonous substances produced by the action of the germs, and, as a result, great constitutional disturbance arises. Blood-poisoning may thus threaten life, and in many cases life is saved only by amputation. The best treatment is freely to open the joint, to wash it out with a strong antiseptic fluid, and to make arrangement for thorough drainage, the limb being fixed on a splint. Help may also be obtained by increasing the patient's power of resistance to the effect of the poisoning by injections of a serum prepared by cultivation of the septic germs in question. If the limb is saved, there is a great chance of the knee being permanently stiff.

Dislocation.—The ease with which the joint-end of a bone is dislocated varies with its form and structure, and with the position in which it happens to be placed when the violence is applied. The relative frequency of fracture of the bone and dislocation of the joint depends on the strength of the bones above and below the joint relatively to the strength of the joint itself. The strength of the various joints in the body is dependent upon either ligament or muscle, or upon the shape of the bones. In the hip, for instance, all three sources of strength are present; therefore, considering the great leverage of the long thigh bone, the hip is rarely dislocated. The shoulder, in order to allow of extensive movement, has no osseus or ligamentous strength; it is, therefore, frequently dislocated. The wrist and ankle are rarely dislocated; as the result of violence at the wrist the radius gives way, at the ankle the fibula, these bones being relatively weaker than the respective joints. The wrist owes its strength to ligaments, the elbow and the ankle to the shape of the bones. The symptoms of a dislocation are distortion and limited movement, with absence of the grating sensation felt in fracture when the broken ends of the bone are rubbed together. The treatment consists in reducing the dislocation, and the sooner this replacement is effected the better—the longer the delay the more difficult it becomes to put things right. After a variable period, depending on the nature of the joint and the age of the person, it may be impossible to replace the bones. The result will be a more or less useless joint. The administration of an anaesthetic, by relaxing the muscles, greatly assists the operation of reduction. The length of time that a joint has to be kept quiet after it has been restored to its normal shape depends on its form, but, as a rule, early movement is advisable. But when by the formation of the bones a joint is weak, as at the outer end of the collar-bone, and at the elbow-end of the radius, prolonged rest for the joint is necessary or dislocation may recur.

Congenital Dislocation at the Hip.—Possibly as a result of faulty position of the subject during intrauterine life, the head of the thigh-bone leaves, or fails throughout to occupy, its normal situation on the haunch-bone The defect, which is a very serious one, is probably not discovered until the child begins to walk, when its peculiar rolling gait attracts attention. The want of fixation at the joint permits of the surgeon thrusting up the thigh-bone, or drawing it down in a painless, characteristic manner.

The first thing to be done is to find out by means of the X-rays whether a socket exists into which, under an anaesthetic, the surgeon may fortunately be enabled to lodge the end of the thigh-bone. If this offers no prospect of success, there are three courses open: First, to try under an anaesthetic to manipulate the limb until the head of the thigh-bone rests as nearly as possible in its normal position, and then to endeavour to fix it there by splints, weights and bandaging until a new joint is formed; second, to cut down upon the site of the joint, to scoop out a new socket in the haunch-bone, and thrust the end of the thigh-bone into it, keeping it fixed there as just described; and third, to allow the child to run about as it pleases, merely raising the sole of the foot of the short leg by a thick boot, so as to keep the lower part of the trunk fairly level, lest secondary curvature of the spine ensue. The first and second methods demand many months of careful treatment in bed. The ultimate result of the second is so often disappointing that the surgeon now rarely advises its adoption. But, if under an anaesthetic, as the result of skilful manipulation the head of the thigh-bone can be made to enter a more or less rudimentary socket, the case is worth all the time, care and attention bestowed upon it. Sometimes the results of prolonged treatment are so good that the child eventually is able to walk with scarce a limp. But a vigorous attempt at placing the head of the bone in its proper position should be made in every case. (E. O.*)

JOINTS, in engineering, may be classed either (*a*) according to their material, as in stone or brick, wood or metal; or (*b*) according to their object, to prevent leakage of air, steam or water, or to transmit force, which may be thrust, pull or shear; or (*c*) according as they are stationary or moving ("working" in technical language). Many joints, like those of ship-plates and boiler-plates, have simultaneously to fulfil both objects mentioned under (*b*).

All stone joints of any consequence are stationary. It being uneconomical to dress the surfaces of the stones resting on each other smoothly and so as to be accurately flat, a layer of mortar or other cementing material is laid between them. This hardens and serves to transmit the pressure from stone to stone without its being concentrated at the "high places." If the ingredients of the cement are chosen so that when hard the cement has about the same coefficient of compressibility as the stone or brick, the pressure will be nearly uniformly distributed. The cement also adheres to the surfaces of the stone or brick, and allows a certain amount of tension to be borne by the joint. It likewise prevents the stones from slipping one on the other, *i.e.* it gives the joint very considerable shearing strength. The composition of the cement is chosen according as it has to "set" in air or water. The joints are made impervious to air or water by "pointing" their outer edges with a superior quality of cement.

Wood joints are also nearly all stationary. They are made partially fluid-tight by "grooving and tenoning," and by "caulking" with oakum or similar material. If the wood is saturated with water, it swells, the edges of the joints press closer together, and the joints become tighter the greater the water-pressure is which tends to produce leakage. Relatively to its weaker general strength, wood is a better material than iron so far as regards the transmission of a thrust past a joint. So soon as a heavy pressure comes on the joint all the small irregularities of the surfaces in contact are crushed up, and there results an approximately uniform distribution of the pressure over the whole area (*i.e.* if there be no bending forces), so that no part of the material is unduly stressed. To attain this result the abutting surfaces should be well fitted together, and the bolts binding the pieces together should be arranged so as to ensure that they will not interfere with the timber surfaces coming into this close contact. Owing to its weak shearing strength on sections parallel to the fibre, timber is peculiarly unfitted for tension joints. If the pieces exerting the pull are simply bolted together with wooden or iron bolts, the joint cannot be trusted to transmit any considerable force with safety. The stresses become intensely localized in the immediate neighborhood of the bolts. A tolerably strong timber tension-joint can, however, be made by making the two pieces abut, and connecting them by means of iron plates covering the joint and bolted to the sides of the timbers by bolts passing through the wood. These plates should have their surfaces which lie against the wood ribbed in a direction transverse to the pull. The bolts should fit their holes slackly, and should be well tightened up so as to make the ribs sink into the surface of the timber. There will then be very little localized shearing stress brought upon the interior portions of the wood.

Iron and the other commonly used metals possess in variously

high degrees the qualities desirable in substances out of which joints are to be made. The joint ends of metal pieces can easily be fashioned to any advantageous form and size without waste of material. Also these metals offer peculiar facilities for the cutting of their surfaces at a comparatively small cost so smoothly and evenly as to ensure the close contact over their whole areas of surfaces placed against each other. This is of the highest importance, especially in joints designed to transmit force. Wrought iron and mild steel are above all other metals suitable for tension joints where there is not continuous rapid motion. Where such motion occurs, a layer, or, as it is technically termed, a "bush," of brass is inserted underneath the iron. The joint then possesses the high strength of a wrought-iron one and at the same time the good frictional qualities of a brass surface. Leakage past moving metal joints can be prevented by cutting the surfaces very accurately to fit each other. Steam-engine slide-valves and their seats, and piston "packing-rings" and the cylinders they work to and fro in, may be cited as examples. A subsidiary compressible "packing" is in other situations employed, an instance of which may be seen in the "stuffing boxes" which prevent the escape of steam from steam-engine cylinders through the piston-rod hole in the cylinder cover. Fixed metal joints are made fluid tight—(*a*) by caulking a riveted joint, *i.e.* by hammering in the edge of the metal with a square-edged chisel (the tighter the joint requires to be against leakage the closer must be the spacing of the rivets—compare the rivet-spacing in bridge, ship and boiler-plate joints);(*b*) by the insertion between the surfaces of a layer of one or other of various kinds of cement, the layer being thick or thin according to circumstances; (*c*) by the insertion of a layer of soft solid substance called "packing" or "insertion."

Apart from cemented and glued joints, most joints are formed by cutting one or more holes in the ends of the pieces to be joined, and inserting in these holes a corresponding number of pins. The word "pin" is technically restricted to mean a cylindrical pin in a movable joint. The word "bolt" is used when the cylindrical pin is screwed up tight with a nut so as to be immovable. When the pin is not screwed, but is fastened by being beaten down on either end, it is called a "rivet." The pin is sometimes rectangular in section, and tapered or parallel lengthwise. "Gibs" and "cottars" are examples of the latter. It is very rarely the case that fixed joints have their pins subject to simple compression in the direction of their length, though they are frequently subject to simple tension in that direction. A good example is the joint between a steam cylinder and its cover, where the bolts have to resist the whole thrust of the steam, and at the same time to keep the joint steam-tight.

JOINTS, in geology. All rocks are traversed more or less completely by vertical or highly inclined divisional planes termed *joints*. Soft rocks, indeed, such as loose sand and uncompacted clay, do not show these planes; but even a soft loam after standing for some time, consolidated by its own weight, will usually be found to have acquired them. Joints vary in sharpness of definition, in the regularity of their perpendicular or horizontal course, in their lateral persistence, in number and in the directions of their intersections. As a rule, they are most sharply defined in proportion to the fineness of grain of the rock. They are often quite invisible, being merely planes of potential weakness, until revealed by the slow disintegrating effects of the weather, which induces fracture along their planes in preference to other directions in the rock; it is along the same planes that a rock breaks most readily under the blow of a hammer. In coarse-textured rocks, on the other hand, joints are apt to show themselves as irregular rents along which the rock has been shattered, so that they present an uneven sinuous course, branching off in different directions. In many rocks they descend vertically at not very unequal distances, so that the spaces between them are marked off into so many wall-like masses. But this symmetry often gives place to a more or less tortuous course with lateral joints in various apparently random directions, more especially where in stratified rocks the beds have diverse lithological characters. A single joint may be traced sometimes for many yards or even for several miles, more particularly when the rock is fine-grained and fairly rigid, as in limestone. Where the texture is coarse and unequal, the joints, though abundant, run into each other in such a way that no one in particular can be identified for so great a distance. The number of joints in a mass of rock varies within wide limits. Among rocks which have undergone little disturbance the joints may be separated from each other by intervals of several yards. In other cases where the terrestrial movement appears to have been considerable, the rocks are so jointed as to have acquired therefrom a fissile character that has almost obliterated their tendency to split along the lines of bedding.

The Cause of Jointing in Rocks.—The continual state of movement in the crust of the earth is the primary cause of the majority of joints. It is to the outermost layers of the lithosphere that joints are confined; in what van Hise has described as the "zone of fracture," which he estimates may extend to a depth of 12,000 metres in the case of rigid rocks. Below the zone of fracture, joints cannot be formed, for there the rocks tend to flow rather than break. The rocky crust, as it slowly accommodates itself to the shrinking interior of the earth, is subjected unceasingly to stresses which induce jointing by tension, compression and torsion. Thus joints are produced during the slow cyclical movements of elevation and depression as well as by the more vigorous movements of earthquakes. Tension-joints are the most widely spread; they are naturally most numerous over areas of upheaval. Compression-joints are generally associated with the more intense movements which have involved shearing, minor-faulting and slaty cleavage. A minor cause of tension-jointing is shrinkage, due either to cooling or to desiccation. The most striking type of jointing is that produced by the cooling of igneous rocks, whereby a regularly columnar structure is developed, often called basaltic structure, such as is found at the Giant's Causeway. This structure is described in connexion with modern volcanic rocks, but it is met with in igneous rocks of all ages. It is as well displayed among the felsites of the Lower Old Red Sandstone, and the basalts of Carboniferous Limestone age as among the Tertiary lavas of Auvergne and Vivarais. This type of jointing may cause the rock to split up into roughly hexagonal prisms no thicker than a lead pencil; on the other hand, in many dolerites and diorites the prisms are much coarser, having a diameter of 3 ft. or more, and they are more irregular in form; they may be so long as to extend up the face of a cliff for 300 or 400 ft. A columnar jointing has often been superinduced upon stratified rocks by contact with intrusive igneous masses. Sandstones, shales and coal may be observed in this condition. The columns diverge perpendicularly from the surface of the injected altering substance, so that when the latter is vertical, the columns are horizontal; or when it undulates the columns follow its curvatures. Beautiful examples of this character occur among the coal-seams of Ayrshire. Occasionally a prismatic form of jointing may be observed in unaltered strata; in this case it is usually among those which have been chemically formed, as in gypsum, where, as noticed by Jukes in the Paris Basin, some beds are divided from top to bottom by vertical hexagonal prisms. Desiccation, as shown by the cracks formed in mud when it dries, has probably been instrumental in causing jointing in a limited number of cases among stratified rocks.

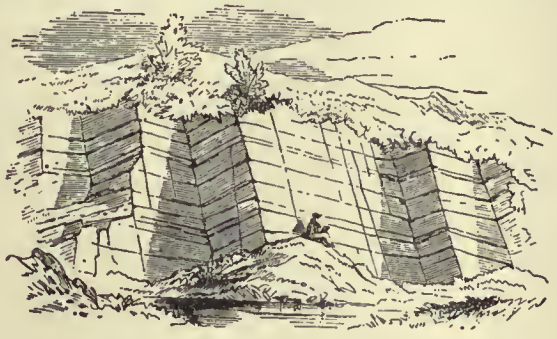
Movement along Joint Planes.—In some conglomerates the joints may be seen traversing the enclosed pebbles as well as the surrounding matrix; large blocks of hard quartz are cut through by them as sharply as if they had been sliced by a lapidary's machine. A similar phenomenon may be observed in flints as they lie embedded in the chalk, and the same joints may be traced continuously through many yards of rock. Such facts show that the agency to which the jointing of rocks was due must have operated with considerable force. Further indication of movement is supplied by the rubbed and striated surfaces of some joints. These surfaces, termed *slickensides*, have evidently been ground against each other.

Influence of Joints on Water-flow and Scenery.—Joints form natural paths for the passage downward and upward of subterranean water and have an important bearing upon water supply. Water obtained directly from highly jointed rock is more liable to become contaminated by surface impurities than that from a more compact rock through which it has had to soak its way; for this reason many limestones are objected to as sources of potable water. On exposed surfaces joints have great influence in determining the rate and type of weathering. They furnish an effective lodgment for surface water, which, frozen by lowering of temperature, expands into ice and wedges off blocks of the rock; and the more numerous the joints the more rapidly does the action proceed. As they serve, in conjunction with bedding, to divide stratified rocks into large quadrangular blocks, their effect on cliffs and other exposed places is seen in the splintered and dislocated aspect so familiar in mountain scenery. Not infrequently, by directing the initial activity of weathering agents, joints have been responsible for the course taken by large streams as well as for the type of scenery on their banks. In limestones, which succumb readily to the solvent action of water, the

joints are liable to be gradually enlarged along the course of the underground waterflow until caves are formed of great size and intricacy.

Infilled Joints.—Joints which have been so enlarged by solution are sometimes filled again completely or partially by minerals brought thither in solution by the water traversing the rock; calcite, barytes and ores of lead and copper may be so deposited. In this way many valuable mineral veins have been formed. Widened joints may also be filled in by detritus from the surface, or, in deep-seated portions of the crust, by heated igneous rock, forced from below along the planes of least resistance. Occasionally even sedimentary rocks may be forced up joints from below, as in the case of the so-called "sandstone dykes."

Practical Utility of Joints.—An important feature in the joints of stratified rocks is the direction in which they intersect each other. As the result of observations we learn that they possess two dominant trends, one coincident in a general way with the direction in which the strata are inclined to the horizon, the other running transversely approximately at right angles. The former set is known as *dip-joints*, because they run with the *dip* or inclination of the rocks, the latter is termed *strike-joints*, inasmuch as they conform to the general *strike* or mean outcrop. It is owing to the existence of this double series of joints that ordinary quarrying operations can be carried on. Large quadrangular blocks can be wedged off that would be shattered if exposed to the risk of blasting. A quarry is usually worked on the dip of the rock, hence strike-joints form clean-cut



Joints in Limestone Quarry near Mallow, co. Cork.
(G. V. Du Noyer.)

faces in front of the workmen as they advance. These are known as *backs*, and the dip-joints which traverse them as *cutters*. The way in which this double set of joints occurs in a quarry may be seen in the figure, where the parallel lines which traverse the shaded and unshaded faces mark the successive strata. The broad white spaces running along the length of the quarry behind the seated figure are strike-joints or backs, traversed by some highly inclined lines which mark the position of the dip-joints or cutters. The shaded ends looking towards the spectator are cutters from which the rock has been quarried away on one side. In crystalline (igneous) rocks, bedding is absent and very often there is no horizontal jointing to take its place; the joint planes break up the mass more irregularly than in stratified rocks. Granite, for example, is usually traversed by two sets of chief or *master-joints* cutting each other somewhat obliquely. Their effect is to divide the rock into long quadrangular, rhomboidal, or even polygonal columns. But a third set may often be noticed cutting across the columns, though less continuous and dominant than the others. When these transverse joints are few in number, columns many feet in length can be quarried out entire. Such monoliths have been from early times employed in the construction of obelisks and pillars. (J. A. H.)

JOINTURE, in law, a provision for a wife after the death of her husband. As defined by Sir E. Coke, it is "a competent livelihood of freehold for the wife, of lands or tenements, to take effect presently in possession or profit after the death of her husband, for the life of the wife at least, if she herself be not the cause of determination or forfeiture of it" (Co. Litt. 36b). A jointure is of two kinds, legal and equitable. A legal jointure was first authorized by the Statute of Uses. Before this statute a husband had no legal seisin in such lands as were vested in another to his "use," but merely an equitable estate. Consequently it was usual to make settlements on marriage, the most general form being the settlement by deed of an estate to the use of the husband and wife for their lives in joint tenancy (or "jointure"), so that the whole would go to the survivor. Although, strictly speaking, a jointure is a joint estate limited to both husband and wife, in common acceptation the word extends also to a sole estate limited to the wife only. The requisites of a legal jointure are: (1) the jointure must take effect immediately after the husband's death; (2) it must be for the wife's life or for a greater estate, or be determinable by her own act; (3) it must be made before marriage—if after, it is voidable at the wife's election, on the death of the husband; (4) it must be expressed to be in satisfaction of dower and not of part of it. In equity, any provision made for a wife before marriage and accepted by her (not being an infant) in lieu of dower was a bar to such. If the provision was made after marriage, the wife was not barred by such provision, though expressly stated to be in lieu of dower; she was put to her election between jointure and dower (see DOWER).

JOINVILLE, the name of a French noble family of Champagne, which traced its descent from Étienne de Vaux, who lived at the beginning of the 11th century. Geoffroi III. (d. 1184), sire de Joinville, who accompanied Henry the Liberal, count of Champagne, to the Holy Land in 1147, received from him the office of seneschal, and this office became hereditary in the house of Joinville. In 1203 Geoffroi V., sire de Joinville, died while on a crusade, leaving no children. He was succeeded by his brother Simon, who married Beatrice of Burgundy, daughter of the count of Auxonne, and had as his son Jean (*q.v.*), the historian and friend of St Louis. Henri (d. 1374), sire de Joinville, the grandson of Jean, became count of Vaudémont, through his mother, Marguerite de Vaudémont. His daughter, Marguerite de Joinville, married in 1393 Ferry of Lorraine (d. 1415), to whom she brought the lands of Joinville. In 1552, Joinville was made into a principality for the house of Lorraine. Mlle de Montpensier, the heiress of Mlle de Guise, bequeathed the principality of Joinville to Philip, duke of Orleans (1693). The castle, which overhung the Marne, was sold in 1791 to be demolished. The title of prince de Joinville (*q.v.*) was given later to the third son of King Louis Philippe. Two branches of the house of Joinville have settled in other countries: one in England, descended from Geoffroi de Joinville, sire de Vaucouleurs, and brother of the historian, who served under Henry III. and Edward I.; the other, descended from Geoffroi de Joinville, sire de Briquenay, and son of Jean, settled in the kingdom of Naples.

See J. Simonnet, *Essai sur l'histoire et la généalogie des seigneurs de Joinville* (1875); H. F. Delaborde, *Jean de Joinville et les seigneurs de Joinville* (1894). (M. P.*)

JOINVILLE, FRANÇOIS FERDINAND PHILIPPE LOUIS MARIE, PRINCE DE (1818–1900), third son of Louis Philippe, duc d'Orléans, afterwards king of the French, was born at Neuilly on the 14th of August 1818. He was educated for the navy, and became lieutenant in 1836. His first conspicuous service was at the bombardment of San Juan de Ulloa, in November 1838, when he headed a landing party and took the Mexican general Arista prisoner with his own hand at Vera Cruz. He was promoted captain, and in 1840 was entrusted with the charge of bringing the remains of Napoleon from St Helena to France. In 1844 he conducted naval operations on the coast of Morocco, bombarding Tangier and occupying Mogador, and was recompensed with the grade of vice-admiral. In the following year he published in the *Revue des deux mondes* an article on the deficiencies of the French navy which attracted considerable attention, and by his hostility to the Guizot ministry, as well as by an affectation of ill-will towards Great Britain, he gained considerable popularity. The revolution of 1848 nevertheless swept him away with the other Orleans princes. He hastened to quit Algeria, where he was then serving, and took refuge at Claremont, in Surrey, with the rest of his family. In 1861, upon the breaking out of the American Civil War, he proceeded to Washington, and placed the services of his son and two of his nephews at the disposal of the United States government. Otherwise, he was little heard of until the overthrow of the Empire in 1870, when he re-entered France, only to be promptly expelled by the government of national defence. Returning incognito, he joined the army of General d'Aurelle de Paladines, under the assumed name of Colonel Lutherod, fought bravely before Orleans, and afterwards, divulging his identity, formally sought permission to serve. Gambretta, however, arrested him and sent him back to England. In the National Assembly, elected in February 1871, the prince was returned by two departments and elected to sit for the Haute Marne, but, by an arrangement with Thiers, did

not take his seat until the latter had been chosen president of the provincial republic. His deafness prevented him from making any figure in the assembly, and he resigned his seat in 1876. In 1886 the provisions of the law against pretenders to the throne deprived him of his rank as vice-admiral, but he continued to live in France, and died in Paris on the 16th of June 1900. He had married in 1843 the princess Francisca, sister of Pedro II., emperor of Brazil, and had a son, the duc de Penthièvre (born in 1845), also brought up to the navy, and a daughter Françoise (1844–) who married the duc de Chartres in 1863.

The prince de Joinville was the author of several essays and pamphlets on naval affairs and other matters of public interest, which were originally published for the most part either unsigned or pseudonymously, and subsequently republished under his own name after the fall of the Empire. They include *Essais sur la marine française* (1853); *Études sur la marine* (1859 and 1870); *La Guerre d'Amérique, campagne du Potomac* (1862 and 1872); *Encore un mot sur Sadowa* (Brussels, 1868); and *Vieux souvenirs* (1894).

JOINVILLE, JEAN, SIRE DE (1224–1319), was the second great writer of history in Old French, and in a manner occupies the interval between Villehardouin and Froissart. Numerous minor chroniclers fill up the gaps, but no one of them has the idiosyncrasy which distinguishes these three writers, who illustrate the three periods of the middle ages—adolescence, complete manhood, and decadence. Joinville was the head of a noble family of the province of Champagne (see JOINVILLE, above). The provincial court of the counts of Champagne had long been a distinguished one, and the action of Thibaut the poet, together with the proximity of the district to Paris, made the province less rebellious than most of the great feudal divisions of France to the royal authority. Joinville's first appearance at the king's court was in 1241, on the occasion of the knighting of Louis IX.'s younger brother Alphonse. Seven years afterwards he took the cross, thereby giving St Louis a valuable follower, and supplying himself with the occasion of an eternal memory. The crusade, in which he distinguished himself equally by wisdom and prowess, taught his practical spirit several lessons. He returned with the king in 1254. But, though his reverence for the personal character of his prince seems to have known no bounds, he had probably gauged the strategic faculties of the saintly king, and he certainly had imbibed the spirit of the dictum that a man's first duties are those to his own house. He was in the intervals of residence on his own fief a constant attendant on the court, but he declined to accompany the king on his last and fatal expedition. In 1282 he was one of the witnesses whose testimony was formally given at St Denis in the matter of the canonization of Louis, and in 1298 he was present at the exhumation of the saint's body. It was not till even later that he began his literary work, the occasion being a request from Jeanne of Navarre, the wife of Philippe le Bel and the mother of Louis le Hutin. The great interval between his experiences and the period of the composition of his history is important for the due comprehension of the latter. Some years passed before the task was completed, on its own showing, in October 1309. Jeanne was by this time dead, and Joinville presented his book to her son Louis the Quarreller. This original manuscript is now lost, whereby hangs a tale. Great as was his age, Joinville had not ceased to be actively loyal, and in 1315 he complied with the royal summons to bear arms against the Flemings. He was at Joinville again in 1317, and on the 11th of July 1319 he died at the age of ninety-five, leaving his possessions and his position as seneschal of Champagne to his second son Anselm. He was buried in the neighbouring church of St Laurent, where during the Revolution his bones underwent profanation. Besides his *Histoire de Saint Louis* and his *Credo* or "Confession of Faith" written much earlier, a considerable number, relatively speaking, of letters and business documents concerning the fief of Joinville and so forth are extant. These have an importance which we shall consider further on; but Joinville owes his place in general estimation only to his history of his crusading experiences and of the subsequent fate of St Louis.

Of the famous French history books of the middle ages Joinville's bears the most vivid impress of the personal characteristics of its composer. It does not, like Villehardouin, give us a picture of the temper and habits of a whole order or cast of men during a heroic period of human history; it falls far short of Froissart in vivid portraying of the picturesque and external aspects of social life; but it is a more personal book than either. The age and circumstances of the writer must not be forgotten in reading it. He is a very old man telling of circumstances which occurred in his youth. He evidently thinks that the times have not changed for the better—what with the frequency with which the devil is invoked in modern France, and the sinful expenditure common in the matter of embroidered silk coats. But this laudation of times past concentrates itself almost wholly on the person of the sainted king whom, while with feudal independence he had declined to swear fealty to him, "because I was not his man," he evidently regarded with an unlimited reverence. His age, too, while garrulous to a degree, seems to have been free from the slightest taint of boasting. No one perhaps ever took less trouble to make himself out a hero than Joinville. He is constantly admitting that on such and such an occasion he was terribly afraid; he confesses without the least shame that, when one of his followers suggested defiance of the Saracens and voluntary death, he (Joinville) paid not the least attention to him; nor does he attempt to gloss in any way his refusal to accompany St Louis on his unlucky second crusade, or his invincible conviction that it was better to be in mortal sin than to have the leprosy, or his decided preference for wine as little watered as might be, or any other weakness. Yet he was a sincerely religious man, as the curious *Credo*, written at Acre and forming a kind of anticipatory appendix to the history, sufficiently shows. He presents himself as an altogether human person, brave enough in the field, and, at least when young, capable of extravagant devotion to an ideal, provided the ideal was fashionable, but having at bottom a sufficient respect for his own skin and a full consciousness of the side on which his bread is buttered. Nor can he be said to be in all respects an intelligent traveller. There were in him what may be called glimmerings of deliberate literature, but they were hardly more than glimmerings. His famous description of Greek fire has a most provoking mixture of circumstantial detail with absence of verifying particulars. It is as matter-of-fact and comparative as Dante, without a touch of Dante's genius. "The fashion of Greek fire was such that it came to us as great as a tun of verjuice, and the fiery tail of it was as big as a mighty lance; it made such noise in the coming that it seemed like the thunder from heaven, and looked like a dragon flying through the air; so great a light did it throw that throughout the host men saw as though it were day for the light it threw." Certainly the excellent seneschal has not stinted himself of comparisons here, yet they can hardly be said to be luminous. That the thing made a great flame, a great noise, and struck terror into the beholder is about the sum of it all. Every now and then indeed a striking circumstance, strikingly told, occurs in Joinville, such as the famous incident of the woman who carried in one hand a chafing dish of fire, in the other a phial of water, that she might burn heaven and quench hell, lest in future any man should serve God merely for hope of the one or fear of the other. But in these cases the author only repeats what he has heard from others. On his own account he is much more interested in small personal details than in greater things. How the Saracens, when they took him prisoner, he being half dead with a complication of diseases, kindly left him "un mien couverture d'écarlate" which his mother had given him, and which he put over him, having made a hole therein and bound it round him with a cord; how when he came to Acre in a pitiable condition an old servant of his house presented himself, and "brought me clean white hoods and combed my hair most comfortably"; how he bought a hundred tuns of wine and served it—the best first, according to high authority—well-watered to his private soldiers, somewhat less watered to the squires, and to the knights neat, but with a suggestive phial of the weaker liquid to mix "si comme ils vouloient"—these are the details in which he seems to take greatest pleasure, and for readers six hundred years after date perhaps they are not the least interesting details.

It would, however, be a mistake to imagine that Joinville's book is exclusively or even mainly a chronicle of small beer. If he is not a Villehardouin or a Carlyle, his battlepieces are vivid and truthful, and he has occasional passages of no small episodic importance, such as that dealing with the Old Man of the Mountain. But, above all, the central figure of his book redeems it from the possibility of the charge of being commonplace or ignoble. To St Louis Joinville is a nobler Boswell; and hero-worshipper, hero, and heroic ideal all have something of the sublime about them. The very pettiness of the details in which the good seneschal indulges as to his own weakness only serves to enhance the sublime unworldliness of the king. Joinville is a better warrior than Louis, but, while the former frankly prays for his own safety, the latter only thinks of his army's when they have escaped from the hands of the aliens. One of the king's knights boasts that ten thousand pieces have been "forcontés" (counted short) to the Saracens; and it is with the utmost trouble that Joinville and the rest can persuade the king that this is a joke, and that the Saracens are much more likely to have got the advantage. He warns Joinville against wine-bibbing, against bad language, against all manner of foibles small and great; and the pupil acknowledges that this physician at any rate had healed himself in these respects. It is true that he is severe towards infidels; and his approval of the knight who, finding a Jew likely to get the better of a theological argument, resorted to the baculine variety of logic, does not meet the views of the 20th century. But Louis was not of the 20th century but of the 13th, and after his kind he certainly deserved Joinville's admiration. Side by side with his indignation at the idea of cheating his Saracen enemies may be mentioned his answer to those who after Taillebourg complained that he had let off Henry III. too easily. "He is my man now, and he was not before," said the king, a most unpractical person certainly, and in some ways a sore saint for France. But it is easy to understand the half-despairing adoration with which a shrewd and somewhat prosaic person like Joinville must have regarded this flower of chivalry born out of due time. He has had his reward, for assuredly the portrait of St Louis, from the early collection of anecdotes to the last hearsay sketch of the woeful end at Tunis, with the famous *enseignement* which is still the best summary of the theoretical duties of a Christian king in medieval times, is such as to take away all charge of vulgarity or mere *commérage* from Joinville, a charge to which otherwise he might perhaps have been exposed.

The arrangement of the book is, considering its circumstances and the date of its composition, sufficiently methodical. According to its own account it is divided into three parts—the first dealing generally with the character and conduct of the hero; the second with his acts and deeds in Egypt, Palestine, &c., as Joinville knew them; the third with his subsequent life and death. Of these the last is very brief, the first not long; the middle constitutes the bulk of the work. The contents of the first part are, as might be expected, miscellaneous enough, and consist chiefly of stories chosen to show the valour of Louis, his piety, his justice, his personal temperance, and so forth. The second part enters upon the history of the crusade itself, and tells how Joinville pledged all his land save so much as would bring in a thousand livres a year, and started with a brave retinue of nine knights (two of whom besides himself wore bannerets), and shared a ship with the sire d'Aspremont, leaving Joinville without raising his eyes, "pour ce que le cuer ne me attendrisist du biau chastel que je lessoie et de mes deux enfans"; how they could not get out of sight of a high mountainous island (Lampedusa or Pantellaria) till they had made a procession round the masts in honour of the Virgin; how they reached first Cyprus and then Egypt; how they took Damietta, and then entangled themselves in the Delta. Bad generalship, which is sufficiently obvious, unwholesome food—it was Lent, and they ate the Nile fish which had been feasting on the carcases of the slain—and Greek fire did the rest, and personal valour was of little avail, not merely against superior numbers and better generals, but against dysentery and a certain "mal de l'ost" which attacked the mouth and the legs, a curious human version of a well-known bestial malady. After ransom Acre was the chief scene of Louis's stay in the East, and here Joinville lived in some state, and saw not a few interesting things, hearing besides much gossip as to the inferior affairs of Asia from ambassadors, merchants and others. At last they journeyed back again to France, not without considerable experiences of the perils of the deep, which Joinville tells with a good deal of spirit. The remainder of the book is very brief. Some anecdotes of the king's "justice," his favourite and distinguishing attribute during the sixteen years which intervened between the two crusades, are given; then comes the story of Joinville's own refusal to join the second expedition, a refusal which bluntly alleged the harm done by the king's men who stayed at bome to the vassals of those who went abroad as the reason of Joinville's resolution to remain behind. The death of the king at Tunis, his *enseignement* to his son, and the story of his canonization complete the work.

The book in which this interesting story is told has had a literary history which less affects its matter than the vicissitudes to which Froissart has been subjected, but which is hardly less curious in its way. There is no reason for supposing that Joinville indulged in various editions, such as those which have given Kervyn de Lettenhove and Siméon Luce so much trouble, and which make so vast a difference between the first and the last redaction of the chronicler of the Hundred Years' War. Indeed the great age of the seneschal of Champagne, and his intimate first-hand acquaintance with his subject, made such variations extremely improbable. But, whereas there is no great difficulty (though much labour) in ascertaining the original and all subsequent texts of Froissart, the original text of Joinville was until recently unknown, and even now may be said to be in the state of a conjectural restoration. It has been said that the book was presented to Louis le Hutin. Now we have a catalogue of Louis le Hutin's library, and, strange to say, Joinville does not figure in it. His book seems to have undergone very much the same fate as that which befell the originals of the first two volumes of the *Paston Letters* which Sir John Fenn presented to George the Third. Several royal library catalogues of the 14th century are known, but in none of these does the *Histoire de St Louis* appear. It does appear in that of Charles V. (1411), but apparently no copy even of this survives. As everybody knows, however, books could be and were multiplied by the process of copying tolerably freely, and a copy at first or second hand which belonged to the fiddler king René of Provence in the 15th century was used for the first printed edition in 1547. Other editions were printed from other versions, all evidently posterior to the original. But in 1741 the well-known medievalist La Curne de St Palaye found at Lucca a manuscript of the 16th century, evidently representing an older text than any yet printed. Three years later a 14th-century copy was found at Brussels, and this is the standard manuscript authority for the text of Joinville. Those who prefer to rest on MS. authority will probably hold to this text, which appears in the well-known collection of Michaud and Poujoulat as well as that of Buchon, and in a careful and useful separate edition by Francisque Michel. The modern science of critical editing, however, which applies to medieval texts the principles long recognized in editing the classics, has discovered in the 16th-century manuscript, and still more in the original miscellaneous works of Joinville, the letters, deeds, &c., already alluded to, the materials for what we have already called a conjectural restoration, which is not without its interest, though perhaps it is possible for that interest to be exaggerated.

For merely general readers Buchon's or Michaud's editions of Joinville will amply suffice. Both include translations into modern French, which, however, are hardly necessary, for the language is very easy. Natalis de Wailly's editions of 1868 and particularly 1874 are critical editions, embodying the modern research connected with the text, the value of which is considerable, but contestable. They are accompanied by ample annotations and appendices, with illustrations of great merit and value. Much valuable information appeared for the first time in the edition of F. Michel (1859). To these may be added A. F. Didot's *Études sur Joinville* (1870) and H. F. Delaborde's *Jean de Joinville* (1894). A good sketch of the whole subject will be found in Aubertin's *Histoire de la langue et de la littérature françaises au moyen âge*, ii. 196–211; see also Gaston Paris, *Litt. française au moyen âge* (1893), and A. Debidour, *Les Chroniqueurs* (1888). There are English translations by T. Johnes (1807), J. Hutton (1868), Ethel Wedgwood (1906), and (more literally) Sir F. T. Marzials ("Everyman's Library," 1908). (G. Sa.)

JOIST, in building, one of a row or tier of beams set edgewise from one wall or partition to another and carrying the flooring boards on the upper edge and the laths of the ceiling on the lower. In double flooring there are three series of joists, *binding*, *bridging*, and *ceiling* joists. The binding joists are the real support of the floor, running from wall to wall, and carrying the bridging joists above and the ceiling joists below (see CARPENTRY),

The Mid. Eng. form of the word was *giste* or *gyste*, and was adapted from O. Fr. *giste*, modern *gîte*, a beam supporting the platform of a gun. By origin the word meant that on which anything lies or rests (*gésir*, to lie; Lat. *jacere*).

The English word "gist," in such phrases as "the gist of the matter," the main or central point in an argument, is a doublet of joist. According to Skeat, the origin of this meaning is an O. Fr. proverbial expression, *Je sçay bien où gist le lièvre*, I know well where the hare lies, *i.e.* I know the real point of the matter.

JÓKAI, MAURUS (1825–1904), Hungarian novelist, was born at Rév-Komárom on the 19th of February 1825. His father, Joseph, was a member of the Asva branch of the ancient Jókay family; his mother was a scion of the noble Pulays. The lad was timid and delicate, and therefore educated at home till his tenth year, when he was sent to Pressburg, subsequently completing his education at the Calvinist college at Pápá, where he first met Petöfi, Alexander Kozma, and several other brilliant young men who subsequently became famous. His family had meant him to follow the law, his father's profession, and accordingly the youth, always singularly assiduous, plodded conscientiously through the usual curriculum at Kecskemet and Pest, and as a full-blown advocate actually succeeded in winning his first case. But the drudgery of a lawyer's office was uncongenial to the ardently poetical youth, and, encouraged by the encomiums pronounced by the Hungarian Academy upon his first play, *Zsidó fiu* ("The Jew Boy"), he flitted, when barely twenty, to Pest in 1845 with a MS. romance in his pocket; he was introduced by Petöfi to the literary notabilities of the Hungarian capital, and the same year his first notable romance *Hétköznapok* ("Working Days"), appeared, first in the columns of the *Pesti Dievatlap*, and subsequently, in 1846, in book form. *Hétköznapok*, despite its manifest crudities and extravagances, was instantly recognized by all the leading critics as a work of original genius, and in the following year Jókai was appointed the editor of *Életképek*, the leading Hungarian literary journal, and gathered round him all the rising talent of the country. On the outbreak of the revolution of 1848 the young editor enthusiastically adopted the national cause, and served it with both pen and sword. Now, as ever, he was a moderate Liberal, setting his face steadily against all excesses; but, carried away by the Hungarian triumphs of April and May 1849, he supported Kossuth's fatal blunder of deposing the Hapsburg dynasty, and though, after the war was over, his life was saved by an ingenious stratagem of his wife, the great tragic actress, Roza Benke Laborfalvi, whom he had married on the 29th of August 1848, he lived for the next fourteen years the life of a political suspect. Yet this was perhaps the most glorious period of his existence, for during it he devoted himself to the rehabilitation of the proscribed and humiliated Magyar language, composing in it no fewer than thirty great romances, besides innumerable volumes of tales, essays, criticisms and facetiæ. This was the period of such masterpieces as *Erdély Arany Kord* ("The Golden Age of Transylvania"), with its sequel *Törökvilág Magyarországon* ("The Turks in Hungary"), *Egy Magyar Nábob* ("A Hungarian Nabob"), *Karpáthy Zoltán*, *Janicsárok végnapjai* ("The Last Days of the Janissaries"), *Szomorú napok* ("Sad Days"). On the re-establishment of the Hungarian constitution by the Composition of 1867, Jókai took an active part in politics. As a constant supporter of the Tisza administration, not only in parliament, where he sat continuously for more than twenty years, but also as the editor of the government organ, *Hon*, founded by him in 1863, he became a power in the state, and, though he never took office himself, frequently extricated the government from difficult places. In 1897 the emperor appointed him a member of the upper house. As a suave, practical and witty debater he was particularly successful. Yet it was to literature that he continued to devote most of his time, and his productiveness after 1870 was stupendous, amounting to some hundreds of volumes. Stranger still, none of this work is slipshod, and the best of it deserves to endure. Amongst the finest of his later works may be mentioned the unique and incomparable *Az arany ember* ("A Man of Gold")—translated into English under the title of *Timar's Two Worlds*—and *A tengerzemü hölgy* ("Eyes like the Sea"), the latter of which won the Academy's prize in 1890. He died at Budapest on the 5th of May 1904; his wife having predeceased him in 1886. Jókai was an arch-romantic, with a perfervid Oriental imagination, and humour of the purest, rarest description. If one can imagine a combination, in almost equal parts, of Walter Scott, William Beckford, Dumas *père*, and Charles Dickens, together with the native originality of an ardent Magyar, one may perhaps form a fair idea of the great Hungarian romancer's indisputable genius.

See Névy László, *Jókai Mór*; Hegedúsis Sándor, *Jókai Mórról*; H. W. Temperley, "Maurus Jokai and the Historical Novel," *Contemporary Review* (July 1904).

JOKJAKARTA, or JOKJOKARTA (more correctly JOKYAKARTA; Du. *Djokjakarta*), a residency of the island of Java, Dutch East Indies, bounded N. by Kedu and Surakarta, E. by Surakarta, S. by the Indian Ocean, W. by Bagelen. Pop. (1897), 858,392. The country is mountainous with the exception of a wedge-like strip in the middle between the rivers Progo and Upak. In the north-west are the southern slopes of the volcano Merapi, and in the east the Kidul hills and the plateau of Sewu. The last-named is an arid and scantily populated chalk range, with numerous small summits, whence it is also known as the Thousand Hills. The remainder of the residency is well-watered and fertile, important irrigation works having been carried out. Sugar, rice and indigo are cultivated; salt-making is practised on the coast. The minerals include coal-beds in the Kidul hills and near Nangulan, marble and gold in the neighbourhood of Kalasan. The natives are poor, owing chiefly to maladministration, the use of opium and the usury practised by foreigners (Chinese, Arabs, &c.). The principality is divided between the sultan (vassal of the Dutch government) and the so-called independent prince Paku Alam; Ngawen and Imogiri are enclaves of Surakarta. There are good roads, and railways connect the chief town with Batavia, Samarang, Surakarta, &c. The town of Jokjakarta (see JAVA) is the seat of the resident, the sultan and the Paku Alam princes; its most remarkable section is the *kraton* or citadel of the sultan. Imogiri, S.W. of the capital, the burial-place of the princes of Surakarta and Jokjakarta, is guarded by priests and officials. Sentolo, Nangulan, Brosot, Kalasan, Tempel, Wonosari are considerable villages. There are numerous remains of Hindu temples, particularly in the neighbourhood of Kalasan near the border of Surakarta and Prambanan, which is just across it. Remarkable sacred grottoes are found on the coast, namely, the so-called Nyabi Kidul and Rongkob, and at Selarong, south-east of Jokjakarta.

JOLIET, a city and the county-seat of Will county, Illinois, U.S.A., in the township of Joliet, in the N.E. part of the state, on the Des Plaines river, 40 m. S.W. of Chicago. Pop. (1890), 23,264; (1900), 29,353, of whom 8536 were foreign-born, 1889 being German, 1579 Austrian, 1206 Irish and 951 Swedish; (1910 census) 34,670. In addition there is a large population in the immediate suburbs: that of the township including the city was 27,438 in 1890, and 50,640 in 1910. Joliet is served by the Atchison, Topeka & Santa Fé, the Chicago & Alton, the Chicago, Rock Island & Pacific, the Michigan Central, the Illinois, Iowa & Minnesota, and the Elgin, Joliet & Eastern railways, by interurban electric lines, and is on the Illinois & Michigan canal and the Chicago Sanitary (ship) canal. The city is situated in a narrow valley, on both sides of the river. It is the seat of the northern Illinois penitentiary, and has a public library (in front of which is a statue, by S. Asbjornsen, of Louis Joliet), the township high school, two hospitals, two Catholic academies and a club-house, erected by the Illinois Steel Company for the use of its employees. There are two municipal parks, West Park and Highland Park; Dellwood Park is an amusement resort, owned by the Chicago & Joliet Electric Railway Company. In the vicinity are large deposits of calcareous building stone, cement and fireclay, and there are coal mines 20 m. distant. Mineral resources and water-power have facilitated the development of manufactures. The factory product in 1905 was valued at $33,788,700 (29·3% more than in 1900), a large part of which

was represented by iron and steel goods. There are large industrial establishments just outside the city limits. The first settlement on the site of Joliet (1833) was called Juliet, in honour of the daughter of James B. Campbell, one of the settlers. The present name was adopted in 1845, in memory of Louis Joliet (1645–1700), the French Canadian explorer of the Mississippi, and in 1852 a city charter was secured.

JOLLY (from O. Fr. *jolif*; Fr. *joli*, the French word is obscure in origin; it may be from late Lat. *gaudivus*, from *gaudere*, to rejoice, the change of *d* to *l* being paralleled by *cigada* and *cigale*, or from O. Norse *jol*, Eng. "yule," the northern festival of midwinter), and adjective meaning gay, cheerful, jovial, high-spirited. The colloquial use of the term as an intensive adverb, meaning extremely, very, was in early usage quite literary; thus John Trapp (1601–1669), *Commentaries on the New Testament, Matthew* (1647), writes, "All was jolly quiet at Ephesus before St Paul came hither." In the royal navy "jolly" used as a substantive, is the slang name for a marine. To "jolly" is a slang synonym for "chaff." The word "jolly-boat," the name of a ship's small broad boat, usually clinker-built, is of doubtful etymology. It occurs in English in the 18th century, and is usually connected with Dan. or Swed. *jolle*, Dutch *jol*, a small ship's boat; these words are properly represented in English by "yawl" originally a ship's small boat, now chiefly used of a rig of sailing vessels, with a cutter-rigged foremast and a small mizzen stepped far aft, with a spanker sail (see RIGGING). A connexion has been suggested with a word of much earlier appearance in English, *jolywat*, or *gellywatte*. This occurs at the end of the 15th century and is used of a smaller type of ship's boat. This is supposed to be a corruption of the French *galiote* or Dutch *galjoot*, galliot (see GALLEY). The galliot was, however, a large vessel.

JOLY DE LOTBINIÈRE, SIR HENRI GUSTAVE (1829–1908), Canadian politician, was born at Epernay in France on the 5th of December 1829. His father, Gaspard Pierre Gustave Joly, the owner of famous vineyards at Epernay, was of Huguenot descent, and married Julie Christine, grand-daughter of Eustache Gaspard Michel Chartier de Lotbinière, marquis de Lotbinière (one of Montcalm's engineers at Quebec); he thus became seigneur de Lotbinière. Henri Gustave adopted the name of de Lotbinière in 1888, under a statute of the province of Quebec. He was educated in Paris, and called to the bar of lower Canada in 1858. On the 6th of May 1856 he married Margaretta Josepha (d. 1904), daughter of Hammond Gowen, of Quebec. At the general election of 1861 he was elected to the house of assembly of the province of Canada as Liberal member for the county of Lotbinière, and from 1867 to 1874 he represented the same county in the House of Commons, Ottawa, and in the legislative assembly, Quebec. Joly was opposed to confederation and supported Dorion in the stand which he took on this question. In 1878 he was called by Luc Letellier de St Just, lieutenant-governor of Quebec, to form an administration, which was defeated in 1879, and until 1883 he was leader of the opposition. During his brief administration he adopted a policy of retrenchment, and endeavoured to abolish the legislative council. In 1885, as a protest against the attitude of his party towards Louis Riel, who was tried and executed for high treason, he retired from public life. Early in the year 1895 he was induced again to take an active part in the campaign of his party, and at the general election of 1896 he was returned as member for the county of Portneuf. He had already in 1895 been created K.C.M.G. On the formation of Sir Wilfrid Laurier's administration he accepted the office of controller of inland revenue, and a year later he became a privy councillor, as minister of inland revenue. From 1900 to 1906 he was lieutenant-governor of the province of British Columbia. He twice declined a seat in the senate, but rendered eminent service to Canada by promoting the interest of agriculture, horticulture and of forestry. He died on the 17th of November 1908. (A. G. D.)

JOMINI, ANTOINE HENRI, BARON (1779–1869), general in the French and afterwards in the Russian service, and one of the most celebrated writers on the art of war, was born on the 6th of March 1779 at Payerne in the canton of Vaud, Switzerland, where his father was syndic. His youthful preference for a military life was disappointed by the dissolution of the Swiss regiments of France at the Revolution. For some time he was a clerk in a Paris banking-house, until the outbreak of the Swiss revolution. At the age of nineteen he was appointed to a post on the Swiss headquarters staff, and when scarcely twenty-one to the command of a battalion. At the peace of Lunéville in 1801 he returned to business life in Paris, but devoted himself chiefly to preparing the celebrated *Traité des grandes opérations militaires*, which was published in 1804–1805. Introduced to Marshal Ney, he served in the campaign of Austerlitz as a volunteer aide-de-camp on Ney's personal staff. In December 1805 Napoleon, being much impressed by a chapter in Jomini's treatise, made him a colonel in the French service. Ney thereupon made him his principal aide-de-camp. In 1806 Jomini published his views as to the conduct of the impending war with Prussia, and this, along with his knowledge of Frederick the Great's campaigns, which he had described in the *Traité*, led Napoleon to attach him to his own headquarters. He was present with Napoleon at the battle of Jena, and at Eylau won the cross of the Legion of Honour. After the peace of Tilsit he was made chief of the staff to Ney, and created a baron. In the Spanish campaign of 1808 his advice was often of the highest value to the marshal, but Jomini quarrelled with his chief, and was left almost at the mercy of his numerous enemies, especially Berthier, the emperor's chief of staff. Overtures had been made to him, as early as 1807, to enter the Russian service, but Napoleon, hearing of his intention to leave the French army, compelled him to remain in the service with the rank of general of brigade. For some years thereafter Jomini held both a French and a Russian commission, with the consent of both sovereigns. But when war between France and Russia broke out, he was in a difficult position, which he ended by taking a command on the line of communication. He was thus engaged when the retreat from Moscow and the uprising of Prussia transferred the seat of war to central Germany. He promptly rejoined Ney, took part in the battle of Lützen and, as chief of the staff of Ney's group of corps, rendered distinguished services before and at the battle of Bautzen, and was recommended for the rank of general of division. Berthier, however, not only erased Jomini's name from the list, but put him under arrest and censured him in army orders for failing to supply certain returns that had been called for. How far Jomini was held responsible for certain misunderstandings which prevented the attainment of all the results hoped for from Ney's attack (see BAUTZEN) there is no means of knowing. But the pretext for censure was trivial and baseless, and during the armistice Jomini did as he had intended to do in 1809–10, and went into the Russian service. As things then were, this was tantamount to deserting to the enemy, and so it was regarded by Napoleon and by the French army, and by not a few of his new comrades. It must be observed, in Jomini's defence, that he had for years held a dormant commission in the Russian army, that he had declined to take part in the invasion of Russia in 1812, and that he was a Swiss and not a Frenchman. His patriotism was indeed unquestioned, and he withdrew from the Allied Army in 1814 when he found that he could not prevent the violation of Swiss neutrality. Apart from love of his own country, the desire to study, to teach and to practise the art of war was his ruling motive. At the critical moment of the battle of Eylau he exclaimed, "If I were the Russian commander for two hours!" On joining the allies he received the rank of lieutenant-general and the appointment of aide-de-camp from the tsar, and rendered important assistance during the German campaign, though the charge that he betrayed the numbers, positions and intentions of the French to the enemy was later acknowledged by Napoleon to be without foundation. He declined as a Swiss patriot and as a French officer to take part in the passage of the Rhine at Basel and the subsequent invasion of France.

In 1815 he was with the emperor Alexander in Paris, and attempted in vain to save the life of his old commander Ney.

This almost cost him his position in the Russian service, but he succeeded in making head against his enemies, and took part in the congress of Vienna. Resuming, after a period of several years of retirement and literary work, his post in the Russian army, he was about 1823 made a full general, and thenceforward until his retirement in 1829 he was principally employed in the military education of the tsarevich Nicholas (afterwards emperor) and in the organization of the Russian staff college, which was opened in 1832 and still bears its original name of the Nicholas academy. In 1828 he was employed in the field in the Russo-Turkish War, and at the siege of Varna he was given the grand cordon of the Alexander order. This was his last active service. In 1829 he settled at Brussels where he chiefly lived for the next thirty years. In 1853, after trying without success to bring about a political understanding between France and Russia, Jomini was called to St Petersburg to act as a military adviser to the tsar during the Crimean War. He returned to Brussels on the conclusion of peace in 1856 and some years afterwards settled at Passy near Paris. He was busily employed up to the end of his life in writing treatises, pamphlets and open letters on subjects of military art and history, and in 1859 he was asked by Napoleon III. to furnish a plan of campaign in the Italian War. One of his last essays dealt with the war of 1866 and the influence of the breech-loading rifle, and he died at Passy on the 24th of March 1869 only a year before the Franco-German War. Thus one of the earliest of the great military theorists lived to speculate on the tactics of the present day.

Amongst his numerous works the principal, besides the *Traité*, are: *Histoire critique et militaire des campagnes de la Révolution* (1806; new ed. 1819–1824); *Vie politique et militaire de Napoléon racontée par lui-même* (1827) and, perhaps the best known of all his publications, the theoretical *Précis de l'art de la guerre* (1836).

See Ferdinand Lecomte, *Le Général Jomini, sa vie et ses écrits* (1861; new ed. 1888); C. A. Saint-Beuve, *Le Général Jomini* (1869); A. Pascal, *Observations historiques sur la vie, &c., du général Jomini* (1842).

JOMMELLI, NICCOLA (1714–1774), Italian composer, was born at Aversa near Naples on the 10th of September 1714. He received his musical education at two of the famous music schools of that capital, being a pupil of the Conservatorio de' poveri di Gesù Cristo under Feo, and also of the Conservatorio della pietà dei Turchini under Prota, Mancini and Leo. His first opera, *L'Errore amoroso*, was successfully produced at Naples (under a pseudonym) when Jommelli was only twenty-three. Three years afterwards he went to Rome to bring out two new operas, and thence to Bologna, where he profited by the advice of Padre Martini, the greatest contrapuntist of his age. In the meantime Jommelli's fame began to spread beyond the limits of his country, and in 1748 he went for the first time to Vienna, where one of his finest operas, *Didone*, was produced. Three years later he returned to Italy, and in 1753 he obtained the post of chapel-master to the duke of Württemberg at Stuttgart, which city he made his home for a number of years. In the same year he had ten commissions to write operas for princely courts. In Stuttgart he permitted no operas but his own to be produced, and he modified his style in accordance with German taste, so much that, when after an absence of fifteen years he returned to Naples, his countrymen hissed two of his operas off the stage. He retired in consequence to his native village, and only occasionally emerged from his solitude to take part in the musical life of the capital. His death took place on the 25th of August 1774, his last composition being the celebrated *Miserere*, a setting for two female voices of Saverio Mattei's Italian paraphrase of Psalm li. Jommelli is the most representative composer of the generation following Leo and Durante. He approaches very closely to Mozart in his style, and is important as one of the composers who, by welding together German and Italian characteristics, helped to form the musical language of the great composers of the classical period of Vienna.

JONAH, in the Bible, a prophet born at Gath-hepher in Zebulun, perhaps under Jeroboam (2) (781–741 B.C.?), who foretold the deliverance of Israel from the Aramaeans (2 Kings xiv. 25). This prophet may also be the hero of the much later book of Jonah, but how different a man is he! It is, however, the later Jonah who chiefly interests us. New problems have arisen out of the book which relates to him, but here we can only attempt to consider what, in a certain sense, may be called the surface meaning of the text.

This, then is what we appear to be told. The prophet Jonah is summoned to go to Nineveh, a great and wicked city (cf. 4 Esdras ii. 8, 9), and prophesy against it. Jonah, however, is afraid (iv. 2) that the Ninevites may repent, so, instead of going to Nineveh, he proceeds to Joppa, and takes his passage in a ship bound for Tarshish. But soon a storm arises, and, supplication to the gods failing, the sailors cast lots to discover the guilty man who has brought this great trouble. The lot falls on Jonah, who has been roughly awakened by the captain, and when questioned frankly owns that he is a Hebrew and a worshipper of the divine creator Yahweh, from whom he has sought to flee (as if He were only the god of Canaan). Jonah advises the sailors to throw him into the sea. This, after praying to Yahweh, they actually do; at once the sea becomes calm and they sacrifice to Yahweh. Meantime God has "appointed a great fish" which swallows up Jonah. Three days and three nights he is in the fish's belly, till, at a word from Yahweh, it vomits Jonah on to the dry ground. Again Jonah receives the divine call. This time he obeys. After delivering his message to Nineveh he makes himself a booth outside the walls and waits in vain for the destruction of the city (probably iv. 5 is misplaced and should stand after iii. 4). Thereupon Jonah beseeches Yahweh to take away his worthless life. As an answer Yahweh "appoints" a small quickly-growing tree with large leaves (the castor-oil plant) to come up over the angry prophet and shelter him from the sun. But the next day the beneficent tree perishes by God's "appointment" from a worm-bite. Once more God "appoints" something; it is the east wind, which, together with the fierce heat, brings Jonah again to desperation. The close is fine, and reminds us of Job. God himself gives short-sighted man a lesson. Jonah has pitied the tree, and should not God have pity on so great a city?

Two results of criticism are widely accepted. One relates to the psalm in ch. ii., which has been transferred from some other place; it is in fact an anticipatory thanksgiving for the deliverance of Israel, mostly composed of phrases from other psalms. The other is that the narrative before us is not historical but an imaginative story (such as was called a Midrash) based upon Biblical data and tending to edification. It is, however, a story of high type. The narrator considered that Israel had to be a prophet to the "nations" at large, that Israel had, like Jonah, neglected its duty and for its punishment was "swallowed up" in foreign lands. God had watched over His people and prepared its choicer members to fulfil His purpose. This company of faithful but not always sufficiently charitable men represented their people, so that it might be said that Israel itself (the second Isaiah's "Servant of Yahweh"—see ISAIAH) had taken up its duty, but in an ungenial spirit which grieved the All-merciful One. The book, which is post-exilic, may therefore be grouped with another Midrash, the Book of Ruth, which also appears to represent a current of thought opposed to the exclusive spirit of Jewish legalism.

Some critics, however, think that the key of symbolism needs to be supplemented by that of mythology. The "great fish" especially has a very mythological appearance. The Babylonian dragon myth (see COSMOGONY) is often alluded to in the Old Testament, *e.g.* in Jer. li. 44, which, as the present writer long since pointed out, may supply the missing link between Jonah i. 17 and the original myth. For the "great fish" is ultimately Tiāmat, the dragon of chaos, represented historically by Nebuchadrezzar, by whom for a time God permitted or "appointed" Israel to be swallowed up.

For further details see T. K. Cheyne, *Ency. Bib.*, "Jonah"; and his article "Jonah, a Study in Jewish Folklore and Religion," *Theological Review* (1877), pp. 211–219. König, Hastings's *Dict. Bible*, "Jonah," is full but not lucid; C. H. H. Wright, *Biblical Studies* (1886) argues ably for the symbolic theory. Against Cheyne, see Marti's work on the *Minor Prophets* (1894); the "great fish"

and the "three days and three nights" remain unexplained by this writer. On these points see Zimmern, *K.A.T.* (3), pp. 366, 389, 508. The difficulties of the mission of a Hebrew prophet to Asshur are diminished by Cheyne's later theory, *Critica Biblica* (1904), pp. 150–152. (T. K. C.)

JONAH, RABBI (Abulwalid Merwan Ibn Janah, also R. Marinus) (*c.* 990–*c.* 1050), the greatest Hebrew grammarian and lexicographer of the middle ages. He was born before the year 990, in Cordova, studied in Lucena, left his native city in 1012, and, after somewhat protracted wanderings, settled in Saragossa, where he died before 1050. He was a physician, and Ibn Abi Uṣaibia, in his treatise on Arabian doctors, mentions him as the author of a medical work. But Rabbi Jonah saw the true vocation of his life in the scientific investigation of the Hebrew language and in a rational biblical exegesis based upon sound linguistic knowledge. It is true, he wrote no actual commentary on the Bible, but his philological works exercised the greatest influence on Judaic exegesis. His first work—composed, like all the rest, in Arabic—bears the title *Almustalḥa*, and forms, as is indicated by the word, a criticism and at the same time a supplement to the two works of Yehuda 'Ḥayyuj on the verbs with weak-sounding and double-sounding roots. These two tractates, with which 'Ḥayyuj had laid the foundations of scientific Hebrew grammar, were recognized by Abulwalid as the basis of his own grammatical investigations, and Abraham Ibn Daud, when enumerating the great Spanish Jews in his history, sums up the significance of R. Jonah in the words: "He completed what 'Ḥayyuj had begun." The principal work of R. Jonah is the *Kitab al Tanḳiḥ* ("Book of Exact Investigation"), which consists of two parts, regarded as two distinct books—the *Kitab al-Luma* ("Book of Many-coloured Flower-beds") and the *Kitab al-uṣul* ("Book of Roots"). The former (ed. J. Derenbourg, Paris, 1886) contains the grammar, the latter (ed. Ad. Neubauer, Oxford, 1875) the lexicon of the Hebrew language. Both works are also published in the Hebrew translation of Yehuda Ibn Tibbon (*Sefer Ha-Riḳmah*, ed. B. Goldberg, Frankfurt am Main, 1855; *Sefer Ha-Schoraschim*, ed. W. Bacher, Berlin, 1897). The other writings of Rabbi Jonah, so far as extant, have appeared in an edition of the Arabic original accompanied by a French translation (*Opuscules et traités d'Abou'l Walid*, ed. Joseph and Hartwig Derenbourg, Paris 1880). A few fragments and numerous quotations in his principal book form our only knowledge of the *Kitab al-Tashwir* ("Book of Refutation") a controversial work in four parts, in which Rabbi Jonah successfully repelled the attacks of the opponents of his first treatise. At the head of this opposition stood the famous Samuel Ibn Nagdela (S. Ha-Nagid) a disciple of 'Ḥayyuj. The grammatical work of Rabbi Jonah extended, moreover, to the domain of rhetoric and biblical hermeneutics, and his lexicon contains many exegetical excursuses. This lexicon is of especial importance by reason of its ample contribution to the comparative philology of the Semitic languages—Hebrew and Arabic, in particular. Abulwalid's works mark the culminating point of Hebrew scholarship during the middle ages, and he attained a level which was not surpassed till the modern development of philological science in the 19th century.

See S. Munk, *Notice sur Abou'l Walid* (Paris, 1851); W. Bacher, *Leben und Werke des Abulwalid und die Quellen seiner Schrifterklärung* (Leipzig, 1885); id., *Aus der Schrifterklärung des Abulwalid* (Leipzig, 1889); id., *Die hebr.-arabische Sprachvergleichung des Abulwalid* (Vienna, 1884); id., *Die hebräisch-neuhebräische und hebr.-aramäische Sprachvergleichung des Abulwalid* (Vienna, 1885). (W. Ba.)

JONAS, JUSTUS (1493–1555), German Protestant reformer, was born at Nordhausen in Thuringia, on the 5th of June 1493. His real name was Jodokus (Jobst) Koch, which he changed according to the common custom of German scholars in the 16th century, when at the university of Erfurt. He entered that university in 1506, studied law and the humanities, and became Master of Arts in 1510. In 1511 he went to Wittenberg, where he took his bachelor's degree in law. He returned to Erfurt in 1514 or 1515, was ordained priest, and in 1518 was promoted doctor in both faculties and appointed to a well-endowed canonry in the church of St Severus, to which a professorship of law was attached. His great admiration for Erasmus first led him to Greek and biblical studies, and his election in May 1519 as rector of the university was regarded as a triumph for the partisans of the New Learning. It was not, however, until after the Leipzig disputation with Eck that Luther won his allegiance. He accompanied Luther to Worms in 1521, and there was appointed by the elector of Saxony professor of canon law at Wittenberg. During Luther's stay in the Wartburg Jonas was one of the most active of the Wittenberg reformers. Giving himself up to preaching and polemics, he aided the Reformation by his gift as a translator, turning Luther's and Melanchthon's works into German or Latin as the case might be, thus becoming a sort of double of both. He was busied in conferences and visitations during the next twenty years, and in diplomatic work with the princes. In 1541 he began a successful preaching crusade in Halle; he became superintendent of its churches in 1542. In 1546 he was present at Luther's deathbed at Eisleben, and preached the funeral sermon; but in the same year was banished from the duchy by Maurice, duke (later elector) of Saxony. From that time until his death, Jonas was unable to secure a satisfactory living. He wandered from place to place preaching, and finally went to Eisfeld (1553), where he died. He had been married three times.

See *Briefswechsel des Justus Jonas, gesammelt und bearbeitet von G. Kawerau* (2 vols., Halle, 1884–1885); Kawerau's article in Herzog-Hauck, *Realencyklopädie*, ed. 3, with bibliography.

JONATHAN (Heb. "Yah [weh] gives"). Of the many Jewish bearers of this name, three are well known: (1) the grandson of Moses, who was priest at Dan (Judg. xviii. 30). The reading Manasseh (see R.V. mg.; obtained by inserting *n* above the consonantal text in the Hebrew) is apparently intended to suggest that he was the son of that idolatrous king. (2) The eldest son of Saul, who, together with his father, freed Israel from the crushing oppression of the Philistines (1 Sam. xiii. seq.). Both are lauded in an elegy quoted from the Book of Jashar (2 Sam. i.) for their warm mutual love, their heroism, and their labours on behalf of the people. Jonathan's name is most familiar for the firm friendship which subsisted between him and David (1 Sam. xviii. 1–4; xix. 1–7; xx., xxii. 8; xxiii. 16–18), and when he fell at the battle of Gilboa and left behind him a young child (1 Sam. xxxi.; 2 Sam. iv. 4), David took charge of the youth and gave him a place at his court (2 Sam. ix.). See further David, Saul. (3) The Maccabee (see Jews; Maccabees).

JONCIÈRES, VICTORIN (1839–1903), French composer, was born in Paris on the 12th of April 1839. He first devoted his attention to painting, but afterwards took up the serious study of music. He entered the Paris Conservatoire, but did not remain there long, because he had espoused too warmly the cause of Wagner against his professor. He composed the following operas: *Sardanapale* (1867), *Le Dernier jour de Pompéi* (1869), *Dimitri* (1876), *La Reine Berthe* (1878), *Le Chevalier Jean* (1885), *Lancelot* (1900). He also wrote incidental music to *Hamlet*, a symphony, and other works. Joncières' admiration for Wagner asserted itself rather in a musical than a dramatic sense. The influence of the German master's earlier style can be traced in his operas. Joncières, however, adhered to the recognized forms of the French opera and did not model his works according to the later developments of the Wagnerian "music drama." He may indeed be said to have been at least as much influenced by Gounod as by Wagner. From 1871 he was musical critic for *La Liberté*. He died on the 26th of October 1903.

JONES, ALFRED GILPIN (1824–1906), Canadian politician, was born at Weymouth, Nova Scotia, in September 1824, the son of Guy C. Jones of Yarmouth, and grandson of a United Empire Loyalist. In 1865 he opposed the federation of the British American provinces, and, in his anger at the refusal of the British government to repeal such portions of the British North America Act as referred to Nova Scotia, made a speech which won for him the name of Haul-down-the-flag Jones. He was for many years a member of the Federal Parliament, and

for a few months in 1878 was minister of militia under the Liberal government. Largely owing to his influence the Liberal party refused in 1878 to abandon its Free Trade policy, an obstinacy which led to its defeat in that year. In 1900 he was appointed lieutenant-governor of his native province, and held this position till his death on the 15th of March 1906.

JONES, SIR ALFRED LEWIS (1845–1909), British shipowner, was born in Carmarthenshire, in 1845. At the age of twelve he was apprenticed to the managers of the African Steamship Company at Liverpool, making several voyages to the west coast of Africa. By the time he was twenty-six he had risen to be manager of the business. Not finding sufficient scope in this post, he borrowed money to purchase two or three small sailing vessels, and started in the shipping business on his own account. The venture succeeded, and he made additions to his fleet, but after a few years' successful trading, realizing that sailing ships were about to be superseded by steamers, he sold his vessels. About this time (1891) Messrs. Elder, Dempster & Co., who purchased the business of the old African Steamship Company, offered him a managerial post. This offer he accepted, subject to Messrs. Elder, Dempster selling him a number of their shares, and he thus acquired an interest in the business, and subsequently, by further share purchases, its control. See further STEAMSHIP LINES. In 1901 he was knighted. Sir Alfred Jones took a keen interest in imperial affairs, and was instrumental in founding the Liverpool school of tropical medicine. He acquired considerable territorial interests in West Africa, and financial interests in many of the companies engaged in opening up and developing that part of the world. He also took the leading part in opening up a new line of communication with the West Indies, and stimulating the Jamaica fruit trade and tourist traffic. He died on the 13th of December 1909, leaving large charitable bequests.

JONES, EBENEZER (1820–1860), British poet, was born in Islington, London, on the 20th of January 1820. His father, who was of Welsh extraction, was a strict Calvinist, and Ebenezer was educated at a dull, middle-class school. The death of his father obliged him to become a clerk in the office of a tea merchant. Shelley and Carlyle were his spiritual masters, and he spent all his spare time in reading and writing; but he developed an exaggerated style of thought and expression, due partly to a defective education. The unkind reception of his *Studies of Sensation and Event* (1843) seemed to be the last drop in his bitter cup of life. Baffled and disheartened, he destroyed his manuscripts. He earned his living as an accountant and by literary hack work, and it was not until he was rapidly dying of consumption that he wrote his three remarkable poems, "Winter Hymn to the Snow," "When the World is Burning" and "To Death." The fame that these and some of the pieces in the early volume brought to their author came too late. He died on the 14th of September 1860.

It was not till 1870 that Dante Gabriel Rossetti praised his work in *Notes and Queries*. Rossetti's example was followed by W. B. Scott, Theodore Watts-Dunton, who contributed some papers on the subject to the *Athenaeum* (September and October 1878), and R. H. Sheppard, who edited *Studies of Sensation and Event* in 1879.

JONES, ERNEST CHARLES (1819–1869), English Chartist, was born at Berlin on the 25th of January 1819, and educated in Germany. His father, an officer in the British army, was then equerry to the duke of Cumberland—afterwards king of Hanover. In 1838 Jones came to England, and in 1841 published anonymously *The Wood Spirit*, a romantic novel. This was followed by some songs and poems. In 1844 he was called to the bar at the Middle Temple. In 1845 he joined the Chartist agitation, quickly becoming its most prominent figure, and vigorously carrying on the party's campaign on the platform and in the press. His speeches, in which he openly advocated physical force, led to his prosecution, and he was sentenced in 1848 to two years' imprisonment for sedition. While in prison he wrote, it is said in his own blood on leaves torn from a prayer-book, *The Revolt of Hindostan*, an epic poem. On his release he again became the leader of what remained of the Chartist party and editor of its organ. But he was almost its only public speaker; he was out of sympathy with the other leading Chartists, and soon joined the advanced Radical party. Thenceforward he devoted himself to law and literature, writing novels, tales and political songs. He made several unsuccessful attempts to enter parliament, and was about to contest Manchester, with the certainty of being returned, when he died there on the 26th of January 1869. He is believed to have sacrificed a considerable fortune rather than abandon his Chartist principles. His wife was Jane Atherley; and his son, Llewellyn Atherley-Jones, K.C. (b. 1851), became a well-known barrister and Liberal member of parliament.

JONES, HENRY (1831–1899), English author, well known as a writer on whist under his *nom de guerre* "Cavendish," was born in London on the 2nd of November 1831, being the eldest son of Henry D. Jones, a medical practitioner. He adopted his father's profession, established himself in 1852 and continued for sixteen years in practice in London. The father was a keen devotee of whist, and under his eye the son became early in life a good player. He was a member of several whist clubs, among them the "Cavendish," and in 1862 appeared his *Principles of Whist, stated and explained by "Cavendish,"* which was destined to become the leading authority as to the practice of the game. This work was followed by treatises on the laws of piquet and écarté. "Cavendish" also wrote on billiards, lawn tennis and croquet, and contributed articles on whist and other games to the ninth edition of the *Encyclopaedia Britannica*. "'Cavendish' was not a law-maker, but he codified and commented upon the laws which had been made during many generations of card-playing." One of the most noteworthy points in his character was the manner in which he kept himself abreast of improvements in his favourite game. He died on the 10th of February 1899.

JONES, HENRY ARTHUR (1851–), English dramatist, was born at Grandborough, Buckinghamshire, on the 28th of September 1851 the son of Silvanus Jones, a farmer. He began to earn his living early, his spare time being given to literary pursuits. He was twenty-seven before his first piece, *Only Round the Corner*, was produced at the Exeter Theatre, but within four years of his début as a dramatist he scored a great success by *The Silver King* (November 1882), written with Henry Herman, a melodrama produced by Wilson Barrett at the Princess's Theatre. Its financial success enabled the author to write a play "to please himself." *Saints and Sinners* (1884), which ran for two hundred nights, placed on the stage a picture of middle-class life and religion in a country town, and the introduction of the religious element raised considerable outcry. The author defended himself in an article published in the *Nineteenth Century* (January 1885), taking for his starting-point a quotation from the preface to Molière's *Tartuffe*. His next serious piece was *The Middleman* (1889), followed by *Judah* (1890), both powerful plays, which established his reputation. Later plays were *The Dancing Girl* (1891), *The Crusaders* (1891), *The Bauble Shop* (1893), *The Tempter* (1893), *The Masqueraders* (1894), *The Case of Rebellious Susan* (1894), *The Triumph of the Philistines* (1895), *Michael and his Lost Angel* (1896), *The Rogue's Comedy* (1896), *The Physician* (1897), *The Liars* (1897), *Carnac Sahib* (1899), *The Manœuvres of Jane* (1899), *The Lackeys' Carnival* (1900), *Mrs Dane's Defence* (1900), *The Princess's Nose* (1902), *Chance the Idol* (1902), *Whitewashing Julia* (1903), *Joseph Entangled* (1904), *The Chevalier* (1904), &c. A uniform edition of his plays began to be issued in 1891; and his own views of dramatic art have been expressed from time to time in lectures and essays, collected in 1895 as *The Renascence of the English Drama*.

JONES, INIGO (1573–1651), English architect, sometimes called the "English Palladio," the son of a cloth-worker, was born in London on the 15th of July 1573. It is stated that he was apprenticed to a joiner, but at any rate his talent for drawing attracted the attention of Thomas Howard, earl of Arundel (some say William, 3rd earl of Pembroke), through whose help he went to study landscape-painting in Italy. His preference soon transferred itself to architecture, and, following chiefly the style

of Palladio, he acquired at Venice such a reputation that in 1604 he was invited by Christian IV. to Denmark, where he is said to have designed the two great royal palaces of Rosenborg and Frederiksborg. In the following year he accompanied Anne of Denmark to the court of James I. of England, where, besides being appointed architect to the queen and Prince Henry, he was employed in supplying the designs and decorations of the court masques. After a second visit to Italy in 1612, Jones was appointed surveyor-general of royal buildings by James I., and was engaged to prepare designs for a new palace at Whitehall. In 1620 he was employed by the king to investigate the origin of Stonehenge, when he came to the absurd conclusion that it had been a Roman temple. Shortly afterwards he was appointed one of the commissioners for the repair of St Paul's, but the work was not begun till 1633. Under Charles I. he enjoyed the same offices as under his predecessor, and in the capacity of designer of the masques he came into collison with Ben Jonson, who frequently made him the butt of his satire. After the Civil War Jones was forced to pay heavy fines as a courtier and malignant. He died in poverty on the 5th of July 1651.

A list of the principal buildings designed by Jones is given in Dallaway's edition of Walpole's *Anecdotes of Painting*, and for an estimate of him as an architect see Fergusson's *History of Modern Architecture*. *The Architecture of Palladio*, in 4 books, by Inigo Jones, appeared in 1715; *The Most Notable Antiquity of Great Britain, called Stonehenge, restored by Inigo Jones*, in 1655 (ed. with memoir, 1725); the *Designs of Inigo Jones*, by W. Kent, in 1727; and *The Designs of Inigo Jones*, by J. Ware, in 1757. See also G. H. Birch, *London Churches of the XVIIth and XVIIIth Centuries* (1896); W. J. Loftie, *Inigo Jones and Wren, or the Rise and Decline of Modern Architecture in England* (1893).

JONES, JOHN (*c.* 1800–1882), English art collector, was born about 1800 in or near London. He was apprenticed to a tailor, and about 1825 opened a shop of his own in the west-end of London. In 1850 he was able to retire from active management with a large fortune. When quite a young man he had begun to collect articles of *vertu*. The rooms over his shop in which he at first lived were soon crowded, and even the bedrooms of his new house in Piccadilly were filled with art treasures. His collection was valued at approximately £250,000. Jones died in London on the 7th of January 1882, leaving his pictures, furniture and objects of art to the South Kensington Museum.

A *Catalogue of the Jones Bequest* was published by the Museum in 1882, and a *Handbook*, with memoir, in 1883.

JONES, JOHN PAUL (1747–1792), American naval officer, was born on the 6th of July 1747, on the estate of Arbigland, in the parish of Kirkbean and the stewartry of Kirkcudbright, Scotland. His father, John Paul, was gardener to Robert Craik, a member of parliament; and his mother, Jean Macduff, was the daughter of a Highlander. Young John Paul, at the age of twelve, became shipmaster's apprentice to a merchant of Whitehaven, named Younger. At seventeen he shipped as second mate and in the next year as first mate in one of his master's vessels; on being released from his indentures, he acquired an interest in a ship, and as first mate made two voyages between Jamaica and the Guinea coast, trading in slaves. Becoming dissatisfied with this kind of employment, he sold his share in the ship and embarked for England. During the voyage both the captain and the mate died of fever, and John Paul took command and brought the ship safely to port. The owners gave him and the crew 10% of the cargo; after 1768, as captain of one of their merchantmen, John Paul made several voyages to America; but for unknown reasons he suddenly gave up his command to live in America in poverty and obscurity until 1775. During this period he assumed the name of Jones, apparently out of regard for Willie Jones, a wealthy planter and prominent political leader of North Carolina, who had befriended John Paul in his days of poverty.

When war broke out between England and her American colonies, John Paul Jones was commissioned as a first lieutenant by the Continental Congress, on the 22nd of December 1775. In 1776 he participated in the unsuccessful attack on the island of New Providence, and as commander first of the "Providence" and then of the "Alfred" he cruised between Bermuda and Nova Scotia, inflicting much damage on British shipping and fisheries. On the 10th of October 1776 he was promoted captain. On the 1st of November 1777 he sailed in the sloop-of-war "Ranger" for France with despatches for the American commissioners, announcing the surrender of Burgoyne and asking that Jones should be supplied with a swift frigate for harassing the coasts of England. Failing to secure a frigate, Jones sailed from Brest in the "Ranger" on the 10th of April 1778. A few days later he surprised the garrisons of the two forts commanding the harbour of Whitehaven, a port with which he was familiar from boyhood, spiked the guns and made an unsuccessful attempt to fire the shipping. Four days thereafter he encountered the British sloop-of-war "Drake," a vessel slightly superior to his in fighting capacity, and after an hour's engagement the British ship struck her colours and was taken to Brest. By this exploit Jones became a great hero in the eyes of the French, just beginning a war with Great Britain. With the rank of commodore he was now put at the head of a squadron of five ships. His flagship, the "Duras," a re-fitted East Indiaman, was re-named by him the "Bonhomme Richard," as a compliment to Benjamin Franklin, whose *Poor Richard's Almanac* was then popular in France. On the 14th of August the five ships sailed from L'Orient, accompanied by two French privateers. Several of the French commanders under Jones proved insubordinate, and the privateers and three of the men-of-war soon deserted him. With the others, however, he continued to take prizes, and even planned to attack the port of Leith, but was prevented by unfavourable winds. On the evening of the 23rd of September the three men-of-war sighted two British men-of-war, the "Serapis" and the "Countess of Scarbrough," off Flamborough Head. The "Alliance," commanded by Captain Landais, made off, leaving the "Bonhomme Richard" and the "Pallas" to engage the Englishmen. Jones engaged the greatly superior "Serapis," and after a desperate battle of three and a half hours compelled the English ship to surrender. The "Countess of Scarbrough" had meanwhile struck to the more formidable "Pallas." Jones transferred his men and supplies to the "Serapis," and the next day the "Bonhomme Richard" sank.

During the following year Jones spent much of his time in Paris. Louis XVI. gave him a gold-hilted sword and the royal order of military merit, and made him chevalier of France. Early in 1781 Jones returned to America to secure a new command. Congress offered him the command of the "America," a frigate then building, but the vessel was shortly afterwards given to France. In November 1783 he was sent to Paris as agent for the prizes captured in European waters under his own command, and although he gave much attention to social affairs and engaged in several private business enterprises, he was very successful in collecting the prize money. Early in 1787 he returned to America and received a gold medal from Congress in recognition of his services.

In 1788 Jones entered the service of the empress Catherine of Russia, avowing his intention, however, "to preserve the condition of an American citizen and officer." As a rear-admiral he took part in the naval campaign in the Liman (an arm of the Black Sea, into which flow the Bug and Dnieper rivers) against the Turks, but the jealous intrigues of Russian officers caused him to be recalled to St Petersburg for the pretended purpose of being transferred to a command in the North Sea. Here he was compelled to remain in idleness, while rival officers plotted against him and even maliciously assailed his private character. In August 1789 he left St Petersburg a bitterly disappointed man. In May 1790 he arrived in Paris, where he remained in retirement during the rest of his life, although he made several efforts to re-enter the Russian service.

Undue exertion and exposure had wasted his strength before he reached the prime of life, and after an illness, in which he was attended by the queen's physician, he died on the 18th of July 1792. His body was interred in the St Louis cemetery for foreign Protestants, the funeral expenses being paid from the private purse of Pierrot François Simmoneau, the king's

commissary. In the confusion during the following years the burial place of Paul Jones was forgotten; but in June 1899 General Horace Porter, American ambassador to France, began a systematic search for the body, and after excavations on the site of the old Protestant cemetery, now covered with houses, a leaden coffin was discovered, which contained the body in a remarkable state of preservation. In July 1905 a fleet of American war-ships carried the body to Annapolis, where it now rests in one of the buildings of the naval academy.

Jones was a seaman of great bravery and technical ability, but over-jealous of his reputation and inclined to be querulous and boastful. The charges by the English that he was a pirate were particularly galling to him. Although of unprepossessing appearance, 5 ft. 7 in. in height and slightly round-shouldered, he was noted for his pleasant manners and was welcomed into the most brilliant courts of Europe.

Romance has played with the memory of Paul Jones to such an extent that few accounts of his life are correct. Of the early biographies the best are Sherburne's (London, 1825), chiefly a collection of Jones's correspondence; the *Janette-Taylor Collection* (New York, 1830), containing numerous extracts from his letters and journals; and the life by A. S. MacKenzie (2 vols., New York, 1846). In recent years a number of new biographies have appeared, including A. C. Buell's (2 vols., 1900), the trustworthiness of which has been discredited, and Hutchins Hapgood's in the Riverside Biographical Series (1901). The life by Cyrus Townsend Brady in the "Great Commanders Series" (1900) is perhaps the best.

JONES, MICHAEL (d. 1649), British soldier. His father was bishop of Killaloe in Ireland. At the outbreak of the English Civil War he was studying law, but he soon took service in the army of the king in Ireland. He was present with Ormonde's army in many of the expeditions and combats of the devastating Irish War, but upon the conclusion of the "Irish Cessation" (see ORMONDE, JAMES BUTLER, DUKE OF) he resolved to leave the king's service for that of the parliament, in which he soon distinguished himself by his activity and skill. In the Welsh War, and especially at the last great victory at Rowton Heath, Jones's cavalry was always far superior to that of the Royalists, and in reward for his services he was made governor of Chester when that city fell into the hands of the parliament. Soon afterwards Jones was sent again to the Irish War, in the capacity of commander-in-chief. He began his work by reorganizing the army in the neighbourhood of Dublin, and for some time he carried on a desultory war of posts, necessarily more concerned for his supplies than for a victory. But at Dungan Hill he obtained a complete success over the army of General Preston, and though the war was by no means ended, Jones was able to hold a large tract of country for the parliament. But on the execution of Charles I., the war entered upon a new phase, and garrison after garrison fell to Ormonde's Royalists. Soon Jones was shut up in Dublin, and then followed a siege which was regarded both in England and Ireland with the most intense interest. On the 2nd of August 1649 the Dublin garrison relieved itself by the brilliant action of Rathmines, in which the royal army was practically destroyed. A fortnight later Cromwell landed with heavy reinforcements from England. Jones, his lieutenant-general, took the field; but on the 19th of December 1649 he died, worn out by the fatigues of the campaign.

JONES, OWEN (1741–1814), Welsh antiquary, was born on the 3rd of September 1741 at Llanvihangel Glyn y Myvyr in Denbighshire. In 1760 he entered the service of a London firm of furriers, to whose business he ultimately succeeded. He had from boyhood studied Welsh literature, and later devoted time and money to its collection. Assisted by Edward William of Glamorgan (Iolo Morganwg) and Dr. Owen Pughe, he published, at a cost of more than £1000, the well-known *Myvyrian Archaiology of Wales* (1801–1807), a collection of pieces dating from the 6th to the 14th century. The manuscripts which he had brought together are deposited in the British Museum; the material not utilized in the *Myvyrian Archaiology* amounts to 100 volumes, containing 16,000 pages of verse and 15,300 pages of prose. Jones was the founder of the Gwyneddigion Society (1772) in London for the encouragement of Welsh studies and literature; and he began in 1805 a miscellany—the *Greal*—of which only one volume appeared. An edition of the poems of *Davydd ab Gwilym* was also issued at his expense. He died on the 26th of December 1814 at his business premises in Upper Thames Street, London.

JONES, OWEN (1809–1874), British architect and art decorator, son of Owen Jones, a Welsh antiquary, was born in London. After an apprenticeship of six years in an architect's office, he travelled for four years in Italy, Greece, Turkey, Egypt and Spain, making a special study of the Alhambra. On his return to England in 1836 he busied himself in his professional work. His forte was interior decoration, for which his formula was: "Form without colour is like a body without a soul." He was one of the superintendents of works for the Exhibition of 1851 and was responsible for the general decoration of the Crystal Palace at Sydenham. Along with Digby Wyatt, Jones collected the casts of works of art with which the palace was filled. He died in London on the 19th of April 1874.

Owen Jones was described in the *Builder* for 1874 as "the most potent apostle of colour that architectural England has had in these days." His range of activity is to be traced in his works: *Plans, Elevations and Details of the Alhambra* (1835–1845), in which he was assisted by MM. Goury and Gayangos; *Designs for Mosaic and Tesselated Pavements* (1842); *Polychromatic Ornament of Italy* (1845); *An Attempt to Define the Principles which regulate the Employment of Colour in Decorative Arts* (1852); *Handbook to the Alhambra Court* (1854); *Grammar of Ornament* (1856), a very important work; *One Thousand and One Initial Letters* (1864); *Seven Hundred and Two Monograms* (1864); and *Examples of Chinese Ornament* (1867).

JONES, RICHARD (1790–1855), English economist, was born at Tunbridge Wells. The son of a solicitor, he was intended for the legal profession, and was educated at Caius College, Cambridge. Owing to ill-health, he abandoned the idea of the law and took orders soon after leaving Cambridge. For several years he held curacies in Sussex and Kent. In 1833 he was appointed professor of political economy at King's College, London, resigning this post in 1835 to succeed T. R. Malthus in the chair of political economy and history at the East India College at Haileybury. He took an active part in the commutation of tithes in 1836 and showed great ability as a tithe commissioner, an office which he filled till 1851. He was for some time, also, a charity commissioner. He died at Haileybury, shortly after he had resigned his professorship, on the 26th of January 1855. In 1831 Jones published his *Essay on the Distribution of Wealth and on the Sources of Taxation*, his most important work. In it he showed himself a thorough-going critic of the Ricardian system.

Jones's method is inductive; his conclusions are founded on a wide observation of contemporary facts, aided by the study of history. The world he professed to study was not an imaginary world, inhabited by abstract "economic men," but the real world with the different forms which the ownership and cultivation of land, and, in general, the conditions of production and distribution, assume at different times and places. His recognition of such different systems of life in communities occupying different stages in the progress of civilization led to his proposal of what he called a "political economy of nations." This was a protest against the practice of taking the exceptional state of facts which exists, and is indeed only partially realized, in a small corner of our planet as representing the uniform type of human societies, and ignoring the effects of the early history and special development of each community as influencing its economic phenomena. Jones is remarkable for his freedom from exaggeration and one-sided statement; thus, whilst holding Malthus in, perhaps, undue esteem, he declines to accept the proposition that an increase of the means of subsistence is necessarily followed by an increase of population; and he maintains what is undoubtedly true, that with the growth of population, in all well-governed and prosperous states, the command over food, instead of diminishing, increases.

A collected edition of Jones's works, with a preface by W. Whewell, was published in 1859.

JONES, THOMAS RUPERT (1819–), English geologist and palaeontologist, was born in London on the 1st of October 1819. While at a private school at Ilminster, his attention was attracted to geology by the fossils that are so abundant in the Lias quarries. In 1835 he was apprenticed to a surgeon at Taunton, and he completed his apprenticeship in 1842 at

Newbury in Berkshire. He was then engaged in practice mainly in London, till in 1849 he was appointed assistant secretary to the Geological Society of London. In 1862 he was made professor of geology at the Royal Military College, Sandhurst. Having devoted his especial attention to fossil microzoa, he now became the highest authority in England on the Foraminifera and Entomostraca. He edited the 2nd edition of Mantell's *Medals of Creation* (1854), the 3rd edition of Mantell's *Geological Excursions round the Isle of Wight* (1854), and the 7th edition of Mantell's *Wonders of Geology* (1857); he also edited the 2nd edition of Dixon's *Geology of Sussex* (1878). He was elected F.R.S. in 1872 and was awarded the Lyell medal by the Geological Society in 1890. For many years he was specially interested in the geology of South Africa.

His publications include *A Monograph of the Entomostraca of the Cretaceous Formation of England* (Palaeontograph. Soc., 1849); *A Monograph of the Tertiary Entomostraca of England* (ibid. 1857); *A Monograph of the Fossil Estheriae* (ibid. 1862); *A Monograph of the Foraminifera of the Crag* (ibid. 1866, &c., with H. B. Brady); and numerous articles in the *Annals and Magazine of Natural History*, the *Geological Magazine*, the *Proceedings of the Geologists' Association*, and other journals.

JONES, WILLIAM (1726–1800), English divine, was born at Lowick, in Northamptonshire on the 30th of July 1726. He was descended from an old Welsh family and one of his progenitors was Colonel John Jones, brother-in-law of Cromwell. He was educated at Charterhouse School, and at University College, Oxford. There a kindred taste for music, as well as a similarity in regard to other points of character, led to his close intimacy with George Horne (*q.v.*), afterwards bishop of Norwich, whom he induced to study Hutchinsonian doctrines. After obtaining his bachelor's degree in 1749, Jones held various preferments. In 1777 he obtained the perpetual curacy of Nayland, Suffolk, and on Horne's appointment to Norwich became his chaplain, afterwards writing his life. His vicarage became the centre of a High Church coterie, and Jones himself was a link between the non-jurors and the Oxford movement. He could write intelligibly on abstruse topics. He died on the 6th of January 1800.

In 1756 Jones published his tractate *On the Catholic Doctrine of the Trinity*, a statement of the doctrine from the Hutchinsonian point of view, with a succinct and able summary of biblical proofs. This was followed in 1762 by an *Essay on the First Principles of Natural Philosophy*, in which he maintained the theories of Hutchinson in opposition to those of Sir Isaac Newton, and in 1781 he dealt with the same subject in *Physiological Disquisitions*. Jones was also the originator of the *British Critic* (May 1793). His collected works, with a life by William Stevens, appeared in 1801, in 12 vols., and were condensed into 6 vols. in 1810. A life of Jones, forming pt. 5 of the *Biography of English Divines*, was published in 1849.

JONES, SIR WILLIAM (1746–1794), British Orientalist and jurist, was born in London on the 28th of September 1746. He distinguished himself at Harrow, and during his last three years there applied himself to the study of Oriental languages, teaching himself the rudiments of Arabic, and reading Hebrew with tolerable ease. In his vacations he improved his acquaintance with French and Italian. In 1764 Jones entered University College, Oxford, where he continued to study Oriental literature, and perfected himself in Persian and Arabic by the aid of a Syrian Mirza, whom he had discovered and brought from London. He added to his knowledge of Hebrew and made considerable progress in Italian, Spanish and Portuguese. He began the study of Chinese, and made himself master of the radical characters of that language. During five years he partly supported himself by acting as tutor to Lord Althorpe, afterwards the second Earl Spencer, and in 1766 he obtained a fellowship. Though but twenty-two years of age, he was already becoming famous as an Orientalist, and when Christian VII. of Denmark visited England in 1768, bringing with him a life of Nadir Shah in Persian, Jones was requested to translate the MS. into French. The translation appeared in 1770, with an introduction containing a description of Asia and a short history of Persia. This was followed in the same year by a *Traité sur la poésie orientale*, and by a French metrical translation of the odes of Hafiz. In 1771 he published a *Dissertation sur la littérature orientale*, defending Oxford scholars against the criticisms made by Anquetil Du Perron in the introduction to his translation of the *Zend-Avesta*. In the same year appeared his *Grammar of the Persian Language*. In 1772 Jones published a volume of *Poems, Chiefly Translations from Asiatick Languages, together with Two Essays on the Poetry of Eastern Nations and on the Arts commonly called Imitative*, and in 1774 a treatise entitled *Poeseos Asiaticæ commentatorium libri sex*, which definitely confirmed his authority as an Oriental scholar.

Finding that some more financially profitable occupation was necessary, Jones devoted himself with his customary energy to the study of the law, and was called to the bar at the Middle Temple in 1774. He studied not merely the technicalities, but the philosophy, of law, and within two years had acquired so considerable a reputation that he was in 1776 appointed commissioner in bankruptcy. Besides writing an *Essay on the Law of Bailments*, which enjoyed a high reputation both in England and America, Jones translated, in 1778, the speeches of Isaeus on the Athenian right of inheritance. In 1780 he was a parliamentary candidate for the university of Oxford, but withdrew from the contest before the day of election, as he found he had no chance of success owing to his Liberal opinions, especially on the questions of the American War and of the slave trade.

In 1783 was published his translation of the seven ancient Arabic poems called *Moallakât*. In the same year he was appointed judge of the supreme court of judicature at Calcutta, then "Fort William," and was knighted. Shortly after his arrival in India he founded, in January 1784, the Bengal Asiatic Society, of which he remained president till his death. Convinced as he was of the great importance of consulting the Hindu legal authorities in the original, he at once began the study of Sanskrit, and undertook, in 1788, the colossal task of compiling a digest of Hindu and Mahommedan law. This he did not live to complete, but he published the admirable beginnings of it in his *Institutes of Hindu Law, or the Ordinances of Manu* (1794); his *Mohammedan Law of Succession to Property of Intestates*; and his *Mohammedan Law of Inheritance* (1792). In 1789 Jones had completed his translation of Kālidāsa's most famous drama, *Sakuntalā*. He also translated the collection of fables entitled the *Hitopadesa*, the *Gītagovinda*, and considerable portions of the Vedas, besides editing the text of Kālidāsa's poem *Ritusamhara*. He was a large contributor also to his society's volumes of *Asiatic Researches*.

His unremitting literary labours, together with his heavy judicial work, told on his health after a ten years' residence in Bengal; and he died at Calcutta on the 27th of April 1794. An extraordinary linguist, knowing thirteen languages well, and having a moderate acquaintance with twenty-eight others, his range of knowledge was enormous. As a pioneer in Sanskrit learning and as founder of the Asiatic Society he rendered the language and literature of the ancient Hindus accessible to European scholars, and thus became the indirect cause of later achievements in the field of Sanskrit and comparative philology. A monument to his memory was erected by the East India Company in St Paul's, London, and a statue in Calcutta.

See the *Memoir* (1804) by Lord Teignmouth, published in the collected edition of Sir W. Jones's works.

JÖNKÖPING, a town of Sweden, capital of the district (*län*) of Jönköping, 230 m. S.W. of Stockholm by rail. Pop. (1900), 23,143. It occupies a beautiful but somewhat unhealthy position between the southern end of Lake Vetter and two small lakes, Roksjö and Munksjö. Two quarters of the town, Svenska Mad and Tyska Mad, recall the time when the site was a marsh (*mad*), and buildings were constructed on piles. The residential suburbs among the hills, especially Dunkehallar, are attractive and healthier than the town. The church of St Kristine (*c.* 1650), the court-houses, town-hall, government buildings, and high school, are noteworthy. The town is one of the leading industrial centres in Sweden. The match manufacture, for which it is principally famous, was founded by Johan Edvard Lundström in 1844. The well-known brand of *säkerhets-tändstickor*

(safety-matches) was introduced later. There are also textile manufactures, paper-factories (on Munksjö), and mechanical works. There is a large fire-arms factory at Huskvarna, 5.m E. Water-power is supplied here by a fine series of falls. The hill Taberg, 8 m. S., is a mass of magnetic iron ore, rising 410 ft. above the surrounding country, 2950 ft. long and 1475 ft. broad, but the percentage of iron is low as compared with the rich ores of other parts, and the deposit is little worked. Jönköping is the seat of one of the three courts of appeal in Sweden.

Jönköping received the earliest extant Swedish charter in 1284 from Magnus I. The castle is mentioned in 1263, when Waldemar Birgersson married the Danish princess Sophia. Jönköping was afterwards the scene of many events of moment in Scandinavian history—of parliaments in 1357, 1439, and 1599; of the meeting of the Danish and Swedish plenipotentiaries in 1448; and of the death of Sten Sture, the elder, in 1503. In 1612 Gustavus Adolphus caused the inhabitants to destroy their town lest it should fall into the hands of the Danes; but it was rebuilt soon after, and in 1620 received special privileges from the king. At this period a textile industry was started here, the first of any importance in Sweden. It was from the Dutch and German workmen, introduced at this time, that the quarter Tyska Mad received its name. On the 10th of December 1809 the plenipotentiaries of Sweden and Denmark concluded peace in the town.

JONSON, BEN[1] (1573–1637), English dramatist, was born, probably in Westminster, in the beginning of the year 1573 (or possibly, if he reckoned by the unadopted modern calendar, 1572; see Castelain, p. 4, note 1). By the poet's account his grandfather had been a gentleman who "came from" Carlisle, and originally, the grandson thought, from Annandale. His arms, "three spindles or rhombi," are the family device of the Johnstones of Annandale, a fact which confirms his assertion of Border descent. Ben Jonson further related that he was born a month after the death of his father, who, after suffering in estate and person under Queen Mary, had in the end "turned minister." Two years after the birth of her son the widow married again; she may be supposed to have loved him in a passionate way peculiar to herself, since on one occasion we find her revealing an almost ferocious determination to save his honour at the cost of both his life and her own. Jonson's stepfather was a master bricklayer, living in Hartshorn Lane, near Charing Cross, who provided his stepson with the foundations of a good education. After attending a private school in St Martin's Lane, the boy was sent to Westminster School at the expense, it is said, of William Camden. Jonson's gratitude for an education to which in truth he owed an almost inestimable debt concentrated itself upon the "most reverend head" of his benefactor, then second and afterwards head master of the famous school, and the firm friend of his pupil in later life.

After reaching the highest form at Westminster, Jonson is stated, but on unsatisfactory evidence, to have proceeded to Cambridge—according to Fuller, to St John's College. (For reasons in support of the tradition that he was a member of St John's College, see J. B. Mullinger, the *Eagle*, No. xxv.) He says, however, himself that he studied at neither university, but was put to a trade immediately on leaving school. He soon had enough of the trade, which was no doubt his father's bricklaying, for Henslowe in writing to Edward Alleyne of his affair with Gabriel Spenser calls him "bergemen [*sic*] Jonson, bricklayer." Either before or after his marriage—more probably before, as Sir Francis Vere's three English regiments were not removed from the Low Countries till 1592—he spent some time in that country soldiering, much to his own subsequent satisfaction when the days of self-conscious retrospect arrived, but to no further purpose beyond that of seeing something of the world.

Ben Jonson married not later than 1592. The registers of St Martin's Church state that his eldest daughter Maria died in November 1593 when she was, Jonson tells us (epigram 22), only six months old. His eldest son Benjamin died of the plague ten years later (epigram 45). (A younger Benjamin died in 1635.) His wife Jonson characterized to Drummond as "a shrew, but honest"; and for a period (undated) of five years he preferred to live without her, enjoying the hospitality of Lord Aubigny (afterwards duke of Lennox). Long burnings of oil among his books, and long spells of recreation at the tavern, such as Jonson loved, are not the most favoured accompaniments of family life. But Jonson was no stranger to the tenderest of affections: two at least of the several children whom his wife bore to him he commemorated in touching little tributes of verse; nor in speaking of his lost eldest daughter did he forget "her mother's tears." By the middle of 1597 we come across further documentary evidence of him at home in London in the shape of an entry in Philip Henslowe's diary (July 28) of 3s. 6d. "received of Bengemenes Johnsones share." He was therefore by this time—when Shakespeare, his senior by nearly nine years, was already in prosperous circumstances and good esteem—at least a regular member of the acting profession, with a fixed engagement in the lord admiral's company, then performing under Henslowe's management at the Rose. Perhaps he had previously acted at the Curtain (a former house of the lord admiral's men), and "taken mad Jeronimo's part" on a play-wagon in the highway. This latter appearance, if it ever took place, would, as was pointed out by Gifford, probably have been in Thomas Kyd's *Spanish Tragedy*, since in *The First Part of Jeronimo* Jonson would have had, most inappropriately, to dwell on the "smallness" of his "bulk." He was at a subsequent date (1601) employed by Henslowe to write up *The Spanish Tragedy*, and this fact may have given rise to Wood's story of his performance as a stroller (see, however, Fleay, *The English Drama*, ii. 29, 30). Jonson's additions, which were not the first changes made in the play, are usually supposed to be those printed with *The Spanish Tragedy* in the edition of 1602; Charles Lamb's doubts on the subject, which were shared by Coleridge, seem an instance of that subjective kind of criticism which it is unsafe to follow when the external evidence to the contrary is so strong.

According to Aubrey, whose statement must be taken for what it is worth, "Jonson was never a good actor, but an excellent instructor." His physique was certainly not well adapted to the histrionic conditions of his—perhaps of any—day; but, in any case, it was not long before he found his place in the organism of his company. In 1597, as we know from Henslowe, Jonson undertook to write a play for the lord admiral's men; and in the following year he was mentioned by Merès in his *Palladis Tamia* as one of "the best for tragedy," without any reference to a connexion on his part with the other branch of the drama. Whether this was a criticism based on material evidence or an unconscious slip, Ben Jonson in the same year 1598 produced one of the most famous of English comedies, *Every Man in his Humour*, which was first acted—probably in the earlier part of September—by the lord chamberlain's company at the Curtain. Shakespeare was one of the actors in Jonson's comedy, and it is in the character of Old Knowell in this very play that, according to a bold but ingenious guess, he is represented in the half-length portrait of him in the folio of 1623, beneath which were printed Jonson's lines concerning the picture. *Every Man in his Humour* was published in 1601; the critical prologue first appears in the folio of 1616, and there are other divergences (see Castelain, appendix A). After the Restoration the play was revived in 1751 by Garrick (who acted Kitely) with alterations, and long continued to be known on the stage. It was followed in the same year by *The Case is Altered*, acted by the children of the queen's revels, which contains a satirical attack upon the pageant poet, Anthony Munday. This comedy, which was not included in the folio editions, is one of intrigue rather than of character; it contains obvious reminiscences of Shylock and his daughter. The earlier of these two comedies was indisputably successful.

Before the year 1598 was out, however, Jonson found himself in prison and in danger of the gallows. In a duel, fought on the 22nd of September in Hogsden Fields, he had killed an actor of Henslowe's company named Gabriel Spenser. The quarrel with

[1] His Christian name of Benjamin was usually abbreviated by himself and his contemporaries; and thus, in accordance with his famous epitaph, it will always continue to be abbreviated.

Henslowe consequent on this event may account for the production of *Every Man in his Humour* by the rival company. In prison Jonson was visited by a Roman Catholic priest, and the result (certainly strange, if Jonson's parentage is considered) was his conversion to the Church of Rome, to which he adhered for twelve years. Jonson was afterwards a diligent student of divinity; but, though his mind was religious, it is not probable that its natural bias much inclined it to dwell upon creeds and their controversies. He pleaded guilty to the charge brought against him, as the rolls of Middlesex sessions show; but, after a short imprisonment, he was released by benefit of clergy, forfeiting his "goods and chattels," and being branded on his left thumb. The affair does not seem to have affected his reputation; in 1599 he is found back again at work for Henslowe, receiving together with Dekker, Chettle and "another gentleman," earnest-money for a tragedy (undiscovered) called *Robert II., King of Scots*. In the same year he brought out through the lord chamberlain's company (possibly already at the Globe, then newly built or building) the elaborate comedy of *Every Man out of his Humour* (quarto 1600; fol. 1616)—a play subsequently presented before Queen Elizabeth. The sunshine of court favour, rarely diffused during her reign in rays otherwise than figuratively golden, was not to bring any material comfort to the most learned of her dramatists, before there was laid upon her the inevitable hand of which his courtly epilogue had besought death to forget the use. Indeed, of his *Cynthia's Revels*, performed by the chapel children in 1600 and printed with the first title of *The Fountain of Self-Love* in 1601, though it was no doubt primarily designed as a compliment to the queen, the most marked result had been to offend two playwrights of note—Dekker, with whom he had formerly worked in company, and who had a healthy if rough grip of his own; and Marston, who was perhaps less dangerous by his strength than by his versatility. According to Jonson, his quarrel with Marston had begun by the latter attacking his morals, and in the course of it they came to blows, and might have come to worse. In *Cynthia's Revels*, Dekker is generally held to be satirized as Hedon, and Marston as Anaides (Fleay, however, thinks Anaides is Dekker, and Hedon Daniel), while the character of Crites most assuredly has some features of Jonson himself. Learning the intention of the two writers whom he had satirized, or at all events of Dekker, to wreak literary vengeance upon him, he anticipated them in *The Poetaster* (1601), again played by the children of the queen's chapel at the Blackfriars and printed in 1602; Marston and Dekker are here ridiculed respectively as the aristocratic Crispinus and the vulgar Demetrius. The play was completed fifteen weeks after its plot was first conceived. It is not certain to what the proceedings against author and play before the lord chief justice, referred to in the dedication of the edition of 1616, had reference, or when they were instituted. Fleay's supposition that the "purge," said in the *Returne from Parnassus* (Pt. II. act IV. sc. iii.) to have been administered by Shakespeare to Jonson in return for Horace's "pill to the poets" in this piece, consisted of *Troilus and Cressida* is supremely ingenious, but cannot be examined here. As for Dekker, he retaliated on *The Poetaster* by the *Satiromastix, or The Untrussing of the Humorous Poet* (1602). Some more last words were indeed attempted on Jonson's part, but in the *Apologetic Dialogue* added to *The Poetaster* in the edition of 1616, though excluded from that of 1602, he says he intends to turn his attention to tragedy. This intention he apparently carried out immediately, for in 1602 he received £10 from Henslowe for a play, entitled *Richard Crookbacke*, now lost—unfortunately so, for purposes of comparison in particular, even if it was only, as Fleay conjectures, "an alteration of Marlowe's play." According to a statement by Overbury, early in 1603, "Ben Johnson, the poet, now lives upon one Townesend," supposed to have been the poet and masque-writer Aurelian Townshend, at one time steward to the 1st earl of Salisbury, "and scornes the world." To his other early patron, Lord Aubigny, Jonson dedicated the first of his two extant tragedies, *Sejanus*, produced by the king's servants at the Globe late in 1603, Shakespeare once more taking a part in the performance. Either on its performance or on its appearing in print in 1605, Jonson was called before the privy council by the Earl of Northampton. But it is open to question whether this was the occasion on which, according to Jonson's statement to Drummond, Northampton "accused him both of popery and treason" (see Castelain, Appendix C). Though, for one reason or another, unsuccessful at first, the endurance of its reputation is attested by its performance, in a German version by an Englishman, John Michael Girish, at the court of the grandson of James I. at Heidelberg.

When the reign of James I. opened in England and an adulatory loyalty seemed intent on showing that it had not exhausted itself at the feet of Gloriana, Jonson's well-stored brain and ready pen had their share in devising and executing ingenious variations on the theme "Welcome—since we cannot do without thee!" With extraordinary promptitude his genius, which, far from being "ponderous" in its operations, was singularly swift and flexible in adapting itself to the demands made upon it, met the new taste for masques and entertainments—new of course in degree rather than in kind—introduced with the new reign and fostered by both the king and his consort. The pageant which on the 7th of May 1603 bade the king welcome to a capital dissolved in joy was partly of Jonson's, partly of Dekker's, devising; and he was able to deepen and diversify the impression by the composition of masques presented to James I. when entertained at houses of the nobility. *The Satyr* (1603) was produced on one of these occasions, Queen Anne's sojourn at Althorpe, the seat of Sir Robert Spencer, afterwards Lord Althorpe, who seems to have previously bestowed some patronage upon him. *The Penates* followed on May-day 1604 at the house of Sir William Cornwallis at Highgate, and the queen herself with her ladies played his *Masque of Blackness* at Whitehall in 1605. He was soon occasionally employed by the court itself—already in 1606 in conjunction with Inigo Jones, as responsible for the "painting and carpentry"—and thus speedily showed himself master in a species of composition for which, more than any other English poet before Milton, he secured an enduring place in the national poetic literature. Personally, no doubt, he derived considerable material benefit from the new fashion—more especially if his statement to Drummond was anything like correct, that out of his plays (which may be presumed to mean his original plays) he had never gained a couple of hundred pounds.

Good humour seems to have come back with good fortune. Joint employment in *The King's Entertainment* (1604) had reconciled him with Dekker; and with Marston also, who in 1604 dedicated to him his *Malcontent*, he was again on pleasant terms. When, therefore, in 1604 Marston and Chapman (who, Jonson told Drummond, was loved of him, and whom he had probably honoured as "Virgil" in *The Poetaster*, and who has, though on doubtful grounds, been supposed to have collaborated in the original *Sejanus*) produced the excellent comedy of *Eastward Ho*, it appears to have contained some contributions by Jonson. At all events, when the authors were arrested on account of one or more passages in the play which were deemed insulting to the Scots, he "voluntarily imprisoned himself" with them. They were soon released, and a banquet at his expense, attended by Camden and Selden, terminated the incident. If Jonson is to be believed, there had been a report that the prisoners were to have their ears and noses cut, and, with reference apparently to this peril, "at the midst of the feast his old mother drank to him, and showed him a paper which she had intended (if the sentence had taken execution) to have mixed in the prison among his drink, which was full of lusty strong poison; and that she was no churl, she told him, she minded first to have drunk of it herself." Strange to say, in 1605 Jonson and Chapman, though the former, as he averred, had so "attempered" his style as to have "given no cause to any good man of grief," were again in prison on account of "a play"; but they appear to have been once more speedily set free, in consequence of a very manly and dignified letter addressed by Jonson to the Earl of Salisbury. As to the relations between Chapman and Jonson, illustrated by newly discovered letters, see Bertram Dobell in the *Athenaeum*

No. 3831 (March 30, 1901), and the comments of Castelain. He thinks that the play in question, in which both Chapman and Jonson took part, was *Sir Gyles Goosecappe*, and that the last imprisonment of the two poets was shortly after the discovery of the Gunpowder Plot. In the mysterious history of the Gunpowder Plot Jonson certainly had some obscure part. On the 7th of November, very soon after the discovery of the conspiracy, the council appears to have sent for him and to have asked him, as a loyal Roman Catholic, to use his good offices in inducing the priests to do something required by the council—one hardly likes to conjecture it to have been some tampering with the secrets of confession. In any case, the negotiations fell through, because the priests declined to come forth out of their hiding-places to be negotiated with—greatly to the wrath of Ben Jonson, who declares in a letter to Lord Salisbury that "they are all so enweaved in it that it will make 500 gentlemen less of the religion within this week, if they carry their understanding about them." Jonson himself, however, did not declare his separation from the Church of Rome for five years longer, however much it might have been to his advantage to do so.

His powers as a dramatist were at their height during the earlier half of the reign of James I.; and by the year 1616 he had produced nearly all the plays which are worthy of his genius. They include the tragedy of *Catiline* (acted and printed 1611), which achieved only a doubtful success, and the comedies of *Volpone, or the Fox* (acted 1605 and printed in 1607 with a dedication "from my house in the Blackfriars"), *Epicoene, or the Silent Woman* (1609; entered in the Stationers' Register 1610), the *Alchemist*(1610; printed in 1610), *Bartholomew Fair* and *The Devil is an Ass* (acted respectively in 1614 and 1616). During the same period he produced several masques, usually in connexion with Inigo Jones, with whom, however, he seems to have quarrelled already in this reign, though it is very doubtful whether the architect is really intended to be ridiculed in *Bartholomew Fair* under the character of Lanthorn Leatherhead. Littlewit, according to Fleay, is Daniel. Among the most attractive of his masques may be mentioned the *Masque of Blackness* (1606), the *Masque of Beauty* (1608), and the *Masque of Queens* (1609), described by Swinburne as "the most splendid of all masques" and as "one of the typically splendid monuments or trophies of English literature." In 1616 a modest pension of 100 marks a year was conferred upon him; and possibly this sign of royal favour may have encouraged him to the publication of the first volume of the folio collected edition of his works (1616), though there are indications that he had contemplated its production, an exceptional task for a playwright of his times to take in hand, as early as 1612.

He had other patrons more bountiful than the Crown, and for a brief space of time (in 1613) had travelled to France as governor (without apparently much moral authority) to the eldest son of Sir Walter Raleigh, then a state prisoner in the Tower, for whose society Jonson may have gained a liking at the Mermaid Tavern in Cheapside, but for whose personal character he, like so many of his contemporaries, seems to have had but small esteem. By the year 1616 Jonson seems to have made up his mind to cease writing for the stage, where neither his success nor his profits had equalled his merits and expectations. He continued to produce masques and entertainments when called upon; but he was attracted by many other literary pursuits, and had already accomplished enough to furnish plentiful materials for retrospective discourse over pipe or cup. He was already entitled to lord it at the Mermaid, where his quick antagonist in earlier wit-combats (if Fuller's famous description be authentic) no longer appeared even on a visit from his comfortable retreat at Stratford. That on the other hand Ben carried his wicked town habits into Warwickshire, and there, together with Drayton, made Shakespeare drink so hard with them as to bring upon himself the fatal fever which ended his days, is a scandal with which we may fairly refuse to load Jonson's memory. That he had a share in the preparing for the press of the first folio of Shakespeare, or in the composition of its preface, is of course a mere conjecture.

It was in the year 1618 that, like Dr Samuel Johnson a century and a half afterwards, Ben resolved to have a real holiday for once, and about midsummer started for his ancestral country, Scotland. He had (very heroically for a man of his habits) determined to make the journey on foot; and he was speedily followed by John Taylor, the water-poet, who still further handicapped himself by the condition that he would accomplish the pilgrimage without a penny in his pocket. Jonson, who put money in his good friend's purse when he came up with him at Leith, spent more than a year and a half in the hospitable Lowlands, being solemnly elected a burgess of Edinburgh, and on another occasion entertained at a public banquet there. But the best-remembered hospitality which he enjoyed was that of the learned Scottish poet, William Drummond of Hawthornden, to which we owe the so-called *Conversations*. In these famous jottings, the work of no extenuating hand, Jonson lives for us to this day, delivering his censures, terse as they are, in an expansive mood whether of praise or of blame; nor is he at all generously described in the postscript added by his fatigued and at times irritated host as "a great lover and praiser of himself, a contemner and scorner of others." A poetical account of this journey, "with all the adventures," was burnt with Jonson's library.

After his return to England Jonson appears to have resumed his former course of life. Among his noble patrons and patronesses were the countess of Rutland (Sidney's daughter) and her cousin Lady Wroth; and in 1619 his visits to the country seats of the nobility were varied by a sojourn at Oxford with Richard Corbet, the poet, at Christ Church, on which occasion he took up the master's degree granted to him by the university; whether he actually proceeded to the same degree granted to him at Cambridge seems unknown. He confessed about this time that he was or seemed growing "restive," *i.e.* lazy, though it was not long before he returned to the occasional composition of masques. The extremely spirited *Gipsies Metamorphosed* (1621) was thrice presented before the king, who was so pleased with it as to grant to the poet the reversion of the office of master of the revels, besides proposing to confer upon him the honour of knighthood. This honour Jonson (hardly in deference to the memory of Sir Petronel Flash) declined; but there was no reason why he should not gratefully accept the increase of his pension in the same year (1621) to £200—a temporary increase only, inasmuch as it still stood at 100 marks when afterwards augmented by Charles I.

The close of King James I.'s reign found the foremost of its poets in anything but a prosperous condition. It would be unjust to hold the Sun, the Dog, the Triple Tun, or the Old Devil with its Apollo club-room, where Ben's supremacy must by this time have become established, responsible for this result; taverns were the clubs of that day, and a man of letters is not considered lost in our own because he haunts a smoking-room in Pall Mall. Disease had weakened the poet's strength, and the burning of his library, as his *Execration upon Vulcan* sufficiently shows, must have been no mere transitory trouble to a poor poet and scholar. Moreover he cannot but have felt, from the time of the accession of Charles I. early in 1625 onwards, that the royal patronage would no longer be due in part to anything like intellectual sympathy. He thus thought it best to recur to the surer way of writing for the stage, and in 1625 produced, with no faint heart, but with a very clear anticipation of the comments which would be made upon the reappearance of the "huge, overgrown play-maker," *The Staple of News*, a comedy excellent in some respects, but little calculated to become popular. It was not printed till 1631. Jonson, whose habit of body was not more conducive than were his ways of life to a healthy old age, had a paralytic stroke in 1626, and a second in 1628. In the latter year, on the death of Middleton, the appointment of city chronologer, with a salary of 100 nobles a year, was bestowed upon him. He appears to have considered the duties of this office as purely ornamental; but in 1631 his salary was suspended until he should have presented some fruits of his labours in his place, or—as he more succinctly phrased it—"yesterday the barbarous court of

aldermen have withdrawn their chandlerly pension for verjuice and mustard, £33, 6s. 8d." After being in 1628 arrested by mistake on the utterly false charge of having written certain verses in approval of the assassination of Buckingham, he was soon allowed to return to Westminster, where it would appear from a letter of his " son and contiguous neighbour," James Howell, he was living in 1629, and about this time narrowly escaped another conflagration. In the same year (1629) he once more essayed the stage with the comedy of *The New Inn*, which was actually, and on its own merits not unjustly, damned on the first performance. It was printed in 1631, " as it was never acted but most negligently played "; and Jonson defended himself against his critics in his spirited *Ode to Himself*. The epilogue to *The New Inn* having dwelt not without dignity upon the neglect which the poet had experienced at the hands of " king and queen," King Charles immediately sent the unlucky author a gift of £100, and in response to a further appeal increased his standing salary to the same sum, with the addition of an annual tierce of canary —the poet-laureate's customary royal gift, though this designation of an office, of which Jonson discharged some of what became the ordinary functions, is not mentioned in the warrant dated the 26th of March 1630. In 1634, by the king's desire, Jonson's salary as chronologer to the city was again paid. To his later years belong the comedies, *The Magnetic Lady* (1632) and *The Tale of a Tub* (1633), both printed in 1640, and some masques, none of which met with great success. The patronage of liberal-minded men, such as the earl, afterwards duke, of Newcastle—by whom he must have been commissioned to write his last two masques *Love's Welcome at Welbeck* (1633) and *Love's Welcome at Bolsover* (1634)—and Viscount Falkland, was not wanting, and his was hardly an instance in which the fickleness of time and taste could have allowed a literary veteran to end his career in neglect. He was the acknowledged chief of the English world of letters, both at the festive meetings where he ruled the roast among the younger authors whose pride it was to be " sealed of the tribe of Ben, " and by the avowal of grave writers, old or young, not one of whom would have ventured to dispute his titular pre-eminence. Nor was he to the last unconscious of the claims upon him which his position brought with it. When, nearly two years after he had lost his surviving son, death came upon the sick old man on the 6th of August 1637, he left behind him an unfinished work of great beauty, the pastoral drama of *The Sad Shepherd* (printed in 1641). For forty years, he said in the prologue, he had feasted the public; at first he could scarce hit its taste, but patience had at last enabled it to identify itself with the working of his pen.

We are so accustomed to think of Ben Jonson presiding, attentive to his own applause, over a circle of younger followers and admirers that we are apt to forget the hard struggle which he had passed through before gaining the crown now universally acknowledged to be his. Howell records, in the year before Ben's death, that a solemn supper at the poet's own house, where the host had almost spoiled the relish of the feast by vilifying others and magnifying himself, " T. Ca. "(Thomas Carew) buzzed in the writer's ear " that, though Ben had barrelled up a great deal of knowledge, yet it seemed he had not read the *Ethics*, which, among other precepts of morality, forbid self-commendation." Self-reliance is but too frequently coupled with self-consciousness, and for good and for evil self-confidence was no doubt the most prominent feature in the character of Ben Jonson. Hence the combativeness which involved him in so many quarrels in his earlier days, and which jarred so harshly upon the less militant and in some respects more pedantic nature of Drummond. But his quarrels do not appear to have entered deeply into his soul, or indeed usually to have lasted long.[1] He was too exuberant in his vituperations to be bitter, and too outspoken to be malicious. He loved of all things to be called " honest," and there is every reason to suppose that he deserved the epithet. The old superstition that Jonson was filled with malignant envy of the greatest of his fellow-dramatists, and lost no opportunity of giving expression to it, hardly needs notice. Those who consider that Shakespeare was beyond criticism may find blasphemy in the saying of Jonson that Shakespeare " wanted art." Occasional jesting allusions to particular plays of Shakespeare may be found in Jonson, among which should hardly be included the sneer at " mouldy " Pericles in his *Ode to Himself*. But these amount to nothing collectively, and to very little individually; and against them have to be set, not only the many pleasant traditions concerning the long intimacy between the pair, but also the lines, prefixed to the first Shakespeare folio, as noble as they are judicious, dedicated by the survivor to " the star of poets," and the adaptation, clearly sympathetic notwithstanding all its buts, *de Shakespeare nostrat.* in the *Discoveries*. But if Gifford had rendered no other service to Jonson's fame he must be allowed to have once for all vindicated it from the cruellest aspersion which has ever been cast upon it. That in general Ben Jonson was a man of strong likes and dislikes, and was wont to manifest the latter as vehemently as the former, it would be idle to deny. He was at least impartial in his censures, dealing them out freely to Puritan poets like Wither and (supposing him not to have exaggerated his free-spokenness) to princes of his church like Cardinal du Perron. And, if sensitive to attack, he seems to have been impervious to flattery—to judge from the candour with which he condemned the foibles even of so enthusiastic an admirer as Beaumont. The personage that he disliked the most, and openly abused in the roundest terms, was unfortunately one with many heads and a tongue to hiss in each—no other than that " general public " which it was the fundamental mistake of his life to fancy he could " rail into approbation " before he had effectively secured its goodwill. And upon the whole it may be said that the admiration of the few, rather than the favour of the many, has kept green the fame of the most independent among all the masters of an art which, in more senses than one, must please to live.

Jonson's learning and industry, which were alike exceptional, by no means exhausted themselves in furnishing and elaborating the materials of his dramatic works. His enemies sneered at him as a translator—a title which the preceding generation was inclined to esteem the most honourable in literature. But his classical scholarship shows itself in other directions besides his translations from the Latin poets (the *Ars poetica* in particular), in addition to which he appears to have written a version of Barclay's *Argenis*; it was likewise the basis of his *English Grammar*, of which nothing but the rough draft remains (the MS. itself having perished in the fire in his library), and in connexion with the subject of which he appears to have pursued other linguistic studies (Howell in 1629 was trying to procure him a Welsh grammar). And its effects are very visible in some of the most pleasing of his non-dramatic poems, which often display that combination of polish and simplicity hardly to be reached—or even to be appreciated—without some measure of classical training.

Exclusively of the few lyrics in Jonson's dramas (which, with the exception of the stately choruses in *Catiline*, charm, and perhaps may surprise, by their lightness of touch), his non-dramatic works are comprised in the following collections. The book of *Epigrams* (published in the first folio of 1616) contained, in the poet's own words, the "ripest of his studies." His notion of an epigram was the ancient, not the restricted modern one—still less that of the critic (R. C., the author of *The Times' Whistle*) in whose language, according to Jonson, "witty " was " obscene." On the whole, these epigrams excel more in encomiastic than in satiric touches, while the pathos of one or two epitaphs in the collection is of the truest kind. In the lyrics and epistles contained in the *Forest* (also in the first folio), Jonson shows greater variety in the poetic styles adopted by him; but the subject of love, which Dryden considered conspicuous by its absence in the author's dramas, is similarly eschewed here. The *Underwoods* (not published collectively till the second and surreptitious folio) are a miscellaneous series, comprising, together with a few religious and a few amatory poems, a large number of epigrams,

[1] With Inigo Jones, however, in quarrelling with whom, as Howell reminds Jonson, the poet was virtually quarrelling with his bread and butter, he seems to have found it impossible to live permanently at peace; his satirical *Expostulation* against the architect was published as late as 1635. Chapman's satire against his old associate, perhaps due to this quarrel, was left unfinished and unpublished.

epitaphs, elegies and "odes," including both the tributes to Shakespeare and several to royal and other patrons and friends, besides the *Execration upon Vulcan*, and the characteristic ode addressed by the poet to himself. To these pieces in verse should be added the *Discoveries—Timber, or Discoveries made upon Men and Matters*, avowedly a commonplace book of aphorisms noted by the poet in his daily readings—thoughts adopted and adapted in more tranquil and perhaps more sober moods than those which gave rise to the outpourings of the *Conversations at Hawthornden*. As to the critical value of these *Conversations* it is far from being only negative; he knew how to admire as well as how to disdain. For these thoughts, though abounding with biographical as well as general interest, Jonson was almost entirely indebted to ancient writers, or (as has been shown by Professor Spingarn and by Percy Simpson) indebted to the humanists of the Renaissance (see *Modern Language Review*, ii. 3, April 1907).

The extant dramatic works of Ben Jonson fall into three or, if his fragmentary pastoral drama be considered to stand by itself, into four distinct divisions. The tragedies are only two in number—*Sejanus his Fall* and *Catiline his Conspiracy*.[1] Of these the earlier, as is worth noting, was produced at Shakespeare's theatre, in all probability before the first of Shakespeare's Roman dramas, and still contains a considerable admixture of rhyme in the dialogue. Though perhaps less carefully elaborated in diction than its successor, *Sejanus*, is at least equally impressive as a highly wrought dramatic treatment of a complex historic theme. The character of Tiberius adds an element of curious psychological interest on which speculation has never quite exhausted itself and which, in Jonson's day at least, was wanting to the figures of Catiline and his associates. But in both plays the action is powerfully conducted, and the care bestowed by the dramatist upon the great variety of characters introduced cannot, as in some of his comedies, be said to distract the interest of the reader. Both these tragedies are noble works, though the relative popularity of the subject (for conspiracies are in the long run more interesting than camarillas) has perhaps secured the preference to *Catiline*. Yet this play and its predecessor were alike too manifestly intended by their author to court the goodwill of what he calls the "extraordinary" reader. It is difficult to imagine that (with the aid of judicious shortenings) either could altogether miss its effect on the stage; but, while Shakespeare causes us to forget, Jonson seems to wish us to remember, his authorities. The half is often greater than the whole; and Jonson, like all dramatists and, it might be added, all novelists in similar cases, has had to pay the penalty incurred by too obvious a desire to underline the learning of the author.

Perversity—or would-be originality—alone could declare Jonson's tragedy preferable to his comedy. Even if the revolution which he created in the comic branch of the drama had been mistaken in its principles or unsatisfactory in its results, it would be clear that the strength of his dramatic genius lay in the power of depicting a great variety of characters, and that in comedy alone he succeeded in finding a wide field for the exercise of this power. There may have been no very original or very profound discovery in the idea which he illustrated in *Every Man in his Humour*, and, as it were, technically elaborated in *Every Man out of his Humour* —that in many men one quality is observable which so possesses them as to draw the whole of their individualities one way, and that this phenomenon "may be truly said to be a humour." The idea of the master quality or tendency was, as has been well observed, a very considerable one for dramatist or novelist. Nor did Jonson (happily) attempt to work out this idea with any excessive scientific consistency as a comic dramatist. But, by refusing to apply the term "humour" (*q.v.*) to a mere peculiarity or affectation of manners, and restricting its use to actual or implied differences or distinctions of character, he broadened the whole basis of English comedy after his fashion, as Molière at a later date, keeping in closer touch with the common experience of human life, with a lighter hand broadened the basis of French and of modern Western comedy at large. It does not of course follow that Jonson's disciples, the Bromes and the Cartwrights, always adequately reproduced the master's conception of "humorous" comedy. Jonson's wide and various reading helped him to diversify the application of his theory, while perhaps at times it led him into too remote illustrations of it. Still, Captain Bobadil and Captain Tucca, Macilente and Fungoso, Volpone and Mosca, and a goodly number of other characters impress themselves permanently upon the memory of those whose attention they have as a matter of course commanded. It is a very futile criticism to condemn Jonson's characters as a mere series of types of general ideas; on the other hand, it is a very sound criticism to object, with Barry Cornwall, to the "multitude of characters who throw no light upon the story, and lend no interest to it, occupying space that had better have been bestowed upon the principal agents of the plot."

In the construction of plots, as in most other respects, Jonson's at once conscientious and vigorous mind led him in the direction of originality; he depended to a far less degree than the greater part of his contemporaries (Shakespeare with the rest) upon borrowed plots. But either his inventive character was occasionally at fault in this respect, or his devotion to his characters often diverted his attention from a brisk conduct of his plot. Barry Cornwall has directed attention to the essential likeness in the plot of two of Jonson's best comedies, *Volpone* and *The Alchemist*; and another critic, W. Bodham Donne, has dwelt on the difficulty which, in *The Poetaster* and elsewhere, Ben Jonson seems to experience in sustaining the promise of his actions. *The Poetaster* is, however, a play *sui generis*, in which the real business can hardly be said to begin till the last act.

Dryden, when criticizing Ben Jonson's comedies, thought fit, while allowing the old master humour and incontestable "pleasantness," to deny him wit and those ornaments thereof which Quintilian reckons up under the terms *urbana*, *salsa*, *faceta* and so forth. Such wit as Dryden has in view is the mere outward fashion or style of the day, the euphuism or "sheerwit" or *chic* which is the creed of Fastidious Brisks and of their astute purveyors at any given moment. In this Ben Jonson was no doubt defective; but it would be an error to suppose him, as a comic dramatist, to have maintained towards the world around him the attitude of a philosopher, careless of mere transient externalisms. It is said that the scene of his *Every Man in his Humour* was originally laid near Florence; and his *Volpone*, which is perhaps the darkest social picture ever drawn by him, plays at Venice. Neither locality was ill-chosen, but the real atmosphere of his comedies is that of the native surroundings amidst which they were produced; and Ben Jonson's times live for us in his men and women, his country gulls and town gulls, his alchemists and exorcists, his "skeldring" captains and whining Puritans, and the whole ragamuffin rout of his *Bartholomew Fair*, the comedy *par excellence* of Elizabethan low life. After he had described the pastimes, fashionable and unfashionable, of his age, its feeble superstitions and its flaunting naughtinesses, its vapouring affectations and its lying effronteries, with an odour as of "divine tabacco" pervading the whole, little might seem to be left to describe for his "sons" and successors. Enough, however, remained; only that his followers speedily again threw manners and "humours" into an undistinguishable medley.

The gift which both in his art and in his life Jonson lacked was that of exercising the influence or creating the effects which he wished to exercise or create without the appearance of consciousness. Concealment never crept over his efforts, and he scorned insinuation. Instead of this, influenced no doubt by the example of the free relations between author and public permitted by Attic comedy, he resorted again and again, from *Every Man out of his Humour* to *The Magnetic Lady*, to inductions and commentatory-intermezzos and appendices, which, though occasionally effective by the excellence of their execution, are

[1] Of *The Fall of Mortimer* Jonson left only a few lines behind him; but, as he also left the argument of the play, factious ingenuity contrived to furbish up the relic into a libel against Queen Caroline and Sir Robert Walpole in 1731, and to revive the contrivance by way of an insult to the princess dowager of Wales and Lord Bute in 1762.

to be regretted as introducing into his dramas an exotic and often vexatious element. A man of letters to the very core, he never quite understood that there is and ought to be a wide difference of methods between the world of letters and the world of the theatre.

The richness and versatility of Jonson's genius will never be fully appreciated by those who fail to acquaint themselves with what is preserved to us of his "masques" and cognate entertainments. He was conscious enough of his success in this direction—"next himself," he said, "only Fletcher and Chapman could write a masque." He introduced, or at least established, the ingenious innovation of the anti-masque, which Schlegel has described, as a species of "parody added by the poet to his device, and usually prefixed to the serious entry," and which accordingly supplies a grotesque antidote to the often extravagantly imaginative main conception. Jonson's learning, creative power and humorous ingenuity—combined, it should not be forgotten, with a genuine lyrical gift—all found abundant opportunities for displaying themselves in these productions. Though a growth of foreign origin, the masque was by him thoroughly domesticated in the high places of English literature. He lived long enough to see the species produce its poetic masterpiece in *Comus*.

The Sad Shepherd, of which Jonson left behind him three acts and a prologue, is distinguished among English pastoral dramas by its freshness of tone; it breathes something of the spirit of the greenwood, and is not unnatural even in its supernatural element. While this piece, with its charming love-scenes between Robin Hood and Maid Marion, remains a fragment, another pastoral by Jonson, the *May Lord* (which F. G. Fleay and J. A. Symonds sought to identify with *The Sad Shepherd;* see, however, W. W. Greg in introduction to the Louvain reprint), has been lost, and a third, of which Loch Lomond was intended to be the scene, probably remained unwritten.

Though Ben Jonson never altogether recognized the truth of the maxim that the dramatic art has properly speaking no didactic purpose, his long and laborious life was not wasted upon a barren endeavour. In tragedy he added two works of uncommon merit to our dramatic literature. In comedy his aim was higher, his effort more sustained, and his success more solid than were those of any of his fellows. In the subsidiary and hybrid species of the masque, he helped to open a new and attractive though undoubtedly devious path in the field of dramatic literature. His intellectual endowments surpassed those of most of the great English dramatists in richness and breadth; and in energy of application he probably left them all behind. Inferior to more than one of his fellow-dramatists in the power of imaginative sympathy, he was first among the Elizabethans in the power of observation; and there is point in Barrett Wendell's paradox, that as a dramatist he was not really a poet but a painter. Yet it is less by these gifts, or even by his unexcelled capacity for hard work, than by the true ring of manliness that he will always remain distinguished among his peers.

Jonson was buried on the north side of the nave in Westminster Abbey, and the inscription, "O Rare Ben Jonson," was cut in the slab over his grave. In the beginning of the 18th century a portrait bust was put up to his memory in the Poets' Corner by Harley, earl of Oxford. Of Honthorst's portrait of Jonson at Knole Park there is a copy in the National Portrait Gallery; another was engraved by W. Marshall for the 1640 edition of his *Poems*.

BIBLIOGRAPHY.—The date of the first folio volume of Jonson's *Works* (of which title his novel but characteristic use in applying it to plays was at the time much ridiculed) has already been mentioned as 1616; the second, professedly published in 1640, is described by Gifford as "a wretched continuation of the first, printed from MSS. surreptitiously obtained during his life, or ignorantly hurried through the press after his death, and bearing a variety of dates from 1631 to 1641 inclusive." The works were reprinted in a single folio volume in 1692, in which *The New Inn* and *The Case is Altered* were included for the first time, and again in 6 vols 8vo in 1715. Peter Whalley's edition in 7 vols., with a life, appeared in 1756, but was superseded in 1816 by William Gifford's, in 9 vols. (of which the first includes a biographical memoir, and the famous essay on the "Proofs of Ben Jonson's Malignity, from the Commentators on Shakespeare"). A new edition of Gifford's was published in 9 vols. in 1875 by Colonel F. Cunningham, as well as a cheap reprint in 3 vols. in 1870. Both contain the *Conversations* with Drummond, which were first printed in full by David Laing in the *Shakespeare Society's Publications* (1842) and the *Jonsonus Virbius*, a collection (unparalleled in number and variety of authors) of poetical tributes, published about six months after Jonson's death by his friends and admirers. There is also a single-volume edition, with a very readable memoir, by Barry Cornwall (1838). An edition of Ben Jonson's works from the original texts was recently undertaken by C. H. Herford and Percy Simpson. A selection from his plays, edited for the "Mermaid" series in 1893–1895 by B. Nicholson, with an introduction by C. H. Herford, was reissued in 1904. W. W. Bang in his *Materialien zur Kunde des alten englischen Dramas* has reprinted from the folio of 1616 those of Ben Jonson's plays which are contained in it (Louvain, 1905–1906). *Every Man in his Humour* and *Every Man out of his Humour* have been edited for the same series (16 and 17, 1905 and 1907) by W. W. Bang and W. W. Greg. *Every Man in his Humour* has also been edited, with a brief biographical as well as special introduction, to which the present sketch owes some details, by H. B. Wheatley (1877). Some valuable editions of plays by Ben Jonson have been recently published by American scholars in the *Yale Studies in English*, edited by A. S. Cook—*The Poetaster*, ed. H. S. Mallory (1905); *The Alchemist*, ed. C. M. Hathaway (1903); *The Devil is an Ass*, ed. W. S. Johnson (1905); *The Staple of News*, ed. De Winter (1905); *The New Inn*, ed. by G. Bremner (1908); *The Sad Shepherd* (with Waldron's continuation) has been edited by W. W. Greg for Bang's *Materialien zur Kunde des alten englischen Dramas* (Louvain, 1905).

The criticisms of Ben Jonson are too numerous for cataloguing here; among those by eminent Englishmen should be specially mentioned John Dryden's, particularly those in his *Essay on Dramatic Poësy* (1667–1668; revised 1684), and in the preface to *An Evening's Love, or the Mock Astrologer* (1668), and A. C. Swinburne's *Study of Ben Jonson* (1889), in which, however, the significance of the *Discoveries* is misapprehended. See also F. G. Fleay, *Biographical Chronicle of the English Drama* (1891), i. 311–387, ii. 1–18; C. H. Herford, "Ben Jonson" (art. in *Dict. Nat. Biog.*, vol. xxx., 1802); A. W. Ward, *History of English Dramatic Literature*, 2nd ed. (1899), ii. 296–407; and for a list of early impressions, W. W. Greg, *List of English Plays written before 1643 and printed before 1700* (Bibliographical Society, 1900), pp. 55–58 and supplement 11–15. An important French work on Ben Jonson, both biographical and critical, and containing, besides many translations of scenes and passages, some valuable appendices, to more than one of which reference has been made above, is Maurice Castelain's *Ben Jonson, l'homme et l'œuvre* (1907). Among treatises or essays on particular aspects of his literary work may be mentioned Emil Koeppel's *Quellenstudien zu den Dramen Ben Jonson's*, &c. (1895); the same writer's "Ben Jonson's Wirkung auf zeitgenössische Dramatiker," &c., in *Anglicistische Forschungen*, 20 (1906); F. E. Schelling's *Ben Jonson and the Classical School* (1898); and as to his masques, A. Soergel, *Die englischen Maskenspiele* (1882) and J. Schmidt, "Über Ben Jonson's Maskenspiele," in Herrig's *Archiv*, &c., xxvii. 51–91. See also H. Reinsch, "Ben Jonson's Poetik und seine Beziehungen zu Horaz," in *Münchener Beiträge*, 16 (1899). (A. W. W.)

JOPLIN, a city of Jasper county, Missouri, U.S.A., on Joplin creek, about 140 m. S. of Kansas City. Pop. (1890), 9943; (1900), 26,023, of whom 893 were foreign-born and 773 were negroes; (1910 census) 32,073. It is served by the Missouri Pacific, the St Louis & San Francisco, the Missouri, Kansas & Texas, and the Kansas City Southern railways, and by interurban electric lines. The city has a fine court-house, a United States government building, a Carnegie library and a large auditorium. Joplin is the trade centre of a rich agricultural and fruit-growing district, but its growth has been chiefly due to its situation in one of the must productive zinc and lead regions in the country, for which it is the commercial centre. In 1906 the value of zinc-ore shipments from this Missouri-Kansas (or Joplin) district was $12,074,105, and of shipments of lead ore, $3,048,558. The value of Joplin's factory product in 1905 was $3,006,203, an increase of 29·3% since 1900. Natural gas, piped from the Kansas fields, is used for light and power, and electricity for commercial lighting and power is derived from plants on Spring River, near Vark, Kansas, and on Shoal creek. The municipality owns its electric-lighting plant; the water-works are under private ownership. The first settlement in the neighbourhood was made in 1838. In 1871 Joplin was laid out and incorporated as a town; in 1872 it and a rival town on the other side of Joplin creek were united under the name Union City; in 1873 Union City was chartered as a city

under the name Joplin; and in 1888 Joplin was chartered as a city of the third class. The city derives its name from the creek, which was named in honour of the Rev. Harris G. Joplin (*c.* 1810–1847), a native of Tennessee.

JOPPA, less correctly JAFFA (Arab. *Yāfā*), a seaport on the coast of Palestine. It is of great antiquity, being mentioned in the tribute lists of Tethmosis (Thothmes) III.; but as it never was in the territory of the pre-exilic Israelites it was to them a place of no importance. Its ascription to the tribe of Dan (Josh. xix. 46) is purely theoretical. According to the authors of Chronicles (2 Chron. ii. 16), Ezra (iii. 7) and Jonah (i. 3) it was a seaport for importation of the Lebanon timber floated down the coasts or for ships plying even to distant Tarshish. About 148 B.C. it was captured from the Syrians by Jonathan Maccabaeus (1 Macc. x. 75) and later it was retaken and garrisoned by Simon his brother (xii. 33, xiii. 11). It was restored to the Syrians by Pompey (Jos., *Ant.* xiv. 4, 4) but again given back to the Jews (ib. xiv. 10, 6) with an exemption from tax. St Peter for a while lodged at Joppa, where he restored the benevolent widow Tabitha to life, and had the vision which taught him the universality of the plan of Christianity.

According to Strabo (xvi. ii.), who makes the strange mistake of saying that Jerusalem is visible from Joppa, the place was a resort of pirates. It was destroyed by Vespasian in the Jewish War (68). Tradition connects the story of Andromeda and the sea-monster with the sea-coast of Joppa, and in early times her chains were shown as well as the skeleton of the monster itself (Jos. *Wars*, iii. 9, 3). The site seems to have been shown even to some medieval pilgrims, and curious traces of it have been detected in modern Moslem legends.

In the 5th and 11th centuries we hear from time to time of bishops of Joppa, under the metropolitan of Jerusalem. In 1126 the district was captured by the knights of St John, but lost to Saladin in 1187. Richard Cœur de Lion retook it in 1191, but it was finally retaken by Malek el 'Adil in 1196. It languished for a time; in the 16th century it was an almost uninhabited ruin; but towards the end of the 17th century it began anew to develop as a seaport. In 1799 it was stormed by Napoleon; the fortifications were repaired and strengthened by the British.

The modern town of Joppa derives its importance, first, as a seaport for Jerusalem and the whole of southern Palestine, and secondly as a centre of the fruit-growing industry. During the latter part of the 19th century it greatly increased in size. The old city walls have been entirely removed. Its population is about 35,000 (Moslems 23,000, Christians 5000, Jews 7000; with the Christians are included the "Templars," a semi-religious, semi-agricultural German colony of about 320 souls). The town, which rises over a rounded hillock on the coast, about 100 ft. high, has a very picturesque appearance from the sea. The harbour (so-called) is one of the worst existing, being simply a natural breakwater formed by a ledge of reefs, safe enough for small Oriental craft, but very dangerous for large vessels, which can only make use of the seaport in calm weather; these never come nearer than about a mile from the shore. A railway and a bad carriage-road connect Joppa with Jerusalem. The water of the town is derived from wells, many of which have a brackish taste. The export trade of the town consists of soap of olive oil, sesame, barley, water melons, wine and especially oranges (commonly known as Jaffa oranges), grown in the famous and ever-increasing gardens that lie north and east of the town. The chief imports are timber, cotton and other textile goods, tiles, iron, rice, coffee, sugar and petroleum. The value of the exports in 1900 was estimated at £264,950, the imports £382,405. Over 10,000 pilgrims, chiefly Russians, and some three or four thousand tourists land annually at Joppa. The town is the seat of a kaimakam or lieutenant-governor, subordinate to the governor of Jerusalem, and contains vice-consulates of Great Britain, France, Germany, America and other powers. There are Latin, Greek, Armenian and Coptic monasteries; and hospitals and schools under British, French and German auspices. (R. A. S. M.)

JORDAENS, JACOB (1593–1678), Flemish painter, was born and died at Antwerp. He studied, like Rubens, under Adam van Noort, and his marriage with his master's daughter in 1616, the year after his admission to the gild of painters, prevented him from visiting Rome. He was forced to content himself with studying such examples of the Italian masters as he found at home; but a far more potent influence was exerted upon his style by Rubens, who employed him sometimes to reproduce small sketches in large. Jordaens is second to Rubens alone in their special department of the Flemish school. In both there is the same warmth of colour, truth to nature, mastery of chiaroscuro and energy of expression; but Jordaens is wanting in dignity of conception, and is inferior in choice of forms, in the character of his heads, and in correctness of drawing. Not seldom he sins against good taste, and in some of his humorous pieces the coarseness is only atoned for by the animation. Of these last he seems in some cases to have painted several replicas. He employed his pencil also in biblical, mythological, historical and allegorical subjects, and is well-known as a portrait painter. He also etched some plates.

See the elaborate work on the painter, by Max Rooses (1908).

JORDAN, CAMILLE (1771–1821), French politician, was born in Lyons on the 11th of January 1771 of a well-to-do mercantile family. He was educated in Lyons, and from an early age was imbued with royalist principles. He actively supported by voice, pen and musket his native town in its resistance to the Convention; and when Lyons fell, in October 1793, Jordan fled. From Switzerland he passed in six months to England, where he formed acquaintances with other French exiles and with prominent British statesmen, and imbibed a lasting admiration for the English Constitution. In 1796 he returned to France, and next year he was sent by Lyons as a deputy to the Council of Five Hundred. There his eloquence won him consideration. He earnestly supported what he felt to be true freedom, especially in matters of religious worship, though the energetic appeal on behalf of church bells in his *Rapport sur la liberté des cultes* procured him the sobriquet of Jordan-Cloche. Proscribed at the *coup d'état* of the 18th Fructidor (4th of September 1797) he escaped to Basel. Thence he went to Germany, where he met Goethe. Back again in France by 1800, he boldly published in 1802 his *Vrai sens du vote national pour le consulat à vie*, in which he exposed the ambitious schemes of Bonaparte. He was unmolested, however, and during the First Empire lived in literary retirement at Lyons with his wife and family, producing for the Lyons academy occasional papers on the *Influence réciproque de l'éloquence sur la Révolution et de la Révolution sur l'éloquence; Études sur Klopstock*, &c. At the restoration in 1814 he again emerged into public life. By Louis XVIII. he was ennobled and named a councillor of state; and from 1816 he sat in the chamber of deputies as representative of Ain. At first he supported the ministry, but when they began to show signs of reaction he separated from them, and gradually came to be at the head of the constitutional opposition. His speeches in the chamber were always eloquent and powerful. Though warned by failing health to resign, Camille Jordan remained at his post till his death at Paris, on the 19th of May 1821.

To his pen we owe *Lettre à M. Lamourette* (1791); *Histoire de la conversion d'une dame Parisienne* (1792); *La Loi et la religion vengées* (1792); *Adresse à ses commettants sur la révolution du 4 Septembre 1797* (1797); *Sur les troubles de Lyon* (1818); *La Session de 1817* (1818). His *Discours* were collected in 1818. The "Fragments choisis," and translations from the German, were published in *L'Abeille française*. Besides the various histories of the time, see further details vol. x. of the *Revue encyclopédique*; a paper on Jordan and Madame de Staël, by C. A. Sainte-Beuve, in the *Revue des deux mondes* for March 1868 and R. Boubée, "Camille Jordan à Weimar," in the *Correspondant* (1901), ccv. 718–738 and 948–970.

JORDAN, DOROTHEA (1762–1816), Irish actress, was born near Waterford, Ireland, in 1762. Her mother, Grace Phillips, at one time known as Mrs Frances, was a Dublin actress. Her father, whose name was Bland, was according to one account an army captain, but more probably a stage hand. Dorothy Jordan made her first appearance on the stage in 1777 in Dublin

as Phoebe in *As You Like It*. After acting elsewhere in Ireland she appeared in 1782 at Leeds, and subsequently at other Yorkshire towns, in a variety of parts, including Lady Teazle. It was at this time that she began calling herself Mrs Jordan. In 1785 she made her first London appearance at Drury Lane as Peggy in *A Country Girl*. Before the end of her first season she had become an established public favourite, her acting in comedy being declared second only to that of Kitty Clive. Her engagement at Drury Lane lasted till 1809, and she played a large variety of parts. But gradually it came to be recognized that her special talent lay in comedy, her Lady Teazle, Rosalind and Imogen being specially liked, and such "breeches" parts as William in *Rosina*. During the rebuilding of Drury Lane she played at the Haymarket; she transferred her services in 1811 to Covent Garden. Here, in 1814, she made her last appearance on the London stage, and the following year, at Margate, retired altogether. Mrs Jordan's private life was one of the scandals of the period. She had a daughter by her first manager, in Ireland, and four children by Sir Richard Ford, whose name she bore for some years. In 1790 she became the mistress of the duke of Clarence (afterwards William IV.), and bore him ten children, who were ennobled under the name of Fitz Clarence, the eldest being created earl of Munster. In 1811 they separated by mutual consent, Mrs Jordan being granted a liberal allowance. In 1815 she went abroad. According to one story she was in danger of imprisonment for debt. If so, the debt must have been incurred on behalf of others—probably her relations, who appear to have been continually borrowing from her—for her own personal debts were very much more than covered by her savings. She is generally understood to have died at St Cloud, near Paris, on the 3rd of July 1816, but the story that under an assumed name she lived for seven years after that date in England finds some credence.

See James Boaden, *Life of Mrs Jordan* (1831); *The Great Illegitimates* (1830); John Genest, *Account of the Stage*; Tate Wilkinson, *The Wandering Patentee*; *Memoirs and Amorous Adventures by Sea and Land of King William IV.* (1830); *The Georgian Era* (1838).

JORDAN, THOMAS (1612?–1685), English poet and pamphleteer, was born in London and started life as an actor at the Red Bull theatre in Clerkenwell. He published in 1637 his first volume of poems, entitled *Poeticall Varieties*, and in the same year appeared *A Pill to Purge Melancholy*. In 1639 he recited one of his poems before King Charles I., and from this time forward Jordan's output in verse and prose was continuous and prolific. He freely borrowed from other authors, and frequently re-issued his own writings under new names. During the troubles between the king and the parliament he wrote a number of Royalist pamphlets, the first of which, *A Medicine for the Times, or an Antidote against Faction*, appeared in 1641. Dedications, occasional verses, prologues and epilogues to plays poured from his pen. Many volumes of his poems bear no date, and they were probably written during the Commonwealth. At the Restoration he eulogized Monk, produced a masque at the entertainment of the general in the city of London and wrote pamphlets in his support. He then for some years devoted his chief attention to writing plays, in at least one of which, *Money is an Ass*, he himself played a part when it was produced in 1668. In 1671 he was appointed laureate to the city of London; from this date till his death in 1685 he annually composed a panegyric on the lord mayor, and arranged the pageantry of the lord mayor's shows, which he celebrated in verse under such titles as *London Triumphant, or the City in Jollity and Splendour* (1672), or *London in Lusler, Projecting many Bright Beams of Triumph* (1679). Many volumes of these curious productions are preserved in the British Museum.

In addition to his numerous printed works, of which perhaps *A Royal Arbour of Loyall Poesie* (1664) and *A Nursery of Novelties in Variety of Poetry* are most deserving of mention, several volumes of his poems exist in manuscript. W. C. Hazlitt and other 19th-century critics found more merit in Jordan's writings than was allowed by his contemporaries, who for the most part scornfully referred to his voluminous productions as commonplace and dull.

See Gerard Langbaine, *Account of the English Dramatic Poets* (1691); David Erskine Baker, *Biographia Dramatica* (4 vols., 1812); W. C. Hazlitt, *Handbook to the Popular, Poetical and Dramatic Literature of Great Britain* (1867); F. W. Fairholt, *Lord Mayors' Pageants* (Percy Society, 1843), containing a memoir of Thomas Jordan; John Gough Nichols, *London Pageants* (1831).

JORDAN, WILHELM (1819–1904), German poet and novelist, was born at Insterburg in East Prussia on the 8th of February 1819. He studied, first theology and then philosophy and natural science, at the universities of Königsberg and Berlin. He settled in Leipzig as a journalist; but the democratic views expressed in some essays and the volumes of poems *Glocke und Kanone* (1481) and *Irdische Phantasien* (1842) led to his expulsion from Saxony in 1846. He next engaged in literary and tutorial work in Bremen, and on the outbreak of the revolution, in February 1848, was sent to Paris, as correspondent of the *Bremer Zeitung*. He almost immediately, however, returned to Germany and, throwing himself into the political fray in Berlin, was elected member for Freienwalde, in the first German parliament at Frankfort-on-Main. For a short while he sided with the Left, but soon joined the party of von Gagern. On a vote having been passed for the establishment of a German navy, he was appointed secretary of the committee to deal with the whole question, and was subsequently made ministerial councillor (*Ministerialrat*) in the naval department of the government. The naval project was abandoned, Jordan was pensioned and afterwards resided at Frankfort-on-Main until his death on the 25th of June 1904, devoting himself to literary work, acting as his own publisher, and producing numerous poems, novels, dramas and translations.

Among his best known works are: *Demiurgos* (3 vols., 1852–1854), a "Mysterium," in which he attempted to deal with the problems of human existence, but the work found little favour; *Nibelunge*, an epic poem in alliterative verse, in two parts, (1) *Sigfriedsage* (1867–1868; 13th ed. 1889) and (2) *Hildebrants Heimkehr* (1874; 10th ed. 1892)—in the first part he is regarded as having been remarkably successful; a tragedy, *Die Wittwe des Agis* (1858); the comedies, *Die Liebesleugner* (1855) and *Durchs Ohr* (1870; 6th ed. 1885); and the novels *Die Sebalds* (1885) and *Zwei Wiegen* (1887). Jordan also published numerous translations, notably *Homers Odyssee* (1876; 2nd ed. 1889) and *Homers Ilias* (1881; 2nd ed. 1894); *Die Edda* (1889). He was also distinguished as a reciter, and on a visit to the United States in 1871 read extracts from his works before large audiences.

JORDAN (the down-comer; Arab. *esh-Sheri'a*, the watering-place), the only river of Palestine and one of the most remarkable in the world. It flows from north to south in a deep trough-like valley, the Aulon of the Greeks and Ghōr of the Arabs, which is usually believed to follow the line of a fault or fracture of the earth's crust. Most geologists hold that the valley is part of an old sea-bed, traces of which remain in numerous shingle-banks and beach-levels. This, they say, once extended to the Red Sea and even over N.E. Africa. Shrinkage caused the pelagic limestone bottom to be upheaved in two ridges, between which occurred a long fracture, which can now be traced from Coelesyria down the Wadi Araba to the Gulf of Akaba. The Jordan valley in its lower part keeps about the old level of the sea-bottom and is therefore a remnant of the Miocene world. This theory, however, is not universally accepted, some authorities preferring to assume a succession of more strictly local elevations and depressions, connected with the recent volcanic activity of the Jaulan and Lija districts on the east bank, which brought the contours finally to their actual form. In any case the number of distinct sea-beaches seems to imply a succession of convulsive changes, more recent than the great Miocene upheaval, which are responsible for the shrinkage of the water into the three isolated pans now found. For more than two-thirds of its course the Jordan lies below the level of the sea. It has never been navigable, no important town has ever been built on its banks, and it runs into an inland sea which has no port and is destitute of aquatic life. Throughout history it has exerted a separatist influence, roughly dividing the settled from the nomadic populations; and the crossing of Jordan, one way or the other, was always an event in the history of Israel. In Hebrew times its valley was regarded as a "wilderness" and, except in the Roman era, seems always to have been as sparsely inhabited as now. From its sources to the Dead Sea it rushes

down a continuous inclined plane, broken here and there by rapids and small falls; between the Sea of Galilee and the Dead Sea its sinuosity is so great that in a direct distance of 65 m. it traverses at least 200 m. The mean fall is about 9 ft. in the mile. The Jordan has two great sources, one in Tell el-Kadi (Dan) whence springs the Nahr Leddan, a stream 12 ft. broad at its birth; the other at Banias (anc. Paneas, Caesarea-Philippi), some 4 m. N., where the Nahr Banias issues from a cave, about 30 ft. broad. But two longer streams with less water contest their claim, the Nahr Barrighit from Coelesyria, which rises near the springs of the Litany, and the Nahr Hasbany from Hermon. The four streams unite below the fortress of Banias, which once held the gate of the valley, and flow into a marshy tract now called Huleh (Semechonitis, and perhaps Merom of Joshua. There the Jordan begins to fall below sea-level, rushing down 680 ft. in 9 m. to a delta, which opens into the Sea of Galilee. Thereafter it follows a valley which is usually not above 4 m. broad, but opens out twice into the small plains of Bethshan and Jericho. The river actually flows in a depression, the Zor, from a quarter to 2 m. wide, which it has hollowed out for itself in the bed of the Ghor. During the rainy season (January and February), when the Jordan overflows its banks, the Zor is flooded, but when the water falls it produces rich crops. The floor of the Ghor falls gently to the Zor, and is intersected by deep channels, which have been cut by the small streams and winter torrents that traverse it on their way to the Jordan. As far south as Kurn Surtabeh most of the valley is fertile, and even between that point and the Dead Sea there are several well-watered oases. In summer the heat in the Ghor is intense, 110° F. in the shade, but in winter the temperature falls to 40°, and sometimes to 32° at night. During the seasons of rain and melting snow the river is very full, and liable to freshets. After twelve hours' rain it has been known to rise from 4 to 5 ft., and to fall as rapidly. In 1257 the Jordan was dammed up for several hours by a landslip, probably due to heavy rain. On leaving the Sea of Galilee the water is quite clear, but it soon assumes a tawny colour from the soft marl which it washes away from its banks and deposits in the Dead Sea. On the whole it is an unpleasant foul stream running between poisonous banks, and as such it seems to have been regarded by the Jews and other Syrians. The Hebrew poets did not sing its praises, and others compared it unfavourably with the clear rivers of Damascus. The clay of the valley was used for brickmaking, and Solomon established brassfoundries there. From crusading times to this day it has grown sugar-cane. In Roman times it had extensive palm-groves and some small towns (*e.g.* Livias or Julias opposite Jericho) and villages. The Jordan is crossed by two stone bridges—one north of Lake Huleh, the other between that lake and the Sea of Galilee—and by a wooden bridge on the road from Jerusalem to Gilead and Moab. During the Roman period, and almost to the end of the Arab supremacy, there were bridges on all the great lines of communication between eastern and western Palestine, and ferries at other places. The depth of water varies greatly with the season. When not in flood the river is often fordable, and between the Sea of Galilee and the Dead Sea there are then more than fifty fords—some of them of historic interest. The only difficulty is occasioned by the erratic zigzag current. The natural products of the Jordan valley —a tropical oasis sunk in the temperate zone, and overhung by Alpine Hermon—are unique. Papyrus grows in Lake Huleh, and rice and cereals thrive on its shores, whilst below the Sea of Galilee the vegetation is almost tropical. The flora and fauna present a large infusion of Ethiopian types; and the fish, with which the river is abundantly stocked, have a great affinity with those of the rivers and lakes of east Africa. Ere the Jordan enters the Dead Sea, its valley has become very barren and forbidding. It reaches the lake at a minus level of 1290 ft., the depression continuing downwards to twice that depth in the bed of the Dead Sea. It receives two affluents, with perennial waters, on the left, the Yarmuk (Hieromax) which flows in from the volcanic Jaulan a little south of the Sea of Galilee, and the Zerka (Jabbok) which comes from the Belka district to a point more than half-way down the lower course. On the right the Jalud descends from the plain of Esdraelon to near Beisan, and the Far'a from near Nablus. Various salt springs rise in the lower valley. The rest of the tributaries are wadis, dry except after rains.

Such human life as may be found in the valley now is mainly migratory. The Samaritan villagers use it in winter as pasture-ground, and, with the Circassians and Arabs of the east bank, cultivate plots here and there. They retire on the approach of summer. Jericho is the only considerable settlement in the lower valley, and it lies some distance west of the stream on the lower slopes of the Judaean heights.

See W. F. Lynch, *Narrative of the U.S. Expedition*, &c. (1849); H. B. Tristram, *Land of Israel* (1865); J. Macgregor, *Rob Roy on the Jordan* (1870); A. Neubauer, *La Géographie du Talmud* (1868); E. Robinson, *Physical Geography of the Holy Land* (1865); E. Hull, *Mount Seir*, &c. (1885), and *Memoir on the Geology of Arabia Petraea*, &c. (1886); G. A. Smith, *Hist. Geography of the Holy Land* (1894); W. Libbey and F. E. Hoskins, *The Jordan Valley*, &c. (1905). See also PALESTINE.

(C. W. W.; D. G. H.)

JORDANES,[1] the historian of the Gothic nation, flourished about the middle of the 6th century. All that we certainly know about his life is contained in three sentences of his history of the Goths (cap. 50), from which, among other particulars as to the history of his family, we learn that his grandfather Paria was notary to Candac, the chief of a confederation of Alans and other tribes settled during the latter half of the 5th century on the south of the Danube in the provinces which are now Bulgaria and the Dobrudscha. Jordanes himself was the notary of Candac's nephew, the Gothic chief Gunthigis, until he took the vows of a monk. This, according to the manner of speaking of that day, is the meaning of his words *ante conversionem meam*, though it is quite possible that he may at the same time have renounced the Arian creed of his forefathers, which it is clear that he no longer held when he wrote his Gothic history. The *Getica* of Jordanes shows Gothic sympathies; but these are probably due to an imitation of the tone of Cassiodorus, from whom he draws practically all his material. He was not himself a Goth, belonging to a confederation of Germanic tribes, embracing Alans and Scyrians, which had come under the influence of the Ostrogoths settled on the lower Danube; and his own sympathies are those of a member of this confederation. He is accordingly friendly to the Goths, even apart from the influence of Cassiodorus; but he is also prepossessed in favour of the eastern emperors in whose territories this confederation lived and whose subject he himself was. This makes him an impartial authority on the last days of the Ostrogoths. At the same time, living in Moesia, he is restricted in his outlook to Danubian affairs. He has little to say of the inner history and policy of the kingdom of Theodoric: his interests lie, as Mommsen says, within a triangle of which the three points are Sirmium, Larissa and Constantinople. Finally, connected as he was with the Alans, he shows himself friendly to them, whenever they enter into his narrative.

We pass from the extremely shadowy personality of Jordanes to the more interesting question of his works.

1. The *Romana*, or, as he himself calls it, *De summa temporum vel origine actibusque gentis Romanorum*, was composed in 551. It was begun before, but published after, the *Getica*. It is a sketch of the history of the world from the creation, based on Jerome, the epitome of Florus, Orosius and the ecclesiastical history of Socrates. There is a curious reference to Iamblichus, apparently the neo-platonist philosopher, whose name Jordanes, being, as he says himself, *agrammatus*, inserts by way of a flourish. The work is only of any value for the century 450–550, when Jordanes is dealing with recent history. It is merely a hasty compilation intended to stand side by side with the *Getica*.[2]

2. The other work of Jordanes commonly called *De rebus Geticis* or *Getica*, was styled by himself *De origine actibusque*

[1] The evidence of MSS. is overwhelming against the form Jornandes. The MSS. exhibit Jordanis or Jordannis; but these are only Vulgar-Latin spellings of Jordanes.

[2] The terms of the dedication of this book to a certain Vigilius make it impossible that the pope (538–555) of that name is meant.

Getarum, and was also written in 551. He informs us that while he was engaged upon the *Romana* a friend named Castalius invited him to compress into one small treatise the twelve books —now lost—of the senator Cassiodorus, on *The Origin and Actions of the Goths*. Jordanes professes to have had the work of Cassiodorus in his hands for but three days, and to reproduce the sense not the words; but his book, short as it is, evidently contains long verbatim extracts from the earlier author, and it may be suspected that the story of the *triduana lectio* and the apology *quamvis verba non recolo*, possibly even the friendly invitation of Castalius, are mere blinds to cover his own entire want of originality. This suspicion is strengthened by the fact (discovered by von Sybel) that even the very preface to his book is taken almost word for word from Rufinus's translation of Origen's commentary on the epistle to the Romans. There is no doubt, even on Jordanes' own statements, that his work is based upon that of Cassiodorus, and that any historical worth which it possesses is due to that fact. Cassiodorus was one of the very few men who, Roman by birth and sympathies, could yet appreciate the greatness of the barbarians by whom the empire was overthrown. The chief adviser of Theodoric, the East Gothic king in Italy, he accepted with ardour that monarch's great scheme, if indeed, he did not himself originally suggest it, of welding Roman and Goth together into one harmonious state which should preserve the social refinement and the intellectual culture of the Latin-speaking races without losing the hardy virtues of their Teutonic conquerors. To this aim everything in the political life of Cassiodorus was subservient, and this aim he evidently kept before him in his Gothic history. But in writing that history Cassiodorus was himself indebted to the work of a certain Ablabius. It was Ablabius, apparently, who had first used the Gothic sagas (*prisca carmina*); it was he who had constructed the stem of the Amals. Whether he was a Greek, a Roman or a Goth we do not know; nor can we say when he wrote, though his work may be dated conjecturally in the early part of the reign of Theodoric the Great. We can only say that he wrote on the origin and history of the Goths, using both Gothic saga and Greek sources; and that if Jordanes used Cassiodorus, Cassiodorus used, if to a less extent, the work of Ablabius.

Cassiodorus began his work, at the request of Theodoric, and therefore before 526: it was finished by 533. At the root of the work lies a theory, whencesoever derived, which identified the Goths with the Scythians, whose country Darius Hystaspes invaded, and with the Getae of Dacia, whom Trajan conquered. This double identification enabled Cassiodorus to bring the favoured race into line with the peoples of classical antiquity, to interweave with their history stories about Hercules and the Amazons, to make them invade Egypt, to claim for them a share in the wisdom of the semi-mythical Scythian philosopher Zamolxis. He was thus able with some show of plausibility to represent the Goths as "wiser than all the other barbarians and almost like the Greeks" (Jord., *De reb. Get.*, cap. v.), and to send a son of the Gothic king Telephus to fight at the siege of Troy, with the ancestors of the Romans. All this we can now perceive to have no relation to history, but at the time it may have made the subjugation of the Roman less bitter to feel that he was not after all bowing down before a race of barbarian upstarts, but that his Amal sovereign was as firmly rooted in classical antiquity as any Julius or Claudius who ever wore the purple. In the eighteen years which elapsed between 533 and the composition of the *Getica* of Jordanes, great events, most disastrous for the Romano-Gothic monarchy of Theodoric, had taken place. It was no longer possible to write as if the whole civilization of the Western world would sit down contentedly under the shadow of East Gothic dominion and Amal sovereignty. And, moreover, the instincts of Jordanes, as a subject of the Eastern Empire, predisposed him to flatter the sacred majesty of Justinian, by whose victorious arms the overthrow of the barbarian kingdom in Italy had been effected. Hence we perceive two currents of tendency in the *Getica*. On the one hand, as a transcriber of the philo-Goth Cassiodorus, he magnifies the race of Alaric and Theodoric, and claims for them their full share, perhaps more than their full share, of glory in the past. On the other hand he speaks of the great anti-Teuton emperor Justinian, and of his reversal of the German conquests of the 5th century, in language which would certainly have grated on the ears of Totila and his heroes. When Ravenna is taken, and Vitigis carried into captivity, Jordanes almost exults in the fact that "the nobility of the Amals and the illustrious offspring of so many mighty men have surrendered to a yet more illustrious prince and a yet mightier general, whose fame shall not grow dim through all the centuries." (*Getica*, lx. § 315).

This laudation, both of the Goths and of their Byzantine conquerors, may perhaps help us to understand the motive with which the *Getica* was written. In the year 551 Germanus, nephew of Justinian, accompanied by his bride, Matasuntha, grand-daughter of Theodoric, set forth to reconquer Italy for the empire. His early death prevented any schemes for a revived Romano-Gothic kingdom which may have been based on his personality. His widow, however, bore a posthumous child, also named Germanus, of whom Jordanes speaks (cap. 60) as "blending the blood of the Anicii and the Amals, and furnishing a hope under the divine blessing of one day uniting their glories." This younger Germanus did nothing in after life to realize these anticipations; but the somewhat pointed way in which his name and his mother's name are mentioned by Jordanes lends some probability to the view that he hoped for the child's succession to the Eastern Empire, and the final reconciliation of the Goths and Romans in the person of a Gotho-Roman emperor.

The *De rebus Geticis* falls naturally into four parts. The first (chs. i.–xiii.) commences with a geographical description of the three quarters of the world, and in more detail of Britain and Scanzia (Sweden), from which the Goths under their king Berig migrated to the southern coast of the Baltic. Their migration across what has since been called Lithuania to the shores of the Euxine, and their differentiation into Visigoths and Ostrogoths, are nest described. Chs. v.–xiii. contain an account of the intrusive Geto-Scythian element before alluded to.

The second section (chs. xiv.–xxiv.) returns to the true history of the Gothic nation, sets forth the genealogy of the Amal kings, and describes the inroads of the Goths into the Roman Empire in the 3rd century, with the foundation and the overthrow of the great but somewhat shadowy kingdom of Hermanric.

The third section (chs. xxv.–xlvii.) traces the history of the West Goths from the Hunnish invasion to the downfall of the Gothic kingdom in Gaul under Alaric II. (376–507). The best part of this section, and indeed of the whole book, is the seven chapters devoted to Attila's invasion of Gaul and the battle of the Mauriac plains. Here we have in all probability a verbatim extract from Cassiodorus, who (possibly resting on Ablabius) interwove with his narrative large portions of the Gothic sagas. The celebrated expression *certaminis gaudia* assuredly came at first neither from the suave minister Cassiodorus nor from the small-souled notary Jordanes, but is the translation of some thought which first found utterance through the lips of a Gothic minstrel.

The fourth section (chs. xlviii.–lx.) traces the history of the East Goths from the same Hunnish invasion to the first overthrow of the Gothic monarchy in Italy (376–539). In this fourth section are inserted, somewhat out of their proper place, some valuable details as to the *Gothi Minores*, "an immense people dwelling in the region of Nicopolis, with their high priest and primate Vulfilas, who is said also to have taught them letters." The book closes with the allusion to Germanus and the panegyric on Justinian as the conqueror of the Goths referred to above.

Jordanes refers in the *Getica* to a number of authors besides Cassiodorus; but he owes his knowledge of them to Cassiodorus. It is perhaps only when he is using Orosius that we can hold Jordanes to have borrowed directly. Otherwise, as Mommsen says, the *Getica is* a *mera epitome, laxata ea et perversa, historiae Gothicae Cassiodorianae*.

As to the style and literary character of Jordanes, every author who has used him speaks in terms of severe censure. When he is left to himself and not merely transcribing, he is sometimes scarcely grammatical. There are awkward gaps in his narrative and statements inconsistent with each other. He quotes, as if he were familiarly acquainted with their writings, a number of Greek and Roman writers, of whom it is almost certain that he had not read more than one or two. At the same time he does not quote the chronicler Marcellinus, from whom he has copied verbatim the history of the deposition of Augustulus. All these faults make him a peculiarly unsatisfactory authority where we cannot check his statements by those of other authors. It may, however, be pleaded in extenuation that he is professedly a transcriber, and, if

his story be correct, a transcriber in peculiarly unfavourable circumstances. He has also himself suffered much from the inaccuracy of copyists. But nothing has really been more unfortunate for the reputation of Jordanes as a writer than the extreme preciousness of the information which he has preserved to us. The Teutonic tribes whose dim origins he records have in the course of centuries attained to world-wide dominion. The battle in the Mauriac plains of which he is really the sole historian, is now seen to have had important bearings on the destinies of the world. And thus the hasty pamphlet of a half-educated Gothic monk has been forced into prominence, almost into rivalry with the finished productions of the great writers of classical antiquity. No wonder that it stands the comparison badly; but with all its faults the *Getica* of Jordanes will probably ever retain its place side by side with the *De moribus Germanorum* of Tacitus as a chief source of information respecting the history, institutions and modes of thought of our Teutonic forefathers.

EDITIONS.—The classical edition is that of Mommsen (in *Mon. Germ. hist. auct. antiq.*, v., ii.), which supersedes the older editions, such as that in the first volume of Muratori's *Scriptt. rer. Ital.* The best MS. is the Heidelberg MS., written in Germany, probably in the 8th century; but this perished in the fire at Mommsen's house. The next of the MSS. in value are the Vaticanus Palatinus of the 10th century, and the Valenciennes MS. of the 9th.

AUTHORITIES.—Von Sybel's essay, *De fontibus Jordanis* (1838); Schirren's *De ratione quae inter Jordanem et Cassiodorum intercedat Commentatio* (Dorpat, 1858); Kopke's *Die Anfänge des Königthums bei den Gothen* (Berlin, 1859); Dahn's *Die Könige der Germanen*, vol. ii. (Munich, 1861); Ebert's *Geschichte der Christlich-Lateinischen Literatur* (Leipsic, 1874); Wattenbach's *Deutschlands Geschichtsquellen im Mittelalter* (Berlin, 1877); and the introduction of Mommsen to his edition. (T. H.; E. BR.)

JORDANUS (JORDAN CATALANI) (*fl.* 1321–1330), French Dominican missionary and explorer in Asia, was perhaps born at Séverac in Aveyron, north-east of Toulouse. In 1302 he may have accompanied the famous Thomas of Tolentino, via Negropont, to the East; but it is only in 1321 that we definitely discover him in western India, in the company of the same Thomas and certain other Franciscan missionaries on their way to China. Ill-luck detained them at Tana in Salsette island, near Bombay; and here Jordanus' companions ("the four martyrs of Tana") fell victims to Moslem fanaticism (April 7, 1321). Jordanus, escaping, worked some time at Baruch in Gujarat, near the Nerbudda estuary, and at Suali (?) near Surat; to his fellow-Dominicans in north Persia he wrote two letters —the first from Gogo in Gujarat (October 12, 1321), the second from Tana (January 24, 1323/4)—describing the progress of this new mission. From these letters we learn that Roman attention had already been directed, not only to the Bombay region, but also to the extreme south of the Indian peninsula, especially to "Columbum," Quilon, or Kulam in Travancore; Jordanus' words may imply that he had already started a mission there before October 1321. From Catholic traders he had learnt that Ethiopia (*i.e.* Abyssinia and Nubia) was accessible to Western Europeans; at this very time, as we know from other sources, the earliest Latin missionaries penetrated thither. Finally, the *Epistles* of Jordanus, like the contemporary *Secreta* of Marino Sanuto (1306–1321), urge the pope to establish a Christian fleet upon the Indian seas. Jordanus, between 1324 and 1328 (if not earlier), probably visited Kulam and selected it as the best centre for his future work; it would also appear that he revisited Europe about 1328, passing through Persia, and perhaps touching at the great Crimean port of Soldaia or Sudak. He was appointed a bishop in 1328 and nominated by Pope John XXII. to the see of Columbum in 1330. Together with the new bishop of Samarkand, Thomas of Mancasola, Jordanus was commissioned to take the pall to John de Cora, archbishop of Sultaniyah in Persia, within whose province Kulam was reckoned; he was also commended to the Christians of south India, both east and west of Cape Comorin, by Pope John. Either before going out to Malabar as bishop, or during a later visit to the west, Jordanus probably wrote his *Mirabilia*, which from internal evidence can only be fixed within the period 1329–1338; in this work he furnished the best account of Indian regions, products, climate, manners, customs, fauna and flora given by any European in the Middle Ages—superior even to Marco Polo's. In his triple division of the Indies, India Major comprises the shorelands from Malabar to Cochin China; while India Minor stretches from Sind (or perhaps from Baluchistan) to Malabar; and India Tertia (evidently dominated by African conceptions in his mind) includes a vast undefined coast-region west of Baluchistan, reaching into the neighbourhood of, but not including, Ethiopia and Prester John's domain. Jordanus' *Mirabilia* contains the earliest clear African identification of Prester John, and what is perhaps the first notice of the Black Sea under that name; it refers to the author's residence in India Major and especially at Kulam, as well as to his travels in Armenia, north-west Persia, the Lake Van region, and Chaldaea; and it supplies excellent descriptions of Parsee doctrines and burial customs, of Hindu ox-worship, idol-ritual, and suttee, and of Indian fruits, birds, animals and insects. After the 8th of April 1330 we have no more knowledge of Bishop Jordanus.

Of Jordanus' *Epistles* there is only one MS., viz. Paris, National Library, 5006 Lat., fol. 182, r. and v.; of the *Mirabilia* also one MS. only, viz. London, British Museum, *Additional MSS.*, 19,513, fols. 3, r.–12 r. The text of the *Epistles* is in Quétif and Echard, *Scriptores ordinis praedicatorum*, i. 549–550 (Epistle I.); and in Wadding, *Annales minorum*, vi. 359–361 (Epistle II.); the text of the *Mirabilia* in the Paris Geog. Soc.'s *Recueil de voyages*, iv. 1–68 (1839). The Papal letters referring to Jordanus are in Raynaldus, *Annales ecclesiastici, 1330*, §§ lv. and lvii (April 8; Feb. 14). See also Sir H. Yule's *Jordanus*, a version of the *Mirabilia* with a commentary (Hakluyt Soc., 1863) and the same editor's *Cathay*, giving a version of the *Epistles*, with a commentary, &c. (Hak. Soc., 1866) pp. 184–185, 192–196, 225–230; F. Kunstmann, "Die Mission in Meliapor und Tana" and "Die Mission in Columbo" in the *Historisch-politische Blätter* of Phillips and Görres, xxxvii. 25–38, 135–152 (Munich, 1856), &c.; C. R. Beazley, *Dawn of Modern Geography*, iii. 215–235. (C. R. B.)

JORIS, DAVID, the common name of JAN JORISZ or JORISZOON (*c.* 1501–1556), Anabaptist heresiarch who called himself later JAN VAN BRUGGE; was born in 1501 or 1502, probably in Flanders, at Ghent or Bruges. His father, Georgius Joris de Koman, otherwise Joris van Amersfoordt, probably a native of Bruges, was a shopkeeper and amateur actor at Delft; from the circumstance that he played the part of King David, his son received the name of David, but probably not in baptism. His mother was Marytje, daughter of Jan de Gorter, of a good family in Delft. As a child he was clever and delicate. He seems then or later to have acquired some tincture of learning. His first known occupation was that of a glass-painter; in 1522 he painted windows for the church at Enkhuizen, North Holland (the birthplace of Paul Potter). In pursuit of his art he travelled, and is said to have reached England; ill-health drove him homewards in 1524, in which year he married Dirckgen Willems at Delft. In the same year the Lutheran reformation took hold of him, and he began to issue appeals in prose and verse against the Mass and against the pope as antichrist. On Ascension Day 1528 he committed an outrage on the sacrament carried in procession; he was placed in the pillory, had his tongue bored, and was banished from Delft for three years. He turned to the Anabaptists, was rebaptized in 1533, and for some years led a wandering life. He came into relations with John à Lasco, and with Menno Simons. Much influenced by Melchior Hofman, he had no sympathy with the fanatic violence of the Münster faction. At the Buckholdt conference in August 1536 he played a mediating part. His mother, in 1537, suffered martyrdom as an Anabaptist. Soon after he took up a rôle of his own, having visions and a gift of prophecy. He adapted in his own interest the theory (constantly recurrent among mystics and innovators, from the time of Abbot Joachim to the present day) of three dispensations, the old, with its revelation of the Father, the newer with its revelation of the Son, and the final or era of the Spirit. Of this newest revelation Christus David was the mouthpiece, supervening on Christus Jesus. From the 1st of April 1544, bringing with him some of his followers, he took up his abode in Basel, which was to be the New Jerusalem. Here he styled himself Jan van Brugge. His identity was unknown to the authorities of Basel, who had no suspicion of his heresies. By his writings he maintained his hold on his numerous followers in Holland and Friesland. These monotonous writings, all in Dutch, flowed in a continual stream from 1524 (though none is

extant before 1529) and amounted to over 200 in number. His *magnum opus* was *'T Wonder Boeck* (*n.d.* 1542, divided into two parts; 1551, handsomely reprinted, divided into four parts; both editions anonymous). Its chief claim to recognition is its use, in the latter part, of the phrase *Restitutio Christi*, which apparently suggested to Servetus his title *Christianismi Restitutio* (1553). In the 1st edition is a figure of the "new man," signed with the author's monogram, and probably drawn as a likeness of himself; it fairly corresponds with the alleged portrait, engraved in 1607, reproduced in the appendix to A. Ross's *Pansebeia* (1655), and idealized by P. Burckhardt in 1900. Another work, *Verklaringe der Scheppenissen* (1553) treats mystically the book of Genesis, a favourite theme with Boehme, Swedenborg and others. His remaining writings exhibit all that easy dribble of triumphant muddiness which disciples take as depth. His wife died on the 22nd of August, and his own death followed on the 25th of August 1556. He was buried, with all religious honours, in the church of St Leonard, Basel. Three years later, Nicolas Blesdijk, who had married his eldest daughter Jannecke (Susanna), but had lost confidence in Jorisz some time before his death, denounced the dead man to the authorities of Basel. An investigation was begun in March 1559, and as the result of a conviction for heresy the exhumed body of Jorisz was burned, together with his portrait, on the 13th of May 1559. Blesdijk's *Historia* (not printed till 1642) accuses Jorisz of having *plures uxores*. Of this there is no confirmation. Theoretically Jorisz regarded polygamy as lawful; there is no proof that his theory affected his own practice.

The first attempt at a true account of Jorisz was by Gottfried Arnold, in his anonymous *Historia* (1713), pursued with much fuller material in his *Kirchen und Ketzer Historie* (best ed. 1740–1742). See also F. Nippold, in *Zeitschrift für die historische Theologie* (1863, 1864, 1868); A. van der Linde, in *Allgemeine Deutsche Biographie* (1881); P. Burckhardt, *Basler Biographien* (1900); Hegler, in Hauck's *Realencyklopädie* (1901), and the bibliography by A. van der Linde, 1867, supplemented by E. Weller, 1869. (A. Go.*)

JORTIN, JOHN (1698–1770), English theologian, the son of a Protestant refugee from Brittany, was born in London on the 23rd of October 1698. He went to Charterhouse School, and in 1715 became a pensioner of Jesus College, Cambridge, where his reputation as a Greek scholar led to his being selected to translate certain passages from Eustathius for the notes to Pope's *Homer*. In 1722 he published a small volume of Latin verse entitled *Lusus poetici*. Having taken orders in 1724, he was in 1726 presented by his college to the vicarage of Swavesey in Cambridgeshire, which he resigned in 1730 to become preacher at a chapel-of-ease in New Street, London. In 1731, along with some friends, he began a publication entitled *Miscellaneous Observations on Authors Ancient and Modern*, which appeared at intervals during two years. He was Boyle lecturer in 1749. Shortly after becoming chaplain to the bishop of London in 1762 he was appointed to a prebendal stall of St Paul's and to the vicarage of Kensington, and in 1764 he was made archdeacon of London. He died at Kensington on the 5th of September 1770.

The principal works of Jortin are: *Discussions Concerning the Truth of the Christian Religion* (1746); *Remarks on Ecclesiastical History* (3 vols. 1751–2–4); *Life of Erasmus* (2 vols. 1750, 1760) founded on the Life by Jean Le Clerc; and *Tracts Philological Critical and Miscellaneous* (1790). A collection of his *Various Works* appeared in 1805–1810. All his writings display wide learning and acuteness. He writes on theological subjects with the detachment of a thoughtful layman, and is witty without being flippant. See John Disney's *Life of Jortin* (1792).

JOSEPH, in the Old Testament, the son of the patriarch Jacob by Rachel; the name of a tribe of Israel. Two explanations of the name are given by the Biblical narrator (Gen. xxx. 23 [E], 24 [J]); a third, "He (God) increases," seems preferable. Unlike the other "sons" of Jacob, Joseph is usually reckoned as two tribes (viz. his "sons" Ephraim and Manasseh), and closely associated with it is the small tribe of Benjamin (*q.v.*), which lay immediately to the south. These three constituted the "sons" of Rachel (the ewe), and with the "sons" of Leah (the antelope?) are thus on a higher level than the "sons" of Jacob's concubines. The "house of Joseph" and its offshoots occupied the centre of Palestine from the plain of Esdraelon to the mountain country of Benjamin, with dependencies in Bashan and northern Gilead (see MANASSEH). Practically it comprised the northern kingdom, and the name is used in this sense in 2 Sam. xix. 20; Amos v. 6; vi. 6 (note the prominence of Joseph in the blessings of Jacob and Moses, Gen. xlix., Deut. xxxiii.). Originally, however, "Joseph" was more restricted, possibly to the immediate neighbourhood of Shechem, its later extension being parallel to the development of the name Jacob. The dramatic story of the tribal ancestor is recounted in Gen. xxxvii.–l. (see GENESIS). Joseph, the younger and envied son, is seized by his brothers at Dothan north of Shechem, and is sold to a party of Ishmaelites or Midianites, who carry him down to Egypt. After various vicissitudes he gains the favour of the king of Egypt by the interpretation of a dream, and obtains a high place in the kingdom.[1] Forced by a famine his brothers come to buy food, and in the incidents that follow Joseph shows his preference for his young brother Benjamin (cf. the tribal data above). His father Jacob is invited to come to Goshen, where a settlement is provided for the family and their flocks. This is followed many years later by the exodus, the conquest of Palestine, and the burial of Joseph's body in the grave at Shechem which his father had bought.

The history of Joseph in Egypt displays some familiarity with the circumstances and usages of that country; see Driver (Hastings's *D.B.*) and Cheyne (*Ency. Bib.*, col. 2589 seq.); although Abrech (xli. 43), possibly the Egyptian *ib rk* (Crum, in Hastings's *D.B.*, i. 665), has been otherwise connected with the Assyrian *abarakku* (a high officer). An interesting parallel to the story of Joseph in Gen. xxxix. is found in the Egyptian tale of *The Two Brothers* (Petrie, *Eg. Tales*, 2nd series, p. 36 seq., 1895), which dates from about 1500 B.C., but the differences are not inconsiderable compared with the points of resemblance, and the tale has features which are almost universal (Frazer, *Golden Bough*, 2nd ed., vol. iii. 351 seq.). On the theory that the historical elements of Joseph's history refer to an official (Yanḥamu) of the time of Amenophis III. and IV., see Cheyne, *op. cit.*, and *Hibbert Journal*, October 1903. That the present form of the narrative has been influenced by current mythological lore is not improbable; on this question see (with caution) Winckler, *Gesch. Israels*, ii. 67–77 (1900); A. Jeremias, *Alte Test.*, pp. 383 sqq. (1906). It may be added that the Egyptian names in the story of Joseph are characteristic of the XXII. and subsequent dynasties. See, also, Meyer and Luther, *Die Israeliten* (1906), Index, *s.v.* (S. A. C.)

JOSEPH, in the New Testament, the husband of Mary, the mother of Jesus. He is represented as a descendant of the house of David, and his genealogy appears in two divergent forms in Matt. i. 1–17 and Luke iii. 23–38. The latter is probably much more complete and accurate in details. The former, obviously artificial in structure (notice 3×14 generations), traces the Davidic descent through kings, and is governed by an apologetic purpose. Of Joseph's personal history practically nothing is recorded in the Bible. The facts concerning him common to the two birth-narratives (Matt. i.–ii.; Luke i.–ii.) are: (*a*) that he was a descendant of David, (*b*) that Mary was already betrothed to him when she was found with child of the Holy Ghost, and (*c*) that he lived at Nazareth after the birth of Christ; but these facts are handled differently in each case. It is noticeable that, in Matthew, Joseph is prominent (*c.g.* he receives an annunciation from an angel), while in Luke's narrative he is completely subordinated. Bp Gore (*The Incarnation*, Bampton lecture for 1891, p. 78) points out that Matthew narrates everything from Joseph's side, Luke from Mary's, and infers that the narrative of the former may ultimately be based on Joseph's account, that of the latter on Mary's. The narratives seem to have been current (in a poetical form) among the early Jewish-Christian community of Palestine. At Nazareth Joseph followed the trade of a carpenter (Matt. xiii. 55). It is probable that he had died before the public ministry of Christ; for no mention is made of him in passages relating to this period where the mother and brethren of Jesus are

[1] Joseph's marriage with the daughter of the priest of On might show that the tribes of Ephraim and Manasseh were believed to be half-Egyptian by descent, but it is notoriously difficult to determine how much is of ethnological value and how much belongs to romance (viz. that of the individual Joseph).

introduced; and from John xix. 26 it is clear that he was not alive at the time of the Crucifixion.

Joseph was the father of several children (Matt. xiii. 55), but according to ecclesiastical tradition by a former marriage. The reading of Matt. i. 16, in the Sinaitic Palimpsest (*Joseph . . . . begat Jesus, who is called the Christ*) also makes him the natural father of Jesus, and this was the view of certain early heretical sects, but it seems never to have been held in orthodox Christian circles. According to various apocryphal gospels (conveniently collected in B. H. Cowper's *The Apocryphal Gospels*, 1881), when married to Mary he was a widower already 80 years of age, and the father of four sons and two daughters; his first wife's name was Salome and she was a connexion of the family of John the Baptist.

In the Roman Catholic Church the 19th of March has since 1642 been a feast in Joseph's honour. Two other festivals in his honour have also been established (the Patronage of St Joseph, 3rd Sunday after Easter, and the Betrothal of Mary and Joseph, 23rd of January). In December 1870 St Joseph was proclaimed Patron of the whole Church. (G. H. Bo.)

JOSEPH OF ARIMATHAEA,[1] in the New Testament, a wealthy Jew who had been converted by Jesus Christ. He is mentioned by the Four Evangelists, who are in substantial agreement concerning him: after the Crucifixion he went to Pilate and asked for the body of Jesus, subsequently prepared it for burial and laid it in a tomb. There are, however, minor differences in the accounts, which have given rise to controversy. Matthew (xxvii. 60) says that the tomb was Joseph's own; Mark (xv. 43 seq.), Luke (xxiii. 50 seq.) say nothing of this, while John (xix. 41) simply says that the body was laid in a sepulchre "nigh at hand." Both Mark and Luke say that Joseph was a "councillor" (*εὐσχήμων βουλευτής*, Mark xv. 43), and the Gospel of Peter describes him as a "friend of Pilate and of the Lord." This last statement is probably a late invention, and there is considerable difficulty as to "councillor." That Joseph was a member of the Sanhedrin is improbable. Luke indeed, regarding him as such, says that he "had not consented to their counsel and deed," but Mark (xiv. 64) says that *all* the Sanhedrin "condemned him to be worthy of death." Perhaps the phrase "noble councillor" is intended to imply merely a man of wealth and position. Again Matthew says that Joseph was a disciple, while Mark implies that he was not yet among the definite adherents of Christ, and John describes him as an adherent "secretly for fear of the Jews." Most likely he was a disciple, but belonged only to the wider circle of adherents. The account given in the Fourth Gospel suggests that the writer, faced with these various difficulties, assumed a double tradition: (1) that Joseph of Arimathaea, a wealthy disciple, buried the body of Christ; (2) that the person in question was Joseph of Arimathaea a "councillor," and solved the problem by substituting Nicodemus as the councillor; hence he describes both Joseph and Nicodemus (xix. 39) as co-operating in the burial. Some critics (*e.g.* Strauss, *New Life of Jesus*, ch. 96) have thrown doubt upon the story, regarding some of the details as invented to suit the prophecy in Isa. liii. 9, "they made his grave with the wicked, and with the rich in his death" (for various translations, see Hastings's *Dict. Bible*, ii. 778). But in the absence of any reference to this prophecy in the Gospels, this view is unconvincing, though the correspondence is remarkable.

The striking character of this single appearance of Joseph of Arimathaea led to the rise of numerous legends. Thus William of Malmesbury says that he was sent to Britain by St Philip, and, having received a small island in Somersetshire, there constructed "with twisted twigs" the first Christian church in Britain—afterwards to become the Abbey of Glastonbury. The legend says that his staff, planted in the ground, became a thorn flowering twice a year (see GLASTONBURY). This tradition—which is given only as such by Malmesbury himself—is not confirmed, and there is no mention of it in either Gildas or Bede. Joseph also plays a large part in the various versions of the Legend of the Holy Grail (see GRAIL, THE HOLY).

[1] Generally identified with Ramathaim-Zophim, the city of Elkanah in the hilly district of Ephraim (1 Sam. i. 1), near Diospolis (Lydda). See Euseb., *Onomasticon*, 225. 12.

JOSEPH I. (1678–1711), Roman emperor, was the elder son of the emperor Leopold I. and his third wife, Eleanora, countess palatine, daughter of Philip William of Neuburg. Born in Vienna on the 26th of July 1678, he was educated strictly by Prince Dietrich Otto von Salm, and became a good linguist. In 1687 he received the crown of Hungary, and he was elected king of the Romans in 1690. In 1699 he married Wilhelmina Amalia, daughter of Duke Frederick of Brunswick-Lüneburg, by whom he had two daughters. In 1702, on the outbreak of the War of the Spanish Succession, he saw his only military service. He joined the imperial general Louis of Baden in the siege of Landau. It is said that when he was advised not to go into a place of danger he replied that those who were afraid might retire. He succeeded his father as emperor in 1705, and it was his good fortune to govern the Austrian dominions, and to be head of the Empire during the years in which his trusted general Prince Eugène, either acting alone in Italy or with the duke of Marlborough in Germany and Flanders, was beating the armies of Louis XIV. During the whole of his reign Hungary was disturbed by the conflict with Francis Rákóczy II., who eventually took refuge in France. The emperor did not himself take the field against the rebels, but he is entitled to a large share of the credit for the restoration of his authority. He reversed many of the pedantically authoritative measures of his father, thus placating all opponents who could be pacified, and he fought stoutly for what he believed to be his rights. Joseph showed himself very independent towards the pope, and hostile to the Jesuits, by whom his father had been much influenced. He had the tastes for art and music which were almost hereditary in his family, and was an active hunter. He began the attempts to settle the question of the Austrian inheritance by a pragmatic sanction, which were continued by his brother Charles VI. Joseph died in Vienna on the 17th of April 1711, of small-pox.

See F. Krones von Marchland, *Grundriss der Oesterreichischen Geschichte* (1882); F. Wagner, *Historia Josephi Caesaris* (1746); J. C. Herchenhahn, *Geschichte der Regierung Kaiser Josephs I.* (1786–1789); C. van Noorden, *Europäische Geschichte im 18. Jahrhundert* (1870–1882).

JOSEPH II. (1741–1790), Roman emperor, eldest son of the empress Maria Theresa and her husband Francis I., was born on the 13th of March 1741, in the first stress of the War of the Austrian Succession. Maria Theresa gave orders that he was only to be taught as if he were amusing himself; the result was that he acquired a habit of crude and superficial study. His real education was given him by the writings of Voltaire and the encyclopaedists, and by the example of Frederick the Great. His useful training was conferred by government officials, who were directed to instruct him in the mechanical details of the administration of the numerous states composing the Austrian dominions and the Empire. In 1761 he was made a member of the newly constituted council of state (*Staatsrath*) and began to draw up minutes, to which he gave the name of "reveries," for his mother to read. These papers contain the germs of his later policy, and of all the disasters which finally overtook him. He was a friend to religious toleration, anxious to reduce the power of the church, to relieve the peasantry of feudal burdens, and to remove restrictions on trade and on knowledge. So far he did not differ from Frederick, Catherine of Russia or his own brother and successor Leopold II., all enlightened rulers of the 18th-century stamp. Where Joseph differed from great contemporary rulers, and where he was very close akin to the Jacobins, was in the fanatical intensity of his belief in the power of the state when directed by reason, of his right to speak for the state uncontrolled by laws, and of the reasonableness of his own reasons. Also he had inherited from his mother all the belief of the house of Austria in its "august" quality, and its claim to acquire whatever it found desirable for its power or its profit. He was unable to understand that his philosophical plans for the moulding of mankind could meet with pardonable opposition. The overweening character of the man was obvious

to Frederick, who, after their first interview in 1769, described him as ambitious, and as capable of setting the world on fire. The French minister Vergennes, who met Joseph when he was travelling incognito in 1777, judged him to be "ambitious and despotic."

Until the death of his mother in 1780 Joseph was never quite free to follow his own instincts. After the death of his father in 1765 he became emperor and was made co-regent by his mother in the Austrian dominions. As emperor he had no real power, and his mother was resolved that neither husband nor son should ever deprive her of sovereign control in her hereditary dominions. Joseph, by threatening to resign his place as co-regent, could induce his mother to abate her dislike to religious toleration. He could, and he did, place a great strain on her patience and temper, as in the case of the first partition of Poland and the Bavarian War of 1778, but in the last resort the empress spoke the final word. During these wars Joseph travelled much. He met Frederick the Great privately at Neisse in 1769, and again at Mährisch-Neustadt in 1770. On the second occasion he was accompanied by Prince Kaunitz, whose conversation with Frederick may be said to mark the starting-point of the first partition of Poland. To this and to every other measure which promised to extend the dominions of his house Joseph gave hearty approval. Thus he was eager to enforce its claim on Bavaria upon the death of the elector Maximilian Joseph in 1777. In April of that year he paid a visit to his sister the queen of France (see MARIE ANTOINETTE), travelling under the name of Count Falkenstein. He was well received, and much flattered by the encyclopaedists, but his observations led him to predict the approaching downfall of the French monarchy, and he was not impressed favourably by the army or navy. In 1778 he commanded the troops collected to oppose Frederick, who supported the rival claimant to Bavaria. Real fighting was averted by the unwillingness of Frederick to embark on a new war and by Maria Theresa's determination to maintain peace. In April 1780 he paid a visit to Catherine of Russia, against the wish of his mother.

The death of Maria Theresa on the 27th of November 1780 left Joseph free. He immediately directed his government on a new course, full speed ahead. He proceeded to attempt to realize his ideal of a wise despotism acting on a definite system for the good of all. The measures of emancipation of the peasantry which his mother had begun were carried on by him with feverish activity. The spread of education, the secularization of church lands, the reduction of the religious orders and the clergy in general to complete submission to the lay state, the promotion of unity by the compulsory use of the German language, everything which from the point of view of 18th-century philosophy appeared "reasonable" was undertaken at once. He strove for administrative unity with characteristic haste to reach results without preparation. His anti-clerical innovations induced Pope Pius VI. to pay him a visit in July 1782. Joseph received the pope politely, and showed himself a good Catholic, but refused to be influenced. So many interferences with old customs began to produce unrest in all parts of his dominions. Meanwhile he threw himself into a succession of foreign policies all aimed at aggrandisement, and all equally calculated to offend his neighbours—all taken up with zeal, and dropped in discouragement. He endeavoured to get rid of the Barrier Treaty, which debarred his Flemish subjects from the navigation of the Scheldt; when he was opposed by France he turned to other schemes of alliance with Russia for the partition of Turkey and Venice. They also had to be given up in the face of the opposition of neighbours, and in particular of France. Then he resumed his attempts to obtain Bavaria—this time by exchanging it for Belgium—and only provoked the formation of the *Fürstenbund* organized by the king of Prussia. Finally he joined Russia in an attempt to pillage Turkey. It began on his part by an unsuccessful and discreditable attempt to surprise Belgrade in time of peace, and was followed by the ill-managed campaign of 1788. He accompanied his army, but showed no capacity for war. In November he returned to Vienna with ruined health, and during 1789 was a dying man. The concentration of his troops in the east gave the malcontents of Belgium an opportunity to revolt. In Hungary the nobles were all but in open rebellion, and in his other states there were peasant risings, and a revival of particularist sentiments. Joseph was left entirely alone. His minister Kaunitz refused to visit his sick-room, and did not see him for two years. His brother Leopold remained at Florence. At last Joseph, worn out and broken-hearted, recognized that his servants could not, or would not, carry out his plans. On the 30th of January 1790 he formally withdrew all his reforms, and he died on the 20th of February.

Joseph II. was twice married, first to Isabella, daughter of Philip, duke of Parma, to whom he was attached. After her death on the 27th of November 1763, a political marriage was arranged with Josepha (d. 1767), daughter of Charles Albert, elector of Bavaria (the emperor Charles VII.). It proved extremely unhappy. Joseph left no children, and was succeeded by his brother Leopold II.

Many volumes of the emperor's correspondence have been published. Among them are *Maria Theresia und Joseph II. Ihre Korrespondenz samt Briefen Josephs an seinen Bruder Leopold* (1867–1868); *Joseph II. und Leopold von Toskana. Ihr Briefwechsel 1781–1790* (1872); *Joseph II. und Katharina von Russland. Ihr Briefwechsel* (1869); and *Maria Antoinette, Joseph II. und Leopold II. Ihr Briefwechsel* (1866); all edited by A. Ritter von Arneth. Other collections are: *Joseph II., Leopold II. und Kaunitz. Ihr Briefwechsel*, edited by A. Beer (1873); *Correspondances intimes de l'empereur Joseph II. avec son ami, le comte de Cobenzl et son premier ministre, le prince de Kaunitz*, edited by S. Brunner (1871); *Joseph II. und Graf Ludwig Cobenzl. Ihr Briefwechsel*, edited by A. Beer and J. von Fiedler (1901); and the *Geheime Korrespondenz Josephs II. mit seinem Minister in den Oesterreichischen Niederlanden, Ferdinand Graf Trauttmannsdorff 1787–1789*, edited by H. Schlitter (1902). Among the lives of Joseph may be mentioned: A. J. Gross-Hoffinger, *Geschichte Josephs II.* (1847); C. Paganel, *Histoire de Joseph II.* (1843; German translation by F. Köhler, 1844); H. Meynert, *Kaiser Joseph II.* (1862); A. Beer, *Joseph II.* (1882); A. Jäger, *Kaiser Joseph II. und Leopold II.* (1867); A. Fournier, *Joseph II.* (1885); and J. Wendrinski, *Kaiser Joseph II.* (1880). There is a useful small volume on the emperor by J. Franck Bright (1897). Other books which may be consulted are: G. Wolf, *Das Unterrichtswesen in Oesterreich unter Joseph II.* (1880), and *Oesterreich und Preussen 1780–1790* (1880), A. Wolf and H. von Zwiedeneck-Südenhorst, *Oesterreich unter Maria Theresia, Joseph II. und Leopold II.* (1882–1884); H. Schlitter, *Die Regierung Josephs II. in den Oesterreichischen Niederlanden* (1900); and *Pius VI. und Joseph II. 1782–1784* (1894); O. Lorenz, *Joseph II. und die Belgische Revolution* (1862); and L. Delplace, *Joseph II. et la révolution brabançonne* (1890).

JOSEPH, FATHER (FRANÇOIS LECLERC DU TREMBLAY) (1577–1638), French Capuchin monk, the confidant of Richelieu, was the eldest son of Jean Leclerc du Tremblay, president of the chamber of requests of the parlement of Paris, and of Marie Motier de Lafayette. As a boy he received a careful classical training, and in 1595 made an extended journey through Italy, returning to take up the career of arms. He served at the siege of Amiens in 1597, and then accompanied a special embassy to London. In 1599 Baron de Mafflier, by which name he was known at court, renounced the world and entered the Capuchin monastery of Orleans. He embraced the religious life with great ardour, and became a notable preacher and reformer. In 1606 he aided Antoinette d'Orléans, a nun of Fontevrault, to found the reformed order of the Filles du Calvaire, and wrote a manual of devotion for the nuns. His proselytizing zeal led him to send missionaries throughout the Huguenot centres—he had become provincial of Touraine in 1613. He entered politics at the conferences of Loudun, when, as the confidant of the queen and the papal envoy, he opposed the Gallican claims advanced by the parlement, which the princes were upholding, and succeeded in convincing them of the schismatic tendency of Gallicanism. In 1612 he began those personal relations with Richelieu which have indissolubly joined in history and legend the cardinal and the "Eminence grise," relations which research has not altogether made clear. In 1627 the monk assisted at the siege of La Rochelle. A purely religious reason also made him Richelieu's ally against the Habsburgs. He had a dream of arousing Europe to another crusade against the Turks, and

believed that the house of Austria was the obstacle to that universal European peace which would make this possible. As Richelieu's agent, therefore, this modern Peter the Hermit manœuvred at the diet of Regensburg (1630) to thwart the aggression of the emperor, and then advised the intervention of Gustavus Adolphus, reconciling himself to the use of Protestant armies by the theory that one poison would counteract another. Thus the monk became a war minister, and, though maintaining a personal austerity of life, gave himself up to diplomacy and politics. He died in 1638, just as the cardinalate was to be conferred upon him. The story that Richelieu visited him when on his deathbed and roused the dying man by the words, "Courage, Father Joseph, we have won Breisach," is apocryphal.

See Fagniez, *Le Père Joseph et Richelieu* (1894), a work based largely on original and unpublished sources. Father Joseph, according to this biography, would seem not to have lectured Richelieu in the fashion of the legends, whatever his moral influence may have been in strengthening Richelieu's hands.

JOSEPHINE (Marie Rose Josephine Tascher de la Pagerie) (1763–1814), empress of the French, was born in the island of Martinique on the 23rd of June 1763, being the eldest of three daughters of Joseph Tascher de la Pagerie, lieutenant of artillery. Her beauty and grace, though of a languid Creole style, won the affections of the young officer the vicomte de Beauharnais, and, after some family complications, she was married to him. Their married life was not wholly happy, the frivolity of Josephine occasioning her husband anxiety and jealousy. Two children, Eugène and Hortense, were the fruit of the union. During Josephine's second residence in Martinique, whither she proceeded to tend her mother, occurred the first troubles with the slaves, which resulted from the precipitate action of the constituent assembly in emancipating them. She returned to her husband, who at that time entered into political life at Paris. Her beauty and vivacity won her many admirers in the salons of the capital. As the Revolution ran its course her husband, as an ex-noble, incurred the suspicion and hostility of the Jacobins; and his ill-success at the head of a French army on the Rhine led to his arrest and execution. Thereafter Josephine was in a position of much perplexity and some hardship, but the friendship of Barras and of Madame Tallien, to both of whom she was then much attached, brought her into notice, and she was one of the queens of Parisian society in the year 1795, when Napoleon Bonaparte's services to the French convention in scattering the malcontents of the capital (13 Vendémiaire, or October 5, 1795) brought him to the front. There is a story that she became known to Napoleon through a visit paid to him by her son Eugène in order to beg his help in procuring the restoration of his father's sword, but it rests on slender foundations. In any case, it is certain that Bonaparte, however he came to know her, was speedily captivated by her charms. She, on her side, felt very little affection for the thin, impecunious and irrepressible suitor; but by degrees she came to acquiesce in the thought of marriage, her hesitations, it is said, being removed by the influence of Barras and by the nomination of Bonaparte to the command of the army of Italy. The civil marriage took place on the 9th of March 1796, two days before the bridegroom set out for his command. He failed to induce her to go with him to Nice and Italy.

Bonaparte's letters to Josephine during the campaign reveal the ardour of his love, while she rarely answered them. As he came to realize her shallowness and frivolity his passion cooled; but at the time when he resided at Montebello (near Milan) in 1797 he still showed great regard for her. During his absence in Egypt in 1798–1799, her relations to an officer, M. Charles, were most compromising; and Bonaparte on his return thought of divorcing her. Her tears and the entreaties of Eugène and Hortense availed to bring about a reconciliation; and during the period of the consulate (1799–1804) their relations were on the whole happy, though Napoleon's conduct now gave his consort grave cause for concern. His brothers and sisters more than once begged him to divorce Josephine, and it is known that, from the time when he became first consul for life (August 1802) with large powers over the choice of a successor, he kept open the alternative of a divorce. Josephine's anxieties increased on the proclamation of the Empire (May 18, 1804); and on the 1st of December 1804, the eve of the coronation at Notre Dame, she gained her wish that she should be married anew to Napoleon with religious rites. Despite her care, the emperor procured the omission of one formality, the presence of the parish priest; but at the coronation scene Josephine appeared radiant with triumph over her envious relatives. The august marriages contracted by her children Eugène and Hortense seemed to establish her position; but her ceaseless extravagance and, above all, the impossibility that she should bear a son strained the relations between Napoleon and Josephine. She complained of his infidelities and growing callousness. The end came in sight after the campaign of 1809, when Napoleon caused the announcement to be made to her that reasons of state compelled him to divorce her. Despite all her pleadings he held to his resolve. The most was made of the slight technical irregularity at the marriage ceremony of the 1st of December 1804; and the marriage was declared null and void.

At her private retreat, La Malmaison, near Paris, which she had beautified with curios and rare plants and flowers, Josephine closed her life in dignified retirement. Napoleon more than once came to consult her upon matters in which he valued her tact and good sense. Her health declined early in 1814, and after his first abdication (April 11, 1814) it was clear that her end was not far off. The emperor Alexander of Russia and Frederick William III. of Prussia, then in Paris, requested an interview with her. She died on the 24th of May 1814. Her friends, Mme de Rémusat and others, pointed out that Napoleon's good fortune deserted him after the divorce; and it is certain that the Austrian marriage clogged him in several ways. Josephine's influence was used on behalf of peace and moderation both in internal and in foreign affairs. Thus she begged Napoleon not to execute the duc d'Enghien and not to embroil himself in Spanish affairs in 1808.

See M. A. Le Normand, *Mémoires historiques et secrets de Joséphine* (2 vols., 1820); *Lettres de Napoléon à Joséphine* (1833); J. A. Aubenas, *Hist. de l'impératrice Joséphine* (2 vols., 1858–1859); J. Turquan, *L'Impératrice Joséphine* (2 vols., 1895–1896); F. Masson, *Joséphine* (3 vols., 1899–1902); *Napoleon's Letters to Josephine* (1796–1812), translated and edited by H. F. Hall (1903). Also the *Memoirs of* Mme. de Rémusat and of Bausset, and P. W. Sergeant, *The Empress Josephine* (1908). (J. Hl. R.)

JOSEPHUS, FLAVIUS (*c.* 37–*c.* 95?), Jewish historian and military commander, was born in the first year of Caligula (37–38). His father belonged to one of the noblest priestly families, and through his mother he claimed descent from the Asmonaean high priest Jonathan. A precocious student of the Law, he made trial of the three sects of Judaism—Pharisees, Sadducees and Essenes—before he reached the age of nineteen. Then, having spent three years in the desert with the hermit Banus, who was presumably an Essene, he became a Pharisee. In 64 he went to Rome to intercede on behalf of some priests, his friends, whom the procurator Felix had sent to render account to Caesar for some insignificant offence. Making friends with Alityrus, a Jewish actor, who was a favourite of Nero, Josephus obtained an introduction to the empress Poppaea and effected his purpose by her help. His visit to Rome enabled him to speak from personal experience of the power of the Empire, when he expostulated with the revolutionary Jews on his return to Palestine. But they refused to listen; and he, with all the Jews who did not fly the country, was dragged into the great rebellion of 66. In company with two other priests, Josephus was sent to Galilee under orders (he says) to persuade the ill-affected to lay down their arms and return to the Roman allegiance, which the Jewish aristocracy had not yet renounced. Having sent his two companions back to Jerusalem, he organized the forces at his disposal, and made arrangements for the government of his province. His obvious desire to preserve law and order excited the hostility of John of Giscala, who endeavoured vainly to remove him as a traitor to the national

cause by inciting the Galileans to kill him and by persuading the Sanhedrin at Jerusalem to recall him.

In the spring of 67 the Jewish troops, whom Josephus had drilled so sedulously, fled before the Roman forces of Vespasian and Titus. He sent to Jerusalem for reinforcements, but none came. With the stragglers who remained, he held a stronghold against the Romans by dint of his native cunning, and finally, when the place was taken, persuaded forty men, who shared his hiding-place, to kill one another in turn rather than commit suicide. They agreed to cast lots, on the understanding that the second should kill the first and so on. Josephus providentially drew the last lot and prevailed upon his destined victim to live. Their companions were all dead in accordance with the compact; but Josephus at any rate survived and surrendered. Being led before Vespasian, he was inspired to prophesy that Vespasian would become emperor. In consequence of the prophecy his life was spared, but he was kept close prisoner for two years. When his prophecy was fulfilled he was liberated, assumed the name of Flavius, the family name of Vespasian, and accompanied his patron to Alexandria. There he took another wife, as the Jewess allotted him by Vespasian after the fall of Caesarea had forsaken him, and returned to attend Titus and to act as intermediary between him and the Jews who still held Jerusalem. His efforts in this capacity failed; but when the city was stormed (70) Titus granted him whatever boon he might ask. So he secured the lives of some free men who had been taken and (by the gift of Titus) certain sacred books. After this he repaired to Rome and received one of the pensions, which Vespasian (according to Suetonius) was the first to bestow upon Latin and Greek writers. He was also made a Roman citizen and received an estate in Judaea. Thenceforward he devoted himself to literary work under the patronage of Vespasian, Titus and Domitian. As he mentions the death of Agrippa II. it is probable that he lived into the 2nd century; but the date of Agrippa's death has been challenged and, if his patron Epaphroditus may be identified with Nero's freedman, it is possible that Josephus may have been involved in his fall and perished under Domitian in 95.

WORKS.—1. *The Jewish War* (Περὶ τοῦ Ἰουδαϊκοῦ πολέμου), the oldest of Josephus' extant writings, was written towards the end of Vespasian's reign (69–79) The Aramaic original has not been preserved; but the Greek version was prepared by Josephus himself in conjunction with competent Greek scholars. Its purpose in all probability was, in the first instance, to exhibit to the Babylonian Jews the overwhelming power of Rome and so to deter them from repeating the futile revolt of the Jews of Palestine. Of its seven books, the first two survey the history of the Jews from the capture of Jerusalem by Antiochus Epiphanes to the outbreak of war in 67, and here Josephus relies upon some such general history as that of Nicolaus of Damascus. The rest deals with the events of the war (67–73) which fell more or less within his own knowledge. Vespasian, Titus and Agrippa II. testified (he tells us) to his accuracy. Representatives of the Zealots would probably have protested against his pro-Roman prejudices.

2. *The Jewish Antiquities* (Ἰουδαϊκὴ Ἀρχαιολογία) covers in twenty books the history of the Jews from the creation of the world to the outbreak of the war with Rome. It was finished in the thirteenth year of Domitian (93). Its purpose was to glorify the Jewish nation in the eyes of the Roman world. In the part covered by the books of the Bible Josephus follows them, and that mainly, if not entirely as they are translated into Greek by the Seventy (the Septuagint version). Being a Pharisee, he sometimes introduces traditions of the Elders, which are either inferences from, or embroideries of, the biblical narrative. Sometimes, also, he gives proof of some knowledge of Hebrew and supplements his scriptural authorities, which include 1 Esdras, from general Greek histories. For the later period he uses the Greek Esther, with its additions, 1 Maccabees, Polybius, Strabo and Nicolaus of Damascus. But towards the end he confesses that he has grown weary of his task, and his history becomes meagre. The work contains accounts of John the Baptist and Jesus, which may account for the fact that Josephus' writings were rescued from oblivion by the Christians. But the description of Jesus as "a wise man, if indeed one should call him a man," can hardly be genuine, and the assertion "this was the Christ" is equally doubtful, unless it be assumed that the Greek word *Christos* had become technical in the sense of false-Christ or false-prophet among non-Christian Jews.

3. Josephus wrote a narrative of his own *Life* in order to defend himself against the accusation brought by his enemy Justus of Tiberias to the effect that he had really been the cause of the Jewish rebellion. In his defence Josephus departs from the facts as narrated in the *Jewish War* and represents himself as a partisan of Rome and, therefore, as a traitor to his own people from the beginning.

4. The two books *Against Apion* are a defence or apology directed against current misrepresentations of the Jews. Earlier titles are *Concerning the Antiquity of the Jews* or *Against the Greeks*. Apion was the leader of the Alexandrine embassy which opposed Philo and his companions when they appeared in behalf of the Alexandrine Jews before Caligula. The defence which Josephus puts forward has a permanent value and shows him at his best.

The Greek text of Josephus' works has been edited with full collection of different readings by B. Niese (Berlin, 1887–1895). The Teubner text by Naber is based on this. The translation into English of W. Whiston has been (superficially) revised by A. R. Shilleto (1889–1890). Schürer (*History of the Jewish People*) gives a full bibliography. (J. H. A. H.)

JOSHEKAN, a small province of Persia covering about 1000 sq. m. Pop. about 5000. It has a yearly revenue of about £1200, and is held in fief by the family of Bahram Mirza, Muizz ed Dowleh (d. 1882). Its chief town and the residence of the governor used to be Joshekan-Kali, a large village with fine gardens, formerly famous for its carpets (*kali*), but now the chief place is Maimeh, a little city with a population of 2500, situated at an elevation of 6670 ft., about 63 m. from Isfahan in a north-westerly direction and 13 m. south-west of Joshekan-Kali.

JOSHUA, BOOK OF, the sixth book of the Old Testament, and the first of the group known as the "Former Prophets." It takes its name from Joshua[1] the son of Nūn, an Ephraimite who, on the death of Moses, assumed the leadership to which he had previously been designated by his chief (Deut. xxxi. 14 seq., 23), and proceeded to the conquest of the land of Canaan. The book differs from the Pentateuch or Torah in the absence of legal matter, and in its intimate connexion with the narrative in the books which follow. It is, however, the proper sequel to the origins of the people as related in Genesis, to the exodus of the Israelite tribes from Egypt, and their journeyings in the wilderness. On these and also on literary grounds it is often convenient to class the first six books of the Bible as a unit under the term "Hexateuch." For an exhaustive detailed study has revealed many signs of diversity of authorship which combine to show that the book is due to the incorporation of older material in two main redactions; one deeply imbued with the language and thought of Deuteronomy itself (D), the other of the post-exilic priestly circle (P) which gave the Pentateuch its present form. That the older sources (which often prove to be composite) are actually identical with the Yahwist or Judaean (J) and the Elohist or Ephraimite (E) narratives (on which see GENESIS) is not improbable, though, especially as regards the former, still very uncertain. In general the literary problems are exceedingly intricate, and no attempt can be made here to deal with them as fully as they deserve.

The Invasion.—The book falls naturally into two main parts, of which the first, the crossing of the Jordan and the conquest of Palestine (i.–xii.) is mainly due to Deuteronomic compilers. It opens with the preparations for the crossing of the Jordan and the capture of the powerful city Jericho. Ai, near Bethel, is taken after a temporary repulse, and Joshua proceeds to erect an altar upon Mt Ebal (north of Shechem). For the fullness with which the events are recorded the writers were probably indebted to local stories.

The Israelites are at Abel-Shittim (already reached in Num. xxv. 1). Moses is dead, and Joshua enters upon his task with the help of the Transjordanic tribes who have already received their territory (i). The narrative is of the later prophetic stamp (D; cf. Deut. iii. 18–22, xi. 24, where Moses is the speaker; xxxi. 1–8), but may be based upon an earlier and shorter record (E; *vv.* 1 seq., 10, 11*a*).

[1] Heb. *Jĕhōshūa*; later *Jēshūa*; Gr. Ἰησοῦς, whence "Jesus" in the A.V. of Heb. iv. 8; another form of the name is Hoshea (Num. xiii. 8, 16). The name may mean "Yah(weh) is wealth, *or* is (our) war-cry, *or* saves." The only extra-biblical notice of Joshua is the inscription of more than doubtful genuineness given by Procopius (*Vand.* ii. 20), and mentioned also by Moses of Chorene (*Hist. Arm.* i. 18). It is said to have stood at Tingis in Mauretania, and to have borne that those who erected it had fled before Ἰησοῦς ὁ λῃστής. For the medieval Samaritan Book of Joshua, see T. Juynboll, *Chronicum Samaritanum* (1846); J. A. Montgomery, *The Samaritans* (1907), pp. 301 sqq.

Of the mission of the spies to Jericho, two versions were current (duplicates ii. 3, 12, 18; *v.* 15 seq. breaks the connexion between *vv.* 13 and 18, but is resumed in *vv.* 22–24); D's addition is to be recognized in ii. 9*b*–11. The incident occupies at least four days, but the main narrative reckons three days between i. 11 and iii. 2. Next follow the passage of the Jordan (commemorated by the erection of twelve stones), the encampment at Gilgal, and the observance of the rite of circumcision and of the passover (iii.–v.). The complicated narrative in iii.–iv. is of composite origin (contrast iii. 17 with iv. 10 seq., 19; iv. 3, 8 with *vv.* 9, 20; and cf. iii. 12 with the superfluous iv. 2, &c.). As in ii., D has amplified (iii. 4*b*, 7, 10*b*, iv. 9–10*a*, 12, 14; more prominently in iv. 21–v. 1, v. 4–8), and subsequently P (or a hand akin to P) has worked over the whole (iii. 4, note the number and the prohibition, cf. Num. i. 51; iii. 8, 15 seq.; iv. 13, 19; v. 10–12). Circumcision, already familiar from Exod. iv. 26, Deut. x. 16, is here regarded as a new rite (v. 2, 9, supplemented by *vv.* 1, 4–8), but the conflicting views have been harmonized by the words "the second time" (*v.* 2). Gilgal is thus named from the "rolling away" of the "reproach of Egypt" (*v.* 9), but iv. 20 suggests a different origin, viz. the sacred stone-circle (cf. Judges iii. 19, R.V. marg.). An older account of the divine commission to Joshua appears in the archaic passage v. 13–15 (cf. Moses in Exod. iii.). Fusion of sources is obvious in the story of the fall of Jericho (contrast vi. 5 and *v.* 10, *vv.* 21 and 24, *vv.* 22 and 25); according to one (E ?) the people march seven times round the city on one day, the ark and the priests occupying a prominent position (vi. 4–6, 7*b*–9, 12 seq., 16*a*, 20 [part], 22–24); but in the other they march every day for seven days. Both here and in the preceding chapters the Septuagint has several variations and omissions, due either to an (unsuccessful) attempt to simplify the present difficulties, or to the use of another recension. The curse pronounced by Joshua upon the destroyed city of Jericho (vi. 26) should be associated with an incident in the reign of Ahab which is acquainted with the story (1 Kings xvi. 34); the city, however, reappears in Joshua xviii. 21; 2 Sam. x. 5. Achan's sacrilege, the cause of the repulse at Ai and of the naming of the valley of Achor (vii.), is introduced by vi. 18 seq., 24*b*, and, as its spirit shows, is of relatively later date. It contains some probable traces of D (in vii. 5, 7, 11 seq., 15, 25) and P (in *vv.* 1, 18, 24 seq.). The capture of Ai has marks of the same dual origin as the preceding chapters (cf. viii. 3a with 10, and contrast viii. 3–9 with *v.* 12; *vv.* 5–7 with 18, 26; *v.* 19 with 28). The general resemblance between chs. vii.–viii. and the war with Benjamin (Judges xx.) should be noticed.

Conquests in Palestine.—The erection of the altar, not at the scene of battle (cf. 1 Sam. xiv. 35) but on Mt Ebal (viii. 30–35, D), presupposes the conquest of central Palestine and the removal of the ark from Gilgal. These, however, are not narrated, and, unless some account of them has been replaced by the present passage, this portion of the conquest was ignored. Possibly the passage is not in its original position: in the Septuagint it appears after ix. 2, while Josephus (*Ant.* v. 1, 19) and the Samaritan book of Joshua read it before ch. xiii.; Dillmann, however, would place it after xi. 23. The capture of Jericho and Ai is followed by the successful stratagem of the Gibeonites to make peace with Israel (ix.). This involves them in a war with the southern Canaanites; Joshua intervenes and obtains a crowning victory (x.). The camp is still at Gilgal. A similar conquest of the northern Canaanites follows (xi.), and the first part of the book concludes with a summary of the results of the Israelite invasion (xii.).

No satisfactory explanation of viii. 30–35 has been found, yet ix. 1 seq. seems to show that it was the prelude to the Canaanite wars. In contrast to the absence of any reference to the occupation of central Palestine, the conquest of the south was current in several divergent traditions. Two records are blended in ix.; one narrates the covenant with the Gibeonites, the other that with the Hivites (properly Hivvites); and in the latter Joshua has no place (*vv.* 4 seq., 6*b*, 7, 11–14, &c.). The former has additions by D (*vv.* 9*b*, 10, 24 seq.) and by P (*v.* 15 last clause, 17–21); the latter, in accordance with the legislation of its day (posterior to Ezek. xliv. 6 sqq.), does not allow the Gibeonites to minister to the temple or altar, but merely to the "congregation," a characteristic post-exilic term (contrast *vv.* 21 and 23; and on 27 see Sept. and commentaries). The story of the covenant conflicts with the notice that Gibeon was still an independent Canaanite city in David's time (2 Sam. xxi. 2). The defeat of the southern coalition is based, as the doublets show, upon two sources; the war arises from two causes (vengeance upon the Gibeonites, and the attempt to overthrow Israel), and concludes with a twofold victory: in x. 16–24 the kings are pursued to Makkedah and slain, in *v.* 11 they are smitten by a great hailstorm in their flight to Azekah (cf. 1 Sam. vii. 10, xiv. 15, in the same district). Redactional links have been added, apparently by D, to whom is possibly due the stanza quoted from the book of Jashar (*v.* 12 seq.), a poetical address to the sun and moon, of the nature of a prayer or spell for their aid (cf. Judges v. 20, and see Ecclus. xlvi. 4). The literal interpretation of this picturesque quotation has been influenced by the prosaic comments at the end of *v.* 13 and beginning of *v.* 14. Verse 15, which closes the account, anticipates *v.* 43; the Septuagint omits both. The generalizing narrative (x. 28–43), which is due to D in its present form, is partly based upon old matter (*e.g.* the capture of Makkedah), but is inconsistent with what precedes (*v.* 37, see *v.* 23 sqq.) and follows (capture of Debir, *v.* 38 seq., see xv. 15; Judges i. 11). The description of the conquest of the northern Canaanites is very similar to that of the south. The main part is from an older source (xi. 1, 4–9; see DEBORAH), the amplifications (*v.* 2 seq.) are due to D, as also are the summary (*vv.* 10–23, cf. style of x. 28–43), and the enumeration of the total results of the invasion (xii.), which includes names not previously mentioned.

Division of the Land.—The result of the events narrated in the first part of the book is to ascribe the entire subjugation of Canaan to Joshua, whose centre was at Gilgal (x. 15, 43). He is now "old and advanced in years," and although much outlying land remained to be possessed, he is instructed to divide the conquered districts among the western tribes (xiii. 1 sqq.). This is detailed at length in the second part of the book. With the completion of the division his mission is accomplished. The main body of this part (xiii. 15–xiv. 5; xv.–xvii.; xviii. 11–xxi. 42; xxii. 7–34) is in its present form almost entirely due to P.

In regard to details, xiii. 2–6 (now D) expresses the view that the conquest was incomplete, and numbers districts chiefly in the south-west and in the Lebanon. Two sources deal with the inheritance of the east Jordan tribes in terms which are—(*a*) general (xiii. 8–12, D), and (*b*) precise (*vv.* 15–32, P). The latter stands between the duplicate passages xiii. 14 and 32 seq. (see the Sept.). With the interest taken in these tribes, cf. for (*a*) i. 12–18; Deut. iii. 12–22, and the sequel in Joshua xxii. 1–6; and for (*b*) xxii. 9 seq.; Num. xxxii. P's account of the division opens with an introductory notice of the manner in which Eleazar the priest and Joshua (note the order) prepare to complete the work which Moses had begun (xiv. 1–5). It opens with Judah, its borders (xv. 1–12) and cities (*vv.* 20–62), and continues with the two Joseph tribes, Ephraim (xvi. 4–9, contrast details in *vv.* 1–3) and Manasseh (xvii. 1–10, cf. Num. xxvi. 30–32, xxvii. 1–11; P). There is now a break in the narrative (xviii. 2–10, source uncertain); seven tribes have not yet received an inheritance, and Joshua (alone) encourages them to send three men from each tribe to walk through the land—excluding the territory of Judah and Joseph—and to bring a description of it to him, after which he divides it among them by lot. P[1] now resumes with an account of the borders and cities of Benjamin (xviii. 11–28), Simeon, Zebulun, Issachar, Asher, Naphtali and Dan (xix.; on *v.* 47, see below); and, after the subscription (xix. 51), concludes with the institution of the cities of refuge (xx., cf. Num. xxxv.), and of the Levitical cities (xxi., contrast the earlier brief notice, xiii. 14, 33). Chapter xx., belonging to the Predaction, has certain points of contact with Deut. xix. which, it is very important to observe, are wanting in the Septuagint; and xxi. 43–45 closes D's account of the division, and in the Septuagint contains matter most of which is now given by P in xix. 49 seq. Two narratives describe the dismissal of the trans-Jordanic tribes after their co-operation in the conquest, viz. xxii. 1–6 (D), and xxii. 9 seq. (P); cf. above, on xiii. 8 seq. P, with the description of the erection of the altar (*v.* 34, Gilead ?; cf. Gen. xxxi. 47 seq.), is apparently a late re-writing of some now obscure incident to emphasize the unity of worship. P's account of the distribution of land among the *nine and a half* tribes by Eleazar and Joshua (from xiv. 1–5 to xix. 51) appears to have been on the lines laid down in Num. xxxiv. (P). The scene, according to xviii. 1, is Shiloh, and this verse, which does not belong to the context, should apparently precede P's narrative in xiv. 1. But of the occupation of Shiloh, the famous Ephraimite sanctuary and the seat of the ark, we have no information. The older source, however, presupposes that Judah and the two Joseph tribes have acquired their territory; the remaining seven are blamed for their indifference (xviii. 2–10, see above), and receive their lot conjointly at the camp at *Shiloh*. But if the location is an attempt to harmonize with xviii. 1, *Gilgal* should probably be restored. The section xviii. 2–10 is followed by xxi. 43 seq. (above), and may have been preceded originally by xiii. 1, 7 (where read: inheritance for the *seven* tribes); in its present form it appears to be due to D. Another account of the exploits of Judah and Joseph can be traced here and there; *e.g.* in xiv. 6–15 (where Caleb receives Hebron as his inheritance and the "land had rest from war"), and xvii. 14–18 (where Joseph receives an additional lot); but where these traditions have not been worked into later narratives, they exist only in fragmentary form and are chiefly recognizable by their standpoint. They are characterized by the view that the conquest was only a partial one, and one which was neither the work of a single man nor at his instigation, but due

[1] Traces of composite material may be recognized—(*a*) where, in place of boundaries, P has given lists of cities which appear to be taken from other sources (cf. the instructions in xviii. 9), and (*b*) in the double headings (see Addis, *The Hexateuch*, i. 230, note 1, and the commentaries).

entirely to individual or tribal achievements. This view can be traced in xiii. 13, xv. 63 (cf. the parallel Judges i. 21 in contrast to *v.* 8), xvi. 10 (Judges i. 29), xvii. 11–13 (Judges i. 27 seq.), and in the references to separate tribal or family exploits: xv. 13–19, xix. 47 (cf. Judges i. 34 seq., xviii.).

Two closing addresses are ascribed to Joshua, one an exhortation similar to the homilies in secondary portions of Deuteronomy (xxiii.; cf. Moses in Deut. xxviii. seq., and Samuel's last address in 1 Sam. xii.), which virtually excludes the other (xxiv.), where Joshua assembles the tribes at Shechem (Shiloh, in the Septuagint) and passes under review the history of Israel from the days of heathenism (before Abraham was brought into Canaan) down through the oppression in Egypt, the exodus, the conquest in East Jordan and the occupation of Canaan. A few otherwise unknown details are to be found (xxiv. 2, 11 seq. 14). The address (which is extremely important for its representation of the religious conditions) is made the occasion for a solemn covenant whereby the people agree to cleave to Yahweh alone. This is commemorated by the erection of a stone under the oak by the sanctuary of Yahweh (for the tree with its sacred pillar, see Gen. xxxv. 4; Judges ix. 6). The people are then dismissed, and the book closes in ordinary narrative style with the death of Joshua and his burial in his inheritance at Timnath-serah in Mt Ephraim (cf. xix. 49 seq.); the burial of Joseph in Shechem; and the death and burial of Eleazar the son of Aaron in the "hill of Phinehas."

Chapter xxiv. presupposes the complete subjection of the Canaanites and is of a late prophetic stamp. Some signs of amplification (*e.g. vv.* 11*b*, 13, 31) suggest that it was inserted by a Deuteronomic hand, evidently distinct from the author of xxiii. But elsewhere there are traces of secondary Deuteronomic expansion and of internal incongruities in Deuteronomic narratives; contrast xiv. 6–15 with Joshua's extermination of the "Anakim" in xi. 21 seq.; the use of this name with the "Philistines" of xiii. 2 (see PHILISTINES), or the conquests in xi. 16–22 with the names in x. 36–43. All these passages are now due to D; but not only is Deuteronomy itself composite, a twofold redaction can be traced in Judges, Samuel and Kings, thus involving the deeper literary problems of Joshua with the historical books generally.[1] Both Joshua xxiii. and xxiv. are closely connected with the very complicated introduction to the era of the "judges" in Judges ii. 6 sqq., and ii. 6–9 actually resume Joshua xxiv. 28 sqq., while the Septuagint appends to the close of Joshua the beginning of the story of Ehud (Judges iii. 12 seq.). Both Judges i.–ii. 5 and chap. xvii.–xxi. are of post-Deuteronomic insertion, and they represent conditions analogous to the older notices imbedded in the later work of P (Judges i. 21, xix. 10–12, cf. Joshua xv. 63; see JUDGES *ad fin.*). Moreover, P in its turn shows elsewhere definite indications of different periods and standpoints, and the fluid state of the book at a late age is shown by the presence of Deuteronomic elements in Joshua xx., not found in the Septuagint, and by the numerous and often striking readings which the latter recension presents.

Value of the Book.—The value of the book of Joshua is primarily religious; its fervency, its conviction of the destiny of Israel and its inculcation of the unity and greatness of the God of Israel give expression to the philosophy of Israelite historians. As an historical record its value must depend upon a careful criticism of its contents in the light of biblical history and external information. Its description of the conquest of Canaan comes from an age when the event was a shadow of the past. It is an ideal view of the manner in which a divinely appointed leader guided a united people into the promised land of their ancestors, and, after a few brief wars of extermination (x.–xii.), died leaving the people in quiet possession of their new inheritance (xi. 23; xxi. 44 seq.; xxiii. 1).[2] On the other hand, the earlier inhabitants were not finally subjugated until Solomon's reign (1 Kings ix. 20); Jerusalem was taken by David from the Jebusites (2 Sam. v.); and several sites in its neighbourhood, together with important fortresses like Gezer, Megiddo and Taanach, were not held by Israel at the first. There are traces of other conflicting traditions representing independent tribal efforts which were not successful, and the Israelites are even said to live in the midst of Canaanites, intermarrying with them and adopting their cult (Judges i.–iii. 6). From a careful consideration of all the evidence, both internal and external, biblical scholars are now almost unanimous that the more finished picture of the Israelite invasion and settlement cannot be accepted as a historical record for the age. It accords with this that the elaborate tribal-lists and boundaries prove to be of greater value for the geography than for the history of Palestine, and the attempts to use them as evidence for the early history of Israel have involved numerous additional difficulties and confusion.[3]

The book of Joshua has ascribed to one man conquests which are not confirmed by subsequent history. The capture of Bethel, implied rather than described in Joshua viii., is elsewhere the work of the Joseph tribes (Judges i. 22 sqq., cf. features in the conquest of Jericho, Joshua vi. 25). Joshua's victory in north Palestine has its parallel in Judges iv. at another period (see DEBORAH), and Adoni-zedek of Jerusalem (Joshua x.) can scarcely be severed from the Adoni-bezek taken by the tribes of Judah and Simeon (Judges i. 5–7). The prominence of Joshua as military and religious leader, and especially his connexion with Shechem and Shiloh, have suggested that he was a hero of the Joseph tribes of central Palestine (viz. Ephraim and Manasseh). Moreover, the traditions in Joshua viii. 30–ix. 2, and Deut. xxvii. 1–8 seem to place the arrival at Mt Ebal immediately after the crossing of the Jordan. This implies that Israel (like Jacob in Gen. xxxii.) crossed by the Jabbok, and in fact the Wadi Fari'ā provides an easy road to Shechem, to the south-east of which lies Juleijil; and while this is the Gilgal of Deut. xi. 30, the battles at Jericho and Ai (Joshua ii. seq.) occur naturally after the encampment at the southern Gilgal (near Jericho). The alternative view (see especially Stade, *Gesch. Isr.* 1. 133 sqq.) connects itself partly with the ancestor of all the tribes (Jacob, *i.e.* Israel), and partly with the eponym of the Joseph tribes whose early days were spent around Shechem, the removal of whose bones from Egypt must have found a prominent place in the traditions of the tribes concerned (Gen. l. 25; Exod. xiii. 19; Joshua xxiv. 32). According to one view (Stade, Wellhausen, Guthe, &c.) only the Joseph tribes were in Egypt, and separate tribal movements (see JUDAH) have been incorporated in the growth of the tradition; the probability that the specific traditions of the Joseph tribes have been excised or subordinated finds support in the manner in which the Judaean P has abridged and confused the tribal lists of Ephraim and Manasseh.

The serious character of the problems of early Israelite history can be perceived from the renewed endeavours to present an adequate outline of the course of events; for a criticism of the most prominent hypotheses see Cheyne, *Ency. Bib.* art. "Tribes" (col. 5209 seq.); a new theory has been more recently advanced by E. Meyer (*Die Israeliten u. ihre Nachbarstämme*, 1906). But Joshua as a tribal hero does not belong to the earliest phase in the surviving traditions. He has no place in the oldest surviving narratives of the exodus (Wellhausen, Steuernagel); and only later sources add him to Caleb (Num. xiv. 30; the reference in Deut. i. 38 is part of an insertion), or regard him as the leader of all the tribes (Deut. iii. 21, 28). As an attendant of Moses at the tent of meeting he appears in quite secondary passages (Exod. xxxiii. 7–11; Num. xi. 28). His defeat of the Amalekites is in a narrative (Exod. xvii. 8–16) which belongs more

[1] The close relation between what may be called the Deuteronomic history (Joshua–Kings) and its introduction (the legal book of Deuteronomy) independently show the difficulty of supporting the traditional date ascribed to the latter.

[2] G. F. Moore (*Ency. Bib.*, col. 2608, note 2) draws attention to the instructive parallel furnished by the Greek legends of the Dorian invasion of the Peloponnesus (the "return" of the Heracleidae, the partition of the land by lot, &c.).

[3] The historical problems are noticed in all biblical histories, and in the commentaries on Joshua and Judges. Against the ordinary critical view, see J. Orr, *Problem of the O.T.* (1905) pp. 240 seq. This writer (on whom see A. S. Peake, *The Interpreter*, 1908, pp. 252 seq.) takes the book as a whole, allowance being made for "the generalizing tendency peculiar to all summaries." His argument that "the circumstantiality, local knowledge and evidently full recollection of the narratives (in Joshua) give confidence in the truth of their statements" is one which historical criticism in no field would regard as conclusive, and his contention that a redactor would hardly incorporate conflicting traditions in his narrative "if he believed they contradicted it" begs the question and ignores Oriental literature.

naturally to the wilderness of Shur, and it associates him with traditions of a movement direct into south Palestine which finds its counterpart when the clan Caleb (*q.v.*) is artificially treated as possessing its seats with Joshua's permission. But points of resemblance between Joshua the invader and Saul the founder of the (north) Israelite monarchy gain in weight when the traditions of both recognize the inclusion or possession of Judah, and thus stand upon quite another plane as compared with those of David the founder of the Judaean dynasty. Instead of rejecting the older stories of Joshua's conquests it may be preferable to infer that there were radical divergences in the historical views of the past. Consequently, the parallels between Joshua and Jacob (see Steuernagel's *Commentary*, p. 150) are more significant when the occupation of central Palestine, already implied in the book of Joshua, is viewed in the light of Gen. xlviii. 22, where Jacob as conqueror (cf. the very late form of the tradition in Jubilees xxxiv.) agrees with features in the patriarchal narratives which, in implying a settlement in Palestine, are entirely distinct from those which belong to the descent into Egypt (see especially, Meyer, *op. cit.* pp. 227 seq., 414 seq., 433; Luther, ib. 108 seq.). The elaborate account of the exodus gives the prevailing views which supersede other traditions of the origin both of the Israelites and of the worship of Yahweh (Gen. iv. 26). Several motives have influenced its growth,[1] and the kernel—the revelation of Yahweh to Moses—has been developed until all the tribes of Israel are included and their history as a people now begins. The old traditions of conquest in central Palestine have similarly been extended, and have been adapted to the now familiar view of Israelite origins. It is this subordination of earlier tradition to other and more predominating representations which probably explains the intricacy of a book whose present text may not have been finally fixed until, as Dillmann held, as late as about 200 B.C.

Bibliography.—See the commentaries of Dillmann, Steuernagel Holzinger (German), or the concise edition by H. W. Robinson in the *Century Bible*; also articles on "Joshua" by G. A. Smith, Hastings's *D. B.*, and G. F. Moore, *Ency. Bib.*; Kittel in *Hist. of the Hebrews*, i. 262 sqq.; W. H. Bennett, in Haupt's *Sacred Books of the Old Testament*; Carpenter and Harford-Battersby, *Comp. of Hexateuch*, ch. xvii; S. R. Driver, *Lit. of the O. T.* (8th ed., 1909). These give further bibliographical information, for which see also the articles on the books of the Pentateuch. (S. A. C.)

JOSHUA THE STYLITE, the reputed author of a chronicle which narrates the history of the war between the Greeks and Persians in 502–506, and which is one of the earliest and best historical documents preserved to us in Syriac. The work owes its preservation to having been incorporated in the third part of the history of pseudo-Dionysius of Tell-Maḥrē, and may probably have had a place in the second part of the *Ecclesiastical History* of John of Asia, from whom (as Nau has shown) pseudo-Dionysius copied all or most of the matter contained in his third part. The chronicle in question is anonymous, and Nau has shown that the note of a copyist, which was thought to assign it to the monk Joshua of Zuḳnīn near Āmid, more probably refers to the compiler of the whole work in which it was incorporated. Anyhow the author was an eyewitness of many of the events which he describes, and must have been living at Edessa during the years when it suffered so severely from the Persian War. His view of events is everywhere characterized by his belief in overruling Providence; and as he eulogizes Flavian II., the Chalcedonian patriarch of Antioch, in warmer terms than those in which he praises his great Monophysite contemporaries, Jacob of Sĕrūgh and Philoxenus of Mabhōg, he was probably an orthodox Catholic.

The chronicle was first made known by Assemani's abridged Latin version (*B. O.* i. 260–283) and was edited in 1876 by the abbé Martin and (with an English translation) by W. Wright in 1882. After an elaborate dedication to a friend—the "priest and abbot" Sergius—a brief recapitulation of events from the death of Julian in 363 and a fuller account of the reigns of the Persian kings Pērōz (457–484) and Balāsh (484–488), the writer enters upon his main theme— the history of the disturbed relations between the Persian and Greek Empires from the beginning of the reign of Kawād I. (489–531), which culminated in the great war of 502–506. From October 494 to the conclusion of peace near the end of 506, the author gives an annalistic account, with careful specification of dates, of the main events in Mesopotamia, the theatre of conflict—such as the siege and capture of Āmid by the Persians (502–503), their unsuccessful siege of Edessa (503), and the abortive attempt of the Greeks to recover Āmid (504–505). The work was probably written a few years after the conclusion of the war. The style is graphic and straightforward, and the author was evidently a man of good education and of a simple, honest mind. (N. M.)

JOSIAH (Heb. *yō' shiyyāhū*, perhaps "Yah [weh] supports"), in the Bible, the grandson of Manasseh, and king of Judah. He came to the throne at the age of eight, after the murder of his predecessor Amon. The circumstances of his minority are not recorded, nor is anything related of the Scythian inroads which occurred in the latter half of the 7th century B.C., although some passages in the books of Jeremiah and Zephaniah are supposed to refer to the events. The storm which shook the external states was favourable to the peace of Judah; the Assyrian power was practically broken, and that of the Chaldeans had scarcely developed into an aggressive form. Samaria thus lay within the grasp of Josiah, who may have entertained hopes of forming an independent power of his own. Otherwise, it is not clear why we find him opposing himself to the Egyptian king Necho, since the assumption that he fought as an Assyrian vassal scarcely agrees with the profound reforming policy ascribed to him. At all events, at the battle of Megiddo[2] he lost both his kingdom and his life (608 B.C.), and for a few years Judah was in the hands of Egypt (2 Kings xxiii. 29 seq.). The chronicler gives a rather different account of the battle, and his allusion to the dirge uttered by Jeremiah over his death (2 Chron. xxxv. 20–25; 1 Esd. i. 32) represents the tradition which makes this prophet the author of the book of Lamentations.

The reign of Josiah is important for the biblical account of the great religious reforms which began in his eighteenth year, when he manifested interest in the repair of the Temple at Jerusalem. In the course of this work the high priest Hilkiah discovered a "law-book" which gave rise to the liveliest concern. The reasons for believing that this roll was substantially identical with the book of Deuteronomy were already appreciated by Jerome, Chrysostom, Theodoret and others,[3] and a careful examination shows that the character of the reformation which followed agrees in all its essential features with the prescriptions and exhortations of that book. (See Deuteronomy.) But the detailed records in 2 Kings xxii. seq. are evidently written under the influence of the reforms themselves, and are not contemporary (see Kings, Book of). They are further expanded, to agree with still later ideals, in 2 Chron. xxxiv. seq. The original roll was short enough to be read at least twice in a day (xxii. 8, 10), and hence only some portions of Deuteronomy (or of an allied production) may be intended. Although the character of the reforms throws remarkable light upon the condition of religion in Judah in the time of Josiah, it is to be observed that the writings of the contemporary prophets (Jeremiah, Ezekiel) make it very questionable whether the narratives are thoroughly trustworthy for the history of the king's measures. (See further Jews, § 16.) (S. A. C.)

JÓSIKA, MIKLOS [NICHOLAS], Baron (1794–1865), Hungarian novelist, was born on the 28th of April 1794 at Torda in Transylvania, of aristocratic and wealthy parents. After finishing the usual course of legal studies at Kolozsvár (Klausenburg), he in 1811 entered the army, joining a cavalry regiment, with which he subsequently took part in the Italian campaign. On the battlefield of Mincio (February 8, 1814) he was promoted to the grade of lieutenant. He served in the campaign against Napoleon, and was present at the entry of the Allied Troops into Paris (March 31, 1814). In 1818 Jósika resigned his commission, returned to Hungary, and married his first wife

[1] *E.g.* the vicissitudes of Levitical families, other migrations into Palestine, &c. The story of Joseph has probably been used as a link (see Luther, *op. cit.* pp. 142 seq.).

[2] Or "Magdolos" (Herod. ii. 159), *i.e.* some "Migdal" (tower) of Judaea, not the Migdol of Exod. xiv. 2; Jer. xliv. 1.

[3] See *Zeit. f. Alttest. Wissenschaft* (1902), pp. 170 seq., 312 seq.; *Journ Bib. Lit.* (1903), p. 50.

Elizabeth Kallai. The union proving an unhappy one, Jósika parted from his wife, settled on his estate at Szurdok in Transylvania, and devoted himself to agricultural and literary pursuits. Drawn into the sphere of politics, he took part in the memorable Transylvanian diet of 1834. About this time Jósika first began to attract attention as a writer of fiction. In 1836 his *Abafi* laid the foundation of his literary reputation. This novel gives a vivid picture of Transylvania in the time of Sigismund Bátori. Jósika was soon afterwards elected member of the Hungarian Academy of Sciences and of the Kisfaludy Society; of the latter he became, in 1841, director, and in 1842 vice-president. In 1847 he appeared at the Transylvanian diet as second deputy for the county of Szolnok, and zealously supported the movement for the union of Transylvania with Hungary proper. In the same year he was converted to Protestantism, was formally divorced from his wife, and married Baroness Julia Podmaniczky, herself a writer of considerable merit, with whom he lived happily until his death. So great was Jósika's literary activity that by the time of the revolution (1848) he had already produced about sixty volumes of romances and novels, besides numerous contributions to periodicals. Both as magnate of the upper house of the Hungarian diet and by his writings Jósika aided the revolutionary movement, with which he was soon personally identified, being chosen one of the members of the committee of national defence. Consequently, after the capitulation at Világos (Aug. 13, 1849) he found it necessary to flee the country, and settled first at Dresden and then, in 1850, at Brussels, where he resumed his literary pursuits anonymously. In 1864 he removed to Dresden, in which city he died on the 27th of February 1865. The romances of Jósika, written somewhat after the style of Sir Walter Scott, are chiefly of an historical and social-political character, his materials being drawn almost entirely from the annals of his own country. Among his more important works may be specially mentioned, besides *Abafi—The Poet Zrinyi* (1843); *The Last of the Bátoris* (1837); *The Bohemians in Hungary* (1839); *Esther* (1853); *Francis Rákóczy II.* (1861); and *A Végváriak*, a tale of the time of the Transylvanian prince Bethlen Gábor, 1864. Many of Jósika's novels have been translated into German.

See K. Moenich and S. Vutkovich, *Magyar Irók Névtára* (1876); M. Jókai, "Jósika Miklós Emlékezete," *A Kisfaludy-Társaság Evlapjai, Új folyam*, vol. iii. (1869); G. W. Steinacker, *Ungarische Lyriker* (1874). Cf. also Jósika's autobiography—*Emlékirat*, vol. iv. (1865).

JOSIPPON, the name usually given to a popular chronicle of Jewish history from Adam to the age of Titus, attributed to an author Josippon or Joseph ben Gorion.[1] The name, though at one time identified with that of the historian Josephus, is perhaps a corruption of Hegesippus, from whom (according to Trieber) the author derived much of his material. The chronicle was probably compiled in Hebrew early in the 10th century, by a Jewish native of south Italy. The first edition was printed in Mantua in 1476. *Josippon* subsequently appeared in many forms, one of the most popular being in Yiddish (Judaeo-German), with quaint illustrations. Though the chronicle is more legendary than historical, it is not unlikely that some good and even ancient sources were used by the first compiler, the *Josippon* known to us having passed through the hands of many interpolators. The book enjoyed much vogue in England. Peter Morvyn in 1558 translated an abbreviated version into English, and edition after edition was called for. Lucien Wolf has shown that the English translations of the Bible aroused so much interest in the Jews that there was a widespread desire to know more about them. This led to the circulation of many editions of *Josippon*, which thus formed a link in the chain of events which culminated in the readmission of the Jews to England by Cromwell. (I. A.)

JOSS, in the pidgin-English of the Chinese seaports, the name given to idols and deities. It is used adjectivally in regard to many things connected with religious rites, such as "joss-house," a temple; "joss-stick," a stick which when burned gives forth a fragrant odour and is used as incense; "joss-paper," paper cut to resemble money (and sometimes with prayers written upon it) burned in funeral and other ceremonies. "Joss" is not a Chinese word, and is probably a corruption of Port. *deos*, god, applied by Portuguese navigators in the 16th century to the idols worshipped in the East Indies. The Dutch form is *joosge* (diminutive of *joos*), whence the Javanese *dejos*, and the English *yos*, later *joss*. The word seems to have been carried to China by English seamen from Batavia.

JOST, ISAAK MARKUS (1793–1860), Jewish historical writer, was born on the 22nd of February 1793 at Bernburg, and studied at the universities of Göttingen and Berlin. In Berlin he began to teach, and in 1835 received the appointment of upper master in the Jewish commercial school (called the Philanthropin) at Frankfort-on-the-Main. Here he remained until his death, on the 22nd of November 1860. The work by which he is chiefly known is *Geschichte der Israeliten seit der Zeit der Maccabäer*, in 9 vols. (1820–1829), which was afterwards supplemented by *Neuere Geschichte der Israeliten von 1815–1845* (1846–1847), and *Geschichte des Judenthums und seiner Sekten* (1857–1859). He also published an abridgment under the title *Allgemeine Geschichte des israelitischen Volkes* (1831–1832), and an edition of the Mishna with a German translation and notes (6 vols., 1832–1834). The *Israelitische Annalen* were edited by him from 1839 to 1841, and he contributed extensively to periodicals.

See Zirndorf, *Isaak Markus Jost und seine Freunde* (Cincinnati, 1886).

JOTUNHEIM, or JOTUN FJELDE, a mountainous region of southern Norway, lying between Gudbrandsdal on the east and Jostedalsbrae and the head of the Sogne fjord on the west. Within an area of about 950 sq. m. it contains the highest mountain in the Scandinavian Peninsula—Galdhöpiggen (8399 ft.)—and several others but little inferior. Such are Glittertind or Glitretind (8380), and Memurutind (7966), which face Galdhöpiggen across the northward-sloping Visdal; Knutshulstind (7812) and several other peaks exceeding 7000 ft., to the south, between lakes Gjende and Bygdin, and Skagastölstind (7723) in the west of the region, above the Utladal, the chief summit of the magnificent Horunger. The upper parts of the main valleys are of characteristic form, not ending in lofty mountain-walls but comparatively low and level, and bearing lakes. The name Jotunheim (giants' home) is a modern memorial of the mountain-dwelling giants of Norse fable; the alternative name Jotun Fjelde was the first bestowed on the region, when it was explored in 1820 by the geologist Balthasar Matthias Keilhau (1797–1858). In modern times the region has attracted mountaineers and many visitors accustomed to rough lodging and difficult travelling.

JOUBERT, BARTHÉLEMY CATHERINE (1769–1799), French general, the son of an advocate, was born at Pont de Vaux (Ain) on the 14th of April 1769. In 1784 he ran away from school to enlist in the artillery, but was brought back and sent to study law at Lyons and Dijon. In 1791 he joined the volunteers of the Ain, and was elected by his comrades successively corporal and sergeant. In January 1792 he became sub-lieutenant, and in November lieutenant, having in the meantime made his first campaign with the army of Italy. In 1793 he distinguished himself by the brilliant defence of a redoubt at the Col di Tenda, with only thirty men against a battalion of the enemy. Wounded and made prisoner in this affair, Joubert was released on parole by the Austrian commander-in-chief, Devins, soon afterwards. In 1794 he was again actively engaged, and in 1795 he rendered such conspicuous service as to be made general of brigade. In the campaign of 1796 the young general commanded a brigade under Augereau, and soon attracted the special attention of Bonaparte, who caused him to be made a general of division in December, and repeatedly selected him for the command of important detachments. Thus he was in charge of the retaining force at the battle of Rivoli, and in the campaign of 1799

[1] A prefect of Jerusalem of this name is mentioned by Josephus, *Bell. Jud.* ii. 20. 3.

(invasion of Austria) he commanded the detached left wing of Bonaparte's army in Tirol, and fought his way through the mountains to rejoin his chief in Styria. He subsequently held various commands in Holland, on the Rhine and in Italy, where up to January 1799 he commanded in chief. Resigning the post in consequence of a dispute with the civil authorities, Joubert returned to France and married (June) Mlle de Montholon. But he was almost immediately summoned to the field again. He took over the command in Italy from Moreau about the middle of July, but he persuaded his predecessor to remain at the front and was largely guided by his advice. The odds against the French troops in the disastrous campaign of 1799 (see FRENCH REVOLUTIONARY WARS) were too heavy. Joubert and Moreau were quickly compelled to give battle by their great antagonist Suvorov. The battle of Novi was disastrous to the French arms, not merely because it was a defeat, but above all because Joubert himself was amongst the first to fall (Aug. 15, 1799). Joubert died before it could be shown whether his genius was of the first rank, but he was at any rate marked out as a future great captain by the greatest captain of all ages, and his countrymen intuitively associated him with Hoche and Marceau as a great leader whose early death disappointed their highest hopes. After the battle his remains were brought to Toulon and buried in Fort La Malgue, and the revolutionary government paid tribute to his memory by a ceremony of public mourning (Sept. 16). A monument to Joubert at Bourg was razed by order of Louis XVIII., but another memorial was afterwards erected at Pont de Vaux.

See Guilbert, *Notice sur la vie de B. C. Joubert;* Chevrier, *Le Général Joubert d'après sa correspondance* (2nd ed. 1884).

JOUBERT, JOSEPH (1754–1824), French moralist, was born at Montignac (Corrèze) on the 6th of May 1754. After completing his studies at Toulouse he spent some years there as a teacher. His delicate health proved unequal to the task, and after two years spent at home in study Joubert went to Paris at the beginning of 1778. He allied himself with the chiefs of the philosophic party, especially with Diderot, of whom he was in some sort a disciple, but his closest friendship was with the abbé de Fontanes. In 1790 he was recalled to his native place to act as *juge de paix*, and carried out the duties of his office with great fidelity. He had made the acquaintance of Mme de Beaumont in a Burgundian cottage where she had taken refuge from the Terror, and it was under her inspiration that Joubert's genius was at its best. The atmosphere of serenity and affection with which she surrounded him seemed necessary to the development of what Sainte-Beuve calls his "esprit ailé, ami du ciel et des hauteurs." Her death in 1803 was a great blow to him, and his literary activity, never great, declined from that time. In 1809, at the solicitation of Joseph de Bonald, he was made an inspector-general of education, and his professional duties practically absorbed his interests during the rest of his life. He died on the 3rd of May 1824. His manuscripts were entrusted by his widow to Chateaubriand, who published a selection of *Pensées* from them in 1838 for private circulation. A more complete edition was published by Joubert's nephew, Paul de Raynal, under the title *Pensées, essais, maximes et correspondance* (2 vols. 1842). A selection of letters addressed to Joubert was published in 1883. Joubert constantly strove after perfection, and the small quantity of his work was partly due to his desire to find adequate and luminous expression for his discriminating criticism of literature and morals.

If Joubert's readers in England are not numerous, he is well known at second hand through the sympathetic essay devoted to him in Matthew Arnold's *Essays in Criticism* (1st series). See Sainte-Beuve, *Causeries du lundi*, vol. i.; *Portraits littéraires*, vol. ii.; and a notice by Paul de Raynal, prefixed to the edition of 1842.

JOUBERT, PETRUS JACOBUS (1834–1900), commandant-general of the South African Republic from 1880 to 1900, was born at Cango, in the district of Oudtshoorn, Cape Colony, on the 20th of January 1834, a descendant of a French Huguenot who fled to South Africa soon after the revocation of the Edict of Nantes by Louis XIV. Left an orphan at an early age, Joubert migrated to the Transvaal, where he settled in the Wakkerstroom district near Laing's Nek and the north-east angle of Natal. There he not only farmed with great success, but turned his attention to the study of the law. The esteem in which his shrewdness in both farming and legal affairs was held led to his election to the Volksraad as member for Wakkerstroom early in the sixties, Marthinus Pretorius being then in his second term of office as president. In 1870 Joubert was again elected, and the use to which he put his slender stock of legal knowledge secured him the appointment of attorney-general of the republic, while in 1875 he acted as president during the absence of T. F. Burgers in Europe. During the first British annexation of the Transvaal, Joubert earned for himself the reputation of a consistent irreconcilable by refusing to hold office under the government, as Paul Kruger and other prominent Boers were doing. Instead of accepting the lucrative post offered him, he took a leading part in creating and directing the agitation which led to the war of 1880–1881, eventually becoming, as commandant-general of the Boer forces, a member of the triumvirate that administered the provisional Boer government set up in December 1880 at Heidelberg. He was in command of the Boer forces at Laing's Nek, Ingogo, and Majuba Hill, subsequently conducting the earlier peace negotiations that led to the conclusion of the Pretoria Convention. In 1883 he was a candidate for the presidency of the Transvaal, but received only 1171 votes as against 3431 cast for Kruger. In 1893 he again opposed Kruger in the contest for the presidency, standing as the representative of the comparatively progressive section of the Boers, who wished in some measure to redress the grievances of the Uitlander population which had grown up on the Rand. The poll (though there is good reason for believing that the voting lists had been manipulated by Kruger's agents) was declared to have resulted in 7911 votes being cast for Kruger and 7246 for Joubert. After a protest Joubert acquiesced in Kruger's continued presidency. He stood again in 1898, but the Jameson raid had occurred meantime and the voting was 12,858 for Kruger and 2001 for Joubert. Joubert's position had then become much weakened by accusations of treachery and of sympathy with the Uitlander agitation. He took little part in the negotiations that culminated in the ultimatum sent to Great Britain by Kruger in 1899, and though he immediately assumed nominal command of the operations on the outbreak of hostilities, he gave up to others the chief share in the direction of the war, through his inability or neglect to impose upon them his own will. His cautious nature, which had in early life gained him the sobriquet of "Slim Piet," joined to a lack of determination and assertiveness that characterized his whole career, led him to act mainly on the defensive; and the strategically offensive movements of the Boer forces, such as Elandslaagte and Willow Grange, appear to have been neither planned nor executed by him. As the war went on, physical weakness led to Joubert's virtual retirement, and, though two days earlier he was still reported as being in supreme command, he died at Pretoria from peritonitis on the 28th of March 1900. Sir George White, the defender of Ladysmith, summed up Joubert's character when he called him "a soldier and a gentleman, and a brave and honourable opponent."

JOUFFROY, JEAN (*c.* 1412–1473), French prelate and diplomatist, was born at Luxeuil (Haute-Saône). After entering the Benedictine order and teaching at the university of Paris from 1435 to 1438, he became almoner to Philip the Good, duke of Burgundy, who entrusted him with diplomatic missions in France, Italy, Portugal and Castile. Jouffroy was appointed abbot of Luxeuil (1451?) bishop of Arras (1453), and papal legate (1459). At the French court his diplomatic duties brought him to the notice of the dauphin (afterwards Louis XI.). Jouffroy entered Louis's service, and obtained a cardinal's hat (1461), the bishopric of Albi (1462), and the abbacy of St Denis (1464). On several occasions he was sent to Rome to negotiate the abolition of the Pragmatic Sanction and to defend the interests of the Angevins at Naples. Attached by King Louis to the sieur de Beaujeu in the expedition against John V., count

of Armagnac, Jouffroy was accused of taking the town of Lectoure by treachery, and of being a party to the murder of the count of Armagnac (1473). He died at Reuilly the same year.

See C. Fierrille, *Le Cardinal Jean Jouffroy et son temps* (1412–1473) (Coutances, Paris, 1874).

JOUFFROY, THÉODORE SIMON (1796–1842), French philosopher, was born at Pontets, near Mouthe, department of Doubs. In his tenth year, his father, a tax-gatherer, sent him to an uncle at Pontarlier, under whom he commenced his classical studies. At Dijon his compositions attracted the attention of an inspector, who had him placed (1814) in the normal school, Paris. He there came under the influence of Victor Cousin, and in 1817 he was appointed assistant professor of philosophy at the normal and Bourbon schools. Three years later, being thrown upon his own resources, he began a course of lectures in his own house, and formed literary connexions with *Le Courrier français*, *Le Globe*, *L'Encyclopédie moderne*, and *La Revue européenne*. The variety of his pursuits at this time carried him over the whole field of ancient and modern literature. But he was chiefly attracted to the philosophical system represented by Reid and Stewart. The application of "common sense" to the problem of substance supplied a more satisfactory analytic for him than the scepticism of Hume which reached him through a study of Kant. He thus threw in his lot with the Scottish philosophy, and his first dissertations are, in their leading position, adaptations from Reid's *Inquiry*. In 1826 he wrote a preface to a translation of the *Moral Philosophy* of Stewart, demonstrating the possibility of a scientific statement of the laws of consciousness; in 1828 he began a translation of the works of Reid, and in his preface estimated the influence of Scottish criticism upon philosophy, giving a biographical account of the movement from Hutcheson onwards. Next year he was returned to parlement by the *arrondissement* of Pontarlier; but the work of legislation was ill-suited to him. Yet he attended to his duties conscientiously, and ultimately broke his health in their discharge. In 1833 he was appointed professor of Greek and Roman philosophy at the college of France and a member of the Academy of Sciences; he then published the *Mélanges philosophiques* (4th ed. 1866; Eng. trans. G. Ripley, Boston, 1835 and 1838), a collection of fugitive papers in criticism and philosophy and history. In them is foreshadowed all that he afterwards worked out in metaphysics, psychology, ethics and aesthetics. He had already demonstrated in his prefaces the possibility of a psychology apart from physiology, of the science of the phenomena of consciousness distinct from the perceptions of sense. He now classified the mental faculties, premising that they must not be confounded with capacities or properties of mind. They were, according to his analysis, personal will, primitive instincts, voluntary movement, natural and artificial signs, sensibility and the faculties of intellect; on this analytic he founded his scheme of the universe. In 1835 he published a *Cours de droit naturel* (4th ed. 1866), which, for precision of statement and logical coherence, is the most important of his works. From the conception of a universal order in the universe he reasons to a Supreme Being, who has created it and who has conferred upon every man in harmony with it the aim of his existence, leading to his highest good. Good, he says, is the fulfilment of man's destiny, evil the thwarting of it. Every man being organized in a particular way has, of necessity, an aim, the fulfilment of which is good; and he has faculties for accomplishing it, directed by reason. The aim is good, however, only when reason guides it for the benefit of the majority, but that is not absolute good. When reason rises to the conception of universal order, when actions are submitted, by the exercise of a sympathy working necessarily and intuitively to the idea of the universal order, the good has been reached, the true good, good in itself, absolute good. But he does not follow his idea into the details of human duty, though he passes in review fatalism, mysticism, pantheism, scepticism, egotism, sentimentalism and rationalism. In 1835 Jouffroy's health failed and he went to Italy, where he continued to translate the Scottish philosophers. On his return he became librarian to the university, and took the chair of recent philosophy at the faculty of letters. He died in Paris on the 4th of February 1842. After his death were published *Nouveaux mélanges philosophiques* (3rd ed. 1872) and *Cours d'esthétique* (3rd ed. 1875). The former contributed nothing new to the system except a more emphatic statement of the distinction between psychology and physiology. The latter formulated his theory of beauty.

Jouffroy's claim to distinction rests upon his ability as an expositor of other men's ideas. He founded no system; he contributed nothing of importance to philosophical science; he initiated nothing which has survived him. But his enthusiasm for mental science, and his command over the language of popular exposition, made him a great international medium for the transfusion of ideas. He stood between Scotland and France and Germany and France; and, though his expositions are vitiated by loose reading of the philosophers he interpreted, he did serviceable, even memorable work.

See L. Lévy Bruhl, *History of Modern Philos. in France* (1899), pp. 349–357; C. J. Tissot, *Th. Jouffroy: sa vie et ses écrits* (1876); J. P. Damiron, *Essai sur l'histoire de la philos. en France au xixe siècle* (1846).

JOUGS, Juggs, or Joggs (O. Fr. *joug*, from Lat. *jugum*, a yoke), an instrument of punishment formerly in use in Scotland, Holland and possibly other countries. It was an iron collar fastened by a short chain to a wall, often of the parish church, or to a tree. The collar was placed round the offender's neck and fastened by a padlock. The jougs was practically a pillory. It was used for ecclesiastical as well as civil offences. Examples may still be seen in Scotland.

JOULE, JAMES PRESCOTT (1818–1889), English physicist, was born on the 24th of December 1818, at Salford, near Manchester. Although he received some instruction from John Dalton in chemistry, most of his scientific knowledge was self-taught, and this was especially the case with regard to electricity and electro-magnetism, the subjects in which his earliest researches were carried out. From the first he appreciated the importance of accurate measurement, and all through his life the attainment of exact quantitative data was one of his chief considerations. At the age of nineteen he invented an electro-magnetic engine, and in the course of examining its performance dissatisfaction with vague and arbitrary methods of specifying electrical quantities caused him to adopt a convenient and scientific unit, which he took to be the amount of electricity required to decompose nine grains of water in one hour. In 1840 he was thus enabled to give a quantitative statement of the law according to which heat is produced in a conductor by the passage of an electric current, and in succeeding years he published a series of valuable researches on the agency of electricity in transformations of energy. One of these contained the first intimation of the achievement with which his name is most widely associated, for it was in a paper read before the British Association at Cork in 1843, and entitled "The Calorific Effects of Magneto-electricity and the Mechanical Value of Heat," that he expressed the conviction that whenever mechanical force is expended an exact equivalent of heat is always obtained. By rotating a small electro-magnet in water, between the poles of another magnet, and then measuring the heat developed in the water and other parts of the machine, the current induced in the coils, and the energy required to maintain rotation, he calculated that the quantity of heat capable of warming one pound of water one degree F. was equivalent to the mechanical force which could raise 838 lb. through the distance of one foot. At the same time he brought forward another determination based on the heating effects observable when water is forced through capillary tubes; the number obtained in this way was 770. A third method, depending on the observation of the heat evolved by the mechanical compression of air, was employed a year or two later, and yielded the number 798; and a fourth—the well-known frictional one of stirring water with a sort of paddle-wheel—yielded the result 890 (see *Brit. Assoc. Report*, 1845), though 781·5 was obtained by subsequent repetitions of the

experiment. In 1849 he presented to the Royal Society a memoir which, together with a history of the subject, contained details of a long series of determinations, the result of which was 772. A good many years later he was entrusted by the committee of the British Association on standards of electric resistance with the task of deducing the mechanical equivalent of heat from the thermal effects of electric currents. This inquiry yielded (in 1867) the result 783, and this Joule himself was inclined to regard as more accurate than his old determination by the frictional method; the latter, however, was repeated with every precaution, and again indicated 772·55 foot-pounds as the quantity of work that must be expended at sea-level in the latitude of Greenwich in order to raise the temperature of one pound of water, weighed *in vacuo*, from 60° to 61° F. Ultimately the discrepancy was traced to an error which, not by Joule's fault, vitiated the determination by the electrical method, for it was found that the standard ohm, as actually defined by the British Association committee and as used by him, was slightly smaller than was intended; when the necessary corrections were made the results of the two methods were almost precisely congruent, and thus the figure 772·55 was vindicated. In addition, numerous other researches stand to Joule's credit—the work done in compressing gases and the thermal changes they undergo when forced under pressure through small apertures (with Lord Kelvin), the change of volume on solution, the change of temperature produced by the longitudinal extension and compression of solids, &c. It was during the experiments involved by the first of these inquiries that Joule was incidentally led to appreciate the value of surface condensation in increasing the efficiency of the steam engine. A new form of condenser was tested on the small engine employed, and the results it yielded formed the starting-point of a series of investigations which were aided by a special grant from the Royal Society, and were described in an elaborate memoir presented to it on the 13th of December 1860. His results, according to Kelvin, led directly and speedily to the present practical method of surface-condensation, one of the most important improvements of the steam engine, especially for marine use, since the days of James Watt. Joule died at Sale on the 11th of October 1889.

His scientific papers were collected and published by the Physical Society of London: the first volume, which appeared in 1884, contained the researches for which he was alone responsible, and the second, dated 1887, those which he carried out in association with other workers.

JOURDAN, JEAN BAPTISTE, Count (1762–1833), marshal of France, was born at Limoges on the 29th of April 1762, and in his boyhood was apprenticed to a silk merchant of Lyons. In 1776 he enlisted in a French regiment to serve in the American War of Independence, and after being invalided in 1784 he married and set up in business at Limoges. At the outbreak of the revolutionary wars he volunteered, and as a subaltern took part in the first campaigns in the north of France. His rise was even more rapid than that of Hoche and Marceau. By 1793 he had become a general of division, and was selected by Carnot to succeed Houchard as commander-in-chief of the Army of the North; and on the 15th–16th of October 1793 he won the brilliant and important victory of Wattignies (see French Revolutionary Wars). Soon afterwards he became a "suspect," the moderation of his political opinions and his misgivings as to the future conduct of the war being equally distasteful to the truculent and enthusiastic Committee of Public Safety. Warned in time by his friend Carnot and by Barère, he avoided arrest and resumed his business as a silk-mercer in Limoges. He was soon reinstated, and early in 1794 was appointed commander-in-chief of the Army of Sambre-et-Meuse. After repeated attempts to force the passage of the Sambre had failed and several severe general actions had been fought without result, Jourdan and his army were discouraged, but Carnot and the civil commissioners urged the general, even with threats, to a last effort, and this time he was successful not only in crossing the Sambre but in winning a brilliant victory at Fleurus (June 26, 1794), the consequence of which was the extension of the French sphere of influence to the Rhine, on which river he waged an indecisive campaign in 1795.

In 1796 his army formed the left wing of the advance into Bavaria. The whole of the French forces were ordered to advance on Vienna, Jourdan on the extreme left and Moreau in the centre by the Danube valley, Bonaparte on the right by Italy and Styria. The campaign began brilliantly, the Austrians under the Archduke Charles being driven back by Moreau and Jourdan almost to the Austrian frontier. But the archduke, slipping away from Moreau, threw his whole weight on Jourdan, who was defeated at Amberg and Würzburg, and forced over the Rhine after a severe rearguard action, which cost the life of Marceau. Moreau had to fall back in turn, and, apart from Bonaparte's marvellous campaign in Italy, the operations of the year were disastrous. The chief cause of failure was the vicious plan of campaign imposed upon the generals by their government. Jourdan was nevertheless made the scapegoat of the government's mistakes and was not employed for two years. In those years he became prominent as a politician and above all as the framer of the famous conscription law of 1798. When the war was renewed in 1799 Jourdan was placed at the head of the army on the Rhine, but again underwent defeat at the hands of the archduke Charles at Stockach (March 25), and, disappointed and broken in health, handed over the command to Masséna. He at once resumed his political duties, and was a prominent opponent of the *coup d'état* of 18 Brumaire, after which he was expelled from the Council of the Five Hundred. Soon, however, he became formally reconciled to the new régime, and accepted from Napoleon fresh military and civil employment. In 1800 he became inspector-general of cavalry and infantry and representative of French interests in the Cisalpine Republic, and in 1804 he was made a marshal of France. He remained in the new kingdom of Italy until 1806, when Joseph Bonaparte, whom his brother made king of Naples in that year, selected Jourdan as his military adviser. He followed Joseph into Spain in the same capacity in 1808. But Joseph's throne had to be maintained by the French army, and throughout the Peninsular War the other marshals, who depended directly upon Napoleon, paid little heed either to Joseph or to Jourdan. After the battle of Vitoria he held no important command up to the fall of the Empire. Jourdan gave in his adhesion to the restoration government of 1814, and though he rejoined Napoleon in the Hundred Days and commanded a minor army, he submitted to the Bourbons again after Waterloo. He refused, however, to be a member of the court which tried Marshal Ney. He was made a count, a peer of France (1819), and governor of Grenoble (1816). In politics he was a prominent opponent of the royalist reactionaries and supported the revolution of 1830. After this event he held the portfolio of foreign affairs for a few days, and then became governor of the Invalides, where his last years were spent. Marshal Jourdan died on the 23rd of November 1833, and was buried in the Invalides.

He wrote *Opérations de l'armée du Danube* (1799); *Mémoires pour servir à l'histoire sur la campagne de 1796* (1819); and unpublished personal memoirs.

JOURNAL (through Fr. from late Lat. *diurnalis*, daily), a daily record of events or business. A private journal is usually an elaborated diary. When applied to a newspaper or other periodical the word is strictly used of one published each day; but any publication issued at stated intervals, such as a magazine or the record of the transactions of a learned society, is commonly called a journal. The word "journalist" for one whose business is writing for the public press (see Newspapers) seems to be as old as the end of the 17th century.

"Journal" is particularly applied to the record, day by day, of the business and proceedings of a public body. The journals of the British houses of parliament contain an official record of the business transacted day by day in either house. The record does not take note of speeches, though some of the earlier volumes contain references to them. The journals are a lengthened account written from the "votes and proceedings" (in the House of Lords called "minutes of the proceedings"), made day

by day by the assistant clerks, and printed on the responsibility of the clerk to the house, after submission to the "sub-committee on the journals." In the Commons the journal is passed by the Speaker before publication. The journals of the House of Commons begin in the first year of the reign of Edward VI. (1547), and are complete, except for a short interval under Elizabeth. Those of the House of Lords date from the first year of Henry VIII. (1509). Before that date the proceedings in parliament were entered in the rolls of parliament, which extend from 1278 to 1503. The journals of the Lords are "records" in the judicial sense, those of the Commons are not (see Erskine May, *Parliamentary Practice*, 1906, pp. 201–202).

The term "journal" is used, in business, for a book in which an account of transactions is kept previous to a transfer to the ledger (see BOOK-KEEPING), and also as an equivalent to a ship's log, as a record of the daily run, observations, weather changes, &c. In mining, a journal is a record describing the various strata passed through in sinking a shaft. A particular use of the word is that, in machinery, for the parts of a shaft which are in contact with the bearings; the origin of this meaning, which is firmly established, has not been explained.

JOURNEY (through O. Fr. *jornee* or *journee*, mod. Fr. *journée*, from med. Lat. *diurnata*, Lat. *diurnus*, of or belonging to *dies*, day), properly that which occupies a day in its performance, and so a day's work, particularly a day's travel, and the distance covered by such, usually reckoned in the middle ages as twenty miles. The word is now used of travel covering a certain amount of distance or lasting a certain amount of time, frequently defined by qualifying words. "Journey" is usually applied to travel by land, as opposed to "voyage," travel by sea. The early use of "journey" for a day's work, or the amount produced by a day's work, is still found in glassmaking, and also at the British Mint, where a "journey" is taken as equivalent to the coinage of 15 lb of standard gold, 701 sovereigns, and of 60 lb of silver. The term "journeyman" also preserves the original significance of the word. It distinguishes a qualified workman or mechanic from an "apprentice" on the one hand and a "master" on the other, and is applied to one who is employed by another person to work at his trade or occupation at a day's wage.

JOUVENET, JEAN (1647–1717), French painter, born at Rouen, came of a family of artists, one of whom had taught Poussin. He early showed remarkable aptitude for his profession, and, on arriving in Paris, attracted the attention of Le Brun, by whom he was employed at Versailles, and under whose auspices, in 1675, he became a member of the Académie Royale, of which he was elected professor in 1681, and one of the four perpetual rectors in 1707. The great mass of works that he executed, chiefly in Paris, many of which, including his celebrated Miraculous Draught of Fishes (engraved by Audran; also Landon, *Annales*, i. 42), are now in the Louvre, show his fertility in invention and execution, and also that he possessed in a high degree that general dignity of arrangement and style which distinguished the school of Le Brun. Jouvenet died on the 5th of April 1717, having been forced by paralysis during the last four years of his life to work with his left hand.

See *Mém. inéd. acad. roy. de p. et de sc.*, 1854, and D'Argenville, *Vies des peintres*.

JOUY, VICTOR JOSEPH ÉTIENNE DE (1764–1846), French dramatist, was born at Jouy, near Versailles, on the 12th of September 1764. At the age of eighteen he received a commission in the army, and sailed for South America in the company of the governor of Guiana. He returned almost immediately to France to complete his studies, and re-entered the service two years later. He was sent to India, where he met with many romantic adventures which were afterwards turned to literary account. On the outbreak of the Revolution he returned to France and served with distinction in the early campaigns, attaining the rank of adjutant-general. He drew suspicion on himself, however, by refusing to honour the toast of Marat, and had to fly for his life. At the fall of the Terror he resumed his commission but again fell under suspicion, being accused of treasonable correspondence with the English envoy, James Harris, 1st earl of Malmesbury who had been sent to France to negotiate terms of peace. He was acquitted of this charge, but, weary of repeated attacks, resigned his position on the pretext of his numerous wounds. Jouy now turned his attention to literature, and produced in 1807 with immense success his opera *La vestale* (music by Spontini). The piece ran for a hundred nights, and was characterized by the Institute of France as the best lyric drama of the day. Other operas followed, but none obtained so great a success. He published in the *Gazette de France* a series of satirical sketches of Parisian life, collected under the title of *L'Ermite de la Chaussée d'Antin, ou observations sur les mœurs et les usages français au commencement du xixe siècle* (1812–1814, 5 vols.), which was warmly received. In 1821 his tragedy of *Sylla* gained a triumph due in part to the genius of Talma, who had studied the title-rôle from Napoleon. Under the Restoration Jouy consistently fought for the cause of freedom, and if his work was overrated by his contemporaries, they were probably influenced by their respect for the author himself. He died in rooms set apart for his use in the palace of St Germain-en-Laye on the 4th of September 1846.

Out of the long list of his operas, tragedies and miscellaneous writings may be mentioned, *Fernand Cortez* (1809), opera, in collaboration with J. E. Esménard, music by Spontini; *Tippo Saïb*, tragedy (1813); *Bélisaire*, tragedy (1818); *Les Hermites en prison* (1823), written in collaboration with Antoine Jay, like himself a political prisoner; *Guillaume Tell* (1829), with Hippolyte Bis, for the music of Rossini. Jouy was also one of the founders of the *Biographie nouvelle des contemporains*.

JOVELLANOS (or JOVE LLANOS), **GASPAR MELCHOR DE** (1744–1811), Spanish statesman and author, was born at Gijon in Asturias, Spain, on the 5th of January 1744. Selecting law as his profession, he studied at Oviedo, Avila, and Alcalá, and in 1767 became criminal judge at Seville. His integrity and ability were rewarded in 1778 by a judgeship in Madrid, and in 1780 by appointment to the council of military orders. In the capital Jovellanos took a good place in the literary and scientific societies; for the society of friends of the country he wrote in 1787 his most valuable work, *Informe sobre un proyecto de ley agraria*. Involved in the disgrace of his friend, François Cabarrus, Jovellanos spent the years 1790 to 1797 in a sort of banishment at Gijon, engaged in literary work and in founding the Asturian institution for agricultural, industrial, social and educational reform throughout his native province. This institution continued his darling project up to the latest hours of his life. Summoned again to public life in 1797, Jovellanos refused the post of ambassador to Russia, but accepted that of minister of grace and justice, under "the prince of the peace," whose attention had been directed to him by Cabarrus, then a favourite of Godoy. Displeased with Godoy's policy and conduct Jovellanos combined with his colleague Saavedra to procure his dismissal. Godoy returned to power in 1798; Jovellanos was again sent to Gijon, but in 1801 was thrown into prison in Majorca. The revolution of 1808, and the advance of the French into Spain, set him once more at liberty. Joseph Bonaparte, on mounting the Spanish throne, made Jovellanos the most brilliant offers; but the latter, sternly refusing them all, joined the patriotic party, became a member of the central junta, and contributed to reorganize the cortes. This accomplished, the junta at once fell under suspicion, and Jovellanos was involved in its fall. To expose the conduct of the cortes, and to defend the junta and himself were the last labours of his pen. In 1811 he was enthusiastically welcomed to Gijon; but the approach of the French drove him forth again. The vessel in which he sailed was compelled by stress of weather to put in at Vega in Asturias, and there he died on the 27th of November 1811.

The poetical works of Jovellanos comprise a tragedy *El pelayo*, the comedy *El delincuente honrado*, satires, and miscellaneous pieces, including a translation of the first book of *Paradise Lost*. His prose works, especially those on political and legislative economy, constitute his real title to literary fame. In them depth of thought and clear-sighted sagacity are couched in a certain Ciceronian

elegance and classical purity of style. Besides the *Ley agraria* he wrote *Elogios*; various political and other essays; and *Memorias politicas* (1801), suppressed in Spain, and translated into French, 1825. An edition of his complete works was published at Madrid (1831–1832) in 7 vols., and another at Barcelona (1839).

See *Noticias historicas de Don G. M. de Jovellanos* (1812), and *Memorias para la vida del Señor . . . Jovellanos*, by J. A. C. Bermudez (1814).

JOVELLAR Y SOLER, JOAQUIN (1819–1892), captain-general of Spain, was born at Palma de Mallorca, on the 28th of December 1819. At the close of his studies at the military academy he was appointed sub-lieutenant, went to Cuba as captain in 1842, returned to the War Office in 1851, was promoted major in 1853, and went to Morocco as private secretary to Marshal O'Donnell, who made him colonel in 1860 after Jovellar had been wounded at the battle of Wad el Ras. In 1863 Jovellar became a brigadier-general, in 1864 under-secretary for war; he was severely wounded in fighting the insurgents in the streets of Madrid, and rose to the rank of general of division in 1866. Jovellar adhered to the revolution, and King Amadeus made him a lieutenant-general in 1872. He absented himself from Spain when the federal republic was proclaimed, and returned in the autumn of 1873, when Castelár sent him to Cuba as governor-general. In 1874 Jovellar came back to the Peninsula, and was in command of the Army of the Centre against the Carlists when Marshal Campos went to Sagunto to proclaim Alfonso XII. General Jovellar became war minister in the first cabinet of the restoration under Canovas, who sent him to Cuba again as governor-general, where he remained until the 18th of June 1878, when the ten years' insurrection closed with the peace of Zaujon. Alfonso XII. made him a captain-general, president of the council, life-senator, and governor-general of the Philippines. Jovellar died in Madrid on the 17th of April 1892.

JOVIAN (Flavius Jovianus) (*c.* 332–364), Roman emperor from June 363 to February 364, was born at Singidunum in Moesia about 332. As captain of the imperial bodyguard he accompanied Julian in his Persian expedition; and on the day after that emperor's death, when the aged Sallust, prefect of the East, declined the purple, the choice of the army fell upon Jovian. His election caused considerable surprise, and it is suggested by Ammianus Marcellinus that he was wrongly identified with another Jovian, chief notary, whose name also had been put forward, or that, during the acclamations, the soldiers mistook the name Jovianus for Julianus, and imagined that the latter had recovered from his illness. Jovian at once continued the retreat begun by Julian, and, continually harassed by the Persians, succeeded in reaching the banks of the Tigris, where a humiliating treaty was concluded with the Persian king, Shapur II. (*q.v.*). Five provinces which had been conquered by Galerius in 298 were surrendered, together with Nisibis and other cities. The Romans also gave up all their interests in the kingdom of Armenia, and abandoned its Christian prince Arsaces to the Persians. During his return to Constantinople Jovian was found dead in his bed at Dadastana, halfway between Ancyra and Nicaea. A surfeit of mushrooms or the fumes of a charcoal fire have been assigned as the cause of death. Under Jovian, Christianity was established as the state religion, and the Labarum of Constantine again became the standard of the army. The statement that he issued an edict of toleration, to the effect that, while the exercise of magical rites would be severely punished, his subjects should enjoy full liberty of conscience, rests on insufficient evidence. Jovian entertained a great regard for Athanasius, whom he reinstated on the archiepiscopal throne, desiring him to draw up a statement of the Catholic faith. In Syriac literature Jovian became the hero of a Christian romance (G. Hoffmann, *Julianus der Abtrünnige*, 1880).

See Ammianus Marcellinus, xxv. 5–10; J. P. de la Bléterie, *Histoire de Jovien* (1740); Gibbon, *Decline and Fall*, chs. xxiv., xxv.; J. Wordsworth in Smith and Wace's *Dictionary of Christian Biography*; H. Schiller, *Geschichte der römischen Kaiserzeit*, vol. ii. (1887); A. de Broglie, *L'Église et l'empire romain au ive siècle* (4th ed. 1882). For the relations of Rome and Persia see Persia: *Ancient History*.

JOVINIANUS, or Jovianus, a Roman monk of heterodox views, who flourished during the latter half of the 4th century. All our knowledge of him is derived from a passionately hostile polemic of Jerome (*Adv. Jovinianum, Libri II.*), written at Bethlehem in 393, and without any personal acquaintance with the man assailed. According to this authority Jovinian in 388 was living at Rome the celibate life of an ascetic monk, possessed a good acquaintance with the Bible, and was the author of several minor works, but, undergoing an heretical change of view, afterwards became a self-indulgent Epicurean and unrefined sensualist. The views which excited this denunciation were mainly these: (1) Jovinian held that in point of merit, so far as their domestic state was concerned, virgins, widows and married persons who had been baptized into Christ were on a precisely equal footing; (2) those who with full faith have been regenerated in baptism cannot be overthrown (or, according to another reading, tempted) of the devil; (3) to abstain from meats is not more praiseworthy than thankfully to enjoy them; (4) all who have preserved their baptismal grace shall receive the same reward in the kingdom of heaven.[1] Jovinian thus indicates a natural and vigorous reaction against the exaggerated asceticism of the 4th century, a protest shared by Helvidius and Vigilantius. He was condemned by a Roman synod under Bishop Siricius in 390, and afterwards excommunicated by another at Milan under the presidency of Ambrose. The year of his death is unknown, but he is referred to as no longer alive in Jerome's *Contra Vigilantium* (406).

JOVIUS, PAULUS, or Paolo Giovio (1483–1552), Italian historian and biographer, was born of an ancient and noble family at Como on the 19th of April 1483. His father died when he was a child, and Giovio owed his education to his brother Benedetto. After studying the humanities, he applied himself to medicine and philosophy at his brother's request. He was Pomponazzi's pupil at Padua; and afterwards he took a medical degree in the university of Pavia. He exercised the medical profession in Rome, but the attraction of literature proved irresistible for Giovio, and he was bent upon becoming the historian of his age. He presented a portion of his history to Leo X., who read the MS., and pronounced it superior in elegance to anything since Livy. Thus encouraged, Giovio took up his residence in Rome, and attached himself to Cardinal Giulio de' Medici, the pope's nephew. The next pope, Adrian VI., gave him a canonry in Como, on the condition, it is said, that Giovio should mention him with honour in his history. This patronage from a pontiff who was averse from the current tone of Italian humanism proves that Giovio at this period passed for a man of sound learning and sober manners. After Adrian's death, Giulio de' Medici became pope as Clement VII. and assigned him chambers in the Vatican, with maintenance for servants befitting a courtier of rank. In addition to other benefices, he finally, in 1528, bestowed on him the bishopric of Nocera. Giovio had now become in a special sense dependent on the Medici. He was employed by that family on several missions—as when he accompanied Ippolito to Bologna on the occasion of Charles V.'s coronation, and Caterina to Marseilles before her marriage to the duke of Orleans. During the siege of Rome in 1527 he attended Clement in his flight from the Vatican. While crossing the bridge which connected the palace with the castle of S. Angelo, Giovio threw his mantle over the pope's shoulders in order to disguise his master.

In the sack he suffered a serious pecuniary and literary loss, if we may credit his own statement. The story runs that he deposited the MS. of his history, together with some silver, in a box at S. Maria Sopra Minerva for safety. This box was discovered by two Spaniards, one of whom secured the silver, while the other, named Herrera, knowing who Giovio was, preferred to hold the MSS. for ransom. Herrera was so careless, however, as to throw away the sheets he found in paper, reserving only that portion of the work which was transcribed on parchment. This he subsequently sold to Giovo in exchange for a benifice at Cordova, which Clement VII. conceded to the Spaniard. Six books of the history were lost in this transaction. Giovo contented himself with indicating their substance in a summary. Perhaps he was not unwilling that his work should resemble that of Livy, even in its imperfection. But

[1] See, more fully, Harnack, *Hist. of Dogma*, v. 57.

doubt rests upon the whole of this story. Apostolo Zeno affirms that in the middle of the last century three of the missing books turned up among family papers in the possession of Count Giov. Batt. Giovio, who wrote a panegyric on his ancestor. It is therefore not improbable that Giovio possessed his history intact, but preferred to withhold from publication those portions which might have involved him in difficulties with living persons of importance. The omissions were afterwards made good by Curtio Marinello in the Italian edition, published at Venice in 1581. But whether Marinello was the author of these additions is not known.

After Clement's death Giovio found himself out of favour with the next pope, Paul III. The failure of his career is usually ascribed to the irregularity of the life he led in the literary society of Rome. We may also remember that Paul had special causes for animosity against the Medici, whose servant Giovio had been. Despairing of a cardinal's hat, Giovio retired to his villa on the lake of Como, where he spent the wealth he had acquired from donations and benefices in adorning his villa with curiosities, antiquities and pictures, including a very important collection of portraits of famous soldiers and men of letters, now almost entirely dispersed. He died upon a visit to Florence in 1552.

Giovio's principal work was the *History of His Own Times*, from the invasion of Charles VIII. to the year 1547. It was divided into two parts, containing altogether forty-five books. Of these, books v.–xi. of part i. were said by him to have been lost in the sack of Rome, while books xix.–xxiv. of part ii., which should have embraced the period from the death of Leo to the sack, were never written. Giovio supplied the want of the latter six books by his lives of Leo, Adrian, Alphonso I. of Ferrara, and several other personages of importance. But he alleged that the history of that period was too painful to be written in full. His first published work, printed in 1524 at Rome, was a treatise *De piscibus romanis*. After his retirement to Como he produced a valuable series of biographies, entitled *Elogia virorum illustrium*. They commemorate men distinguished for letters and arms, selected from all periods, and are said to have been written in illustration of portraits collected by him for the museum of his villa at Como. Besides these books, we may mention a biographical history of the Visconti, lords of Milan; an essay on mottoes and badges; a dissertation on the state of Turkey; a large collection of familiar epistles; together with descriptions of Britain, Muscovy, the Lake of Como and Giovio's own villa. The titles of these miscellanies will be found in the bibliographical note appended to this article.

Giovio preferred Latin in the composition of his more important works. Though contemporary with Machiavelli, Guicciardini and Varchi, he adhered to humanistic usages, and cared more for the Latinity than for the matter of his histories. His style is fluent and sonorous rather than pointed or grave. Partly owing to the rhetorical defects inherent in this choice of Latin, when Italian had gained the day, but more to his own untrustworthy and shallow character, Giovio takes a lower rank as historian than the bulk and prestige of his writings would seem to warrant. He professed himself a flatterer and a lampooner, writing fulsome eulogies on the princes who paid him well, while he ignored or criticized those who proved less generous. The old story that he said he kept a golden and an iron pen, to use according as people paid him, condenses the truth in epigram. His private morals were of a dubious character, and as a writer he had the faults of the elder humanists, in combination with that literary cynicism which reached its height in Aretino; and therefore his histories and biographical essays are not to be used as authorities, without corroboration. Yet Giovio's works, taken in their entirety and with proper reservation, have real value. To the student of Italy they yield a lively picture of the manners and the feeling of the times in which he lived, and in which he played no obscure part. They abound in vivid sketches, telling anecdotes, fugitive comments, which unite a certain charm of autobiographical romance with the worldly wisdom of an experienced courtier. A flavour of personality makes them not unpleasant reading. While we learn to despise and mistrust the man in Giovio, we appreciate the author. It would not be too far-fetched tc describe him as a sort of 16th-century Horace Walpole.

Bibliography.—The sources of Giovio's biography are: his own works; Tiraboschi's *History of Italian Literature*; Litta's *Genealogy of Illustrious Italian Families*; and Giov. Batt. Giovio's *Uomini illustri della diocesi Comasca*, Modena (1784). Cicogna, in his *Delle inscrizioni Veneziane raccolta* (Venice, 1830), gives a list of Giovio's works, from which the following notices are extracted: 1. Works in Latin: (1) *Pauli Jovii historiarum sui temporis, ab anno 1494 ad an. 1547* (Florence 1550–1552), the same translated into Italian by L. Domenichi, and first published at Florence (1551), afterwards at Venice; (2) *Leonis X., Hadriani VI., Pompeii Columnae Card., vitae* (Florence, 1548), translated by Domenichi (Florence, 1549); (3) *Vitae XII. vicecomitum Mediolani principum* (Paris, 1549), translated by Domenichi (Venice, 1549); (4) *Vita Sfortiae clariss. ducis* (Rome, 1549), translated by Domenichi (Florence, 1549); (5) *Vita Fr. Ferd. Davali* (Florence, 1549), translated by Domenichi (ibid. 1551); (6) *Vita magni Consalvi* (ibid. 1549), translated by Domenichi (ibid. 1550); (7) *Alfonsi Atestensi*, &c. (ibid. 1550), Italian translation by Giov. Batt. Gelli (Florence, 1553); (8) *Elogia virorum bellica virtute illustrium* (ibid. 1551), translated by Domenichi (ibid. 1554); (9) *Elogia clarorum virorum*, &c. (Venice, 1546) (these are biographies of men of letters), translated by Hippolito Orio of Ferrara (Florence, 1552); (10) *Libellus de legatione Basilii Magni principis Moscoviae* (Rome, 1525); (11) *Descriptio Larii Lacus* (Venice, 1559); (12) *Descriptio Britanniae*, &c. (Venice, 1548); (13) *De piscibus romanis* (Rome, 1524); (14) *Descriptiones quotquot extant regionum atque locorum* (Basel, 1571). 2. Works in Italian: (1) *Dialogo delle imprese militari et amorose* (Rome, 1555); (2) *Commentari delle cose dei Turchi* (Venice, 1541); (3) *Lettere volgari* (Venice, 1560). Some minor works and numerous reprints of those cited have been omitted from this list; and it should also be mentioned that some of the lives with additional matter, are included in the *Vitae illustrium virorum* (Basel, 1576). (J. A. S.)

The best and most complete edition of Giovio's works is that of Basel (1678). For his life see Giuseppe Sanesi, "Alcuni osservazioni e notizie intorno a tre storici minori del cinquecento—Giovio; Nerli, Segni" (in *Archivio Storico Italiano*, 5th series, vol. xxiii.); Eug. Müntz, *Sul museo di ritratti composto da Paolo Giovio* (ibid., vol. xix.).

JOWETT, BENJAMIN (1817–1893), English scholar and theologian, master of Balliol College, Oxford, was born in Camberwell on the 15th of April 1817. His father was one of a Yorkshire family who, for three generations, had been supporters of the Evangelical movement in the Church of England. His mother was a Langhorne, in some way related to the poet and translator of Plutarch. At twelve the boy was placed on the foundation of St Paul's School (then in St Paul's Churchyard), and in his nineteenth year he obtained an open scholarship at Balliol. In 1838 he gained a fellowship, and graduated with first-class honours in 1839. Brought up amongst pious Evangelicals, he came to Oxford at the height of the Tractarian movement, and through the friendship of W. G. Ward was drawn for a time in the direction of High Anglicanism; but a stronger and more lasting influence was that of the Arnold school, represented by A. P. Stanley. Jowett was thus led to concentrate his attention on theology, and in the summers of 1845 and 1846, spent in Germany with Stanley, he became an eager student of German criticism and speculation. Amongst the writings of that period he was most impressed by those of F. C. Baur. But he never ceased to exercise an independent judgment, and his work on St Paul, which appeared in 1855, was the result of much original reflection and inquiry. He was appointed to the Greek professorship in the autumn of that year. He had been a tutor of Balliol and a clergyman since 1842, and had devoted himself to the work of tuition with unexampled zeal. His pupils became his friends for life. He discerned their capabilities, studied their characters, and sought to remedy their defects by frank and searching criticism. Like another Socrates, he taught them to know themselves, repressing vanity, encouraging the despondent, and attaching all alike by his unobtrusive sympathy. This work gradually made a strong impression, and those who cared for Oxford began to speak of him as "the great tutor." As early as 1839 Stanley had joined with Tait, the future archbishop, in advocating certain university reforms. From 1846 onwards Jowett threw himself into this movement, which in 1848 became general amongst the younger and more thoughtful fellows, until it took effect in the commission of 1850 and the act of 1854. Another educational reform, the opening of the Indian civil service to competition, took place at the same time, and Jowett was one of the commission. He had two brothers who served and died in India, and he never ceased to take a deep and practical interest in Indian affairs. A great disappointment, his repulse for the mastership of Balliol, also in 1854, appears to have roused him into the completion of his book on *The Epistles of St Paul*. This work, described by one of his friends as "a miracle of boldness," is full of originality and suggestiveness, but its publication

awakened against him a storm of theological prejudice, which followed him more or less through life. Instead of yielding to this, he joined with Henry Bristowe Wilson and Rowland Williams, who had been similarly attacked, in the production of the volume known as *Essays and Reviews*. This appeared in 1860 and gave rise to a strange outbreak of fanaticism. Jowett's loyalty to those who were prosecuted on this account was no less characteristic than his persistent silence while the augmentation of his salary as Greek professor was withheld. This petty persecution was continued until 1865, when E. A. Freeman and Charles Elton discovered by historical research that a breach of the conditions of the professorship had occurred, and Christ Church raised the endowment from £40 a year to £500. Meanwhile Jowett's influence at Oxford had steadily increased. It culminated in 1864, when the country clergy, provoked by the final acquittal of the essayists, had voted in convocation against the endowment of the Greek chair. Jowett's pupils, who were now drawn from the university at large, supported him with the enthusiasm which young men feel for the victim of injustice. In the midst of other labours Jowett had been quietly exerting his influence so as to conciliate all shades of liberal opinion, and bring them to bear upon the abolition of the theological test, which was still required for the M.A. and other degrees, and for university and college offices. He spoke at an important meeting upon this question in London on the 10th of June 1864, which laid the ground for the University Tests Act of 1871. In connexion with the Greek professorship Jowett had undertaken a work on Plato which grew into a complete translation of the *Dialogues*, with introductory essays. At this he laboured in vacation time for at least ten years. But his interest in theology had not abated, and his thoughts found an outlet in occasional preaching. The university pulpit, indeed, was closed to him, but several congregations in London delighted in his sermons, and from 1866 until the year of his death he preached annually in Westminster Abbey, where Stanley had become dean in 1863. Three volumes of selected sermons have been published since his death. The years 1865–1870 were occupied with assiduous labour. Amongst his pupils at Balliol were men destined to high positions in the state, whose parents had thus shown their confidence in the supposed heretic, and gratitude on this account was added to other motives for his unsparing efforts in tuition. In 1870, by an arrangement which he attributed to his friend Robert Lowe, afterwards Lord Sherbrooke (at that time a member of Gladstone's ministry), Scott was promoted to the deanery of Rochester and Jowett was elected to the vacant mastership by the fellows of Balliol. From the vantage-ground of this long-coveted position the *Plato* was published in 1871. It had a great and well-deserved success. While scholars criticized particular renderings (and there were many small errors to be removed in subsequent editions), it was generally agreed that he had succeeded in making Plato an English classic.

If ever there was a beneficent despotism, it was Jowett's rule as master. Since 1866 his authority in Balliol had been really paramount, and various reforms in college had been due to his initiative. The opposing minority were now powerless, and the younger fellows who had been his pupils were more inclined to follow him than others would have been. There was no obstacle to the continued exercise of his firm and reasonable will. He still knew the undergraduates individually, and watched their progress with a vigilant eye. His influence in the university was less assured. The pulpit of St Mary's was no longer closed to him, but the success of Balliol in the schools gave rise to jealousy in other colleges, and old prejudices did not suddenly give way; while a new movement in favour of "the endowment of research" ran counter to his immediate purposes. Meanwhile, the tutorships in other colleges, and some of the headships also, were being filled with Balliol men, and Jowett's former pupils were prominent in both houses of parliament and at the bar. He continued the practice, which he had commenced in 1848, of taking with him a small party of undergraduates in vacation time, and working with them in one of his favourite haunts, at Askrigg in Wensleydale, or Tummel Bridge, or later at WestMalvern. The new hall (1876), the organ there, entirely his gift (1885), and the cricket ground (1889), remain as external monuments of the master's activity. Neither business nor the many claims of friendship interrupted literary work. The six or seven weeks of the long vacation, during which he had pupils with him, were mainly employed in writing. The translation of Aristotle's *Politics*, the revision of Plato, and, above all, the translation of Thucydides many times revised, occupied several years. The edition of the *Republic*, undertaken in 1856, remained unfinished, but was continued with the help of Professor Lewis Campbell. Other literary schemes of larger scope and deeper interest were long in contemplation, but were not destined to take effect—an *Essay on the Religions of the World*, a *Commentary on the Gospels*, a *Life of Christ*, a volume on *Moral Ideas*. Such plans were frustrated, not only by his practical avocations, but by his determination to finish what he had begun, and the fastidious self-criticism which it took so long to satisfy. The book on *Morals* might, however, have been written but for the heavy burden of the vice-chancellorship, which he was induced to accept in 1882, by the hope, only partially fulfilled, of securing many improvements for the university. The vice-chancellor was *ex officio* a delegate of the press, where he hoped to effect much; and a plan for draining the Thames Valley, which he had now the power of initiating, was one on which his mind had dwelt for many years. The exhausting labours of the vice-chancellorship were followed by an illness (1887); and after this he relinquished the hope of producing any great original writing. His literary industry was thenceforth confined to his commentary on the *Republic* of Plato, and some essays on Aristotle which were to have formed a companion volume to the translation of the *Politics*. The essays which should have accompanied the translation of Thucydides were never written. Jowett, who never married, died on the 1st of October 1893. The funeral was one of the most impressive ever seen in Oxford. The pall-bearers were seven heads of colleges and the provost of Eton, all old pupils.

Theologian, tutor, university reformer, a great master of a college, Jowett's best claim to the remembrance of succeeding generations was his greatness as a moral teacher. Many of the most prominent Englishmen of the day were his pupils and owed much of what they were to his precept and example, his penetrative sympathy, his insistent criticism, and his unwearying friendship. Seldom have ideal aims been so steadily pursued with so clear a recognition of practical limitations. Jowett's theological work was transitional, and yet has an element of permanence. As has been said of another thinker, he was "one of those deeply religious men who, when crude theological notions are being revised and called in question seek to put new life into theology by wider and more humane ideas." In earlier life he had been a zealous student of Kant and Hegel, and to the end he never ceased to cultivate the philosophic spirit; but he had little confidence in metaphysical systems, and sought rather to translate philosophy into the wisdom of life. As a classical scholar, his scorn of littlenesses sometimes led him into the neglect of *minutiae*, but he had the higher merit of interpreting ideas. His place in literature rests really on the essays in his Plato. When their merits are fully recognized, it will be found that his worth, as a teacher of his countrymen, extends far beyond his own generation.

See *The Life and Letters of Benjamin Jowett*, by E. A. Abbott and Lewis Campbell (1897); *Benjamin Jowett*, by Lionel Tollemache (1895). (L. C.)

JOYEUSE, a small town in the department of Ardèche, France, situated on the Baume, a tributary of the Ardèche, is historically important as having been the seat of a noble French family which derived its name from it. The lordship of Joyeuse came, in the 13th century, into the possession of the house of Châteauneuf-Randon, and was made into a viscountship in 1432. Guillaume, viscount of Joyeuse, was bishop of Alet, but afterwards left the church, and became a marshal of France; he died in 1592. His eldest son Anne de Joyeuse (1561–1587), was one of the favourites of Henry III. of France, who created him duke

and peer (1581), admiral of France (1582), and governor of Normandy (1586), and married him to Marguerite de Lorraine-Vaudémont, younger sister of the queen. He gained several successes against the Huguenots, but was recalled by court intrigues at an inopportune moment, and when he marched a second time against Henry of Navarre he was defeated and killed at Coutras. Guillaume had three other sons: François de Joyeuse (d. 1615), cardinal and archbishop of Narbonne, Toulouse and Rouen, who brought about the reconciliation of Henry IV. with the pope; Henri, count of Bouchage, and later duke of Joyeuse, who first entered the army, then became a Capuchin under the name of Père Ange, left the church and became a marshal of France, and finally re-entered the church, dying in 1608; Antoine Scipion, grand prior of Toulouse in the order of the knights of Malta, who was one of the leaders in the League, and died in the retreat of Villemur (1592). Henriette Catherine de Joyeuse, daughter of Henri, married in 1611 Charles of Lorraine, duke of Guise, to whom she brought the duchy of Joyeuse. On the death of her great-grandson, François Joseph de Lorraine, duke of Guise, in 1675, without issue, the duchy of Joyeuse was declared extinct, but it was revived in 1714, in favour of Louis de Melun, prince of Épinoy. (M. P.*)

JOYEUSE ENTRÉE, a famous charter of liberty granted to Brabant by Duke John III. in 1354. John summoned the representatives of the cities of the duchy to Louvain to announce to them the marriage of his daughter and heiress Jeanne of Brabant to Wenceslaus duke of Luxemburg, and he offered them liberal concessions in order to secure their assent to the change of dynasty. John III. died in 1355, and Wenceslaus and Jeanne on the occasion of their state entry into Brussels solemnly swore to observe all the provisions of the charter, which had been drawn up. From the occasion on which it was first proclaimed this charter has since been known in history as *La Joyeuse Entrée.* By this document the dukes of Brabant undertook to maintain the integrity of the duchy, and not to wage war, make treaties, or impose taxes without the consent of their subjects, as represented by the municipalities. All members of the duke's council were to be native-born Brabanters. This charter became the model for other provinces and the bulwark of the liberties of the Netherlands. Its provisions were modified from time to time, but remained practically unchanged from the reign of Charles V. onwards. The ill-advised attempt of the emperor Joseph II. in his reforming zeal to abrogate the *Joyeuse Entrée* caused a revolt in Brabant, before which he had to yield.

See E. Poullet, *La Joyeuse entrée, ou constitution Brabançonne* (1862).

JUAN FERNANDEZ ISLANDS, a small group in the South Pacific Ocean, between 33° and 34° S., 80° W., belonging to Chile and included in the province of Valparaiso. The main island is called *Mas-a-Tierra* (Span. "more to land") to distinguish it from a smaller island, *Mas-a-Fuera* (" more to sea "), 100 m. farther west. Off the S.W. of Mas-a-Tierra lies the islet of Santa Clara. The aspect of Mas-a-Tierra is beautiful; only 13 m. in length by 4 in width, it consists of a series of precipitous rocks rudely piled into irregular blocks and pinnacles, and strongly contrasting with a rich vegetation. The highest of these, 3225 ft., is called, from its massive form, El Yunque (the anvil). The rocks are volcanic. Cumberland Bay on the north side is the only fair anchorage, and even there, from the great depth of water, there is some risk. A wide valley collecting streams from several of the ravines on the north side of the island opens into Cumberland Bay, and is partially enclosed and cultivated. The inhabitants number only some twenty.

The flora and fauna of Juan Fernandez are in most respects Chilean. There are few trees on the island, for most of the valuable indigenous trees have been practically exterminated, such as the sandalwood, which the earlier navigators found one of the most valuable products of the island. Ferns are prominent among the flora, about one-third of which consists of endemic species. There are no indigenous land mammals. Pigs and goats, however, with cattle, horses, asses and dogs, have been introduced, have multiplied, and in considerable numbers run wild. Sea-elephants and fur-seals were formerly plentiful. Of birds, a tyrant and a humming-bird (*Eustephanus fernandensis*) are peculiar to the group, while another humming bird (*E. galerites*), a thrush, and some birds of prey also occur in Chile. *E. fernandensis* has the peculiarity that the male is of a bright cinnamon colour, while the female is green. Both sexes are green in *E. galerites.*

Juan Fernandez was discovered by a Spanish pilot of that name in 1563. Fernandez obtained from the Spanish government a grant of the islands, where he resided for some time, stocking them with goats and pigs. He soon, however, appears to have abandoned his possessions, which were afterwards for many years only visited occasionally by fishermen from the coasts of Chile and Peru. In 1616 Jacob le Maire and Willem Cornelis Schouten called at Juan Fernandez for water and fresh provisions. Pigs and goats were then abundant on the islands. In February 1700 Dampier called at Juan Fernandez and while there Captain Straddling of the " Cinque Porte " galley quarrelled with his men, forty-two of whom deserted but were afterwards taken on board by Dampier; five seamen, however, remained on shore. Other parties had previously colonized the islands but none had remained permanently. In October 1704 the " Cinque Porte " returned and found two of these men, the others having been apparently captured by the French. On this occasion Straddling quarrelled with Alexander Selkirk (*q.v.*), who, at his own request, became the island's most famous colonist, for his adventures are commonly believed to have inspired Daniel Defoe's *Robinson Crusoe.* Among later visits, that of Commodore Anson, in the " Centurion " (June 1741) led, on his return home, to a proposal to form an English settlement on Juan Fernandez; but the Spaniards, hearing that the matter had been mooted in England, gave orders to occupy the island, and it was garrisoned accordingly in 1750. Philip Carteret first observed this settlement in May 1767, and on account of the hostility of the Spaniards preferred to put in at Mas-a-Fuera. After the establishment of the independence of Chile at the beginning of the 19th century, Juan Fernandez passed into the possession of that country. On more than one occasion before 1840 Mas-a-Tierra was used as a state prison by the Chilean government.

JUANGS (Patuas, literally " leaf-wearers "), a jungle tribe of Orissa, India. They are found in only two of the tributary states, Dhenkanal and Keonjhar, most of them in the latter. They are estimated to amount in all to about 10,000. Their language belongs to the Munda family. They have no traditions which connect them with any other race, and they repudiate all connexion with the Hos or the Santals, declaring themselves the aborigines. They say the headquarters of the tribe is the Gonasika. In manners they are among the most primitive people of the world, representing the Stone age in our own day. They do not till the land, but live on the game they kill or on snakes and vermin. Their huts measure about 6 ft. by 8 ft., with very low doorways. The interior is divided into two compartments. In the first of these the father and all the females of a family huddle together; the second is used as a store-room. The boys have a separate hut at the entrance to the village, which serves as a guest-house and general assembly place where the musical instruments of the village are kept. Physically they are small and weak-looking, of a reddish-brown colour, with flat faces, broad noses with wide nostrils, large mouths and thick lips, the hair coarse and frizzly. The women until recently wore nothing but girdles of leaves, the men, a diminutive bandage of cloth. The Juangs declare that the river goddess, emerging for the first time from the Gonasika rock, surprised a party of naked Juangs dancing, and ordered them to wear leaves, with the threat that they should die if they ever gave up the custom. The Juangs' weapons are the bow and arrow and a primitive sling made entirely of cord. Their religion is a vague belief in forest spirits. They offer fowls to the sun when in trouble and to the earth for a bountiful harvest. Polygamy is rare. They burn their dead and throw the ashes into any running stream. The most sacred oaths a Juang can take are those on an ant-hill or a tiger-skin.

See E. W. Dalton, *Descriptive Ethnology of Bengal* (1872).

JUAN MANUEL, DON (1282–1349), infante of Castile, son of the infante Don Manuel and Beatrix of Savoy, and grandson of St Ferdinand, was born at Escalona on the 5th of May 1282. His father died in 1284, and the young prince was educated at the court of his cousin, Sancho IV., with whom his precocious ability made him a favourite. In 1294 he was appointed *adelantado* of Murcia and in his fourteenth year served against the Moors at Granada. In 1304 he was entrusted by the queen-mother, Doña Maria de Molina, to conduct political negotiations with James II. of Aragon on behalf of her son, Ferdinand IV., then under age. His diplomacy was successful and his marriage to James II.'s daughter, Constantina, added to his prestige. On the death of Ferdinand IV. and of the regents who governed in the name of Alphonso XI., Don Juan Manuel acted as guardian of the king who was proclaimed of age in 1325. His ambitious design of continuing to exercise the royal power was defeated by Alphonso XI., who married the ex-regent's daughter Constanza, and removed his father-in-law from the scene by nominating him *adelantado mayor de la frontera*. Alphonso XI.'s repudiation of Constanza, whom he imprisoned at Toro, drove Don Juan Manuel into opposition, and a long period of civil war followed. On the death of his wife Constantina in 1327, Don Juan Manuel strengthened his position by marrying Doña Blanca de la Cerda; he secured the support of Juan Nuñez, *alférez* of Castile, by arranging a marriage between him and Maria, daughter of Don Juan el Tuerto; he won over Portugal by promising the hand of his daughter, the ex-queen Constanza, to the infante of that kingdom, and he entered into alliance with Mahomet III. of Granada. This formidable coalition compelled Alphonso XI. to sue for terms, which he accepted in 1328 without any serious intention of complying with them; but he was compelled to release Doña Constanza. War speedily broke out anew, and lasted till 1331 when Alphonso XI. invited Juan Manuel and Juan Nuñez to a banquet at Villahumbrales with the intention, it was believed, of assassinating them; the plot failed, and Don Juan Manuel joined forces with Peter IV. of Aragon. He was besieged by Alphonso XI. at Garci-Nuñez, whence he escaped on the 30th of July 1336, fled into exile, and kept the rebellion alive till 1338, when he made his peace with the king. He proved his loyalty by serving in further expeditions against the Moors of Granada and Africa, and died a tranquil death in the first half of 1349.

Distinguished as an astute politician, Don Juan Manuel is an author of the highest eminence, and, considering the circumstances of his stormy life, his voluminousness is remarkable. The *Libro de los sabios*, a treatise called *Engeños de Guerra* and the *Libro de cantares*, a collection of verses, were composed between 1320 and 1327; but they have disappeared together with the *Libro de la caballería* (written during the winter of 1326, and the *Reglas como se debe trovar*, a metrical treatise assigned to 1328–1334. Of his surviving writings, Juan Manuel's *Crónica abreviada* was compiled between 1319 and 1325, while the *Libro de la caza* must have been written between 1320 and 1329; and during this period of nine years the *Crónica de España*, the *Crónica complida*, and the *Tratado sobre las armas* were produced. The *Libro del caballero et del escudero* was finished before the end of 1326; the first book of the *Libro de los estados* was finished on the 22nd of May 1330, while the second was begun five days later; the first book of *El Conde Lucanor* was written in 1328, the second in 1330, and the fourth is dated 12th of June 1335. We are unable to assign to any precise date the devout *Tractado* on the Virgin, dedicated to the prior of the monastery at Peñafiel, to which Don Juan Manuel bequeathed his manuscripts; but it seems probable that the *Libro de los frailes predicadores* is slightly later than the *Libro de los estados*; that the *Libro de los castigos* (left unfinished, and therefore known by the alternative title of *Libro infinido*) was written not later than 1333, and that the treatise *De las maneras de amor* was composed between 1334 and 1337.

The historical summaries, pious dissertations and miscellaneous writings are of secondary interest. The *Libro del caballero et del escudero* is on another plane; it is no doubt suggested by Lull's *Libre del orde de cavalleria*, but the points of resemblance have been exaggerated; the morbid mysticism of Lull is rejected, and the carefully finished style justifies the special pride which the author took in this performance. The influence of Lull's *Blanquerna* is likewise visible in the *Libro de los estados;* but there are marked divergences of substance which go to prove Don Juan Manuel's acquaintance with some version (not yet identified) of the Barlaam and Josaphat legend. Nothing is more striking than the curious and varied erudition of the turbulent prince who weaves his personal experiences with historical or legendary incidents, with reminiscences of Aesop and Phaedrus, with the *Disciplina clericalis*, with *Kalilah and Dimnah*, with countless Oriental traditions, and with all the material of anecdotic literature which he embodies in the *Libro de patronio*, best known by the title of *El Conde Lucanor* (the name Lucanor being taken from the prose *Tristan*). This work (also entitled the *Libro de enxemplos*) was first printed by Gonzalo Argote de Molina at Seville in 1575, and it revealed Don Juan Manuel as a master in the art of prose composition, and as the predecessor of Boccaccio in the province of romantic narrative. The *Cento novelle antiche* are earlier in date, but these anonymous tales, derived from popular stories diffused throughout the world, lack the personal character which Don Juan lends to all he touches. They are simple, unadorned variants of folk-lore items; *El Conde Lucanor* is essentially the production of a conscious artist, deliberative and selective in his methods. Don Juan Manuel has not Boccaccio's festive fancy nor his constructive skill; he is too persistently didactic and concerned to point a moral; but he excels in knowledge of human nature, in the faculty of ironical presentation, in tolerant wisdom and in luminous conciseness. He naturalizes the Eastern apologue in Spain, and by the laconic picturesqueness of his expression imports a new quality into Spanish prose which attains its full development in the hands of Juan de Valdés and Cervantes. Some of his themes are utilized for dramatic purposes by Lope de Vega in *La Pobreza estimada*, by Ruiz de Alarcón in *La Prueba de las promesas*, by Calderón in *La Vida es sueño*, and by Cañizares in *Don Juan de Espina en Milán*: there is an evident, though remote, relation between the tale of the *mancebo que casó con una mujer muy fuerte y muy brava* and *The Taming of the Shrew;* and a more direct connexion exists between some of Don Juan Manuel's *enxemplos* and some of Anderson's fairy tales.

BIBLIOGRAPHY.—*Obras*, edited by P. de Gayangos in the *Biblioteca de autores Españoles*, vol. li.; *El Conde Lucanor* (Leipzig, 1900), edited by H. Knust and A. Hirschfeld; *Libro de la caza* (Halle, 1880), edited by G. Baist; *El Libro del caballero et del escudero*, edited by S. Gräfenberg in *Romanische Forschungen*, vol. vi.; *La crónica complida*, edited by G. Baist in *Romanische Forschungen*, vol. vi.; G. Baist, *Alter und Textueberlieferung der Schriften Don Juan Manuels* (Halle, 1880); F. Hanssen, *Notas á la versificación de D. Juan Manuel* (Santiago de Chile, 1902). The *Conde Lucanor* has been translated by J. Eichendorff into German (1840), by A. Puibusque into French (1854) and by J. York into English (1868). (J. F.-K.)

JUAREZ, BENITO PABLO (1806–1872), president of Mexico, was born near Ixtlan, in the state of Oajaca, Mexico, on the 21st of March 1806, of full Indian blood. Early left in poverty by the death of his father, he received from a charitable friar a good general education, and afterwards the means of studying law. Beginning to practise in 1834, Juarez speedily rose to professional distinction, and in the stormy political life of his time took a prominent part as an exponent of liberal views. In 1832 he sat in the state legislature; in 1846 he was one of a legislative triumvirate for his native state and a deputy to the republican congress, and from 1847 to 1852 he was governor of Oajaca. Banished in 1853 by Santa Anna, he returned to Mexico in 1855, and joined Alvarez, who, after Santa Anna's defeat, made him minister of justice. Under Comonfort, who then succeeded Alvarez, Juarez was governor of Oajaca (1855–57), and in 1857 chief justice and secretary of the interior; and, when Comonfort was unconstitutionally replaced by Zuloaga in 1858, the chief justice, in virtue of his office, claimed to be legal president of the republic. It was not, however, till the beginning of 1861 that he succeeded in finally defeating the

unconstitutional party and in being duly elected president by congress. His decree of July 1861, suspending for two years all payments on public debts of every kind, led to the landing in Mexico of English, Spanish and French troops. The first two powers were soon induced to withdraw their forces; but the French remained, declared war in 1862, placed Maximilian upon the throne as emperor, and drove Juarez and his adherents to the northern limits of the republic. Juarez maintained an obstinate resistance, which resulted in final success. In 1867 Maximilian was taken at Querétaro, and shot; and in August Juarez was once more elected president. His term of office was far from tranquil; discontented generals stirred up ceaseless revolts and insurrections; and, though he was re-elected in 1871, his popularity seemed to be on the wane. He died of apoplexy in the city of Mexico on the 18th of July 1872. He was a statesman of integrity, ability and determination, whose good qualities are too apt to be overlooked in consequence of his connexion with the unhappy fate of Maximilian.

JUBA, the name of two kings of Numidia.

JUBA I. (1st century B.C.), son and successor of Hiempsal, king of Numidia. During the civil wars at Rome he sided with Pompey, partly from gratitude because he had reinstated his father on his throne (Appian, *B.C.*, i. 80), and partly from enmity to Caesar, who had insulted him at Rome by pulling his beard (Suet., *Caesar*, 71). Further, C. Scribonius Curio, Caesar's general in Africa, had openly proposed, 50 B.C., when tribune of the plebs, that Numidia should be sold to colonists, and the king reduced to a private station. In 49 Juba inflicted on the Caesarean army a crushing defeat, in which Curio was slain (Vell. Pat. ii. 54; Caesar, *B.C.* ii. 40). Juba's attention was distracted by a counter invasion of his territories by Bocchus the younger and Sittius; but, finding that his lieutenant Sabura was able to defend his interests, he rejoined the Pompeians with a large force, and shared the defeat at Thapsus. Fleeing from the field with the Roman general M. Petreius, he wandered about as a fugitive. At length, in despair, Juba killed Petreius, and sought the aid of a slave in despatching himself (46). Juba was a thorough savage; brave, treacherous, insolent and cruel. (See NUMIDIA.)

JUBA II., son of the above. On the death of his father in 46 B.C. he was carried to Rome to grace Caesar's triumph. He seems to have received a good education under the care of Augustus who, in 29, after Mark Antony's death, gave him the hand of Cleopatra Selene, daughter of Antony and Cleopatra, and placed him on his father's throne. In 25, however, he transferred him from Numidia to Mauretania, to which was added a part of Gaetulia (see NUMIDIA). Juba seems to have reigned in considerable prosperity, though in A.D. 6 the Gaetulians rose in a revolt of sufficient importance to afford the surname Gaetulicus to Cornelius Lentulus Cossus, the Roman general who helped to suppress it. The date of Juba's death is by no means certain; it has been put between A.D. 19 and 24 (Strabo, xvii. 828; Dio Cassius, li. 15; liii. 26; Plutarch, *Ant.* 87; *Caesar*, 55). Juba, according to Pliny, who constantly refers to him, is mainly memorable for his writings. He has been called the African Varro.

He wrote many historical and geographical works, of which some seem to have been voluminous and of considerable value on account of the sources to which their author had access: (1) Ῥωμαϊκὴ ἱστορία: (2) Ἀσσυριακά: (3) Λιβυκά: (4) *De Arabia sive De expeditione arabica*; (5) *Physiologa*; (6) *De Euphorbia herba*; (7) Περὶ ὁποῦ: (8) Περὶ γραφικῆς (Περὶ ζωγράφων): (9) Θεατρικὴ ἱστορία: (10) Ὁμοιότητες: (11) Περὶ φθορᾶς λέξεως: (12) Ἐπίγραμμα.

Fragments and life in Müller, *Frag. Hist. Graec.*, vol. iii.; see also Sevin, *Mém. de l'Acad. des Inscriptions*, vol. iv.; Hullemann, *De vita et scriptis Jubae* (1846). For the denarii of Juba II. found in 1908 at El Ksar on the coast of Morocco see Dieudonné in *Revue Numism.* (1908), pp. 350 seq. They are interesting mainly as throwing light on the chronology of the reign.

JUBA, or JUB, a river of East Africa, exceeding 1000 m. in length, rising on the S.E. border of the Abyssinian highlands and flowing S. across the Galla and Somali countries to the sea. It is formed by the junction of three streams, all having their source in the mountain range N.E. of Lake Rudolf which is the water-parting between the Nile basin and the rivers flowing to the Indian Ocean.

Of the three headstreams, the Web, the Ganale and the Daua, the Ganale (or Ganana) is the central river and the true upper course of the Juba. It has two chief branches, the Black and the Great Ganale. The last-named, the most remote source of the river, rises in 7° 30′ N., 38° E. at an altitude of about 7500 ft., the crest of the mountains reaching another 2500 ft. In its upper course it flows over a rocky bed with a swift current and many rapids. The banks are clothed with dense jungle and the hills beyond with thorn-bush. Lower down the river has formed a narrow valley, 1500 to 2000 ft. below the general level of the country. Leaving the higher mountains in about 5° 15′ N., 40° E., the Ganale enters a large slightly undulating grass plain which extends south of the valley of the Daua and occupies all the country eastward to the junction of the two rivers. In this plain the Ganale makes a semicircular sweep northward before resuming its general S.-E. course. East of 42° E. in 4° 12′ N. it is joined by the Web on the left or eastern bank, and about 10 m. lower down the Daua enters on the right bank.

The Web rises in the mountain chain a little S. and E. of the sources of the Ganale, and some 40 m. from its source passes, first, through a cañon 500 ft. deep, and then through a series of remarkable underground caves hollowed out of a quartz mountain and, with their arches and white columns, presenting the appearance of a pillared temple. The Daua (or Dawa) is formed by the mountain torrents which have their rise S. and W. of the Ganale and is of similar character to that river. It has few feeders and none of any size. The descent to the open country is somewhat abrupt. In its middle course the Daua has cut a deep narrow valley through the plain; lower down it bends N.E. to its junction with the Ganale. The river is not deep and can be forded in many places; the banks are fringed with thick bush and dom-palms. At the junction of the Ganale and the Web the river is swift-flowing and 85 yards across; just below the Daua confluence it is 200 yds. wide, the altitude here—300 m. in a direct line from the source of the Ganale—being only 590 ft.

Below the Daua the river, now known as the Juba, receives no tributary of importance. It first flows in a valley bounded, especially towards the west, by the escarpments of a high plateau, and containing the towns of Lugh (in 3° 50′ N., the centre of active trade), Bardera, 387 m. above the mouth, and Saranli—the last two on opposite sides of the stream, in 2° 20′ N., a crossing-place for caravans. Beyond 1° 45′ N. the country becomes more level and the course of the river very tortuous. On the west a series of small lakes and backwaters receives water from the Juba during the rains. Just south of the equator channels from the long, branching Lake Deshekwama or Hardinge, fed by the Lakdera river, enter from the west, and in 0° 15′ S. the Juba enters the sea across a dangerous bar, which has only one fathom of water at high tide.

From its mouth to 20 m. above Bardera, where at 2° 35′ N. rapids occur, the Juba is navigable by shallow-draught steamers, having a general depth of from 4 to 12 ft., though shallower in places. Just above its mouth it is a fine stream 250 yds. wide, with a current of 2½ knots. Below the mountainous region of the headstreams the Juba and its tributaries flow through a country generally arid away from the banks of the streams. The soil is sandy, covered either with thorn-scrub or rank grass, which in the rainy season affords herbage for the herds of cattle, sheep and camels owned by the Boran Gallas and the Somali who inhabit the district. But by the banks of the lower river the character of the country changes. In this district, known as Gosha, are considerable tracts of forest, and the level of flood water is higher than much of the surrounding land. This low-lying fertile belt stretches along the river for about 300 m., but is not more than a mile or two wide. In the river valley maize, rice, cotton and other crops are cultivated. From Gobwen, a trading settlement about 3 m. above the mouth of the Juba, a road runs S.W. to the seaport of Kismayu, 10 m. distant.

The lower Juba was ascended in 1865 in a steamer by Baron Karl von der Decken, who was murdered by Somali at Bardera, but the river system remained otherwise almost unknown until after 1890. In 1891 a survey of its lower course was executed by Captain F. G. Dundas of the British navy, while in 1892–1893 its headstreams were explored by the Italian officers, Captains Vittorio, Bottego and Grixoni, the former of whom disproved the supposed connexion of the Omo (see RUDOLF, LAKE) with the Juba system. It has since been further explored by Prince Eugenio Ruspoli, by Bottego's second expedition (1895), by Donaldson Smith, A. E. Butter, Captain P. Maud of the British army, and others. The river, from its mouth to the confluence of the Daua and Ganale, forms the frontier between the

British East Africa protectorate and Italian Somaliland; and from that point to about 4° 20′ N. the Daua is the boundary between British and Abyssinian territory.

JUBBULPORE, or JABALPUR, a city, district, and division of British India in the Central Provinces. The city is 616 m. N.E. of Bombay by rail, and 220 m. S.W. of Allahabad. Pop. (1901), 90,316. The numerous gorges in the neighbouring rocks have been taken advantage of to surround the city with a series of lakes, which, shaded by fine trees and bordered by fantastic crags, add much beauty to the suburbs. The city itself is modern, and is laid out in wide and regular streets. A streamlet separates the civil station and cantonment from the native quarter; but, though the climate is mild, a swampy hollow beneath renders the site unhealthy for Europeans. Formerly the capital of the Saugor and Nerbudda territories, Jubbulpore is now the headquarters of a brigade in the 5th division of the southern army. It is also one of the most important railway centres in India, being the junction of the Great Indian Peninsula and the East Indian systems. It has a steam cotton-mill. The government college educates for the science course of the Allahabad University, and also contains law and engineering classes; there are three aided high schools, a law class, an engineering class and normal schools for male and female teachers. A native association, established in 1869, supports an orphanage, with help from government. A zenana mission manages 13 schools for girls. Waterworks were constructed in 1882.

The DISTRICT OF JUBBULPORE lies on the watershed between the Nerbudda and the Son, but mostly within the valley of the former river, which here runs through the famous gorge known as the Marble rocks, and falls 30 ft. over a rocky ledge (the *Dhuan dhar*, or "misty shoot"). Area, 3912 sq. m. It consists of a long narrow plain running north-east and south-west, and shut in on all sides by highlands. This plain, which forms an offshoot from the great valley of the Nerbudda, is covered in its western and southern portions by a rich alluvial deposit of black cotton-soil. At Jubbulpore city the soil is sandy, and water plentiful near the surface. The north and east belong to the Ganges and Jumna basins, the south and west to the Nerbudda basin. In 1901 the population was 680,585, showing a decrease of 9% since 1891, due to the results of famine. The principal crops are wheat, rice, pulse and oil-seeds. A good deal of iron-smelting with charcoal is carried on in the forests, manganese ore is found, and limestone is extensively quarried. The district is traversed by the main railway from Bombay to Calcutta, and by new branches of two other lines which meet at Katni junction. Jubbulpore suffered severely in the famine of 1896–1897, the distress being aggravated by immigration from the adjoining native states. Fortunately the famine of 1900 was less severely felt.

The early history of Jubbulpore is unknown; but inscriptions record the existence during the 11th and 12th centuries of a local line of princes of that Haihai race which is closely connected with the history of Gondwana. In the 16th century the Gond raja of Garha Mandla extended his power over fifty-two districts, including the present Jubbulpore. During the minority of his grandson, Asaf Khan, the viceroy of Kara Manikpur, conquered the Garha principality and held it at first as an independent chief. Eventually he submitted to the emperor Akbar. The Delhi power, however, enjoyed little more than a nominal supremacy; and the princes of Garha Mandla maintained a practical independence until their subjugation by the Mahratta governors of Saugor in 1781. In 1798 the peshwa granted the Nerbudda valley to the Bhonsla princes of Nagpur, who continued to hold the district until the British occupied it in 1818.

The DIVISION OF JUBBULPORE lies mainly among the Vindhyan and Satpura hill systems. It comprises the five following districts: Jubbulpore, Saugor, Damoh, Seoni and Mandla. Area, 18,950 sq. m.; pop. (1901), 2,081,499.

JUBÉ, the French architectural term (taken from the imperative of Lat. *jubere*, to order) for the chancel or choir screen, which in England is known as the rood-screen (see ROOD). Above the screen was a gallery or loft, from which the words "Jube Domine benedicere" were spoken by the deacon before the reading of the Gospel, and hence probably the name. One of the finest *jubés* in France is that of the church of the Madeleine at Troyes, in rich flamboyant Gothic. A later example, of the Renaissance period, *c.* 1600, is in the church of St Étienne du Mont, Paris. In the Low Countries there are many fine examples in marble, of which one of the most perfect from Bois-le-Duc is now in the Victoria and Albert Museum.

JUBILEE (or JUBILE), **YEAR OF,** in the Bible, the name applied in the Holiness section of the Priestly Code of the Hexateuch (Lev. xxv.) to the observance of every 50th year, determined by the lapse of seven seven-year periods as a year of perfect rest, when there was to be no sowing, nor even gathering of the natural products of the field and the vine. At the beginning of the jubilee-year the liberation of all Israelitish slaves and the restoration of ancestral possessions was to be proclaimed. As regards the meaning of the name "jubilee" (Heb. *yōbēl*) modern scholars are agreed that it signifies "ram" or "ram's horn." "Year of jubilee" would then mean the year that is inaugurated by the blowing of the ram's horn (Lev. xxv. 9).

According to Lev. xxv. 8–12, at the completion of seven sabbaths of years (*i.e.* $7\times7=49$ years) the trumpet of the jubilee is to be sounded "throughout the land" on the 10th day of the seventh month (Tisri 10), the great Day of Atonement. The 50th year thus announced is to be "hallowed," *i.e.* liberty [1] is to be proclaimed everywhere to everyone, and the people are to return "every man unto his possession and unto his family." As in the sabbatical year, there is to be no sowing, nor reaping that which grows of itself, nor gathering of grapes.

As regards *real property* (Lev. xxv. 13–34) the law is that if any Hebrew under pressure of necessity shall alienate his property he is to get for it a sum of money reckoned according to the number of harvests to be reaped between the date of alienation and the first jubilee-year: should he or any relation desire to redeem the property before the jubilee this can always be done be repaying the value of the harvests between the redemption and the jubilee.

This legal enactment, though it is not found (nor anything like it) in the earlier collections of laws, is evidently based on (or modified from) an ancient custom which conferred on a near kinsman the right of pre-emption as well as of buying back (cf. Jer. xxxii. 6 sqq.). The tendency to impose checks upon the alienation of landed property was exceptionally strong in Israel. The fundamental principle is that the land is a sacred possession belonging to Yahweh. As such it is not to be alienated from Yahweh's people, to whom it was originally assigned. In Ezekiel's restoration programme "crown lands presented by the 'prince' to any of his officials revert to the crown in the year of liberty (? jubilee year)"; only to his sons may any portion of his inheritance be alienated in perpetuity (Ezek. xlvi. 16–18; cf. Code of Hammurabi, § 38 seq.).

The same rule applies to dwelling-houses of unwalled villages; the case is different, however, as regards dwelling-houses in walled cities. These may be redeemed within a year after transfer, but if not redeemed within that period they continue permanently in possession of the purchaser, and this may well be an echo of ancient practice. An exception to this last rule is made for the houses of the Levites in the Levitical cities.

As regards *property in slaves* (Lev. xxv. 35–55) the Hebrew whom necessity has compelled to sell himself into the service of his brother Hebrew is to be treated as a hired servant and sojourner, and to be released absolutely at the jubilee; non-Hebrew bondmen, on the other hand, are to be bondmen for ever. But the Hebrew who has sold himself to a stranger or sojourner is entitled to freedom at the year of jubilee, and further is at any time redeemable by any of his kindred—the redemption price being regulated by the number of years to run between the redemption and the jubilee, according to the ordinary wage of hired servants. Such were the enactments of the Priestly Code—which, of course, represents the latest legislation of the Pentateuch (post-exilic). These enactments, in order to be understood rightly, must be viewed in relation to the earlier

[1] Heb. *dĕrōr*. The same word (*durāru*) is used in the Code of Hammurabi in the similar enactment that wife, son or daughter sold into slavery for debt are to be restored to *liberty* in the fourth year (§ 117).

similar provisions in connexion with the sabbatical (seventh) year. "The foundations of Lev. xxv. are laid in the ancient provisions of the Book of the Covenant (Exod. xxi. 2 seq.; xxiii. 10 seq.) and in Deuteronomy (xv.). The Book of the Covenant enjoined that the land should lie fallow and Hebrew slaves be liberated in the seventh year; Deuteronomy required in addition the remission of debts" (Benzinger). Deuteronomy, it will be noticed, in accordance with its humanitarian tendency, not only liberates the slave but remits the debt. It is evident that these enactments proved impracticable in real life (cf. Jer. xxxiv. 8 seq.), and so it became necessary in the later legislation of P, represented in the present form of Lev. xxv., to relegate them to the 50th year, the year of jubilee. The latter, however, was a purely theoretic development of the Sabbath idea, which could never have been reduced to practice (its actual observance would have necessitated that for two consecutive years—the 49th and 50th—absolutely nothing could be reaped, while in the 51st only summer fruits could be obtained, sowing being prohibited in the 50th year). That in practice the enactments for the jubilee-year were disregarded is evidenced by the fact that, according to the unanimous testimony of the Talmudists and Rabbins, although the jubilee-years were "reckoned" they were not observed.

The conjecture of Kuenen, supported by Wellhausen, that originally Lev. xxv. 8 seq. had reference to the seventh year is a highly probable one. This may be the case also with Ezek. xlvi. 16–18 (cf. Jer. xxxiv. 14). A later Rabbinical device for evading the provisions of the law was the *prosbul* (ascribed to Hillel) —*i.e.* a condition made in the presence of the judge securing to the creditor the right of demanding repayment at any time, irrespective of the year of remission. Further enactments regarding the jubilee are found in Lev. xxvii. 17–25 and Num. xxxvi. 4. (W. R. S.; G. H. Bo.)

JUBILEES, BOOK OF, an apocryphal work of the Old Testament. The Book of Jubilees is the most advanced pre-Christian representative of the Midrashic tendency, which had already been at work in the Old Testament Chronicles. As the chronicler had rewritten the history of Israel and Judah from the standpoint of the Priests' Code, so our author re-edited from the Pharisaic standpoint of his time the history of the world from the creation to the publication of the Law on Sinai. His work constitutes the oldest commentary in the world on Genesis and part of Exodus, an enlarged Targum on these books, in which difficulties in the biblical narration are solved, gaps supplied, dogmatically offensive elements removed and the genuine spirit of later Judaism infused into the primitive history of the world.

Titles of the Book.—The book is variously entitled. First, it is known as τὰ Ἰωβηλαῖα, οἱ Ἰωβηλαῖοι, Heb. היובלים. This name is admirably adapted to our book, as it divides into jubilee periods of forty-nine years each the history of the world from the creation to the legislation on Sinai. Secondly, it is frequently designated "The Little Genesis," ἡ λεπτὴ Γένεσις or ἡ Μικρογένεσις, Heb. בראשית זוטה. This title may have arisen from its dealing more fully with detailed and minutiae than the biblical work. For the other names by which it is referred to, such as *The Apocalypse of Moses*, *The Testament of Moses*, *The Book of Adam's Daughters* and the *Life of Adam*, the reader may consult Charles's *The Book of Jubilees*, pp. xvii.-xx.

Object.—The object of our author was the defence and exposition of Judaism from the Pharisaic standpoint of the 2nd century B.C. against the disintegrating effects of Hellenism. In his elaborate defence of Judaism our author glorifies circumcision and the sabbath, the bulwarks of Judaism, as heavenly ordinances, the sphere of which was so far extended as to embrace Israel on earth. The Law, as a whole, was to our author the realization in time of what was in a sense timeless and eternal. Though revealed in time it was superior to time. Before it had been made known in sundry portions to the fathers, it had been kept in heaven by the angels, and to its observance there was no limit in time or in eternity. Our author next defends Judaism by his glorification of Israel. Whereas the various nations of the Gentiles were subject to angels, Israel was subject to God alone. Israel was God's son, and not only did the nation stand in this relation to God, but also its individual members. Israel received circumcision as a sign that they were the Lord's, and this privilege of circumcision they enjoyed in common with the two highest orders of angels. Hence Israel was to unite with God and these two orders in the observance of the sabbath. Finally the destinies of the world were bound up with Israel. The world was renewed in the creation of the true man Jacob, and its final renewal was to synchronize with the setting-up of God's sanctuary in Zion and the establishment of the Messianic kingdom. In this kingdom the Gentiles had neither part nor lot.

Versions: Greek, Syriac, Ethiopic and Latin.—Numerous fragments of the Greek Version have come down to us in Justin Martyr, Origen, Diodorus of Antioch, Isidore of Alexandria, Epiphanius, John of Malala, Syncellus and others. This version was the parent of the Ethiopic and Latin. The Ethiopic Version is most accurate and trustworthy, and indeed, as a rule, slavishly literal. It has naturally suffered from the corruptions incident to transmission through MSS. Thus dittographies are frequent and lacunae of occasional occurrence, but the version is singularly free from the glosses and corrections of unscrupulous scribes. The Latin Version, of which about one-fourth has been preserved, is where it exists of almost equal value with the Ethiopic. It has, however, suffered more at the hands of correctors. Notwithstanding, it attests a long array of passages in which it preserves the true text over against corruptions or omissions in the Ethiopic Version. Finally, as regards the Syriac Version, the evidence for its existence is not conclusive. It is based on the fact that a British Museum MS. contains a Syriac fragment entitled "Names of the wives of the Patriarchs according to the Hebrew Book of Jubilees."

The Ethiopic and Latin Versions: Translations from the Greek.—The Ethiopic Version is translated from the Greek, for Greek words such as δρῦς, βάλανος, λίψ, &c., are transliterated in the Greek. Secondly, many passages must be retranslated into Greek before we can discover the source of the various corruptions. And finally, proper names are transliterated as they appear in Greek and not in Hebrew. That the Latin is also a translation from the Greek is no less obvious. Thus in xxxix. 12 *timoris* = δειλίας, corrupt for δουλείας; in xxxviii. 13 *honorem* = τιμήν, but τιμήν should here have been rendered by *tributum*, as the Ethiopic and the context require; in xxxii. 26, *celavit* = ἔκρυψε, corrupt for ἔγραψε (so Ethiopic).

The Greek a Translation from the Hebrew.—The early date of our book—the 2nd century B.C.—and its place of composition speak for a Semitic original, and the evidence bearing on this subject is conclusive. But the question at once arises, was the original Aramaic or Hebrew? Certain proper names in the Latin Version ending in *-in* seem to bespeak an Aramaic original, as Cettin, Filistin, &c. But since in all these cases the Ethiopic transliterations end in *-m* and not in *-n*, it is not improbable that the Aramaism in the Latin Version is due to the translator, who, it has been concluded on other grounds, was a Palestinian Jew.[1] The grounds, on the other hand, for a Hebrew original are weighty and numerous. (1) A work which claims to be from the hand of Moses would naturally be in Hebrew, for Hebrew according to our author was the sacred and national language. (2) The revival of the national spirit of a nation is universally, so far as we know, accompanied by a revival of the national language. (3) The text must be retranslated into Hebrew in order to explain unintelligible expressions and restore the true text. One instance will sufficiently illustrate this statement. In xliii. 11 a certain Ethiopic expression = ἐν ἐμοί, which is a mistranslation of בי; for ב in this context, as we know from the parallel passage in Gen. xliv. 18, which our text reproduces almost verbally, = δέομαι. We might observe here that our text attests the presence of dittographies already existing in the Hebrew text. (4) Hebraisms survive in the Ethiopic and Latin Versions. In the former nûḫa in iv. 4, is a corrupt transliteration of נח. In the Latin *eligere in te* in xxii. 10 is a reproduction of בהר ב and *in qua . . . in ipsa* in xix. 8 = בה . . . אשר. This idiom could, of course, be explained on the hypothesis of an Aramaic original. (5) Many paronomasiae discover themselves on retranslation into Hebrew.

Textual Affinities.—A minute study of the text shows that it attests an independent form of the Hebrew text of the Pentateuch. Thus it agrees at times with the Samaritan, or Septuagint, or Syriac, or Vulgate, or even with Onkelos against all the rest. To be more exact, our book represents some form of the Hebrew text of the Pentateuch midway between the forms presupposed by the Septuagint and the Syriac; for it agrees more frequently with the Septuagint, or with combinations into which the Septuagint enters, than with

[1] In the Ethiopic Version in xxi. 12 it should be observed that in the list of the twelve trees suitable for burning on the altar several are transliterated Aramaic names of trees. But in a late Hebrew work (2nd century B.C.) the popular names of such objects would naturally be used. In certain cases the Hebrew may have been forgotten, or, where the tree was of late introduction, been non-existent.

any other single authority, or with any combination excluding the Septuagint. Next to the Septuagint it agrees most often with the Syriac or with combinations into which the Syriac enters. On the other hand, its independence of the Septuagint is shown in a large number of passages, where it has the support of the Samaritan and Massoretic, or of these with various combinations of the Syriac Vulgate and Onkelos. From these and other considerations we may conclude that the textual evidence points to the composition of our book at some period between 250 B.C. and A.D. 100, and at a time nearer the earlier date than the later.

Date.—The book was written between 135 B.C. and the year of Hyrcanus's breach with the Pharisees. This conclusion is drawn from the following facts:—(1) The book was written during the pontificate of the Maccabean family, and not earlier than 135 B.C. For in xxxii. 1 Levi is called a "priest of the Most High God." Now the only high priests who bore this title were the Maccabean, who appear to have assumed it as reviving the order of Melchizedek when they displaced the Zadokite order of Aaron. Jewish tradition ascribes the assumption of this title to John Hyrcanus. It was retained by his successors down to Hyrcanus II. (2) It was written before 96 B.C. or some years earlier in the reign of John Hyrcanus; for since our author is of the strictest sect a Pharisee and at the same time an upholder of the Maccabean pontificate, Jubilees cannot have been written after 96 when the Pharisees and Alexander Jannaeus came to open strife. Nay more, it cannot have been written after the open breach between Hyrcanus and the Pharisees, when the former joined the Sadducean party.

The above conclusions are confirmed by a large mass of other evidence postulating the same date. We may, however, observe that our book points to the period already past—of stress and persecution that preceded the recovery of national independence under the Maccabees, and presupposes as its historical background the most flourishing period of the Maccabean hegemony.

Author.—Our author was a Pharisee of the straitest sect. He maintained the everlasting validity of the law, he held the strictest views on circumcision, the sabbath, and the duty of shunning all intercourse with the Gentiles; he believed in angels and in a blessed immortality. In the next place he was an upholder of the Maccabean pontificate. He glorifies Levi's successors as high-priests and civil rulers, and applies to them the title assumed by the Maccabean princes, though he does not, like the author of the Testaments of the Twelve Patriarchs, expect the Messiah to come forth from among them. He may have been a priest.

The Views of the Author on the Messianic Kingdom and the Future Life.—According to our author the Messianic kingdom was to be brought about gradually by the progressive spiritual development of man and a corresponding transformation of nature. Its members were to reach the limit of 1000 years in happiness and peace. During its continuance the powers of evil were to be restrained, and the last judgment was apparently to take place at its close. As regards the doctrine of a future life, our author adopts a position novel for a Palestinian writer. He abandons the hope of a resurrection of the body. The souls of the righteous are to enjoy a blessed immortality after death. This is the earliest attested instance of this expectation in the last two centuries B.C.

LITERATURE.—*Ethiopic Text and Translations*: This text was first edited by Dillmann from two MSS. in 1859, and in 1895 by R. H. Charles from four (*The Ethiopic Version of the Hebrew Book of Jubilees . . . with the Hebrew, Syriac, Greek and Latin fragments*). In the latter edition, the Greek and Latin fragments are printed together with the Ethiopic. The book was translated into German by Dillmann from one MS. in Ewald's *Jahrbücher*, vols. ii. and iii. (1850, 1851), and by Littmann (in Kautzsch's *Apok. und Pseud.* ii. 39–119) from Charles's Ethiopic text; into English by Schodde (*Bibl. Sacr.* 1885) from Dillmann's text, and by Charles (*Jewish Quarterly Review*, vols. v., vi., vii. (1893–1895) from the text afterwards published in 1895, and finally in his commentary, *The Book of Jubilees* (1902). *Critical Inquiries*: Dillmann, "Das Buch der Jubiläen" (Ewald's *Jahrbücher d. bibl. Wissensch.* (1851), iii. 72–96); "Pseudepig. des Alten Testaments," Herzog's *Realencyk.*² xii. 364–365; "Beiträge aus dem Buche der Jubiläen zur Kritik des Pentateuch Textes" (*Sitzungsberichte der Kgl. Preussischen Akad.*, 1883); Beer, *Das Buch der Jubiläen* (1856); Rönsch, *Das Buch der Jubiläen* (1874); Singer, *Das Buch der Jubiläen* (1898); Bohn, "Die Bedeutung des Buches der Jubiläen" (*Theol. Stud. und Kritiken* (1900), pp. 167–184). A full bibliography will be found in Schürer or in R. H. Charles's commentary, *The Book of Jubilees or the Little Genesis* (1902), which deals exhaustively with all the questions treated in this article. (R. H. C.)

JUBILEE YEAR, an institution in the Roman Catholic Church, observed every twenty-fifth year, from Christmas to Christmas. During its continuance plenary indulgence is obtainable by all the faithful, on condition of their penitently confessing their sins and visiting certain churches a stated number of times, or doing an equivalent amount of meritorious work. The institution dates from the time of Boniface VIII., whose bull *Antiquorum habet fidem* is dated the 22nd of February 1300. The circumstances in which it was promulgated are related by a contemporary authority, Jacobus Cajetanus, according to whose account ("Relatio de centesimo s. jubilaeo anno" in the *Bibliotheca Patrum*) a rumour spread through Rome at the close of 1299 that every one visiting St Peter's on the 1st of January 1300 would receive full absolution. The result was an enormous influx of pilgrims to Rome, which stirred the pope's attention. Nothing was found in the archives, but an old peasant 107 years of age avowed that his father had been similarly benefited a century previously. The bull was then issued, and the pilgrims became even more numerous, to the profit of both clergy and citizens. Originally the churches of St Peter and St Paul in Rome were the only jubilee churches, but the privilege was afterwards extended to the Lateran Church and that of Sta Maria Maggiore, and it is now shared also for the year immediately following that of the Roman jubilee by a number of specified provincial churches. At the request of the Roman people, which was supported by St Bridget of Sweden and by Petrarch, Clement VI. in 1343 appointed, by the bull *Unigenitus Dei filius*, that the jubilee should recur every fifty years instead of every hundred years as had been originally contemplated in the constitution of Boniface; Urban VI., who was badly in need of money, by the bull *Salvator noster* in 1389 reduced the interval still further to thirty-three years (the supposed duration of the earthly life of Christ); and Paul II. by the bull *Ineffabilis* (April 19, 1470) finally fixed it at twenty-five years. Paul II. also permitted foreigners to substitute for the pilgrimage to Rome a visit to some specified church in their own country and a contribution towards the expenses of the Holy Wars. According to the special ritual prepared by Alexander VI. in 1500, the pope on the Christmas Eve with which the jubilee begins goes in solemn procession to a particular walled-up door ("Porta aurea") of St Peter's and knocks three times, using at the same time the words of Ps. cxviii. 19 (*Aperite mihi portas justitiae*). The doors are then opened and sprinkled with holy water, and the pope passes through. A similar ceremony is conducted by cardinals at the other jubilee churches of the city. At the close of the jubilee, the special doorway is again built up with appropriate solemnities.

The last ordinary jubilee was observed in 1900. "Extraordinary" jubilees are sometimes appointed on special occasions, *e.g.* the accession of a new pope, or that proclaimed by Pope Leo XIII. for the 12th of March 1881, "in order to obtain from the mercy of Almighty God help and succour in the weighty necessities of the Church, and comfort and strength in the battle against her numerous and mighty foes." These are not so much jubilees in the ordinary sense as special grants of plenary indulgences for particular purposes (*Indulgentiae plenariae in forma jubilaei*).

JÚCAR, a river of eastern Spain. It rises in the north of the province of Cuenca, at the foot of the Cerro de San Felipe (5906 ft.), and flows south past Cuenca to the borders of Albacete; here it bends towards the east, and maintains this direction for the greater part of its remaining course. On the right it is connected with the city of Albacete by the Maria Cristina canal. After entering Valencia, it receives on the left its chief tributary the Cabriel, which also rises near the Cerro de San Felipe, in the Montes Universales. Near Alcira the Júcar turns south-eastward, and then sharply north, curving again to the south-east before it enters the Mediterranean Sea at Cullera, after a total course of 314 m. Its estuary forms the harbour of Cullera, and its lower waters are freely utilized for purposes of irrigation.

JUD, LEO (1482–1542), known to his contemporaries as Meister Leu, Swiss reformer, was born in Alsace and educated

at Basel, where after a course in medicine he turned to the study of theology. This change was due to the influence of Zwingli whose colleague at Zürich Jud became after serving for four years (1518–1522) as pastor of Einsiedeln. His chief activity was as a translator; he was the leading spirit in the translation of the Zürich Bible and also made a Latin version of the Old Testament. He died at Zürich on the 19th of June 1542.

See *Life* by C. Pestalozzi (1860); art. in Herzog-Hauck's *Real-encyklopädie*, vol. ix. (1901).

JUDAEA, the name given to the southern part of Palestine as occupied by the Jewish community in post-exilic days under Persian, Greek and Roman overlordship. In Luke and Acts the term is sometimes used loosely to denote the whole of western Palestine. The limits of Judaea were never very precisely defined and—especially on the northern frontier—varied from time to time. After the death of Herod, Archelaus became ethnarch of Samaria, Idumea and Judaea, and when he was deposed Judaea was merged in Syria, being governed by a procurator whose headquarters were in Caesarea.

For a description of the natural features of the country see PALESTINE; for its history see JEWS and JUDAH. Cf. T. Mommsen, *The Provinces of the Roman Empire*, ch. xi.

JUDAH, a district of ancient Palestine, to the south of the kingdom of Israel, between the Dead Sea and the Philistine plain. It falls physically into three parts: the hill-country from Hebron northwards through Jerusalem; the lowland (Heb. *Shĕphelah*) on the west; and the steppes or "dry land" (Heb. *Negeb*) on the south. The district is one of striking contrasts, with a lofty and stony table-land in the centre (which reaches a height of 3300 ft. just north of Hebron), with a strategically important valley dividing the central mountains from the lowland, and with the most desolate of tracts to the east (by the Dead Sea) and south.• Some parts, especially around Hebron, are extremely fertile, but the land as a whole has the characteristics of the southern wilderness—the so-called "desert" is not a sterile Sahara—and was more fitted for pastoral occupations; see further G. A. Smith, *Hist. Geog. Holy Land*, chs. x.–xv. Life in ancient Judah is frequently depicted in the Bible, but much of the Judaean history is obscure. In the days of the old Hebrew monarchy there were periods of conflict and rivalry between Judah and Israel—even times when the latter incorporated, or at least claimed supremacy over, the former. Later, from the 5th century B.C. there was a breach between the Jews (the name is derived from Judah) and the Samaritans (*q.v.*). The intervening years after the fall of Samaria (722 B.C.), and after the destruction of Jerusalem (586 B.C.), were probably marked by closer intercourse, similar to the period of union in the popular traditions relating to the pre-monarchical age. The course of Judaean history was conditioned, also, by the proximity of the Philistines in the west, Moab in the east, and by Edom and other southern peoples extending from North Arabia to the delta of the Nile. Judah's stormy history, continued under Greek and Roman domination, reached its climax in the birth of Christianity, and ended with the fall of Jerusalem in A.D. 70 (see JEWS, PALESTINE).

In conformity with ancient methods of genealogy (*q.v.*), Judah is traced back to a son of Jacob or Israel by Leah and along with other "tribes" (Dan, Levi, Simeon, &c.) is included under the collective term Israel. Thus it shares the general traditions of the Israelites, although Judah appears as an individual in the story of his "brother" Joseph (on ch. xxxvii. seq., see GENESIS). Its boundaries in Joshua xv. are manifestly artificial or imaginary; they include the Philistines and number places which are elsewhere ascribed to Simeon or Dan. The origin of the name (*Yĕhūdah*) is quite uncertain; the interpretation "praised" is suggested in Gen. xxix. 35 (cf. xlix. 8 seq.), but some connexion with allied names, as Yehūd (Yahūdīya, E. of Jaffa), or Ēhūd (a Benjamite clan) seems more probable. That Judah, whatever its original connotation, underwent development through the incorporation of other clans appears from 1 Chron. ii., iv., where it is found to contain a large element of non-Israelite population whose names find analogies or parallels in Simeonite, Edomite and other southern lists.[1] Indeed, underlying the account of the Israelite exodus (*q.v.*) there are traces of a separate movement of certain clans—apart from the Israelite invasion of Palestine—who are ultimately found in the south of Judah; and the traditions in Chronicles themselves allow the view that the incorporation of these elements began under David, when Judah first occupies a prominent position in biblical history (cf. Cheyne, *Ency. Bib.*, col. 2618 seq., and see CALEB, JERAHMEEL, KENITES). But such movements were not necessarily limited to one single period, and the evidence connecting (*a*) the non-Israelite clans of Judah with Levites, and (*b*) both with the south, is found in narratives referring to several different ages and might point to an unceasing relationship with the south. On the other hand, clans, which in the traditions of David's time were in the south of Judah, about five hundred years later (in the exile) are found near Jerusalem (*e.g.* Calcb), so that either these survived the strenuous vicissitudes of half a millennium or all perspective of their early history has been lost. In Gen. xxxviii. a curious narrative points to the separation of Judah "from his brethren" and his marriage with Shua the Canaanite; two sons Er and Onan perish and the third Shelah survives. From Judah and Er's widow Tamar are derived Perez and Zerah, and these with Shelah appear in post-exilic times as the three representative families of Judah (Neh. xi. 4–6; 1 Chron. ix. 4–6). This story, amid a number of other motives, appears to reflect the growth of the tribe of Judah and its fluctuations, but that the reference is to any very early period is unlikely, partly because the interest of the story is in post-exilic families, and partly because the scenes (Adullam, Chezib and Timnah) overlap with David's own fights between Hebron and Jerusalem (2 Sam. xxi. xxiii.; see DAVID, *ad fin.*).[2] Even David's conquest of Jerusalem (2 Sam. v.) conflicts both with the statement of its capture by Judah many years previously (Judges i. 8), and with the traditions of the Israelite heroes Joshua and Saul. Consequently, the few surviving data are too uncertain for any decisive conclusions regarding the origin of the tribe of Judah. Judah as a kingdom may have taken its name from a limited district, in which case its growth finds a parallel in the extension of the name Samaria from the city to the province. The location of Yehūd and Ēhūd in the light of 1 Kings iv. 8-19 (perhaps the subdivisions of the Israelite kingdom, see SOLOMON), would necessitate the assumption of a violent separation from the north; this, however, is quite conceivable (see JEWS, §§ 11–13). On the bearing of South Judah upon the historical criticism of the Old Testament, see especially N. Schmidt, *Hibbert Journal* (1908), pp. 322–342, "The Jerahmeel Theory and the Historic Importance of the Negeb, with some account of personal exploration of the country"; also JEWS, § 20. (S. A. C.)

JUDAS ISCARIOT (Ἰούδας Ἰσκαριώτης or Ἰσκαριώθ), in the Bible, the son of Simon Iscariot (John vi. 71, xiii. 26), and one of the twelve apostles. He is always enumerated last with the special mention of the fact that he was the betrayer of Jesus. If the generally accepted explanation of his surname ("man of Kerioth"; see Josh. xv. 25) be correct, he was the only original member of the apostolic band who was not a Galilean. The circumstances which led to his admission into the apostolic circle are not stated; while the motives by which he was actuated in enabling the Jewish authorities to arrest Jesus without tumult have been variously analysed by scholars. According to some (as De Quincey in his famous *Essay*) the sole object of Judas was to place Jesus in a position in which He should be compelled to make what had seemed to His followers the too tardy display of His Messianic power: according to others (and this view seems more in harmony with the Gospel narratives) Judas was an avaricious and dishonest man, who had already abused the confidence placed in him (John xii. 6), and who was now concerned only with furthering his own ends.

As regards the effects of his subsequent remorse and the use to which his ill-gotten gains were put, the strikingly apparent discrepancies between the narratives of Matt. xxvii. 3, 10 and Acts i. 18, 19 have attracted the attention of biblical scholars, ever since Papias, in his fourth book, of which a fragment has been preserved, discussed the subject. The simplest explanation is that they represent different traditions, the Gospel narrative being composed with more special reference to prophetic fulfilments, and being probably nearer the truth than the short explanatory note inserted by the author of the Acts (see Bernard, *Expositor*, June 1904, p. 422 seq.). In ecclesiastical legend and

[1] See especially Wellhausen, *De gentibus et familiis Judaeorum* (Göttingen, 1869), the articles on the relative proper names in the *Ency. Bib.*, and E. Meyer, *Die Israeliten u. ihre Nachbarstämme*, pp. 299–471 (much valuable matter).

[2] For the principle of the Levirate illustrated in Gen. xxxviii., see RUTH. Lagarde (*Orientalia*, ii.) ingeniously conjectured that the chapter typified the suppression of Phoenician (viz. Tamar, the date-palm) and the old Canaanite elements (Zerah = *indigena*) by the younger Israelite invaders (Perez = "branch"). For other discussions, apart from commentaries on Genesis, see B. Luther in Meyer, *op. cit.*, pp. 200 sqq.

in sacred art Judas Iscariot is generally treated as the very incarnation of treachery, ingratitude and impiety. The Middle Ages, after their fashion, supplied the lacunae in what they deemed his too meagre biography. According to the common form of their story, he belonged to the tribe of Reuben.[1] Before he was born his mother Cyborea had a dream that he was destined to murder his father, commit incest with his mother, and sell his God. The attempts made by her and her husband to avert this curse simply led to its accomplishment. At his birth Judas was enclosed in a chest and flung into the sea; picked up on a foreign shore, he was educated at the court until a murder committed in a moment of passion compelled his flight. Coming to Judaea, he entered the service of Pontius Pilate as page, and during this period committed the first two of the crimes which had been expressly foretold. Learning the secret of his birth, he, full of remorse, sought the prophet who, he had heard, had power on earth to forgive sins. He was accepted as a disciple and promoted to a position of trust, where avarice, the only vice in which he had hitherto been unpractised, gradually took possession of his soul, and led to the complete fulfilment of his evil destiny. This Judas legend, as given by Jacobus de Voragine, obtained no small popularity; and it is to be found in various shapes in every important literature of Europe.

For the history of its genesis and its diffusion the reader may consult D'Ancona, *La leggenda di Vergogna e la leggenda di Giuda* (1869), and papers by W. Creizenach in Paul and Braune's *Beitr. zur Gesch. der deutschen Sprache und Litteratur*, vol. ii. (1875), and Victor Diederich in *Russiche Revue* (1880). Cholevius, in his *Geschichte der deutschen Poesie nach ihren antiken Elementen* (1854), pointed out the connexion of the legend with the Oedipus story. According to Daub (*Judas Ischariot, oder Betrachtungen über das Böse im Verhältniss zum Guten*, 1816, 1818) Judas was "an incarnation of the devil," to whom "mercy and blessedness are alike impossible."

The popular hatred of Judas has found strange symbolical expression in various parts of Christendom. In Corfu, for instance, the people at a given signal on Easter Eve throw vast quantities of crockery from their windows and roofs into the streets, and thus execute an imaginary stoning of Judas (see Kirkwall, *Ionian Islands*, ii. 47). At one time (according to Mustoxidi, *Delle cose corciresi*) the tradition prevailed that the traitor's house and country villa existed in the island, and that his descendants were to be found among the local Jews.

Details in regard to some Judas legends and superstitions are given in *Notes and Queries*, 2nd series, v., vi. and vii.; 3rd series, vii.; 4th series, i.; 5th series, vi. See also a paper by Professor Rendel Harris entitled "Did Judas really commit suicide?" in the *American Journal of Philology* (July 1900). Matthew Arnold's poem "St Brandan" gives fine expression to the old story that, on account of an act of charity done to a leper at Joppa, Judas was allowed an hour's respite from hell once a year. (G.Mi.)

JUDAS-TREE, the *Cercis siliquastrum* of botanists, belonging to the section *Caesalpineae* of the natural order Leguminosae. It is a native of the south of France, Spain, Portugal, Italy, Greece and Asia Minor, and forms a handsome low tree with a flat spreading head. In Spring it is covered with a profusion of purplish-pink flowers, which appear before the leaves. The flowers have an agreeable acid taste, and are eaten mixed with salad or made into fritters. The tree was frequently figured by the older herbalists. One woodcut by Castor Durante has the figure of Judas Iscariot suspended from one of the branches, illustrating the popular tradition regarding this tree. A second species, *C. canadensis*, is common in North America from Canada to Alabama and eastern Texas, and differs from the European species in its smaller size and pointed leaves. The flowers are also used in salads and for making pickles, while the branches are used to dye wool a nankeen colour.

JUDD, SYLVESTER (1813–1853) American Unitarian clergyman and author, was born in Westhampton, Massachusetts, on the 23rd of July 1813. He bore the same name as his father and grandfather; the former (1789–1860) made an especial study of local history of the towns of the Connecticut valley, and wrote a *History of Hadley* (1863). The son lived in Northampton after his tenth year, was converted in a revival there in 1826, graduated from Yale in 1836, and taught in 1836 at Templeton, Mass., where he first met Unitarians and soon found the solution of his theological difficulties in their views. He entered the Harvard divinity school, from which he graduated in 1840. In the same year he was ordained pastor of the Unitarian church of Augusta, Maine, where he died on the 26th of January 1853. His widest reputation was as the author of *Margaret, a Tale of the Real and the Ideal, including Sketches of a place not before described, called Mons Christi* (1845; revised 1851), written to exhibit the errors of Calvinistic and all trinitarian theology, and the evils of war, intemperance, capital punishment, the prison system of the time, and the national treatment of the Indians. This story, published anonymously, attracted much attention by its true descriptions of New England life and scenery as well as by its author's earnest purpose. *Richard Edney and the Governor's Family* (1850) is in much the same vein as *Margaret*. A poem entitled *Philo, an Evangeliad* (1850) is a versified defence of Unitarianism. He published, besides, *The Church, in a Series of Discourses* (1854). As a preacher and pastor he urged the desirability of infant baptism. He lectured frequently on international peace and opposed slavery.

See Arethusa Hall, *Life and Character of the Rev. Sylvester Judd* (Boston, 1857) published anonymously.

JUDE, THE GENERAL EPISTLE OF, a book of the New Testament. As with the epistle of James, the problems of the writing centre upon the superscription, which addresses in Pauline phraseology (1 Thess. i. 4; 2 Thess. ii. 13; Rom. i. 7; 1 Cor. 1. 2) the Christian world in general in the name of "Jude, the brother of James" (Matt. xiii. 55; Mark vi. 3). The historical situation depicted must then fall within the lifetime of this Judas, whose two grandchildren Zoker and James (Hegesippus *ap.* Phil. Sidetes) by their testimony before the authorities brought to an end the (Palestinian) persecution of Domitian (Hegesippus *ap.* Eus. *H. E.* iii. 20, 7). These two grandsons of Judas thereafter "lived until the time of Trajan," ruling the churches "because they had (thus) been witnesses (martyrs) and were also relatives of the Lord." But in that case we must either reject the testimony of the same Hegesippus that up to their death, and that of Symeon son of Clopas, successor in the Jerusalem see of James the Lord's brother, "who suffered martyrdom at the age of one hundred and twenty years while Trajan was emperor and Atticus governor," "the church (universal) had remained a pure and uncorrupted virgin" free from "the folly of heretical teachers"; or else we must reject the superscription, which presents the grandfather in vehement conflict with the very heresies in question. For the testimony of Hegesippus is explicit that at the time of the arrest of Zoker and James they were all who survived of the kindred of the Lord. True, there is confusion in the narrative of Hegesippus, and even a probability that the martyrdom of Symeon dated under Trajan really took place in the persecution of Domitian, before the arrest of the grandsons of Jude, for apart from the alleged age of Symeon (the traditional Jewish limit of human life, Gen. vi. 3, Deut. xxxiv. 7), the cause of his apprehension "on the ground that he was *a descendant of David* and a Christian" (Hegesippus *ap.* Eus. *H. E.* iii.32, 3) is inconsistent with both the previous statements regarding the "martyrdom" of Zoker and James, that they were cited as the only surviving Christian Davididae, and that the persecution on this ground collapsed through the manifest absurdity of the accusation. But even if we date the rise of heresies in the reign of Domitian instead of Trajan,[2] the attributing of this epistle against

[1] Other forms make him a Danite, and consider the passage in Genesis (xlix. 17) a prophecy of the traitor.

[2] On this point (date of the outbreak of heresy) there is some inconsistency in the reported fragments of Hegesippus. In that quoted below from Eus. *H.E.* iii. 32. 7 seq., it is expressly dated after the martyrdom of Symeon and death of the grandsons of Jude under Trajan. In iii. 19 the "ancient tradition" attributing the denunciation of these to "some of the heretics" is perhaps not from Hegesippus; but in iv. 22 the beginning of heresy is traced to a certain Thebuthis, a candidate for the bishopric after the death of James, as rival to Symeon. The same figure of the church as a pure virgin is also used as in iii. 32. But as it is only the envious feeling of Thebuthis which is traced to this early date, Hegesippus doubtless means to place the outbreak later.

corrupting heresy to "Jude the brother of James" will still be incompatible with the statements of Hegesippus, our only informant regarding his later history.

The Greek of Jude is also such as to exclude the idea of authorship in Palestine by an unschooled Galilean, at an early date in church history. As F. H. Chase has pointed out: (1) the terms κλητοί, σωτηρία, πίστις, have attained their later technical sense; (2) "the writer is steeped in the language of the LXX.," employing its phraseology independently of other N.T. writers, and not that of the canonical books alone, but of the broader non-Palestinian canon; (3) "he has at his command a large stock of stately, sonorous, sometimes poetical words," proving him a "man of some culture, and, as it would seem, not without acquaintance with Greek writers."

If the superscription be not from the hand of the actual brother of Jesus, the question may well be asked why some apostolic name was not chosen which might convey greater authority? The answer is to be found in the direction toward which the principal defenders of orthodoxy in 100–150 turned for "the deposit of the faith" (Jude 3) in its purity. The Pastoral Epistles point to "the pattern of sound words, even the sayings of our Lord Jesus Christ." (1 Tim. vi. 3, &c.), as the arsenal of orthodoxy against the same foe (with 1 Tim. vi. 3–10; cf. Jude 4, 11, 16, 18 seq.). Ignatius's motto is to "be inseparable from Jesus Christ and from your bishop" (*ad Trall.* vii.), Polycarp's, to "turn unto the word delivered unto us from the beginning" (cf. Jude 3; 1 John ii. 7, iii. 23, iv. 21), "the oracles of the Lord," which the false teachers "pervert to their own lusts." Papias, his ἑταῖρος (Irenaeus), turns in fact from "the vain talk of the many, and from the "alien commandments" to such as were "delivered by the Lord to the faith," offering to the Christian world his *Interpretation of the Lord's Oracles* based upon personal inquiry from those who "came his way," who could testify as to apostolic tradition. Hegesippus, after a journey to all the principal seats of Christian tradition, testifies that all are holding to the true doctrine as transmitted at the original seat, where it was witnessed first by the apostles and afterwards by the kindred of the Lord and "witnesses" of the first generation. All these writers in one form or other revert to the historic tradition against the licence of innovators. Hegesippus indicates plainly the seat of its authority. For the period before the adoption of a written standard the resort was not so much to "apostles" as to "disciples" and "witnesses." The appeal was to "those who from the beginning had been eye-witnesses and ministers of the word" (Luke i. 2); and these were to be found primarily (until the complete destruction of that church during the revolt of Barcochebas and its suppression by Hadrian) in the mother community in Jerusalem (cf. Acts xv.2). Its life is the measure of the period of oral tradition, whose requiem is sung by Papias. Hegesippus (*ap.* Eus. *H.E.* iii. 32, 7 seq.) looks back to it as the safe guardian of the deposit "of the faith" against all the depredations of heresy which "when the sacred college of apostles had suffered death in various forms, and the generation of those that had been deemed worthy to hear the inspired wisdom with their own ears had passed away . . . attempted thenceforth with a bold face, to proclaim, in opposition to the preaching of the truth, 'the knowledge which is falsely so-called (ψευδώνυμος γνῶσις).'" For an appeal like that of our epistle to the authority of the past against the moral laxity and antinomian teaching of degenerate Pauline churches in the Greek world, the natural resort after Paul himself (Pastoral Epp.) would be the "kindred of the Lord" who were the "leaders and witnesses in every church" in Palestine. Doubtless the framer of Jude 1 would have preferred the aegis of "James the Lord's brother," if this, like that of Paul, had not been already appropriated. Failing this, the next most imposing was "Judas, the brother of James."

The superscription in the case of Jude, unlike that of James, takes hold of the substance of the book. Verse 3 and the farewell (*v.* 24 seq.) show that Jude was composed from the start as an "epistle." If this appearance be not fallacious, the obvious relation between the two superscriptions will be best explained by the supposition that the author of Jude gave currency to the existing homily (James) before composing under the pseudonym of Jude. On the interconnexion of the two see Sieffert, *s.v.* "Judasbrief" in Hauck, *Realencykl.* vol. ix.

Judas is conceived as cherishing the intention of discussing for the benefit of the Christian world (for no mere local church is addressed) the subject of "our common salvation" (the much desiderated authoritative definition of the orthodox faith), but diverted from this purpose by the growth of heresy.

Few writings of this compass afford more copious evidence of date in their literary affinities. The references to Enoch (principally ver. 14 seq. = *Eth. En.* i. 9, but cf. F. H. Chase, *s.v.* "Jude" in Hastings's *Dict. Bible*) and the *Assumption of Moses* (*v.* 9) have more a geographical than a chronological bearing, the stricter canon of Palestine excluding these apocryphal books of 90 B.C. to A.D. 40; but the Pauline writings are freely employed, especially 1 Cor. x. 1–13, Rom. xvi. 25 seq., and probably Eph. and Col. Moreover, the author explicitly refers to the apostolic age as already past, and to the fulfilment of the Pauline prediction (1 Tim. iv. 1 sqq.) of the advent of heresy (*v.* 17 seq.). The Pauline doctrine of "grace" has been perverted to lasciviousness, as by the heretics whom Polycarp opposes (*Ep. Polyc.* vii.), and this doctrine is taught for "hire" (*vv.*11, 12, 16; cf. 1 Tim. vi. 5). The unworthy "shepherds" (*v.* 12; cf. Ezek. xxxiv. 8; John x. 12 seq.) live at the expense of their flocks, polluting the "love-feasts," corrupting the true disciples. According to Clement of Alexandria this was written prophetically to apply to the Carpocratians, an antinomian Gnostic sect of *c.* 150; but hyper-Paulinists had given occasion to similar complaints already in Rev. ii. 14, 20 (95). Thus Paulinism and its perversion alike are in the past. As regards the undeniable contact of *Didache* ii. 7 with Jude 22 seq. (cf. *Didache*, iv. 1, Jude 8) priority cannot be determined; and the use of 1 John iii. 12 in Jude 11 is doubtful.

On the other hand, practically the whole of Jude is taken up into 2 Pet., the author merely avoiding, so far as he discovers them, the quotations from apocryphal writings, and prefixing and affixing sections of his own to refute the heretical eschatology. On the priority of Jude see especially against Spitta *Zur Gesch.u. Litt. d. Urchristenthums*, ii. 409–411, F. H. Chase, *loc. cit.* p. 803. (On 2 Pet. see PETER EPISTLES OF.) Unfortunately, the date of 2 Pet. cannot be determined as earlier than late in the second century, so that we are thrown back upon internal evidence for the inferior limit.

The treatment of the heresy as the anti-Christ who precedes "the last hour" (*v.* 18), reminds us of 1 John ii. 18, but it is indicative of conditions somewhat less advanced that the heretics have not yet "gone out from" the church. The treatment of the apostolic age as past, and the deposit of the faith as a *regula fidei* (cf. Ign. *ad Trall.* ix.), the presence of antinomian Gnosticism, denying the doctrine of lordship and "glories" (*v.* 8), with "discriminations" between "psychic" and "pneumatic" (*v.* 19), strongly oppose a date earlier than 100.

Sieffert, on account of the superscription, would date as early as 70–80, but acknowledges the hyper-Pauline affinity of the heresy, its propagation as a doctrine, and close relation to the Nicolaitan of Rev. ii. 14. To these phenomena he gives accordingly a correspondingly early date. The nature of the heresy, opposed, however, and the resort to the authority of Jude "the brother of James" against it, favour rather the period of Polycarp and Papias (117–150).

The history of the reception of the epistle into church canons is similar to that of James, beginning with a quotation of it as the work of Jude by Clement of Alexandria (*Paed.* iii. 8), a reference by Tertullian (*De cult. fem.* i. 3), and a more or less hesitant endorsement by Origen ("if one might adduce the epistle of Jude," *In Matt.* tom. xvii. 30) and by the *Muratorianum* (*c.* 200), which excepts Jude and 2 and 3 John from its condemnation of apocryphal literature, placing it on a par with the Wisdom of Solomon "which was written by friends of his in his honour." The use of apocryphal literature in Jude itself

may account for much of the critical disposition toward it of many subsequent writers. Eusebius classed it among the "disputed" books, declaring that as with James "not many of the ancients have mentioned it" (*H. E.* ii. 23, 25).

The *Introd. to the New Test.* by Holtzmann, Jülicher, Weiss, Zahn, Davidson, Salmon, Bacon and the standard *Commentaries* of Meyer and Holtzmann, the *International* (Bigg) and other series, contain discussions of authorship and date. The articles *s.v.* in Hastings's *Dict. Bible* (Chase) and the *Ency. Bib.* (Cone) are full and scholarly. In addition the *Histories of the Apostolic Age*, by Hausrath, Weizsäcker, McGiffert, Bartlet, Ropes and others, and the kindred works of Baur, Schwegler and Pfleiderer should be consulted. Moffat's *Historical New Testament*, 2nd ed., p. 589, contains a convenient summary of the evidence with copious bibliography. One of the most thorough of conservative treatments is the *Commentary on Jude and Second Peter* by J. B. Mayor (1907). (B. W. B.)

JUDGE (Lat. *judex*, Fr. *juge*), in the widest legal sense an officer appointed by the sovereign power in a state to administer the law; in English practice, however, justices of the peace and magistrates are not usually regarded as "judges" in the titular sense. The duties of the judge, whether in a civil or a criminal matter, are to hear the statements on both sides in open court, to arrive at a conclusion as to the truth of the facts submitted to him or, when a jury is engaged, to direct the jury to find such a conclusion, to apply to the facts so found the appropriate rules of law, and to certify by his judgment the relief to which the parties are entitled or the obligations or penalties which they have incurred. With the judgment the office of the judge is at an end, but the judgment sets in motion the executive forces of the state, whose duty it is to carry it into execution.

Such is the type of a judicial officer recognized by mature systems of law, but it is not to be accepted as the universal type, and the following qualifying circumstances should be noticed: (1) in primitive systems of law the judicial is not separated from the legislative and other governing functions; (2) although the judge is assumed to take the law from the legislative authority, yet, as the existing law never at any time contains provision for all cases, the judge may be obliged to invent or create principles applicable to the case—this is called by Bentham and the English jurists judge-made and judiciary law; (3) the separation of the function of judge and jury, and the exclusive charge of questions of law given to the judge, are more particularly characteristic of the English judicial system. During a considerable period in the history of Roman law an entirely different distribution of parts was observed. The adjudication of a case was divided between the *magistratus* and the *judex*, neither of whom corresponds to the English judge. The former was a public officer charged with the execution of the law; the latter was an arbitrator whom the magistrates commissioned to hear and report upon a particular case.

The following are points more specially characteristic of the English system and its kindred judicial systems: (1) Judges are absolutely protected from action for anything that they may do in the discharge of their judicial duties. This is true in the fullest sense of judges of the supreme courts. "It is a principle of English law that no action will lie against a judge of one of the superior courts for a judicial act, though it be alleged to have been done maliciously and corruptly." Other judicial officers are also protected, though not to the same extent, against actions. (2) The highest class of judges are irremovable except by what is in effect a special act of parliament, viz. a resolution passed by both houses and assented to by the sovereign. The inferior judges and magistrates are removable for misconduct by the lord chancellor. (3) The judiciary in England is not a separate profession. The judges are chosen from the class of advocates, and almost entirely according to their eminence at the bar. (4) Judges are in England appointed for the most part by the crown. In a few cases municipal corporations may appoint their own judicial officer.

See also LORD HIGH CHANCELLOR; LORD CHIEF JUSTICE; MASTER OF THE ROLLS, &c., &c., and the accounts of judicial systems under country headings.

JUDGE-ADVOCATE-GENERAL, an officer appointed in England to assist the Crown with advice in matters relating to military law, and more particularly as to courts-martial. In the army the administration of justice as pertaining to discipline is carried out in accordance with the provisions of military law, and it is the function of the judge-advocate-general to ensure that these disciplinary powers are exercised in strict conformity with that law. Down to 1793 the judge-advocate-general acted as secretary and legal adviser to the board of general officers, but on the reconstitution of the office of commander-in-chief in that year he ceased to perform secretarial duties, but remained chief legal adviser. He retained his seat in parliament and in 1806 he was made a member of the government and a privy councillor. The office ceased to be political in 1892, on the recommendation of the select committee of 1888 on army estimates, and was conferred on Sir F. Jeune (afterwards Lord St Helier). There was no salary attached to the office when held by Lord St Helier, and the duties were for the most part performed by deputy. On his death in 1905, Thomas Milvain, K.C., was appointed, and the terms and conditions of the post were rearranged as follows: (1) A salary of £2000 a year; (2) the holder to devote his whole time to the duties of the post; (3) the retention of the post until the age of seventy, subject to continued efficiency—but with claim to gratuity or pension on retirement. The holder was to be subordinate to the secretary of state for war, without direct access to the sovereign. The appointment is conferred by letters-patent, which define the exact functions attaching to the office, which practically are the reviewing of the proceedings of all field-general, general and district courts-martial held in the United Kingdom, and advising the sovereign as to the confirmation of the finding and sentence. The deputy judge-advocate is a salaried official in the department of the judge-advocate-general and acts under his letters-patent. A separate judge-advocate-general's department is maintained in India, where at one time deputy judge-advocates were attached to every important command. All general courts-martial held in the United Kingdom are sent to the judge-advocate-general, to be by him submitted to the sovereign for confirmation; and all district courts-martial, after having been confirmed and promulgated, are sent to his office for examination and custody. The judge-advocate-general and his deputy, being judges in the last resort of the validity of the proceedings of courts-martial, take no part in their conduct; but the deputy judge-advocates frame and revise charges and attend at courts-martial, swear the court, advise both sides on law, look after the interests of the prisoner and record the proceedings. In the English navy there is an official whose functions are somewhat similar to those of the judge-advocate-general. He is called counsel and judge-advocate of the fleet.

In the United States there is also a judge-advocate-general's department. In addition to being a bureau of military justice, and keeping the records of courts-martial, courts of inquiry and military commissions, it has the custody of all papers relating to the title of lands under the control of the war department. The officers of the department, in addition to acting as prosecutors in all military trials, sometimes represent the government when cases affecting the army come up in civil courts.

See further MILITARY LAW, and consult C. M. Clode, *Administration of Justice under Military and Martial Law* (1872); *Military Forces of the Crown* (2 vols., 1869).

JUDGES, THE BOOK OF, in the Bible. This book of the Old Testament, which, as we now read it, constitutes a sequel to the book of Joshua, covering the period of history between the death of this conqueror and the birth of Samuel, is so called because it contains the history of the Israelites before the establishment of the monarchy, when the government was in the hands of certain leaders who appear to have formed a continuous succession, although the office was not hereditary. The only other biblical source ascribed to this period is Ruth, whose present position as an appendix to Judges is not original (see BIBLE and RUTH).

Structure.—It is now generally agreed that the present adjustment of the older historical books of the Old Testament to form a continuous record of events from the creation to the Babylonian

exile is due to an editor, or rather to successive redactors, who pieced together and reduced to a certain unity older memoirs of very different dates; and closer examination shows that the continuity of many parts of the narrative is more apparent than real. This is very clearly the case in the book of Judges. It consists of three main portions: (1) an introduction, presenting one view of the occupation of Palestine by the Israelites (i. 1–ii. 5); (2) the history of the several judges (ii. 6–xvi.); and (3) an appendix containing two narratives of the period.

1. The first section relates events which are said to have taken place after the death of Joshua, but in reality it covers the same ground with the book of Joshua, giving a brief account of the occupation of Canaan, which in some particulars repeats the statements of the previous book, while in others it is quite independent (see JOSHUA). It is impossible to regard the war-like expeditions described in this section as supplementary campaigns undertaken after Joshua's death; they are plainly represented as the first efforts of the Israelites to gain a firm footing in the land (at Hebron, Debir, Bethel), in the very cities which Joshua is related to have subdued (Josh. x. 39).[1] Here then we have an account of the settlement of Israel west of the Jordan which is parallel to the book of Joshua, but makes no mention of Joshua himself, and places the tribe of Judah in the front. The author of the chapter cannot have had Joshua or his history in his eye at all, and the words "and it came to pass after the death of Joshua" in Judg. i. 1 are from the hand of the last editor, who desired to make the whole book of Judges, including ch. i., read continuously with that which now precedes it in the canon of the earlier prophets.[2]

2. The second and main section (ii. 6–xvi.) stands on quite another footing. According to Josh. xxiv. 31 the people "served Yahweh" during the lifetime of the great conqueror and his contemporaries. In Judg. ii. 7 this statement is repeated, and the writer proceeds to explain that subsequent generations fell away from the faith, and served the gods of the nations among which they dwelt (ii. 6–iii. 6). The worship of other gods is represented, not as something which went on side by side with Yahweh-worship (cf. x. 6), but as a revolt against Yahweh, periodically repeated and regularly chastised by foreign invasion. The history, therefore, falls into recurring cycles, each of which begins with religious corruption, followed by chastisement, which continues until Yahweh, in answer to the groans of his oppressed people, raises up a "judge" to deliver Israel, and recall them to the true faith. On the death of the "judge," if not sooner, the corruption spreads anew and the same vicissitudes follow. This religious explanation of the course of the history, formally expounded at the outset and repeated in more or less detail from chapter to chapter (especially vi. 1–10, x. 6–18), determines the form of the whole narrative. It is in general agreement with the spirit as also with the language of Deuteronomy, and on this account this section may be conveniently called "the Deuteronomic Book of Judges." But the main religious ideas are not so late and are rather akin to those of Josh. xxiv; in particular the worship of the high places is not condemned, nor is it excused as in 1 Kings iii. 2. The sources of the narrative are obviously older than the theological exposition of its lessons, and herein lies the value and interest of Judges. The importance of such documents for the scientific historian lies not so much in the events they record as in the unconscious witness they bear to the state of society in which the narrator or poet lived. From this point of view the parts of the book are by no means all of equal value; critical analysis shows that often parallel or distinct narratives have been fused together, and that, whilst the older stories gave more prominence to ordinary human motives and combinations, the later are coloured by religious reflection and show the characteristic tendency of the Old Testament to re-tell the fortunes of Israel in a form that lays ever-increasing weight on the work of Yahweh for his people. That the pre-Deuteronomic sources are to be identified with the Judaean (J, or Yahwist) and Ephraimite (E, or Elohist) strands of the Hexateuch is, however, not certain.

To the unity of religious pragmatism in the main stock of the book of Judges corresponds a unity of chronological scheme. The "judges," in spite of the fact that most of them had clearly no more than a local influence, are all represented as successive rulers in Israel, and the history is dated by the years of each judgeship and those of the intervening periods of oppression. But it is impossible to reconcile the numbers with the statement elsewhere that the fourth year of Solomon was the 480th from the exodus (1 Kings vi. 1). See BIBLE: *Chronology*.

The general introduction (ii. 6–iii. 6) is a blend of Deuteronomic and other sources. The intimate relation between it and the separate narratives (Josh. xxiv. 1–27, a late [Ephraimite] record inserted by a second Deuteronomic hand, and xxiii., D) appears both from their contents and from the fact that Judg. ii. 6–10 is almost identical with the narrative appended to Joshua's address (Joshua xxiv. 28–31). Judg. i.–ii. 5, however, is not touched by D, and hence was probably inserted in its present position at a later date. According to the highly intricate introduction the Hebrews were oppressed: (*a*) to familiarize them with warfare—it is assumed that they had intermarried with the Canaanites and worshipped their gods (iii. 2, 6); (*b*) to test their loyalty to Yahweh (ii. 22; iii. 1); or (*c*) to punish them for their marriage with the heathen and their apostasy (D in ii. 12; cf. Josh. xxiii., and ibid. *v.* 12).

To this succeeds a noteworthy example of the Deuteronomic treatment of tradition in the achievement of Othniel (*q.v.*) the only Judaean "judge." The bareness of detail, not to speak of the improbability of the situation, renders its genuineness doubtful, and the passage is one of the indications of a secondary Deuteronomic redaction. The case, however, is exceptional; the stories of the other great "judges" were not rewritten or to any great extent revised by the Deuteronomic redactor, and his hand appears chiefly in the framework.[3] Thus, in the story of Ehud and the defeat of Moab only iii. 12–15, 29–30 are Deuteronomic. But the rest is not homogeneous, *vv.* 19 and 20 appear to be variants, and the mention of Israel (*v.* 27*b*) is characteristic of the tendency to treat local troubles as national oppressions, whereas other records represent little national unity at this period (i., v.). See further EHUD.

According to the Septuagint addition to Josh. xxiv. 33, Moab was the first of Israel's oppressors. The brief notice of Shamgar, who delivered Israel from the Philistines (iii. 31), is one of the later insertions, and in some MSS. of the LXX. it stands after xvi. 31. The story of the defeat of Sisera appears in two distinct forms, an earlier, in poetical form (v.), and a later, in prose (iv.). D's framework is to be recognized in iv. 1–4, 23 seq., v. 1 (probably), 31 (last clause); see further DEBORAH. The Midianite oppression (vi.–viii.) is contained in the usual frame (vi. 1–6; viii. 27 seq.), but is not homogeneous, since viii. 4, the pursuit of the kings, cannot be the sequel of viii. 3 (where they have been slain), and viii. 33–35 ignores ix. The structure of vi. 1–viii. 3 is particularly intricate: vi. 25–32 does not continue vi. 11–24 (there are two accounts of Gideon's introduction and divergent representations of Yahweh-worship); vi. 34 forms the sequel of the latter, and vi. 36–40 (with "God") is strange after the description of the miracle in *vv.* 21 seq. (with "Yahweh"). Further, there are difficulties in vi. 34, vii. 23 seq., viii. 1, when compared with vii. 2–8, and in vii. 16–22 two stratagems are combined. There are two sequels: vii. 23 seq. and viii. 4; with the former contrast vi. 35; with viii. 1–3 cf. xii. 1–6, and see below. Chapter viii. 22 seq. comes unexpectedly, and the refusal of the offer of the kingship reflects later ideas (cf. 1 Sam. viii. 7; x. 19; xii. 12, 17). The conclusion, however, shows that Jerubbaal had only a local reputation. Finally, the condemnation of the ephod as part of the worship of Yahweh (viii. 27) agrees with the thought in vi. 25–32 as against that in vi. 11–24. (See EPHOD; GIDEON.) Chapter ix. (see ABIMELECH) appears to have been wanting in the Deuteronomic book of Judges, but inserted later perhaps by means of the introduction, viii. 30–32 (post-exilic). It has two accounts of the attack upon Shechem (ix. 26–41 and 42–49).

After a brief notice of two "minor judges" (see below), follows the story of Jephthah. It concludes with the usual Deuteronomic

[1] This is confirmed by the circumstance that in Judg. ii. 1 the "angel of Yahweh," who, according to Exod. xiv. 24, xxiii. 20, xxxii. 34, xxxiii. 2, 7 seq., must be viewed as having his local manifestation at the headquarters of the host of Israel, is still found at Gilgal and not at Shiloh.

[2] The chapter was written after Israel had become strong enough to make the Canaanite cities tributary (*v.* 28), that is, after the establishment of the monarchy (see 1 Kings ix. 20–21).

[3] Hence, it is to be inferred that the reviser had older *written* records before him. Had these been in the oral stage he would scarcely incorporate traditions which did not agree with his views; at all events they would hardly have been written down by him in the form in which they have survived. The narratives of the monarchy which are preserved only in Chronicles, on the other hand, illustrate the manner in which tradition was reshaped and rewritten under the influence of a later religious standpoint.

formula (xii. 7), but is prefaced by a detailed introduction to the oppression of Israel (x. 6 sqq.). By the inclusion of the Philistines among the oppressors, and of Judah, Benjamin and Ephraim among the oppressed (x. 7, 9), it appears to have in view not merely the story of Samson, a hero of local interest, but the early chapters in 1 Samuel. This introduction is of composite origin (as also ii.6–21; Josh. xxiii.–xxiv. 25), but a satisfactory analysis seems impossible. As it stands, it has literary connexions with the late narrative in 1 Sam. (vii. seq., xii.), and appears to form the preface to that period of history which ended with Samuel's great victory and the institution of the monarchy. But this belongs to a later scheme (see SAMUEL), and the introduction in its earlier form must have been the prelude to earlier narratives.[1] The story of Jephthah's fight with Ammon is linked to the preceding introduction by x. 17 seq.; for the framework see x. 6 (above), xii. 7. Chapter xi. 12–28 (cf. Num. xx. seq.) is applicable only to Moab, *vv.* 29 and 32 are variants, and Jephthah's home is placed variously in Tob. (xi. 3) and Mizpeh (*v.* 34). In xi. 1–10 the outlaw stipulates that he shall be chief of Gilead if successful, but in *vv.* 12–28 a ruler speaks on behalf of Israel. Both Moab and Ammon had good reason to be hostile to Gilead (Num. xxi.), but the scene of the victory points rather to the former (*v.* 33, possibly conflate). There is a general resemblance between the victories of Gideon and Jephthah, which is emphasized by the close relation between viii. 1–3 and xii. 1–6, the explanation of which in its present context is difficult. See further JEPHTHAH.

The old stories of Samson the Danite have been scarcely touched by the redaction (xiii. 1; xv. 20; xvi. 31*b*, where he is a "judge"); only xiii. appears to be rather later (*v.* 5 represents him as a forerunner of Samuel and Saul), and gives a rather different impression of the hero of the folk-tales. The cycle illustrates some interesting customs and is in every way valuable as a specimen of popular narrative. See SAMSON.

Grouped among these narratives are the five so-called "minor judges" (x. 1–5; xii. 8–15). By the addition of Shamgar (iii. 31) the number is made to agree with the six more important names. They are not represented as having any immediate religious importance; they really lie outside of the chronological scheme, and their history is plainly not related from such lively and detailed reminiscence as gives charm to the longer episodes of the book. The notices are drawn up in set phraseology, and some of the names, in harmony with a characteristic feature of early Hebrew history, are those of personified families of communities rather than of families.[2]

3. The third and last section of the book embraces chapters xvii.–xxi., and consists of two narratives independent of one another and of the main stock of the book, with which they are not brought into any chronological connexion. They appear to owe their position to the latest redactor (akin to the latest stratum in the Hexateuch) who has heavily worked over xix.–xxi., and put the book into its present form by the addition of i.–ii. 5, ix. and possibly of v.[3]

The first narrative, that of Micah and the Danites, is of the highest interest both as a record of the state of religion and for the picture it gives of the way in which one clan passed from the condition of an invading band into settled possession of land and city. Its interest (xvii. seq.) lies in the foundation of the Ephraimite sanctuary by Micah as also in that of Dan. There are some repetitions in the account, but there is not enough evidence to restore two complete stories. The history of the Levite and the Benjamites is of quite another character, and presupposes a degree of unity of feeling and action among the tribes of Israel which it is not easy to reconcile with the rest of the book. In its present form this episode appears to be not very ancient; it resembles Ruth in giving a good deal of curious archaeological detail (the feast at Shiloh) in a form which suggests that the usages referred to were already obsolete when the narrative was composed. It appears to consist of an old story which has been heavily revised to form an edifying piece of exposition. The older parts are preserved in xix.: the account of the Levite of Mt Ephraim whose concubine from Bethlehem in Judah was outraged, not by the non-Israelite Jebusites of Jerusalem, but by the Benjamites of Gibeah; there are traces of another source in *vv.* 6–8, 10, 13, 15. The older portions of xx. seq. include: the vengeance taken by Israel (*e.g.* xx. 3–8, 14, 19, 29, 36–41, 47), and the reconstruction of the tribe by intermarriage with the women of Shiloh (xxi. 1, 15, 17–19, 21–23). The post-exilic expansions (found chiefly in xx., xxi. 2–14, 16, 24 seq.) describe the punishment of Benjamin by the religious assembly and the massacre of Jabesh-Gilead for its refusal to join Israel, four hundred virgins of the Gileadites being saved for Benjamin. How much old tradition underlies these stories is questionable. It is very doubtful whether Hosea's allusion to the depravity of Gibeah (ix. 9; x. 9) is to be referred hither, but it is noteworthy that whilst Gibeah and Jabesh-Gilead, which appear here in a bad light, are known to be associated with Saul, the sufferer is a Levite of Bethlehem, the traditional home of David. The account of the great fight in xx. is reminiscent of Joshua's battle at Ai (Josh. vii.–viii.).

Historical Value.—The book of Judges consists of a number of narratives collected by Deuteronomic editors; to the same circles are due accounts of the invasions of Palestine and settlement in Joshua, and of the foundation of the monarchy in 1 Samuel. The connexion has been broken by the later insertion of matter (not necessarily of late date itself), and the whole was finally formed into a distinct book by a post-exilic hand. The dates of the older stories preserved in ii. 6–xvi. 6 are quite unknown. If they are trustworthy for the period to which they are relegated (approximately 14th–12th cent. B.C.) they are presumably of very great antiquity, but if they belong to the sources J and E of the Hexateuch (at least some four or five centuries later) their value is seriously weakened. On the other hand, the belief that the monarchy had been preceded by national "judges" may have led to the formation of the collection. It is evident that there was more than one period in Israelite history in which one or other of these stories of local heroes would be equally suitable. They reflect tribal rivalry and jealousy (cf. Isa. ix. 21, and the successors of Jeroboam 2), attacks by nomads and wars with Ammon and Moab; conflicts between newly settled Israelites and indigenous Canaanites have been suspected in the story of Abimelech, and it is not impossible that the post-Deuteronomic writer who inserted ch. ix. so understood the record. A striking exception to the lack of unity among the tribes is afforded by the account of the defeat of Sisera, and here the old poem represents a combined effort to throw off the yoke of a foreign oppressor, while the later prose version approximates the standpoint of Josh. xi. 1–15, with its defeat of the Canaanites. The general stand-point of the stories (esp. Judg. v.) is that of central Palestine; the exceptions are Othniel and Samson—the latter interrupting the introduction in x., and its sequel, the former now entirely due to the Deuteronomic editor. Of the narratives which precede and follow, ch. i. represents central Palestine separated by Canaanite cities from tribes to the south and north; it is the situation recognized in Judg. xix. 10–12, as well as in passages imbedded in the latest portions of the book of Joshua, though it is in contradiction to the older traditions of Joshua himself. Chapters xvii. seq. (like the preceding story of Samson) deal with Danites, but the migration can hardly be earlier than David's time; and xix.–xxi., by describing the extermination of Benjamin, form a link between the presence of the tribe in the late narratives of the exodus and its new prominence in the traditions of Saul (*q.v.*). As an historical source, therefore, the value of Judges will depend largely upon the question whether the Deuteronomic editor (about 600 B.C. at the earliest) would have access to trustworthy documents relating to a period some six or seven centuries previously. See further JEWS, §§ 6, 8; and SAMUEL, BOOKS OF.

LITERATURE.—Biblical scholars are in agreement regarding the preliminary literary questions of the book, but there is divergence of opinion on points of detail, and on the precise growth of the book (*e.g.* the twofold Deuteronomic redaction). See further W. R. Smith, *Ency. Brit.* 9th ed. (upon which the present article is based); G. F. Moore, *International Critical Comm.* (1895); *Ency. Bib.*, art. "Judges"; K. Budde, *Kurzer Handcommentar* (1897); Lagrange, *Livres des juges* (1903); G. W. Thatcher (*Century Bible*); also S. R. Driver, *Lit. of Old Testament* (1909); Moore, in the *Sacred Books of Old Testament* (1898); C. F. Kent, *The Student's Old Testament*, vol. i. (1904). (S. A. C.)

JUDGMENT, in law, a term used to describe (1) the adjudication by a court of justice upon a controversy submitted to it *inter partes* (*post litem contestatam*) and determining the rights of the parties and the relief to be awarded by the court as between them; (2) the formal document issuing from the court

[1] It may be conjectured that the introduction originally formed the prelude to the rise of Saul: the intervening narratives, though not necessarily of late origin themselves, having been subsequently inserted. See S. A. Cook, *Crit. Notes O. T. Hist.*, p. 127 seq.

[2] Tola and Puah (x. 1) are clans of Issachar (Gen. xlvi. 13), for Jair (*v.* 3), see Num. xxxii. 41, and for Elon (xii. 11), see Gen. xlvi. 14. See GENEALOGY: *Biblical.*

[3] To the same post-exilic hand may also be ascribed the introduction of the "minor judges" (so several critics), and smaller additions here and there (ch. i. 1 opening words, *vv.* 4, 8 seq. [contrast 21] 18; viii. 30–32; xi. 2, &c.).

in which that adjudication is expressed; (3) the opinions of the judges expressed in a review of the facts and law applicable to the controversy leading up to the adjudication expressed in the formal document. When the judgment has been passed and entered and recorded it binds the parties: the controversy comes to an end (*transit in rem judicatam*), and the person in whose favour the judgment is entered is entitled to enforce it by the appropriate method of "execution." There has been much controversy among lawyers as to the meaning of the expressions "final" and "interlocutory" as applied to judgments, and as to the distinction between a "judgment," a "decree," and an "order." These disputes arise upon the wording of statutes or rules of court and with reference to the appropriate times or modes of appeal or of execution.

The judgments of one country are not as a rule directly enforceable in another country. In Europe, by treaty or arrangement, foreign judgments are in certain cases and on compliance with certain formalities made executory in various states. A similar provision is made as between England, Scotland and Ireland, for the registry and execution in each country of certain classes of judgments given in the others. But as regards the rest of the king's dominions and foreign states, a "foreign" judgment is in England recognized only as constituting a cause of action which may be sued upon in England. If given by a court of competent jurisdiction it is treated as creating a legal obligation to pay the sum adjudged to be due. Summary judgment may be entered in an English action based on a foreign judgment unless the defendant can show that the foreign court had not jurisdiction over the parties or the subject matter of the action, or that there was fraud on the part of the foreign court or the successful party, or that the foreign proceedings were contrary to natural justice, *e.g.* concluded without due notice to the parties affected. English courts will not enforce foreign judgments as to foreign criminal or penal or revenue laws.

JUDGMENT DEBTOR, in English law, a person against whom a judgment ordering him to pay a sum of money has been obtained and remains unsatisfied. Such a person may be examined as to whether any and what debts are owing to him, and if the judgment debt is of the necessary amount he may be made bankrupt if he fails to comply with a bankruptcy notice served on him by the judgment creditors, or he may be committed to prison or have a receiving order made against him in a judgment summons under the Debtors Act 1869.

JUDGMENT SUMMONS, in English law, a summons issued under the Debtors Act 1869, on the application of a creditor who has obtained a judgment for the payment of a sum of money by instalments or otherwise, where the order for payment has not been complied with. The judgment summons cites the defendant to appear personally in court, and be examined on oath as to the means he has, or has had, since the date of the order or judgment made against him, to pay the same, and to show cause why he should not be committed to prison for his default. An order of commitment obtained in a judgment summons remains in force for a year only, and the extreme term of imprisonment is six weeks, dating from the time of lodging in prison. When a debtor has once been imprisoned, although for a period of less than six weeks, no second order of commitment can be made against him in respect of the same debt. But if the judgment be for payment by instalments a power of committal arises on default of payment for each instalment. If an order of commitment has never been executed, or becomes inoperative through lapse of time, a fresh commitment may be made. Imprisonment does not operate as a satisfaction or extinguishment of a debt, or deprive a person of a right of execution against the land or goods of the person imprisoned in the same manner as if there had been no imprisonment.

JUDICATURE ACTS, an important series of English statutes having for their object the simplification of the system of judicature in its higher branches. They are the Supreme Court of Judicature Act 1873 (36 & 37 Vict. c. 66) and the Supreme Court of Judicature Act 1875 (38 & 39 Vict. c. 77), with various amending acts, the twelfth of these being in 1899. By the act of 1873 the court of chancery, the court of queen's (king's) bench, the court of common pleas, the court of exchequer, the high court of admiralty, the court of probate and the court of divorce and matrimonial causes were consolidated into one Supreme[1] Court of Judicature (sec. 3), divided into two permanent divisions, called "the high court," with (speaking broadly) original jurisdiction, and "the court of appeal" (sec. 4). The objects of the act were threefold—first, to reduce the historically independent courts of common law and equity into one supreme court; secondly, to establish for all divisions of the court a uniform system of pleading and procedure; and thirdly, to provide for the enforcement of the same rule of law in those cases where chancery and common law recognized different rules. It can be seen at once how bold and revolutionary was this new enactment. By one section the august king's bench, the common pleas, in which serjeants only had formerly the right of audience, and the exchequer, which had its origin in the reign of Henry I., and all their jurisdiction, criminal, legal and equitable, were vested in the new court. It must be understood, however, that law and equity were not fused in the sense in which that phrase has generally been employed. The chancery division still remains distinct from the common law division, having a certain range of legal questions under its exclusive control, and possessing to a certain extent a peculiar machinery of its own for carrying its decrees into execution. But all actions may now be brought in the high court of justice, and, subject to such special assignments of business as that alluded to, may be tried in any division thereof.

There were originally three common law divisions of the High Court corresponding with the three former courts of common law. But after the death of Lord Chief Baron Kelly on the 17th of September 1880, and of Lord Chief Justice Cockburn on the 20th of November 1880, the common pleas and exchequer divisions were (by order in council, 10th December 1880) consolidated with the king's bench division into one division under the presidency of the lord chief justice of England, to whom, by the 25th section of the Judicature Act 1881, all the statutory jurisdiction of the chief baron and the chief justice of the common pleas was transferred. The high court, therefore, now consists of the chancery division, the common law division, under the name of the king's bench division; and the probate, divorce and admiralty division. To the king's bench division is also attached, by order of the lord chancellor (Jan. 1, 1884), the business of the London court of bankruptcy.

For a more detailed account of the composition of the various courts, see CHANCERY; KING'S BENCH; and PROBATE, DIVORCE AND ADMIRALTY COURT.

The keystone of the structure created by the Judicature Acts was a strong court of appeal. The House of Lords remained the last court of appeal, as before the acts, but its judicial functions were virtually transferred to an appeal committee, consisting of the lord chancellor and other peers who have held high judicial office, and certain lords of appeal in ordinary created by the act of 1873 (see APPEAL).

The practice and procedure of the Supreme Court are regulated by rules made by a committee of judges, to which have been added the president of the incorporated law society and a practising barrister and one other person nominated by the lord chancellor. The rules now in force are those of 1883, with some subsequent amendments. With the appendices they fill a moderate-sized volume. Complaints are made that they go into too much detail, and place a burden on the time and temper of the busy practitioner which he can ill afford to bear. It is possible that the authors of the rules attempted too much, and it might have been better to provide a simpler and more elastic code of procedure. Rules have sometimes been made to meet individual cases of hardship, and rules of procedure have been piled up from time to time, sometimes embodying a new experiment, and not always consistent with former rules.

[1] The comte de Franqueville in his interesting work, *Le Système judiciaire de la Grande Bretagne*, criticizes the use of the word "supreme" as a designation of this court, inasmuch as its judgments are subject to appeal to the House of Lords, but in the act of 1873 the appeal to the House of Lords was abolished. He is also severe on the illogical use of the words "division" and "court" in many different senses (i. 180–181).

The most important matter dealt with by the rules is the mode of pleading. The authors of the Judicature Act had before them two systems of pleading, both of which were open to criticism. The common law pleadings (it was said) did not state the facts on which the pleader relied, but only the legal aspect of the facts or the inferences from them, while the chancery pleadings were lengthy, tedious and to a large extent irrelevant and useless. There was some exaggeration in both statements. In pursuing the fusion of law and equity which was the dominant legal idea of law reformers of that period, the framers of the first set of rules devised a system which they thought would meet the defects of both systems, and be appropriate for both the common-law and the chancery divisions. In a normal case, the plaintiff delivered his statement of claim, in which he was to set forth concisely the facts on which he relied, and the relief which he asked. The defendant then delivered his statement of defence, in which he was to say whether he admitted or denied the plaintiff's facts (every averment not traversed being taken to be admitted), and any additional facts and legal defences on which he relied. The plaintiff might then reply, and the defendant rejoin, and so on until the pleaders had exhausted themselves. This system of pleading was not a bad one if accompanied by the right of either party to demur to his opponent's pleading, *i.e.* to say, "admitting all your averments of fact to be true, you still have no cause of action," or "defence" (as the case may be). It may be, however, that the authors of the new system were too intent on uniformity when they abolished the common-law pleading, which, shorn of its abuses (as it had been by the Common Law Procedure Acts), was an admirable instrument for defining the issue between the parties though unsuited for the more complicated cases which are tried in chancery, and it might possibly have been better to try the new system in the first instance in the chancery division only. It should be added that the rules contain provisions for actions being tried without pleadings if the defendant does not require a statement of claim, and for the plaintiff in an action of debt obtaining immediate judgment unless the defendant gets leave to defend. In the chancery division there are of course no pleadings in those matters which by the rules can be disposed of by summons in chambers instead of by ordinary suit as formerly.

The judges seem to have been dissatisfied with the effect of their former rules, for in 1883 they issued a fresh set of consolidated rules, which, with subsequent amendments, are those now in force. By these rules a further attempt was made to prune the exuberance of pleading. Concise forms of statement of claim and defence were given in the appendix for adoption by the pleader. It is true that these forms do not display a high standard of excellence in draftsmanship, and it was said that many of them were undoubtedly demurrable, but that was not of much importance. Demurrers were abolished, and instead thereof it was provided that any point of law raised by the pleadings should be disposed of at or after the trial, provided that by consent or order of the court the same might be set down and disposed of before the trial (Order xxv. rules 1, 2). This, in the opinion of Lord Davey in 1902 (*Ency. Brit.*, 10th ed., xxx. 146), was a disastrous change. The right of either party to challenge his opponent *in limine*, either where the question between them was purely one of law, or where even the view of the facts taken and alleged by his opponent did not constitute a cause of action or defence, was a most valuable one, and tended to the curtailment of both the delay and the expense of litigation. Any possibility of abuse by frivolous or technical demurrers (as undoubtedly was formerly the case) had been met by powers of amendment and the infliction of costs. Many of the most important questions of law had been decided on demurrer both in common law and chancery. Lord Davey considered that demurrer was a useful and satisfactory mode of trying questions in chancery (on bill and demurrer), and it was frequently adopted in preference to a special case, which requires the statement of facts to be agreed to by both parties and was consequently more difficult and expensive. It is obvious that a rule which makes the normal time for decision of questions at law the trial or subsequently, and a preliminary decision the exception, and such exception dependent on the consent of both parties or an order of the court, is a poor substitute for a demurrer as of right, and it has proved so in practice. The editors of the *Yearly Practice* for 1901 (Muir Mackenzie, Lushington and Fox) said (p. 272): "Points of law raised by the pleadings are usually disposed of at the trial or on further consideration after the trial of the issues of fact," that is to say, after the delay, worry and expense of a trial of disputed questions of fact which after all may turn out to be unnecessary. The abolition of demurrers has also (it is believed) had a prejudicial effect on the standard of legal accuracy and knowledge required in practitioners. Formerly the pleader had the fear of a demurrer before him. Nowadays he need not stop to think whether his cause of action or defence will hold water or not, and anything which is not obviously frivolous or vexatious will do by way of pleading for the purpose of the trial and for getting the opposite party into the box.

Another change was made by the rules of 1883, which was regarded by some common law lawyers as revolutionary. Formerly every issue of fact in a common law action, including the amount of damage, had to be decided by the verdict of a jury. "The effect of the rules of 1883," said Lord Lindley, who was a member of the rule committee, "was to make trial without a jury the normal mode of trial, except where trial with a jury is ordered under rules 6 or 7a, or may be had without an order under rule 2" (*Timson* v. *Wilson*, 38 Ch. D. 72, at p. 76). The effect of the rules may be thus summarized: (1) In the chancery division no trial by jury unless ordered by the judge. (2) Generally the judge may order trial without a jury of any cause or issue, which before the Judicature Act might have been so tried without consent of parties, or which involves prolonged investigation of documents or accounts, or scientific or local investigation. (3) Either party has a right to a jury in actions of slander, libel, false imprisonment, malicious prosecution, seduction or breach of promise of marriage, upon notice without order; (4) or in any other action, by order. (5) Subject as above, actions are to be tried without a jury unless the judge, of his own motion, otherwise orders.

Further steps have been taken with a view to simplification of procedure. By Order xxx. rule 1 (as amended in 1897), a summons, called a summons for directions, has to be taken out by a plaintiff immediately after the appearance of the defendant, and upon such summons an order is to be made respecting pleadings, and a number of interlocutory proceedings. To make such an order at that early stage would seem to demand a prescience and intelligent anticipation of future events which can hardly be expected of a master, or even a judge in chambers, except in simple cases, involving a single issue of law or fact which the parties are agreed in presenting to the court. The effect of the rule is that the plaintiff cannot deliver his statement of claim, or take any step in the action without the leave of the judge. In chancery cases the order usually made is that the plaintiff deliver his statement of claim, and the rest of the summons stand over, and the practical effect is merely to add a few pounds to the costs. It may be doubted whether, as applied to the majority of actions, the rule does not proceed on wrong lines, and whether it would not be better to leave the parties, who know the exigencies of their case better even than a judge in chambers, to proceed in their own way, subject to stringent provisions for immediate payment of the costs occasioned by unnecessary, vexatious, or dilatory proceedings. The order does not apply to admiralty cases or to proceedings under the order next mentioned.

The Supreme Court of Judicature Act (Ireland) 1877 follows the same lines as the English acts. The pre-existing courts were consolidated into a supreme court of judicature, consisting of a high court of justice and a court of appeal. The judicature acts did not affect Scottish judicature, but the Appellate Jurisdiction Act included the court of session among the courts from which an appeal lies to the House of Lords.

JUDITH, THE BOOK OF, one of the apocryphal books of the Old Testament. It takes its name from the heroine Judith (Ἰουδίθ, Ἰουδήθ, *i.e.* יְהוּדִית, Jewess), to whom the last nine of its sixteen chapters relate. In the Septuagint and Vulgate it immediately precedes Esther, and along with Tobit comes after Nehemiah; in the English Apocrypha it is placed between Tobit and the apocryphal additions to Esther.

Argument.—In the twelfth year of his reign Nebuchadrezzar, who is described as king of Assyria, having his capital in Nineveh, makes war against Arphaxad, king of Media, and overcomes him in his seventeenth year. He then despatches his chief general Holofernes to take vengeance on the nations of the west who had withheld their assistance. This expedition has already succeeded in its main objects when Holofernes proceeds to attack Judaea. The children of Israel, who are described as having newly returned from captivity, are apprehensive of a desecration of their sanctuary, and resolve on resistance to the uttermost. The inhabitants of Bethulia (Betylūa) and Betomestham in particular (neither place can be identified), directed by Joachim the high priest, guard the mountain passes near Dothaim, and place themselves under God's protection. Holofernes now inquires of the chiefs who are with him about the Israelites, and is answered by Achior the leader of the Ammonites, who enters upon a long historical narrative showing the Israelites to be invincible except when they have offended God. For this Achior is punished by being handed over to the Israelites, who lead him to the governor of Bethulia. Next day the siege begins, and after forty days the famished inhabitants urge the governor Ozias to surrender, which he consents to do unless relieved in five days. Judith, a beautiful and pious widow of the tribe of Simeon, now appears on the scene with a plan of deliverance. Wearing her rich attire, and accompanied by her maid, who carries a bag of provisions, she goes over to the hostile camp, where she is at once conducted to the general, whose suspicions are disarmed by the tales she invents. After four days Holofernes, smitten with her charms, at the close of a

sumptuous entertainment invites her to remain within his tent over night. No sooner is he overcome with sleep than Judith, seizing his sword, strikes off his head and gives it to her maid; both now leave the camp (as they had previously been accustomed to do, ostensibly for prayer) and return to Bethulia, where the trophy is displayed amid great rejoicings and thanksgivings. Achior now publicly professes Judaism, and at the instance of Judith the Israelites make a sudden victorious onslaught on the enemy. Judith now sings a song of praise, and all go up to Jerusalem to worship with sacrifice and rejoicing. The book concludes with a brief notice of the closing years of the heroine.

Versions.—Judith was written originally in Hebrew. This is shown not only by the numerous Hebraisms, but also by mistranslations of the Greek translation, as in ii. 2, iii. 9, and other passages (see Fritzsche and Ball *in loc.*), despite the statement of Origen (*Ep. ad Afric.* 13) that the book was not received by the Jews among their apocryphal writings. In his preface to Judith, Jerome says that he based his Latin version on the Chaldee, which the Jews reckoned among their Hagiographa. Ball (*Speaker's Apocrypha*, i. 243) holds that the Chaldee text used by Jerome was a free translation or adaptation of the Hebrew. The book exists in two forms: the shorter, which is preserved only in Hebrew (see under *Hebrew Midrashim* below), is, according to Scholz, Lipsius, Ball and Gaster, the older; the longer form is that contained in the versions.

Greek Version.—This is found in three recensions: (1) in A B, ℵ; (2) in codices 19, 108 (Lucian's text); (3) in codex 58, the source of the old Latin and Syriac.

Syriac and Latin Versions.—Two Syriac versions were made from the Greek—the first, that of the Peshito; and the second, that of Paul of Tella, the so-called Hexaplaric. The Old Latin was derived from the Greek, as we have remarked above, and Jerome's from the Old Latin, under the control of a Chaldee version.

Later Hebrew Midrashim.—These are printed in Jellinek's *Bet ha-Midrasch*, i. 130–131; ii. 12–22; and by Gaster in *Proceedings of the Society of Biblical Archæology* (1894), pp. 156–163.

Date.—The book in its fuller form was most probably written in the 2nd century B.C. The writer places his romance two centuries earlier, in the time of Ochus, as we may reasonably infer from the attack made by Holofernes and Bagoas on Judaea; for Artaxerxes Ochus made an expedition against Phoenicia and Egypt in 350 B.C., in which his chief generals were Holofernes and Bagoas.

RECENT LITERATURE.—Ball, *Speaker's Apocrypha* (1888), an excellent piece of work; Scholz, *Das Buch Judith* (1896); Löhr, *Apok. und Pseud.* (1900), ii. 147–164; Porter in Hastings's *Dict. Bible*, ii. 822–824; Gaster, *Ency. Bib.*, ii. 2642–2646. See Ball, pp. 260–261, and Schürer *in loc.*, for a full bibliography. (R. H. C.)

JUDSON, ADONIRAM (1788–1850), American missionary, was born at Malden, Massachusetts, on the 9th of August 1788, the son of a Congregational minister. He graduated at Brown University in 1807, was successively a school teacher and an actor, completed a course at the Andover Theological Seminary in September 1810, and was at once licensed to preach as a Congregational clergyman. In the summer of 1810 he with several of his fellows students at Andover had petitioned the general association of ministers to be sent to Asiatic missionary fields. This application resulted in the establishment of the American board of commissioners for foreign missions, which sent Judson to England to secure, if possible, the co-operation of the London Missionary Society. His ship fell into the hands of a French privateer and he was for some time a prisoner in France, but finally proceeded to London, where his proposal was considered without anything being decided. He then returned to America, where he found the board ready to act independently. His appointment to Burma followed, and in 1812, accompanied by his wife, Ann Hasseltine Judson (1789–1826), he went to Calcutta. On the voyage both became advocates of baptism by immersion, and being thus cut off from Congregationalism, they began independent work. In 1814 they began to receive support from the American Baptist missionary union, which had been founded with the primary object of keeping them in the field. After a few months at Madras, they settled at Rangoon. There Judson mastered Burmese, into which he translated part of the Gospels with his wife's help. In 1824 he removed to Ava, where during the war between the East India Company and Burma he was imprisoned for almost two years. After peace had been brought about (largely, it is said, through his exertions) Mrs Judson died. In 1827 Judson removed his headquarters to Maulmain, where school buildings and a church were erected, and where in 1834 he married Sarah Hall Boardman (1803–1845). In 1833 he completed his translation of the Bible; in succeeding years he compiled a Burmese grammar, a Burmese dictionary, and a Pali dictionary. In 1845 his wife's failing health decided Judson to return to America, but she died during the voyage, and was buried at St Helena. In the United States Judson married Emily Chubbuck (1817–1854), well-known as a poet and novelist under the name of "Fanny Forrester," who was one of the earliest advocates in America of the higher education of women. She returned with him in 1846 to Burma, where the rest of his life was devoted largely to the rewriting of his Burmese dictionary. He died at sea on the 12th of April 1850, while on his way to Martinique, in search of health. Judson was perhaps the greatest, as he was practically the first, of the many missionaries sent from the United States into foreign fields; his fervour, his devotion to duty, and his fortitude in the face of danger mark him as the prototype of the American missionary.

The Judson Memorial, an institutional church, was erected on Washington Square South, New York City, largely through the exertions of his son, Rev. Edward Judson (b. 1844), who became its pastor and director, and who prepared a life of Dr Judson (1883; new ed. 1898). Another biography is by Francis Wayland (2 vols., 1854). See also Robert T. Middleditch's *Life of Adoniram Judson, Burmah's Great Missionary* (New York, 1859). For the three Mrs. Judsons, see Knowles, *Life of Ann Hasseltine Judson* (1829); Emily C. Judson, *Life of Sarah Hall Boardman Judson* (1849); Asahel C. Kendrick, *Life and Letters of Emily Chubbuck Judson* (1861).

JUEL, JENS (1631–1700), Danish statesman, born on the 15th of July 1631, began his diplomatic career in the suite of Count Christian Rantzau, whom he accompanied to Vienna and Regensburg in 1652. In August 1657 Juel was accredited to the court of Poland, and though he failed to prevent King John Casimir from negotiating separately with Sweden he was made a privy councillor on his return home. But it was the reconciliation of Juel's uncle Hannibal Sehested with King Frederick III. which secured Juel's future. As Sehested's representative, he concluded the peace of Copenhagen with Charles X., and after the Danish revolution of 1660 was appointed Danish minister at Stockholm, where he remained for eight years. Subsequently the chancellor Griffenfeldt, who had become warmly attached to him, sent him in 1672, and again in 1674, as ambassador extraordinary to Sweden, ostensibly to bring about a closer union between the two northern kingdoms, but really to give time to consolidate Griffenfeldt's far-reaching system of alliances. Juel completely sympathized with Griffenfeldt's Scandinavian policy, which aimed at weakening Sweden sufficiently to re-establish something like an equilibrium between the two states. Like Griffenfeldt, Juel also feared, above all things, a Swedo-Danish war. After the unlucky Scanian War of 1675–79, Juel was one of the Danish plenipotentiaries who negotiated the peace of Lund. Even then he was for an alliance with Sweden "till we can do better." This policy he consistently followed, and was largely instrumental in bringing about the marriage of Charles XI. with Christian V.'s daughter Ulrica Leonora. But for the death of the like-minded Swedish statesman Johan Gyllenstjerna in June 1680, Juel's "Scandinavian" policy might have succeeded, to the infinite advantage of both kingdoms. He represented Denmark at the coronation of Charles XII. (December 1697), when he concluded a new treaty of alliance with Sweden. He died in 1700.

Juel, a man of very few words and a sworn enemy of phrase-making, was perhaps the shrewdest and most cynical diplomatist of his day. His motto was: "We should wish for what we can get." Throughout life he regarded the political situation of Denmark with absolute pessimism. She was, he often said, the cat's-paw of the Great Powers. While Griffenfeldt would have obviated this danger by an elastic political system, adaptable to all circumstances, Juel preferred seizing whatever he could get in favourable conjunctures. In domestic affairs Juel was an

adherent of the mercantile system, and laboured vigorously for the industrial development of Denmark and Norway. For an aristocrat of the old school he was liberally inclined, but only favoured petty reforms, especially in agriculture, while he regarded emancipation of the serfs as quite impracticable. Juel made no secret of his preference for absolutism, and was one of the few patricians who accepted the title of baron. He saw some military service during the Scanian War, distinguishing himself at the siege of Venersborg, and by his swift decision at the critical moment materially contributing to his brother Niels's naval victory in the Bay of Kjoge. To his great honour he remained faithful to Griffenfeldt after his fall, enabled his daughter to marry handsomely, and did his utmost, though in vain, to obtain the ex-chancellor's release from his dungeon.

See Carl Frederik Bricka, *Dansk biografisk lex.*, art. "Juel" (1887, &c.); Adolf Ditlev Jörgensen, *P. Schumacher Griffenfeldt* (1893–1894). (R. N. B.)

JUEL, NIELS (1629–1697), Danish admiral, brother of the preceding, was born on the 8th of May 1629, at Christiania. He served his naval apprenticeship under Van Tromp and De Ruyter, taking part in all the chief engagements of the war of 1652–54 between England and Holland. During a long indisposition at Amsterdam in 1655–1656 he acquired a thorough knowledge of ship-building, and returned to Denmark in 1656 a thoroughly equipped seaman. He served with distinction during the Swedo-Danish wars of 1658–60 and took a prominent part in the defence of Copenhagen against Charles X. During fifteen years of peace, Juel, as admiral of the fleet, laboured assiduously to develop and improve the Danish navy, though he bitterly resented the setting over his head in 1663 of Cort Adelaar on his return from the Turkish wars. In 1661 Juel married Margrethe Ulfeldt. On the outbreak of the Scanian War he served at first under Adelaar, but on the death of the latter in November 1675 he was appointed to the supreme command. He then won a European reputation, and raised Danish sea-power to unprecedented eminence, by the system of naval tactics, afterwards perfected by Nelson, which consists in cutting off a part of the enemy's force and concentrating the whole attack on it. He first employed this manœuvre at the battle of Jasmund off Rügen (May 25, 1676) when he broke through the enemy's line in close column and cut off five of their ships, which, however, nightfall prevented him from pursuing. Juel's operations were considerably hampered at this period by the overbearing conduct of his Dutch auxiliary, Philip Almonde, who falsely accused the Danish admiral of cowardice. A few days after the battle of Jasmund, Cornelius Van Tromp the younger, with 17 fresh Danish and Dutch ships of the line, superseded Juel in the supreme command. Juel took a leading part in Van Tromp's great victory off Öland (June 1, 1676), which enabled the Danes to invade Scania unopposed. On the 1st of June 1677 Juel defeated the Swedish admiral Sjöblad off Möen; on the 30th of June 1677 he won his greatest victory, in the Bay of Kjöge, where, with 25 ships of the line and 1267 guns, he routed the Swedish admiral Evert Horn with 36 ships of the line and 1800 guns. For this great triumph, the just reward of superior seamanship and strategy—at an early stage of the engagement Juel's experienced eye told him that the wind in the course of the day would shift from S.W. to W. and he took extraordinary risks accordingly—he was made lieutenant admiral general and a privy councillor. This victory, besides permanently crippling the Swedish navy, gave the Danes a self-confidence which enabled them to keep their Dutch allies in their proper place. In the following year Van Tromp, whose high-handedness had become unbearable, was discharged by Christian V., who gave the supreme command to Juel. In the spring of 1678 Juel put to sea with 84 ships carrying 2400 cannon, but as the Swedes were no longer strong enough to encounter such a formidable armament on the open sea, his operations were limited to blockading the Swedish ports and transporting troops to Rügen. After the peace of Lund Juel showed himself an administrator and reformer of the first order, and under his energetic supervision the Danish navy ultimately reached imposing dimensions, especially after Juel became chief of the admiralty in 1683. Personally Juel was the noblest and most amiable of men, equally beloved and respected by his sailors, simple, straightforward and unpretentious in all his ways. During his latter years he was popularly known in Copenhagen as "the good old knight." He died on the 8th of April 1697.

See Garde, *Niels Juel* (1842), and *Den dansk. norske Sömagts Historie, 1535–1700* (1861). (R. N. B.)

JUG, a vessel for holding liquid, usually with one handle and a lip, made of earthenware, glass or metal. The origin of the word in this sense is uncertain, but it is probably identical with a shortened form of the feminine name Joan or Joanna; cf. the similar use of Jack and Jill or Gill for a drinking-vessel or a liquor measure. It has also been used as a common expression for a homely woman, a servant-girl, a sweetheart, sometimes in a sense of disparagement. In slang, "jug" or "stone-jug" is used to denote a prison; this may possibly be an adaptation of Fr. *joug*, yoke, Lat. *jugum*. The word "jug" is probably onomatopoeic when used to represent a particular note of the nightingale's song, or applied locally to various small birds, as the hedge-jug, &c.

The British Museum contains a remarkable bronze jug which was found at Kumasi during the Ashanti Expedition of 1896. It dates from the reign of Richard II., and is decorated in relief with the arms of England and the badge of the king. It has a lid, spout and handle, which ends in a quatrefoil. An inscription, on three raised bands round the body of the vessel, modernized runs:—"He that will not spare when he may shall not spend when he would. Deem the best in every doubt till the truth be tried out." The *British Museum Guide to the Medieval Room* contains an illustration of this vessel.

A particular form of jug is the "ewer," the precursor of the ordinary bedroom jug (an adaptation of O. Fr. *ewaire*, med. Lat. *aquaria*, water-pitcher, from *aqua*, water). The ewer was a jug with a wide spout, and was principally used at table for pouring water over the hands after eating, a matter of some necessity before the introduction of forks. Early ewers are sometimes mounted on three feet, and bear inscriptions such as *Venez laver*. A basin of similar material and design accompanied the ewer. In the 13th and 14th centuries a special type of metal ewer takes the form of animals, men on horseback, &c.; these are generally known as *aquamaniles*, from med. Lat. *aqua manile* or *aqua manale* (*aqua*, water, and *manare*, to trickle, pour, drip). The British Museum contains several examples.

In the 18th and early 19th centuries were made the drinking-vessels of pottery known as "Toby jugs," properly Toby Fillpots or Philpots. These take the form of a stout old man, sometimes seated, with a three-cornered hat, the corners of which act as spouts. Similar drinking-vessels were also made representing characters popular at the time, such as "Nelson jugs," &c.

JUGE, BOFFILLE DE (d. 1502), French-Italian adventurer and statesman, belonged to the family of del Giudice, which came from Amalfi, and followed the fortunes of the Angevin dynasty. When John of Anjou, duke of Calabria, was conquered in Italy (1461) and fled to Provence, Boffille followed him. He was given by Duke John and his father, King René, the charge of upholding by force of arms their claims on Catalonia. Louis XI., who had joined his troops to those of the princes of Anjou, attached Boffille to his own person, made him his chamberlain and conferred on him the vice-royalty of Roussillon and Cerdagne (1471), together with certain important lordships, among others the countship of Castres, confiscated from James of Armagnac, duke of Nemours (1476), and the temporalities of the bishopric of Castres, confiscated from John of Armagnac. He also entrusted him with diplomatic negotiations with Flanders and England. In 1480 Boffille married Marie d'Albret, sister of Alain the Great, thus confirming the feudal position which the king had given him in the south. He was appointed as one of the judges in the trial of René of Alençon, and showed such zeal in the discharge of his functions that Louis XI. rewarded him by fresh gifts. However, the bishop of Castres recovered his diocese (1483), and the heirs of the duke of Nemours took legal proceedings for

the recovery of the countship of Castres. Boffille, with the object of escaping from his enemies, applied for the command of the armies of the republic of Venice. His application was refused, and he further lost the viceroyalty of Roussillon (1491). His daughter Louise married against his will a gentleman of no rank, and this led to terrible family dissensions. In order to disinherit his own family, Boffille de Juge gave up the countship of Castres to his brother-in-law, Alain d'Albret (1494). He died in 1502.

See P. M. Perret, *Boffille de Juge, comte de Castres, et la république de Venise* (1891); F. Pasquier, *Inventaire des documents concernant Boffille de Juge* (1905). (M. P.*)

JUGGERNAUT, a corruption of Sans. JAGANNĀTHA, "Lord of the World," the name under which the Hindu god Vishnu is worshipped at Puri in Orissa. The legend runs that the sacred blue-stone image of Jagannātha was worshipped in the solitude of the jungle by an outcast, a Savara mountaineer, called Basu. The king of Malwa, Indradyumna, had despatched Brahmans to all quarters of the peninsula, and at last discovered Basu. Thereafter the image was taken to Puri, and a temple, begun in 1174, was completed fourteen years later at a cost of upwards of half a million sterling. The site had been associated for centuries before and after the Christian era with Buddhism, and the famous Car festival is probably based on the Tooth festival of the Buddhists, of which the Chinese pilgrim Fa-Hien gives an account. The present temple is a pyramidal building, 192 ft. high, crowned with the mystic wheel and flag of Vishnu. Its inner enclosure, nearly 400 ft. by 300 ft., contains a number of small temples and shrines. The main temple has four main rooms—the hall of offerings, the dancing hall, the audience chamber, and the shrine itself—the two latter being each 80 ft. square. The three principal images are those of Vishnu, his brother and his sister, grotesque wooden figures roughly hewn. Elaborate services are daily celebrated all the year round, the images are dressed and redressed, and four meals a day are served to them. The attendants on the god are divided into 36 orders and 97 classes. Special servants are assigned the tasks of putting the god to bed, of dressing and bathing him. The annual rent-roll of the temple was put at £68,000 by Sir W. W. Hunter; but the pilgrims' offerings, which form the bulk of the income, are quite unknown and have been said to reach as much as £100,000 in one year. Ranjit Singh bequeathed the Koh-i-nor to Jagannath. There are four chief festivals, of which the famous Car festival is the most important.

The terrible stories of pilgrims crushed to death in the god's honour have made the phrase "Car of Juggernaut" synonymous with the merciless sacrifice of human lives, but these have been shown to be baseless calumnies. The worship of Vishnu is innocent of all bloody rites, and a drop of blood even accidentally spilt in the god's presence is held to pollute the officiating priests, the people, and the consecrated food. The Car festival takes place in June or July, and the feature of its celebration is the drawing of the god from the temple to his "country-house," a distance of less than a mile. The car is 45 ft. in height and 35 ft. square, and is supported on 16 wheels of 7 ft. in diameter. Vishnu's brother and sister have separate cars, slightly smaller. To these cars ropes are attached, and thousands of eager pilgrims vie with each other to have the honour of dragging the god. Though the distance is so short the journey lasts several days, owing to the deep sand in which the wheels sink. During the festival serious accidents have often happened. Sir W. W. Hunter in the *Gazetteer of India* writes: "In a closely packed, eager throng of a hundred thousand men and women under the blazing tropical sun, deaths must occasionally occur. There have doubtless been instances of pilgrims throwing themselves under the wheels in a frenzy of religious excitement, but such instances have always been rare, and are now unknown. The few suicides that did occur were, for the most part, cases of diseased and miserable objects who took this means to put themselves out of pain. The official returns now place this beyond doubt. Nothing could be more opposed to the spirit of Vishnu-worship than self-immolation. Accidental death within the temple renders the whole place unclean. According to Chaitanya, the apostle of Jagannath, the destruction of the least of God's creatures is a sin against the Creator."

See also Sir W. W. Hunter's *Orissa* (1872); and *District Gazetteer of Puri* (1908).

JUGGLER (Lat. *joculator*, jester), in the modern sense a performer of sleight-of-hand tricks and dexterous feats of skill in tossing balls, plates, knives, &c. The term is practically synonymous with conjurer (see CONJURING). The *joculatores* were the mimes of the middle ages (see DRAMA); the French use of the word *jongleurs* (an erroneous form of *jougleur*) included the singers known as *trouvères*; and the humbler English minstrels of the same type gradually passed into the strolling jugglers, from whose exhibitions the term came to cover loosely any acrobatic, pantomimic and sleight-of-hand performances. In ancient Rome various names were given to what we call jugglers, *e.g. ventilatores* (knife-throwers), and *pilarii* (ball-players).

JUGURTHA (Gr. Ἰογόρθας), king of Numidia, an illegitimate son of Mastanabal, and grandson of Massinissa. After his father's death he was brought up by his uncle Micipsa together with his cousins Adherbal and Hiempsal. Jugurtha grew up strong, handsome and intelligent, a skilful rider, and an adept in warlike exercises. He inherited much of Massinissa's political ability. Micipsa, naturally afraid of him, sent him to Spain (134 B.C.) in command of a Numidian force, to serve under P. Cornelius Scipio Africanus Minor. He became a favourite with Scipio and the Roman nobles, some of whom put into his head the idea of making himself sole king of Numidia, with the help of Roman money.

In 118 B.C. Micipsa died. By his will, Jugurtha was associated with Adherbal and Hiempsal in the government of Numidia. Scipio had written to Micipsa a strong letter of recommendation in favour of Jugurtha; and to Scipio, accordingly, Micipsa entrusted the execution of his will. None the less, his testamentary arrangements utterly failed. The princes soon quarrelled, and Jugurtha claimed the entire kingdom. Hiempsal he contrived to have assassinated; Adherbal he quickly drove out of Numidia. He then sent envoys to Rome to defend his usurpation on the ground that he was the injured party. The senate decided that Numidia was to be divided, and gave the western, the richer and more populous half, to Jugurtha, while the sands and deserts of the eastern half were left to Adherbal. Jugurtha's envoys appear to have found several of the Roman nobles and senators accessible to bribery. Having secured the best of the bargain, Jugurtha at once began to provoke Adherbal to a war of self-defence. He completely defeated him near the modern Philippeville, and Adherbal sought safety in the fortress of Cirta (Constantine). Here he was besieged by Jugurtha, who, notwithstanding the interposition of a Roman embassy, forced the place to capitulate, and treacherously massacred all the inhabitants, among them his cousin Adherbal and a number of Italian merchants resident in the town. There was great wrath at Rome and throughout Italy; and the senate, a majority of which still clung to Jugurtha, were persuaded in the same year (111) to declare war. An army was despatched to Africa under the consul L. Calpurnius Bestia, several of the Numidian towns voluntarily surrendered, and Bocchus, the king of Mauretania, and Jugurtha's father-in-law, offered the Romans his alliance. Jugurtha was alarmed, but having at his command the accumulated treasures of Massinissa, he was successful in arranging with the Roman general a peace which left him in possession of the whole of Numidia. When the facts were known at Rome, the tribune Memmius insisted that Jugurtha should appear in person and be questioned as to the negotiations. Jugurtha appeared under a safe conduct, but he had partisans, such as the tribune C. Baebius, who took care that his mouth should be closed. Soon afterwards he caused his cousin Massiva, then resident at Rome and a claimant to the throne of Numidia, to be assassinated. The treaty was thereupon set aside, and Jugurtha was ordered to quit Rome. On this occasion he uttered the well-known words, "A city for sale, and doomed to perish as soon as it finds a purchaser!" (Livy, *Epit.* 64). The war was renewed, and the consul Spurius Albinus entrusted with the command. The Roman army in Africa was thoroughly demoralized. An unsuccessful attempt was made on a fortified town, Suthul, in which the royal treasures were deposited. The army was surprised by the enemy in a night attack, and the camp was taken and

plundered. Every Roman was driven out of Numidia, and a disgraceful peace was concluded (109).

By this time the feeling at Rome and in Italy against the corruption and incapacity of the nobles had become so strong that a number of senators were prosecuted and Bestia and Albinus sentenced to exile. The war was now entrusted to Quintus Metellus, an able soldier and stern disciplinarian, and from the year 109 to its close in 106 the contest was carried on with credit to the Roman arms. Jugurtha was defeated on the river Muthul, after an obstinate and skilful resistance. Once again, however, he succeeded in surprising the Roman camp and forcing Metellus into winter quarters. There were fresh negotiations, but Metellus insisted on the surrender of the king's person, and this Jugurtha refused. Numidia on the whole seemed disposed to assert its independence, and Rome had before her the prospect of a troublesome guerrilla war. Negotiations, reflecting little credit on the Romans, were set on foot with Bocchus (*q.v.*) who for a time played fast and loose with both parties. In 106, Marius was called on by the vote of the Roman people to supersede Metellus, but it was through the perfidy of Bocchus and the diplomacy of L. Cornelius Sulla, Marius's quaestor, that the war was ended. Jugurtha fell into an ambush, and was conveyed a prisoner to Rome. Two years afterwards, in 104, he figured with his two sons in Marius's triumph, and in the subterranean prison beneath the Capitol—" the bath of ice," as he called it—he was either strangled or starved to death.

Though doubtless for a time regarded by his countrymen as their deliverer from the yoke of Rome, Jugurtha mainly owes his historical importance to the full and minute account of him which we have from the hand of Sallust, himself afterwards governor of Numidia.

See A. H. J. Greenidge, *Hist. of Rome* (1904); T. Mommsen, *Hist. of Rome*, book iv. ch. v.; the chief ancient authorities (besides Sallust) are Livy, *Epit.*, lxii.–lxvii.; Plutarch, *Marius and Sulla*; Velleius Paterculus, ii.; Diod. Sic., *Excerpta*, xxxiv.; Florus, iii. 1. See also MARIUS, SULLA, NUMIDIA.

JUJU, a West African word held by some authorities to be a corruption of Mandingo *gru-gru*, a charm. It is more generally believed to have been adapted by the Mandingos directly from Fr. *joujou*, a toy or plaything. The word, as used by Europeans on the Guinea coast, was originally applied to the objects which it was supposed the negroes worshipped, and was transferred from the objects themselves to the spirits or gods who dwelt in them, and finally to the whole religious beliefs of the West Africans. It is currently used in each of these senses, and more loosely to indicate all the manners and customs of the negroes of the Guinea coast, particularly the power of interdiction exercised in the name of spirits (see FETISHISM and TABOO).

JUJUBE. Under this name the fruits of at least two species of *Zizyphus* are usually described, namely, *Z. vulgaris* and *Z. Jujuba*.[1] The genus is a member of the natural order Anacardiaceae. The species are small trees or shrubs, armed with sharp, straight, or hooked spines, having alternate leaves, and fruits which are in most of the species edible, and have an agreeable acid taste; this is especially the case with those of the two species mentioned above.

Z. vulgaris is a tree about 20 feet high, extensively cultivated in many parts of Southern Europe, also in Western Asia, China and Japan. In India it extends from the Punjab to the north-western frontier, ascending in the Punjab Himalaya to a height of 6500 feet, and is found both in the wild and cultivated state. The plant is grown almost exclusively for the sake of its fruit, which both in size and shape resembles a moderate-sized plum; at first the fruits are green, but as they ripen they become of a reddish-brown colour on the outside and yellow within. They ripen in September, when they are gathered and preserved by storing in a dry place; after a time the pulp becomes much softer and sweeter than when fresh. Jujube fruits when carefully dried will keep for a long time, and retain their refreshing acid flavour, on account of which they are much valued in the countries of the Mediterranean region as a winter dessert fruit; and, besides, they are nutritive and demulcent. At one time a decoction was prepared from them and recommended in pectoral complaints. A kind of thick paste, known as jujube paste, was also made of a composition of gum arabic and sugar dissolved in a decoction of jujube fruit evaporated to the proper consistency.

Z. Jujuba is a tree averaging from 30 to 50 ft. high, found both wild and cultivated in China, the Malay Archipelago, Ceylon, India, tropical Africa and Australia. Many varieties are cultivated by the Chinese, who distinguish them by the shape and size of their fruits, which are not only much valued as dessert fruit in China, but are also occasionally exported to England.

As seen in commerce jujube fruits are about the size of a small filbert, having a reddish-brown, shining, somewhat wrinkled exterior, and a yellow or gingerbread coloured pulp enclosing a hard elongated stone.

The fruits of *Zizyphus* do not enter into the composition of the lozenges now known as jujubes which are usually made of gum-arabic, gelatin, &c., and variously flavoured.

JU-JUTSU or **JIU-JITSU** (a Chino-Japanese term, meaning muscle-science), the Japanese method of offence and defence without weapons in personal encounter, upon which is founded the system of physical culture universal in Japan. Some historians assert that it was founded by a Japanese physician who learned its rudiments while studying in China, but most writers maintain that ju-jutsu was in common use in Japan centuries earlier, and that it was known in the 7th century B.C. Originally it was an art practised solely by the nobility, and particularly by the samurai who, possessing the right, denied to commoners, of carrying swords, were thus enabled to show their superiority over common people even when without weapons. It was a secret art, jealously guarded from those not privileged to use it, until the feudal system was abandoned in Japan, and now ju-jutsu is taught in the schools, as well as in public and private gymnasia. In the army, navy and police it receives particular attention. About the beginning of the 20th century, masters of the art began to attract attention in Europe and America, and schools were established in Great Britain and the United States, as well as on the continent of Europe.

Ju-jutsu may be briefly defined as " an application of anatomical knowledge to the purpose of offence and defence. It differs from wrestling in that it does not depend upon muscular strength. It differs from the other forms of attack in that it uses no weapon. Its feat consists in clutching or striking such part of an enemy's body as will make him numb and incapable of resistance. Its object is not to kill, but to incapacitate one for action for the time being " (Inazo Nitobe, *Bushido: the Soul of Japan*).

Many writers translate the term ju-jutsu " to conquer by yielding " (Jap. *ju*, pliant), and this phrase well expresses a salient characteristic of the art, since the weight and strength of the opponent are employed to his own undoing. When, for example, a big man rushes at a smaller opponent, the smaller man, instead of seeking to oppose strength to strength, falls backwards or sidewise, pulling his heavy adversary after him and taking advantage of his loss of balance to gain some lock or hold known to the science. This element of yielding in order to conquer is thus referred to in Lafcadio Hearn's *Out of the East*: " In jiu-jitsu there is a sort of counter for every twist, wrench, pull, push or bend: only the jiu-jitsu expert does not oppose such movements. No; he yields to them. But he does much more than that. He aids them with a wicked sleight that causes the assailant to put out his own shoulder, to fracture his own arm, or, in a desperate case, even to break his own neck or back."

The knowledge of anatomy mentioned by Nitobe is acquired in order that the combatant may know the weak parts of his adversary's body and attack them. Several of these sensitive places, for instance the partially exposed nerve in the elbow popularly known as the " funny-bone " and the complex of nerves over the stomach called the solar plexus, are familiar to the European, but the ju-jutsu expert is acquainted with many

[1] The med. Lat. *jujuba* is a much altered form of the Gr. ζίζυφον.

others which, when compressed, struck, or pinched, cause temporary paralysis of a more or less complete nature. Such places are the arm-pit, the ankle and wrist bones, the tendon running downward from the ear, the "Adam's apple," and the nerves of the upper arm. In serious fighting almost any hold or attack is resorted to, and a broken or badly sprained limb is the least that can befall the victim; but in the practice of the art as a means of physical culture the knowledge of the different grips is assumed on both sides, as well as the danger of resisting too long. For this reason the combatant, when he feels himself on the point of being disabled, is instructed to signal his acknowledgment of defeat by striking the floor with hand or foot. The bout then ends and both combatants rise and begin afresh. It will be seen that a victory in ju-jutsu does not mean that the opponent shall be placed in some particular position, as in wrestling, but in any position in which his judgment or knowledge tells him that, unless he yields, he will suffer a disabling injury. This difference existed between the wrestling and the *pancratium* of the Olympic games. In the *pancratium* the fight went on until one combatant acknowledged defeat, but, although many a man allowed himself to be beaten into insensibility rather than suffer this humiliation, it was nevertheless held to be a disgrace to kill an opponent.

A modern bout at ju-jutsu usually begins by the combatants taking hold with both hands upon the collars of each other's jackets or kimonos, after which, upon the word to start being given, the manœuvring for an advantageous grip begins by pushes, pulls, jerks, falls, grips or other movements. Once the wrist, ankle, neck, arm or leg of an assailant is firmly grasped so that added force will dislocate it, there is nothing for the seized man to do, in case he is still on his feet, but go to the floor, often being thrown clean over his opponent's head. A fall of this kind does not necessarily mean defeat, for the struggle proceeds upon the floor, where indeed most of the combat takes place, and the ju-jutsu expert receives a long training in the art of falling without injury. Blows are delivered, not with the fist, but with the open hand, the exterior edge of which is hardened by exercises.

The physical training necessary to produce expertness is the most valuable feature of ju-jutsu. The system includes a light and nourishing diet, plenty of sleep, deep-breathing exercises, an abundance of fresh air and general moderation in habits, in addition to the actual gymnastic exercises for the purpose of muscle-building and the cultivation of agility of eye and mind as well as of body. It is practised by both sexes in Japan.

Many attempts have been made in England and America to match ju-jutsu experts against wrestlers, mostly of the "catch-as-catch can" school, but these trials have, almost without exception, proved unsatisfactory, since many of the most efficacious tricks of ju-jutsu, such as the strangle holds and twists of wrists and ankles, are accounted foul in wrestling. Nevertheless the Japanese athletes, even when obliged to forgo these, have usually proved more than a match for European wrestlers of their own weight.

See H. Irving Hancock's *Japanese Physical Training* (1904); *Physical Training for Women by Japanese Methods* (1904); *The Complete Kano Jiu-jitsu (Jiudo)* (1905); M. Ohashi, *Japanese Physical Culture* (1904); K. Saito, *Jiu-jitsu Tricks* (1905).

JUJUY, a northern province of the Argentine Republic, bounded N. and N.W. by Bolivia, N.E., E., S. and S.W. by Salta, and W. by the Los Andes territory. Pop. (1895), 49,713; (1905, estimate), 55,450, including many mestizos. Area, 18,977 sq. m., the greater part being mountainous. The province is traversed from N. to S. by three distinct ranges belonging to the great central Andean plateau: the Sierra de Santa Catalina, the Sierra de Humahuaca, and the Sierras de Zenta and Santa Victoria. In the S.E. angle of the province are the low, isolated ranges of Alumbre and Santa Barbara. Between the more eastern of these ranges are valleys of surpassing fertility, watered by the Rio Grande de Jujuy, a large tributary of the Bermejo. The western part, however, is a high plateau (parts of which are 11,500 ft. above sea-level), whose general characteristics are those of the *puna* regions farther west. The surface of this high plateau is broken, semi-arid and desolate, having a very scanty population and no important industry beyond the breeding of a few goats and the fur-bearing chinchilla. There are two large saline lagoons: Toro, or Pozuelos, in the N., and Casabindo, or Guayatayoc, in the S. The climate is cool, dry and healthy, with violent tempests in the summer season. (For a vivid description of this interesting region, see F. O'Driscoll, "A Journey to the North of the Argentine Republic," *Geogr. Jour.* xxiv. 1904.) The agricultural productions of Jujuy include sugar cane, wheat, Indian corn, alfalfa and grapes. The breeding of cattle and mules for the Bolivian and Chilean markets is an old industry. Coffee has been grown in the department of Ledesma, but only to a limited extent. There are also valuable forest areas and undeveloped mineral deposits. Large borax deposits are worked in the northern part of the province, the output in 1901 having been 8000 tons. The province is traversed from S. to N. by the Central Northern railway, a national government line, which has been extended to the Bolivian frontier. It passes through the capital and up the picturesque Humahuaca valley, and promises, under capable management, to be an important international line, affording an outlet for southern Bolivia. The climate of the lower agricultural districts is tropical, and irrigation is employed in some places in the long dry season.

The capital, Jujuy (estimated pop. 1905, 5000), is situated on the Rio Grande at the lower end of the Humahuaca valley, 942 m. from Buenos Aires by rail. It was founded in 1593 and is 4035 ft. above sea-level. It has a mild, temperate climate and picturesque natural surroundings, and is situated on the old route between Bolivia and Tucuman, but its growth has been slow.

JUKES, JOSEPH BEETE (1811–1869), English geologist, was born at Summer Hill, near Birmingham, on the 10th of October 1811. He took his degree at Cambridge in 1836. He began the study of geology under Sedgwick, and in 1839 was appointed geological surveyor of Newfoundland. He returned to England at the end of 1840, and in 1842 sailed as naturalist on board H.M.S. "Fly," despatched to survey Torres Strait, New Guinea, and the east coast of Australia. Jukes landed in England again in June 1846, and in August received an appointment on the geological survey of Great Britain. The district to which he was first sent was North Wales. In 1847 he commenced the survey of the South Staffordshire coal-field and continued this work during successive years after the close of field-work in Wales. The results were published in his *Geology of the South Staffordshire Coal-field* (1853; 2nd ed. 1859), a work remarkable for its accuracy and philosophic treatment. In 1850 he accepted the post of local director of the geological survey of Ireland. The exhausting nature of this work slowly but surely wore out even his robust constitution and on the 29th of July 1869 he died. For many years he lectured as professor of geology, first at the Royal Dublin Society's Museum of Irish Industry, and afterwards at the Royal College of Science in Dublin. He was an admirable teacher, and his *Student's Manual* was the favoured textbook of British students for many years. During his residence in Ireland he wrote an article "On the Mode of Formation of some of the River-valleys in the South of Ireland" (*Quarterly Journ. Geol. Soc.* 1862), and in this now classic essay he first clearly sketched the origin and development of rivers. In later years he devoted much attention to the relations between the Devonian system and the Carboniferous rocks and Old Red Sandstone.

Jukes wrote many papers that were printed in the London and Dublin geological journals and other periodicals. He edited, and in great measure wrote, forty-two memoirs explanatory of the maps of the south, east and west of Ireland, and prepared a geological map of Ireland on a scale of 8 m. to an inch. He was also the author of *Excursions in and about Newfoundland* (2 vols., 1842); *Narrative of the Surveying Voyage of H. M. S. "Fly"* (2 vols., 1847); *A Sketch of the Physical Structure of Australia* (1850); *Popular Physical Geology* (1853); *Student's Manual of Geology* (1857; 2nd ed. 1862; a later edition was revised by A. Geikie, 1872); the article "Geology" in the *Ency. Brit.* 8th ed. (1858) and *School Manual of Geology* (1863). See *Letters, &c., of J. Beete Jukes, edited, with Connecting Memorial Notes, by his Sister* (C. A. Browne) (1871), to which is added a chronological list of Jukes's writings.

JULIAN (Flavius Claudius Julianus) (331–363), commonly called Julian the Apostate, Roman emperor, was born in

Constantinople in 331,[1] the son of Julius Constantius and his wife Basilina, and nephew of Constantine the Great. He was thus a member of the dynasty under whose auspices Christianity became the established religion of Rome. The name Flavius he inherited from his paternal grandfather Constantius Chlorus; Julianus came from his maternal grandfather; Claudius had been assumed by Constantine's family in order to assert a connexion with Claudius Gothicus.

Julian lost his mother not many months after he was born. He was only six when his imperial uncle died; and one of his earliest memories must have been the fearful massacre of his father and kinsfolk, in the interest and more or less at the instigation of the sons of Constantine. Only Julian and his elder half-brother Gallus were spared, Gallus being too ill and Julian too young to excite the fear or justify the cruelty of the murderers. Gallus was banished, but Julian was allowed to remain in Constantinople, where he was carefully educated under the supervision of the family eunuch Mardonius, and of Eusebius, bishop of Nicomedia. About 344 Gallus was recalled, and the two brothers were removed to Macellum, a remote and lonely castle in Cappadocia. Julian was trained to the profession of the Christian religion; but he became early attracted to the old faith, or rather to the idealized amalgam of paganism and philosophy which was current among his teachers, the rhetoricians. Cut off from all sympathy with the reigning belief by the terrible fate of his family, and with no prospect of a public career, he turned with all the eagerness of an enthusiastic temperament to the literary and philosophic studies of the time. The old Hellenic world had an irresistible attraction for him. Love for its culture was in Julian's mind intimately associated with loyalty to its religion.

In the meantime the course of events had left as sole autocrat of the Roman Empire his cousin Constantius, who, feeling himself unequal to the enormous task, called Julian's brother Gallus to a share of power, and in March 351 appointed him Caesar. At the same time Julian was permitted to return to Constantinople, where he studied grammar under Nicocles and rhetoric under the Christian sophist Hecebolius. After a short stay in the capital Julian was ordered to remove to Nicomedia, where he made the acquaintance of some of the most eminent rhetoricians of the time, and became confirmed in his secret devotion to the pagan faith. He promised not to attend the lectures of Libanius, but bought and read them. But his definite conversion to paganism was attributed to the neoplatonist Maximus of Ephesus, who may have visited him at Nicomedia. The downfall of Gallus (354), who had been appointed governor of the East, again exposed Julian to the greatest danger. By his rash and headstrong conduct Gallus had incurred the enmity of Constantius and the eunuchs, his confidential ministers, and was put to death. Julian fell under a like suspicion, and narrowly escaped the same fate. For some months he was confined at Milan (*Mediolanum*) till at the intercession of the empress Eusebia, who always felt kindly towards him, permission was given him to retire to a small property in Bithynia. While he was on his way, Constantius recalled him, but allowed—or rather ordered—him to take up his residence at Athens. The few months he spent there (July–October 355) were probably the happiest of his life.

The emperor Constantius and Julian were now the sole surviving male members of the family of Constantine; and, as the emperor again felt himself oppressed by the cares of government, there was no alternative but to call Julian to his assistance. At the instance of the empress he was summoned to Milan, where Constantius bestowed upon him the hand of his sister Helena, together with the title of Caesar and the government of Gaul.

A task of extreme difficulty awaited him beyond the Alps. During recent troubles the Alamanni and other German tribes had crossed the Rhine; they had burned many flourishing cities, and extended their ravages far into the interior of Gaul. The internal government of the province had also fallen into great confusion. In spite of his inexperience, Julian quickly brought affairs into order. He completely overthrew the Alamanni in the great battle of Strassburg (August 357). The Frankish tribes which had settled on the western bank of the lower Rhine were reduced to submission. In Gaul he rebuilt the cities which had been laid waste, re-established the administration on a just and secure footing, and as far as possible lightened the taxes, which weighed so heavily on the poor provincials. Paris was the usual residence of Julian during his government of Gaul, and his name has become inseparably associated with the early history of the city.

Julian's reputation was now established. He was general of a victorious army enthusiastically attached to him and governor of a province which he had saved from ruin; but he had also become an object of fear and jealousy at the imperial court. Constantius accordingly resolved to weaken his power. A threatened invasion of the Persians was made an excuse for withdrawing some of the best legions from the Gallic army. Julian recognized the covert purpose of this, yet proceeded to fulfil the commands of the emperor. A sudden movement of the legions themselves decided otherwise. At Paris, on the night of the parting banquet, they forced their way into Julian's tent, and, proclaiming him emperor, offered him the alternative either of accepting the lofty title or of an instant death. Julian accepted the empire, and sent an embassy with a deferential message to Constantius. The message being contemptuously disregarded, both sides prepared for a decisive struggle. After a march of unexampled rapidity through the Black Forest and down the Danube, Julian reached Sirmium, and was on the way to Constantinople, when he received news of the death of Constantius, who had set out from Syria to meet him, at Mopsucrene in Cilicia (Nov. 3, 361). Without further trouble Julian found himself everywhere acknowledged the sole ruler of the Roman Empire; it is even asserted that Constantius himself on his death-bed had designated him his successor. Julian entered Constantinople on the 11th of December 361.

Julian had already made a public avowal of paganism, of which he had been a secret adherent from the age of twenty. It was no ordinary profession, but the expression of a strong and even enthusiastic conviction; the restoration of the pagan worship was to be the great aim and controlling principle of his government. His reign was too short to show what precise form the pagan revival might ultimately have taken, how far his feelings might have become embittered by his conflict with the Christian faith, whether persecution, violence and civil war might not have taken the place of the moral suasion which was the method he originally affected. He issued an edict of universal toleration; but in many respects he used his imperial influence unfairly to advance the work of restoration. In order to deprive the Christians of the advantages of culture, and discredit them as an ignorant sect, he forbade them to teach rhetoric. The symbols of paganism and of the imperial dignity were so artfully interwoven on the standards of the legions that they could not pay the usual homage to the emperor without seeming to offer worship to the gods; and, when the soldiers came forward to receive the customary donative, they were required to throw a handful of incense on the altar. Without directly excluding Christians from the high offices of state, he held that the worshippers of the gods ought to have the preference. In short, though there was no direct persecution, he exerted much more than a moral pressure to restore the power and prestige of the old faith.

Having spent the winter of 361–362 at Constantinople, Julian proceeded to Antioch to prepare for his great expedition against Persia. His stay there was a curious episode in his life. It is doubtful whether his pagan convictions or his ascetic life, after the fashion of an antique philosopher, gave most offence to the so-called Christians of the dissolute city. They soon grew heartily tired of each other, and Julian took up his winter quarters at Tarsus, from which in early spring he marched against

[1] For the date of Julian's birth see Gibbon's *Decline and Fall* (ed. Bury), ii. 247, note 11. The choice seems to lie between May 331 and May 332. If the former be adopted, Julian must have died in the thirty-third, not the thirty-second, year of his age (as stated in Ammianus Marcellinus, xxv. 3, 23).

Persia. At the head of a powerful and well-appointed army he advanced through Mesopotamia and Assyria as far as Ctesiphon, near which he crossed the Tigris, in face of a Persian army which he defeated. Misled by the treacherous advice of a Persian nobleman, he desisted from the siege, and set out to seek the main army of the enemy under Shapur II. (*q.v.*). After a long, useless march he was forced to retreat, and found himself enveloped by the whole Persian army, in a waterless and desolate country, at the hottest season of the year. The Romans repulsed the enemy in many an obstinate battle, but on the 26th of June 363 Julian, who was ever in the front, was mortally wounded. The same night he died in his tent. In the most authentic historian of his reign, Ammianus Marcellinus, we find a noble speech, which he is said to have addressed to his afflicted officers. Soon after his death the rumour spread that the fatal wound had been inflicted by a Christian in the Roman army. The well-known statement, first found in Theodoret (*fl.* 5th century), that Julian threw his blood towards heaven, exclaiming, "Thou hast conquered, O Galilean!" is probably a development of the account of his death in the poems of Ephraem Syrus.

From Julian's unique position as the last champion of a dying polytheism, his character has always excited interest. Authors such as Gregory of Nazianzus have heaped the fiercest anathemas upon him; but a just and sympathetic criticism finds many noble qualities in his character. In childhood and youth he had learned to regard Christianity as a persecuting force. The only sympathetic friends he met were among the pagan rhetoricians and philosophers; and he found a suitable outlet for his restless and inquiring mind only in the studies of ancient Greece. In this way he was attracted to the old paganism; but it was a paganism idealized by the philosophy of the time.

In other respects Julian was no unworthy successor of the Antonines. Though brought up in a studious and pedantic solitude, he was no sooner called to the government of Gaul than he displayed all the energy, the hardihood and the practical sagacity of an old Roman. In temperance, self-control and zeal for the public good, as he understood it, he was unsurpassed. To these Roman qualities he added the culture, literary instincts and speculative curiosity of a Greek. One of the most remarkable features of his public life was the perfect ease and mastery with which he associated the cares of war and statesmanship with the assiduous cultivation of literature and philosophy. Yet even his devotion to culture was not free from pedantry and dilettantism. His contemporaries observed in him a want of naturalness. He had not the moral health or the composed and reticent manhood of a Roman, or the spontaneity of a Greek. He was never at rest; in the rapid torrent of his conversation he was apt to run himself out of breath; his manner was jerky and spasmodic. He showed quite a deferential regard for the sophists and rhetoricians of the time, and advanced them to high offices of state; there was real cause for fear that he would introduce the government of pedants in the Roman empire. Last of all, his love for the old philosophy was sadly disfigured by his devotion to the old superstitions. He was greatly given to divination; he was noted for the number of his sacrificial victims. Wits applied to him the joke that had been passed on Marcus Aurelius: "The white cattle to Marcus Caesar, greeting. If you conquer, there is an end of us."

BIBLIOGRAPHY.—The works of Julian, of which there are complete editions by E. Spanheim (Leipzig, 1696) and F. C. Hertlein (Teubner series, 1875–1876), consist of the following: (1) *Letters*, of which more than eighty have been preserved under his name, although the genuineness of several has been disputed. For his views on religious toleration and his attitude towards Christians and Jews the most important are 25–27, 51, 52, and the fragment in Hertlein, i. 371. The letter of Gallus to Julian, warning him against reverting to heathenism, is probably a Christian forgery. Six new letters were discovered in 1884 by A. Papadopulos Kerameus in a monastery on the island of Chalcis near Constantinople (see *Rheinisches Museum*, xlii., 1887). Separate edition of the letters by L. H. Heyler (1828); see also J. Bidez and F. Cumont, "Recherches sur la tradition MS. des lettres de l'empereur Julien" in *Mémoires couronnés . . . publiés par l'Acad. royale de Belgique*, lvii. (1898) and F. Cumont, *Sur l'authenticité de quelques lettres de Julien* (1889). (2) *Orations*, eight in number—two panegyrics on Constantius, one on the empress Eusebia, two theosophical declamations on King Helios and the Mother of the Gods, two essays on true and false cynicism, and a consolatory address to himself on the departure of his friend Salustius to the East. (3) *Caesares* or *Symposium*, a satirical composition after the manner of Seneca's *Apocolocyntosis*, in which the deified Caesars appear in succession at a banquet given in Olympus, to be censured for their vices and crimes by old Silenus. (4) *Misopogon* (the beard-hater), written at Antioch, a satire on the licentiousness of its inhabitants; while at the same time his own person and manner of life are treated in a whimsical spirit. It also contains a charming description of Lutetia (Paris). It owes its name to the ridicule heaped upon his beard by the Antiocheans, who were in the habit of shaving. (5) Five epigrams, two of which (*Anth. Pal.*, ix. 365, 368) are of some interest. (6) Κατὰ Χριστιανῶν (*Adversus Christianos*) in three books, an attack on Christianity written during the Persian campaign, is lost. Theodosius II. ordered all copies of it to be destroyed, and our knowledge of its contents is derived almost entirely from the *Contra Julianum* of Cyril, bishop of Alexandria, written sixty years later (see *Juliani librorum contra Christianos quae supersunt*, ed. C. J. Neumann 1880). *English Translations*: Select works by J. Duncombe (1784) containing all except the first seven orations (viii. and the fable from vii. are included): the theosophical addresses to King Helios and the Mother of the Gods by Thomas Taylor (1793) and C. W. King in Bohn's *Classical Library* (1888); the public letters, by E. J. Chinnock (1901).

AUTHORITIES.—1. *Ancient*: (*a*) Pagan writers. Of these the most trustworthy and impartial is the historian Ammianus Marcellinus (xv. 8–xxv.), a contemporary and in part an eye-witness of the events he describes (other historians are Zosimus and Eutropius); the sophist Libanius, who in speaking of his imperial friend shows himself creditably free from exaggeration and servility; Eunapius (in his lives of Maximus, Oribasius, the physician and friend of Julian, and Prohaeresius) and Claudius Mamertinus, the panegyrist, are less trustworthy. (*b*) Christian writers. Gregory of Nazianzus, the author of two violent invectives against Julian; Rufinus; Socrates; Sozomen; Theodoret; Philostorgius; the poems of Ephraem Syrus written in 363; Zonaras; Cedrenus; and later Byzantine chronographers. The impression which Julian produced on the Christians of the East is reflected in two Syriac romances published by J. G. E. Hoffmann, *Julianos der Abtrünnige* (1880; see also Th. Nöldeke in *Zeitschrift der deutschen morgenländischen Gesellschaft* [1874], xxviii. 263).

2. *Modern*. For works before 1878 see R. Engelmann, *Scriptores Graeci* (8th ed., by E. Preuss, 1880). Of later works the most important are G. H. Rendall, *The Emperor Julian, Paganism and Christianity* (1879); Alice Gardner, *Julian, Philosopher and Emperor* (1895); G. Negri, *Julian the Apostate* (Eng. trans., 1905); E. Müller, *Kaiser Flavius Claudius Julianus* (1901); P. Allard, *Julien l'apostat* (1900–1903); G. Mau, *Die Religionsphilosophie Kaiser Julians in seinen Reden auf König Helios und die Göttermutter* (1907); J. E. Sandys, *Hist. of Classical Scholarship* (1906), p. 356; W. Christ, *Geschichte der griechischen Litteratur* (1898), § 603; J. Geffcken, "Kaiser Julianus und die Streitschriften seiner Gegner," in *Neue Jahrb. f. das klassische Altertum* (1908), pp. 161–195. The sketch by Gibbon (*Decline and Fall*, chs. xix., xxii.–xxiv.) and the articles by J. Wordsworth in Smith's *Dictionary of Christian Biography* and A. Harnack in Herzog-Hauck's *Realencyklopädie für protestantische Theologie* ix. (1901) are valuable, the last especially for the bibliography.

(T. K.; J. H. F.)

JÜLICH (Fr. *Juliers*), a town of Germany, in the Prussian Rhine province, on the right bank of the Roer, 16 m. N.E. of Aix-la-Chapelle. Pop. (1900), 5459. It contains an Evangelical and two Roman Catholic churches, a gymnasium, a school for non-commissioned officers, which occupies the former ducal palace, and a museum of local antiquities. Its manufactures include sugar, leather and paper. Jülich (formerly also Gülch, Guliche) the capital of the former duchy of that name, is the Juliacum of the *Antonini Itinerarium*; some have attributed its origin to Julius Caesar. It became a fortress in the 17th century, and was captured by the archduke Leopold in 1609, by the Dutch under Maurice of Orange in 1610, and by the Spaniards in 1622. In 1794 it was taken by the French, who held it until the peace of Paris in 1814. Till 1860, when its works were demolished, Jülich ranked as a fortress of the second class.

JÜLICH, or JULIERS, DUCHY OF. In the 9th century a certain Matfried was count of Jülich (pagus Juliacensis), and towards the end of the 11th century one Gerhard held this dignity. This Gerhard founded a family of hereditary counts, who held Jülich as immediate vassals of the emperor, and in 1356 the county was raised to the rank of a duchy. The older and reigning branch of the family died in 1423, when Jülich passed to Adolph, duke of Berg (d. 1437), who belonged to a younger branch, and who had obtained Berg by virtue of the marriage

of one of his ancestors. Nearly a century later Mary (d. 1543) the heiress of these two duchies, married John, the heir of the duchy of Cleves, and in 1521 the three duchies, Jülich, Berg and Cleves, together with the counties of Ravensberg and La Marck, were united under John's sway. John died in 1539 and was succeeded by his son William who reigned until 1592.

At the beginning of the 17th century the duchies became very prominent in European politics. The reigning duke, John William, was childless and insane, and several princes were only waiting for his demise in order to seize his lands. The most prominent of these princes were two Protestant princes, Philip Louis, count palatine of Neuburg, who was married to the duke's sister Anna, and John Sigismund, elector of Brandenburg, whose wife was the daughter of another sister. Two other sisters were married to princes of minor importance. Moreover, by virtue of an imperial promise made in 1485 and renewed in 1495, the elector of Saxony claimed the duchies of Jülich and Berg, while the proximity of the coveted lands to the Netherlands made their fate a matter of great moment to the Dutch. When it is remembered that at this time there was a great deal of tension between the Roman Catholics and the Protestants, who were fairly evenly matched in the duchies, and that the rivalry between France and the Empire was very keen, it will be seen that the situation lacked no element of discord. In March 1609 Duke John William died. Having assured themselves of the support of Henry IV. of France and of the Evangelical Union, Brandenburg and Neuburg at once occupied the duchies. To counter this stroke and to support the Saxon claim, the emperor Rudolph II. ordered some imperialist and Spanish troops to seize the disputed lands, and it was probably only the murder of Henry IV. in May 1610 and the death of the head of the Evangelical Union, the elector palatine, Frederick IV., in the following September, which prevented, or rather delayed, a great European war. About this time the emperor adjudged the duchies to Saxony, while the Dutch captured the fortress of Jülich; but for all practical purposes victory remained with the "possessing princes," as Brandenburg and Neuburg were called, who continued to occupy and to administer the lands. These two princes had made a compact at Dortmund in 1609 to act together in defence of their rights, but proposals for a marriage alliance between the two houses broke down and differences soon arose between them. The next important step was the timely conversion of the count palatine's heir, Wolfgang William of Neuburg, to Roman Catholicism, and his marriage with a daughter of the powerful Roman Catholic prince, Duke Maximilian of Bavaria. The rupture between the possessing princes was now complete. Each invited foreign aid. Dutch troops marched to assist the elector of Brandenburg and Spanish ones came to aid the count palatine, but through the intervention of England and France peace was made and the treaty of Xanten was signed in November 1614. By this arrangement Brandenburg obtained Jülich and Berg, the rest of the lands falling to the count palatine. In 1666 the great elector, Frederick William of Brandenburg, made with William, count palatine of Neuburg, a treaty of mutual succession to the duchies, providing that in case the male line of either house became extinct the other should inherit its lands.

The succession to the duchy of Jülich was again a matter of interest in the earlier part of the 18th century. The family of the counts palatine of Neuburg was threatened with extinction and the emperor Charles VI. promised the succession to Jülich to the Prussian king, Frederick William I., in return for a guarantee of the pragmatic sanction. A little later, however, he promised the same duchy to the count palatine of Sulzbach, a kinsman of the count palatine of Neuburg. Then Frederick the Great, having secured Silesia, abandoned his claim to Jülich, which thus passed to Sulzbach when, in 1742, the family of Neuburg became extinct. From Sulzbach the duchy came to the electors palatine of the Rhine, and, when this family died out in 1799, to the elector of Bavaria, the head of the other branch of the house of Wittelsbach. In 1801 Jülich was seized by France, and by the settlement of 1815 it came into the hands of Prussia. Its area was just over 1600 sq. m. and its population about 400,000.

See Kuhl, *Geschichte der Stadt Jülich*; M. Ritter, *Sachsen und der Jülicher Erbfolgestreit* (1873), and *Der Jülicher Erbfolgekrieg, 1610 und 1611* (1877); A. Müller, *Der Jülich-Klevesche Erbfolgestreit im Jahre 1614* (1900) and H. H. Koch, *Die Reformation im Herzogtum Jülich* 1883-1888).

JULIEN, STANISLAS (1797?–1873), French orientalist, was born at Orleans, probably on the 13th of April 1797. Stanislas Julien, a mechanic of Orleans, had two sons, Noël, born on the 13th of April 1797, and Stanislas, born on the 20th of September 1799. It appears that the younger son died in America, and that Noël then adopted his brother's name. He studied classics at the collège de France, and in 1821 was appointed assistant professor of Greek. In the same year he published an edition of the Ἑλένης ἁρπαγή of Coluthus, with versions in French, Latin, English, German, Italian and Spanish. He attended the lectures of Abel Rémusat on Chinese, and his progress was as rapid as it had been in other languages. From the first, as if by intuition, he mastered the genius of the language; and in 1824 he published a Latin translation of a part of the works of Mencius (Mang-tse), one of the nine classical books of the Chinese. Soon afterwards he translated the modern Greek odes of Kalvos under the title of *La Lyre patriotique de la Grèce*. But such works were not profitable in a commercial sense, and, being without any patrimony, Julien was glad to accept the assistance of Sir William Drummond and others, until in 1827 he was appointed sub-librarian to the French institute. In 1832 he succeeded Rémusat as professor of Chinese at the collège de France. In 1833 he was elected a member of the Académie des Inscriptions in the place of the orientalist, Antoine Jean Saint-Martin. For some years his studies had been directed towards the dramatic and lighter literature of the Chinese, and in rapid succession he now brought out translations of the *Hoei-lan-ki* (*L'Histoire du cercle de craie*), a drama in which occurs a scene curiously analogous to the judgment of Solomon; the *Pih shay tsing ki*; and the *Tchao-chi kou eul*, upon which Voltaire had founded his *Orphelin de la Chine* (1755). With the versatility which belonged to his genius, he next turned, apparently without difficulty, to the very different style common to Taoist writings, and translated in 1835 *Le Livre des récompenses et des peines* of Lao-tsze. About this time the cultivation of silkworms was beginning to attract attention in France, and by order of the minister of agriculture Julien compiled, in 1837, a *Résumé des principaux traités chinois sur la culture des mûriers, et l'éducation des vers-à-soie*, which was speedily translated into English, German, Italian and Russian.

Nothing was more characteristic of his method of studying Chinese than his habit of collecting every peculiarity of idiom and expression which he met with in his reading; and, in order that others might reap the benefit of his experiences, he published in 1841 *Discussions grammaticales sur certaines règles de position qui, en chinois, jouent le même rôle que les inflexions dans les autres langues*, which he followed in 1842 by *Exercices pratiques d'analyse, de syntaxe, et de lexigraphie chinoise*. Meanwhile in 1839, he had been appointed joint keeper of the Bibliothèque royale, with the especial superintendence of the Chinese books, and shortly afterwards he was made administrator of the collège de France.

The facility with which he had learned Chinese, and the success which his proficiency commanded, naturally inclined less gifted scholars to resent the impatience with which he regarded their mistakes, and at different times bitter controversies arose between Julien and his fellow sinologues on the one subject which they had in common. In 1842 appeared from his busy pen a translation of the *Tao te King*, the celebrated work in which Lao-tsze attempted to explain his idea of the relation existing between the universe and something which he called *Tao*, and on which the religion of Taoism is based. From Taoism to Buddhism was a natural transition, and about this time Julien turned his attention to the Buddhist literature of China, and more especially to the travels of Buddhist pilgrims to India. In order that he might better understand the references to Indian institutions,

and the transcriptions in Chinese of Sanskrit words and proper names, he began the study of Sanskrit, and in 1853 brought out his *Voyages du pélérin Hiouen-tsang*, which is regarded by some critics as his most valuable work. Six years later he published *Les Avadânas, contes et apologues Indiens inconnus jusqu'à ce jour, suivis de poésies et de nouveiles chinoises.* For the benefit of future students he disclosed his system of deciphering Sanskrit words occurring in Chinese books in his *Méthode pour déchiffrer et transcrire les noms sanscrits qui se rencontrent dans les livres chinois* (1861). This work, which contains much of interest and importance, falls short of the value which its author was accustomed to attach to it. It had escaped his observation that, since the translations of Sanskrit works into Chinese were undertaken in different parts of the empire, the same Sanskrit words were of necessity differently represented in Chinese characters in accordance with the dialectical variations. No hard and fast rule can therefore possibly be laid down for the decipherment of Chinese transcriptions of Sanskrit words, and the effect of this impossibility was felt though not recognized by Julien, who in order to make good his rule was occasionally obliged to suppose that wrong characters had by mistake been introduced into the texts. His Indian studies led to a controversy with Joseph Toussaint Reinaud, which was certainly not free from the gall of bitterness. Among the many subjects to which he turned his attention were the native industries of China, and his work on the *Histoire et fabrication de la porcelaine chinoise* is likely to remain a standard work on the subject. In another volume he also published an account of the *Industries anciennes et modernes de l'empire chinois* (1869), translated from native authorities. In the intervals of more serious undertakings he translated the *San tseu King* (*Le Livre des trois mots*); *Thsien tseu wen* (*Le Livre de mille mots*); *Les Deux cousines*; *Nouvelles chinoises*; the *Ping chan ling yen* (*Les Deux jeunes filles lettrées*); and the *Dialoghi Cinesi, Jitch'ang k' eou-t' eou-koa.* His last work of importance was *Syntaxe nouvelle de la langue chinoise* (1869), in which he gave the result of his study of the language, and collected a vast array of facts and of idiomatic expressions. A more scientific arrangement and treatment of his subject would have added much to the value of this work, which, however, contains a mine of material which amply repays exploration. One great secret by which Julien acquired his grasp of Chinese, was, as we have said, his methodical collection of phrases and idiomatic expressions. Whenever in the course of his reading he met with a new phrase or expression, he entered it on a card which took its place in regular order in a long series of boxes. At his death, which took place on the 14th of February 1873, he left, it is said, 250,000 of such cards, about the fate of which, however, little seems to be known. In politics Julien was imperialist, and in 1863 he was made a commander of the legion of honour in recognition of the services he had rendered to literature during the second empire.

See notice and bibliography by Wallon, *Mém. de l'Acad. des Inscr.* (1884), xxxi. 409–458. (R. K. D.)

JULIUS, the name of three popes.

Julius I., pope from 337 to 352, was chosen as successor of Marcus after the Roman see had been vacant four months. He is chiefly known by the part which he took in the Arian controversy. After the Eusebians had, at a synod held in Antioch, renewed their deposition of Athanasius they resolved to send delegates to Constans, emperor of the West, and also to Julius, setting forth the grounds on which they had proceeded. The latter, after expressing an opinion favourable to Athanasius, adroitly invited both parties to lay the case before a synod to be presided over by himself. This proposal, however, the Eastern bishops declined to accept. On his second banishment from Alexandria, Athanasius came to Rome, and was recognized as a regular bishop by the synod held in 340. It was through the influence of Julius that, at a later date, the council of Sardica in Illyria was held, which was attended only by seventy-six Eastern bishops, who speedily withdrew to Philippopolis and deposed Julius, along with Athanasius and others. The Western bishops who remained confirmed the previous decisions of the Roman synod; and by its 3rd, 4th and 5th decrees relating to the rights of revision, the council of Sardica endeavoured to settle the procedure of ecclesiastical appeals. Julius on his death in April 352 was succeeded by Liberius. (L. D.*)

Julius II. (Giuliano della Rovere), pope from the 1st of November 1503 to the 21st of February 1513, was born at Savona in 1443. He was at first intended for a commercial career, but later was sent by his uncle, subsequently Sixtus IV., to be educated among the Franciscans, although he does not appear to have joined that order. He was loaded with favours during his uncle's pontificate, being made bishop of Carpentras, bishop of Bologna, bishop of Vercelli, archbishop of Avignon, cardinal-priest of S. Pietro in Vincoli and of Sti Dodici Apostoli, and cardinal-bishop of Sabina, of Frascati, and finally of Ostia and Velletri. In 1480 he was made legate to France, mainly to settle the question of the Burgundian inheritance, and acquitted himself with such ability during his two years' stay that he acquired an influence in the college of cardinals which became paramount during the pontificate of Innocent VIII. A rivalry, however, growing up between him and Roderigo Borgia, he took refuge at Ostia after the latter's election as Alexander VI., and in 1494 went to France, where he incited Charles VIII. to undertake the conquest of Naples. He accompanied the young king on his campaign, and sought to convoke a council to inquire into the conduct of the pope with a view to his deposition, but was defeated in this through Alexander's machinations. During the remainder of that pontificate Della Rovere remained in France, nominally in support of the pope, for whom he negotiated the treaty of 1498 with Louis XII., but in reality bitterly hostile to him. On the death of Alexander (1503) he returned to Italy and supported the election of Pius III., who was then suffering from an incurable malady, of which he died shortly afterwards. Della Rovere then won the support of Cesare Borgia and was unanimously elected pope. Julius II. from the beginning repudiated the system of nepotism which had flourished under Sixtus IV., Innocent VIII. and Alexander VI., and set himself with courage and determination to restore, consolidate and extend the temporal possessions of the Church. By dexterous diplomacy he first succeeded (1504) in rendering it impossible for Cesare Borgia to remain in Italy. He then pacified Rome and the surrounding country by reconciling the powerful houses of Orsini and Colonna and by winning the other nobles to his own cause. In 1504 he arbitrated on the differences between France and Germany, and concluded an alliance with them in order to oust the Venetians from Faenza, Rimini and other towns which they occupied. The alliance at first resulted only in compelling the surrender of a few unimportant fortresses in the Romagna; but Julius freed Perugia and Bologna in the brilliant campaign of 1506. In 1508 he concluded against Venice the famous league of Cambray with the emperor Maximilian, Louis XII. of France and Ferdinand of Aragon, and in the following year placed the city of Venice under an interdict. By the single battle of Agnadello the Italian dominion of Venice was practically lost; but as the allies were not satisfied with merely effecting his purposes, the pope entered into a combination with the Venetians against those who immediately before had been engaged in his behalf. He absolved the Venetians in the beginning of 1510, and shortly afterwards placed the ban on France. At a synod convened by Louis XII. at Tours in September, the French bishops announced their withdrawal from the papal obedience and resolved, with Maximilian's co-operation, to seek the deposition of Julius. In November 1511 a council actually met at Pisa for this object, but its efforts were fruitless. Julius forthwith formed the Holy league with Ferdinand of Aragon and with Venice against France, in which both Henry VIII. and the emperor ultimately joined. The French were driven out of Italy in 1512 and papal authority was once more securely established in the states immediately around Rome. Julius had already issued, on the 18th of July 1511, the summons for a general council to deal with France, with the reform of the Church, and with a war against the Turks. This council, which is known as the Fifth Lateran, assembled on the 3rd of May 1512, condemned the celebrated pragmatic sanction of the French church, and was

still in session when Julius died. In the midst of his combats, Julius never neglected his ecclesiastical duties. His bull of the 14th of January 1505 against simony in papal elections was re-enacted by the Lateran council (February 16, 1513). He condemned duelling by bull of the 24th of February 1509. He effected some reforms in the monastic orders; urged the conversion of the sectaries in Bohemia; and sent missionaries to America, India, Abyssinia and the Congo. His government of the Papal States was excellent. Julius is deserving of particular honour for his patronage of art and literature. He did much to improve and beautify Rome; he laid the foundation-stone of St Peter's (April 18, 1506); he founded the Vatican museum; and he was a friend and patron of Bramante, Raphael and Michelangelo. While moderate in personal expenditure, Julius resorted to objectionable means of replenishing the papal treasury, which had been exhausted by Alexander VI., and of providing funds for his numerous enterprises; simony and traffic in indulgences were increasingly prevalent. Julius was undoubtedly in energy and genius one of the greatest popes since Innocent III., and it is a misfortune of the Church that his temporal policy eclipsed his spiritual office. Though not despising the Machiavellian arts of statecraft so universally practised in his day, he was nevertheless by nature plain-spoken and sincere, and in his last years grew violent and crabbed. He died of a fever on the 21st of February 1513, and was succeeded by Leo X.

See L. Pastor, *History of the Popes*, vol. vi., trans. by F. I. Antrobus (1898); M. Creighton, *History of the Papacy*, vol. v. (1901); F. Gregorovius, *Rome in the Middle Ages*, vol. viii., trans. by Mrs G. W. Hamilton (1900–1902); Hefele-Hergenröther, *Conciliengeschichte*, vol. viii., 2nd ed.; J. Klaczko, *Rome et la renaissance . . . Jules II.* (1898), trans. into English by J. Dennie (New York, 1903); M. Brosch, *Papst Julius II. u. die Gründung des Kirchenstaates* (1878); A. J. Dumesnil, *Histoire de Jules II.* (1873); J. J. I. von Döllinger, *Beiträge zur polit., kirchl., u. Cultur-Geschichte der sechs letzten Jahrhunderte*, vol. iii. (1882); A. Schulte, *Die Fugger in Rom 1495–1523, mit Studien zur Gesch. des kirchlichen Finanzwesens jener Zeit* (1904). (C. H. Ha.)

Julius III. (Giovanni Maria del Monte), pope from 1550 to 1555, was born on the 10th of September 1487. He was created cardinal by Paul III. in 1536, filled several important legations, and was elected pope on the 7th of February 1550, despite the opposition of Charles V., whose enmity he had incurred as president of the council of Trent. Love of ease and desire for peace moved him, however, to adopt a conciliatory attitude, and to yield to the emperor's desire for the reassembling of the council (September 1551), suspended since 1549. But deeming Charles's further demands inconvenient, he soon found occasion in the renewal of hostilities to suspend the council once more (April 1552). As an adherent of the emperor he suffered in consequence of imperial reverses, and was forced to confirm Parma to Ottavio Farnese, the ally of France (1552). Weary of politics, and obeying a natural inclination to pleasure, Julius then virtually abdicated the management of affairs, and gave himself up to enjoyment, amusing himself with the adornment of his villa, near the Porta del Popolo, and often so far forgetting the proprieties of his office as to participate in entertainments of a questionable character. His nepotism was of a less ambitious order than that of Paul III.; but he provided for his family out of the offices and revenues of the Church, and advanced unworthy favourites to the cardinalate. What progress reform made during his pontificate was due to its acquired momentum, rather than to the zeal of the pope. Yet under Julius steps were taken to abolish plurality of benefices and to restore monastic discipline; the Collegium Germanicum, for the conversion of Germans, was established in Rome, 1552; and England was absolved by the cardinal-legate Pole, and received again into the Roman communion (1554). Julius died on the 23rd of March 1555, and was succeeded by Marcellus II.

See Panvinio, continuator of Platina, *De Vitis Pontiff. Rom.*; Ciaconius, *Vitae et res gestae summorum Pontiff. Rom.* (Rome, 1601–1602) (both contemporaries of Julius III.); Ranke, *Popes* (Eng. trans., Austin), i. 276 seq.; v. Reumont, *Gesch. der Stadt Rom.*, iii. 2, 503 seq.; Brosch, *Gesch. des Kirchenstaates* (1880), i. 189 seq.; and extended bibliography in Herzog-Hauck, *Realencyklopädie*, *s.v.* "Julius III." (T. F. C.)

JULLIEN, LOUIS ANTOINE (1812–1860), musical conductor, was born at Sisteron, Basses Alpes, France, on the 23rd of April 1812, and studied at the Paris conservatoire. His fondness for the lightest forms of music cost him his position in the school, and after conducting the band of the Jardin Turc he was compelled to leave Paris to escape his creditors, and came to London, where he formed a good orchestra and established promenade concerts. Subsequently he travelled to Scotland, Ireland and America with his orchestra. For many years he was a familiar figure in the world of popular music in England, and his portly form with its gorgeous waistcoats occurs very often in the early volumes of *Punch*. He brought out an opera, *Pietro il Grande*, at Covent Garden (1852) on a scale of magnificence that ruined him, for the piece was a complete failure. He was in America until 1854, when he returned to London for a short time; ultimately he went back to Paris, where, in 1859, he was arrested for debt and put into prison. He lost his reason soon afterwards, and died on the 14th of March 1860.

JULLUNDUR, or Jalandhar, a city of British India, giving its name to a district and a division in the Punjab. The city is 260 m. by rail N.W. of Delhi. Pop. (1901), 67,735. It is the headquarters of a brigade in the 3rd division of the northern army. There are an American Presbyterian mission, a government normal school, and high schools supported by Hindu bodies.

The District of Jullundur occupies the lower part of the tract known as the Jullundur Doab, between the rivers Sutlej and Beas, except that it is separated from the Beas by the state of Kapurthala. Area, 1431 sq. m. Pop. (1901), 917,587, showing an increase of 1% in the decade; the average density is 641 persons per square mile, being the highest in the province. Cotton-weaving and sugar manufacture are the principal industries for export trade, and silk goods and wheat are also exported. The district is crossed by the main line of the North-Western railway from Phillaur towards Amritsar.

The Jullundur Doab in early times formed the Hindu kingdom of Katoch, ruled by a family of Rajputs whose descendants still exist in the petty princes of the Kangra hills. Under Mahommedan rule the Doab was generally attached to the province of Lahore, in which it is included as a *circar* or governorship in the great revenue survey of Akbar. Its governors seem to have held an autonomous position, subject to the payment of a fixed tribute into the imperial treasury. The Sikh revival extended to Jullundur at an early period, and a number of petty chieftains made themselves independent throughout the Doab. In 1766 the town of Jullundur fell into the hands of the Sikh confederacy of Faiz-ulla-puria, then presided over by Khushal Singh. His son and successor built a masonry fort in the town, while several other leaders similarly fortified themselves in the suburbs. Meanwhile, Ranjit Singh was consolidating his power in the south, and in 1811 he annexed the Faiz-ulla-puria dominions. Thenceforth Jullundur became the capital of the Lahore possessions in the Doab until the British annexation at the close of the first Sikh war (1846).

The Division of Jullundur comprises the five districts of Kangra, Hoshiarpur, Jullundur, Ludhiana and Ferozepore, all lying along the river Sutlej. Area, 19,410 sq. m. Pop. (1901), 4,306,662.

See *Jullundur District Gazetteer* (Lahore, 1908).

JULY, the seventh month in the Christian calendar, consisting of thirty-one days. It was originally the fifth month of the year, and as such was called by the Romans *Quintilis*. The later name of Julius was given in honour of Julius Caesar (who was born in the month); it came into use in the year of his death. The Anglo-Saxons called July *Hegmônath*, "hay-month," or *Maed-mônath*, "mead-month," the meadows being then in bloom. Another name was *aftera liða*, "the latter mild month," in contradistinction to June, which was named "the former mild month." Chief dates of the month: 3rd July, Dog Days begin; 15th July, St Swithin; 25th July, St James.

JUMALA, the supreme god of the ancient Finns and Lapps. Among some tribes he is called Num or Jilibeambaertje, as protector of the flocks. Jumala indicates rather godhead than

a divine being. In the runes Ukko, the grandfather, the sender of the thunder, takes the place of Jumala.

JUMIÈGES, a village of north-western France, in the department of Seine-Inférieure, 17 m. W. of Rouen by road, on a peninsula formed by a bend of the Seine. Pop. (1906), 244. Jumièges is famous for the imposing ruins of its abbey, one of the great establishments of the Benedictine order. The principal remains are those of the abbey-church, built from 1040 to 1067; these comprise the façade with two towers, the walls of the nave, a wall and sustaining arch of the great central tower and débris of the choir (restored in the 13th century). Among the minor relics, preserved in a small museum in a building of the 14th century, are the stone which once covered the grave of Agnes Sorel, and two recumbent figures of the 13th century, commonly known as the *Énervés*, and representing, according to one legend, two sons of Clovis II., who, as a punishment for revolt against their father, had the tendons of their arms and legs cut, and were set adrift in a boat on the Seine. Another tradition states that the statues represent Thassilo, duke of Bavaria, and Theodo his son, relegated to Jumièges by Charlemagne. The church of St Pierre, which adjoins the south side of the abbey-church, was built in the 14th century as a continuation of a previous church of the time of Charlemagne, of which a fragment still survives. Among the other ruins, those of the chapter-house (13th century) and refectory (12th and 15th centuries) also survive.

The abbey of Jumièges was founded about the middle of the 7th century by St Philibert, whose name is still to be read on gold and silver coins obtained from the site. The abbey was destroyed by the Normans, but was rebuilt in 928 by William Longsword, duke of Normandy, and continued to exist till 1790. Charles VII. often resided there with Agnes Sorel, who had a manor at Mesnil-sous-Jumièges in the neighbourhood, and died in the monastery in 1450.

JUMILLA, a town of eastern Spain, in the province of Murcia, 40 m. N. by W. of Murcia by road, on the right bank of the Arroyo del Jua, a left-bank tributary of the Segura. Pop. (1900), 16,446. Jumilla occupies part of a narrow valley, enclosed by mountains. An ancient citadel, several churches, a Franciscan convent, and a hospital are the principal buildings. The church of Santiago is noteworthy for its fine paintings and frescoes, some of which have been attributed, though on doubtful authority, to Peter Paul Rubens and other illustrious artists. The local trade is chiefly in coarse cloth, esparto fabrics, wine and farm produce.

JUMNA, or JAMUNA, a river of northern India. Rising in the Himalayas in Tehri state, about 5 m. N. of the Jamnotri hot springs, in 31° 3′ N. and 78° 30′ E., the stream first flows S. for 7 m., then S.W. for 32 m., and afterwards due S. for 26 m., receiving several small tributaries in its course. It afterwards turns sharply to the W. for 14 m., when it is joined by the large river Tons from the north. The Jumna here emerges from the Himalayas into the valley of the Dun, and flows in a S.W. direction for 22 m., dividing the Kiarda Dun on the W. from the Dehra Dun on the E. It then, at the 95th mile of its course, forces its way through the Siwalik hills, and debouches upon the plains of India at Fyzabad in Saharanpur district. By this time a large river, it gives off, near Fyzabad, the eastern and western Jumna canals. From Fyzabad the river flows for 65 m. in a S.S.W. direction, receiving the Maskarra stream from the east. Near Bidhauli, in Muzaffarnagar district, it turns due S. for 80 m. to Delhi city, thence S.E. for 27 m. to near Dankaur, receiving the waters of the Hindan river on the east. From Dankaur it resumes its southerly course for 100 m. to Mahaban near Muttra, where it turns E. for nearly 200 m., passing the towns of Agra, Ferozabad and Etawah, receiving on its left bank the Karwan-nadi, and on its right the Banganga (Utanghan). From Etawah it flows 140 m. S.E. to Hamirpur, being joined by the Sengar on its north bank, and on the south by the great river Chambal from the west, and by the Sind. From Hamirpur, the Jumna flows nearly due E., until it enters Allahabad district and passes Allahabad city, below which it falls into the Ganges in 25° 25′ N. and 81° 55′ E. In this last part of its course it receives the waters of the Betwa and the Ken. Where the Jumna and the Ganges unite is the *prayag*, or place of pilgrimage, where devout Hindus resort in thousands to wash and be sanctified.

The Jumna, after issuing from the hills, has a longer course through the United Provinces than the Ganges, but is not so large nor so important a river; and above Agra in the hot season it dwindles to a small stream. This is no doubt partly caused by the eastern and western Jumna canals, of which the former, constructed in 1823–1830, irrigates 300,000 acres in the districts of Saharanpur, Muzaffarnagar and Meerut, in the United Provinces; while the latter, consisting of the reopened channels of two canals dating from about 1350 and 1628 respectively, extends through the districts of Umballa, Karnal, Hissar, Rohtak and Delhi, and the native states of Patiala and Jind in the Punjab, irrigating 600,000 acres. The headworks of the two canals are situated near the point where the river issues from the Siwāliks.

The traffic on the Jumna is not very considerable; in its upper portion timber, and in the lower stone, grain and cotton are the chief articles of commerce, carried in the clumsy barges which navigate its stream. Its waters are clear and blue, while those of the Ganges are yellow and muddy; the difference between the streams can be discerned for some distance below the point at which they unite. Its banks are high and rugged, often attaining the proportions of cliffs, and the ravines which run into it are deeper and larger than those of the Ganges. It traverses the extreme edge of the alluvial plain of Hindustan, and in the latter part of its course it almost touches the Bundelkhand offshoots of the Vindhyā range of mountains. Its passage is therefore more tortuous, and the scenery along its banks more varied and pleasing, than is the case with the Ganges.

The Jumna at its source near Jamnotri is 10,849 ft. above the sea-level; at Kotnur, 16 m. lower, it is only 5036 ft.; so that, between these two places, it falls at the rate of 314 ft. in a mile. At its junction with the Tons it is 1686 ft. above the sea; at its junction with the Asan, 1470 ft.; and at the point where it issues from the Siwālik hills into the plains, 1276 ft. The catchment area of the river is 118,000 sq. m.; its flood discharge at Allahabad is estimated at 1,333,000 cub. ft. per second. The Jumna is crossed by railway bridges at Delhi, Muttra, Agra and Allahabad, while bridges of boats are stationed at many places.

JUMPING,[1] a branch of athletics which has been cultivated from the earliest times (see ATHLETIC SPORTS). Leaping competitions formed a part of the *pentathlon*, or quintuple games, of the Olympian festivals, and Greek chronicles record that the athlete Phayllus jumped a distance of 55 Olympian, or more than 30 English, feet. Such a leap could not have been made without weights carried in the hands and thrown backwards at the moment of springing. These were in fact employed by Greek jumpers and were called *haltēres*. They were masses of stone or metal, nearly semicircular, according to Pausanias, and the fingers grasped them like the handles of a shield. Halteres were also used for general exercise, like modern dumb-bells. The Olympian jumping took place to the music of lutes.

Jumping has always been popular with British athletes, and tradition has handed down the record of certain leaps that border on the incredible. Two forms of jumping are included in modern athletic contests, the running long jump and the running high jump; but the same jumps, made from a standing position, are also common forms of competition, as well as the hop step and jump, two hops and jump, two jumps, three jumps, five jumps and ten jumps, either with a run or from a standing position. These events are again divided into two categories by the use of weights, which are not allowed in championship contests.

[1] The verb "to jump" only dates from the beginning of the 16th century. The *New English Dictionary* takes it to be of onomatopoeic origin and does not consider a connexion with Dan. *gumpe*, Icel. *goppa*, &c., possible. The earlier English word is "leap" (O.E. *hlēapan*, to run, jump, cf. Ger. *laufen*).

In the running long jump anything over 18 ft. was once considered good, while Peter O'Connor's world's record (1901) is 24 ft. 11¾ in. The jump is made, after a short fast run on a cinder path, from a joist sunk into the ground flush with the path, the jumper landing in a pit filled with loose earth, its level a few inches below that of the path. The joist, called the "take-off," is painted white, and all jumps are measured from its edge to the nearest mark made by any part of the jumper's person in landing.

In the standing long jump, well spiked shoes should be worn, for it is in reality nothing but a push against the ground, and a perfect purchase is of the greatest importance. Weights held in the hands of course greatly aid the jumper. Without weights J. Darby (professional) jumped 12 ft. 1½ in. and R. C. Ewry (American amateur) 11 ft. 4⅞ in. With weights J. Darby covered 14 ft. 9 in. at Liverpool in 1890, while the amateur record is 12 ft. 9½ in., made by J. Chandler and G. L. Hellwig (U.S.A.). The standing two, three, five and ten jumps are merely repetitions of the single jump, care being taken to land with the proper balance to begin the next leap. The record for two jumps without weights is 22 ft. 2½ in., made by H. M. Johnson (U.S.A.); for three jumps without weights, R. C. Ewry, 35 ft. 7¼ in.; with weights J. Darby, 41 ft. 7 in.

The hop step and jump is popular in Ireland and often included in the programmes of minor meetings, and so is the two hops and a jump. The record for the first, made by W. McManus, is 49 ft. 2½ in. with a run and without weights; for the latter, also with a run and without weights, 49 ft. ½ in., made by J. B. Conolly.

In the running high jump also the standard has improved. In 1864 a jump of 5 ft. 6 in. was considered excellent. The Scotch professional Donald Dinnie, on hearing that M. J. Brooks of Oxford had jumped 6 ft. 2½ in. in 1876, wrote to the newspapers to show that upon *a priori* grounds such an achievement was impossible. Since then many jumpers who can clear over 6 ft. have appeared. In 1895 M. F. Sweeney of New York accomplished a jump of 6 ft. 5⅝ in. Ireland has produced many first-class high jumpers, nearly all tall men, P. Leahy winning the British amateur record in Dublin in 1898 with a jump of 6 ft. 4¾ in. The American A. Bird Page, however, although only 5 ft. 6¾ in. in height, jumped 6 ft. 4 in. High jumping is done over a light staff or lath resting upon pins fixed in two uprights upon which a scale is marked. The "take-off," or ground immediately in front of the uprights from which the spring is made, is usually grass in Great Britain and cinders in America. Some jumpers run straight at the bar and clear it with body facing forward, the knees being drawn up almost to the chin as the body clears the bar; others run and spring sideways, the feet being thrown upwards and over the bar first, to act as a kind of lever in getting the body over. There should be a shallow pit of loose earth or a mattress to break the fall.

The standing high jump is rarely seen in regular athletic meetings. The jumper stands sideways to the bar with his arms extended upwards. He then swings his arms down slowly, bending his knees at the same time, and, giving his arms a violent upward swing, springs from the ground. As the body rises the arms are brought down, one leg is thrown over the bar, and the other pulled, almost jerked, after it. The record for the standing high jump without weights is 6 ft., by J. Darby in 1892.

By the use of a spring-board many extraordinary jumps have been made, but this kind of leaping is done only by circus gymnasts and is not recognized by athletic authorities.

For pole-jumping see POLE-VAULTING.

See *Encyclopaedia of Sport*; M. W. Ford, "Running High Jump," *Outing*, vol. xviii.; "Running Broad Jump," *Outing*, vol. xix.; "Standing Jumping," *Outing*, vol. xix.; "Miscellaneous Jumping," *Outing*, vol. xx. Also *Sporting and Athletic Register* (annual).

JUMPING-HARE, the English equivalent of springhaas, the Boer name of a large leaping south and east African rodent mammal, *Pedetes caffer*, typifying a family by itself, the *Pedetidae*. Originally classed with the jerboas, to which it has no affinity, this remarkable rodent approximates in the structure of its skull to the porcupine-group, near which it is placed by some naturalists, although others consider that its true position is with the African scaly-tailed flying squirrels (*Anomaluridae*). The colour of the creature is bright rufous fawn; the eyes are large; and the bristles round the muzzle very long, the former having a fringe of long hairs. The front limbs are short, and the hind ones very long; and although the fore-feet have five toes, those of the hind-feet are reduced to four. The bones of the lower part of the hind leg (tibia and fibula) are united for a great part of their length. There are four pairs of cheek-teeth in each jaw, which do not develop roots. The jumping-hare is found in open or mountainous districts, and has habits very like a jerboa. It is nocturnal, and dwells in composite burrows excavated and tenanted by several families. When feeding it progresses on all four legs, but if frightened takes gigantic leaps on the hind-pair alone; the length of such leaps frequently reaches twenty feet, or even more. The young are generally three or four in number, and are born in the summer. A second smaller species has been named. (See RODENTIA.)

JUMPING-MOUSE, the name of a North American mouse-like rodent, *Zapus hudsonius*, belonging to the family *Jaculidae* (*Dipodidae*), and the other members of the same genus. Although mouse-like in general appearance, these rodents are distinguished by their elongated hind limbs, and, typically, by the presence of four pairs of cheek-teeth in each jaw. There are five toes to all the feet, but the first in the fore-feet is rudimentary, and furnished with a flat nail. The cheeks are provided with pouches. Jumping-mice were long supposed to be confined to North America, but a species is now known from N.W. China. It is noteworthy that whereas E. Coues in 1877 recognized but a single representative of this genus, ranging over a large area in North America, A. Preble distinguishes no fewer than twenty North American species and sub-species, in addition to the one from Szechuen. Among these, it may be noted that *Z. insignis* differs from the typical *Z. hudsonius* by the loss of the premolar, and has accordingly been referred to a sub-genus apart. Moreover, the Szechuen jumping-mouse differs from the typical *Zapus* by the closer enamel-folds of the molars, the shorter ears, and the white tail-tip, and is therefore made the type of another sub-genus. In America these rodents inhabit forest, pasture, cultivated fields or swamps, but are nowhere numerous. When disturbed, they start off with enormous bounds of eight or ten feet in length, which soon diminish to three or four; and in leaping the feet scarcely seem to touch the ground. The nest is placed in clefts of rocks, among timber or in hollow trees, and there are generally three litters in a season. (See RODENTIA.)

JUMPING-SHREW, a popular name for any of the terrestrial insectivora of the African family *Macroscelididae*, of which there are a number of species ranging over the African continent, representing the tree-shrews of Asia. They are small long-snouted gerbil-like animals, mainly nocturnal, feeding on insects, and characterized by the great length of the metatarsal bones, which have been modified in accordance with their leaping mode of progression. In some (constituting the genus *Rhyncocyon*) the muzzle is so much prolonged as to resemble a proboscis, whence the name elephant-shrews is sometimes applied to the members of the family.

JUNAGARH, or JUNAGADH, a native state of India, within the Gujarat division of Bombay, extending inland from the southern coast of the peninsula of Kathiawar. Area, 3284 sq. m.; pop. (1901), 395,428, showing a decrease of 19% in the decade, owing to famine; estimated gross revenue, £174,000; tribute to the British government and the gaekwar of Baroda, £4200; a considerable sum is also received as tribute from minor states in Kathiawar. The state is traversed by a railway from Rajkot, to the seaport of Verawal. It includes the sacred mountain of Girnar and the ruined temple of Somnath, and also the forest of Gir, the only place in India where the lion survives. Junagarh ranks as a first-class state among the many chiefships of Kathiawar, and its ruler first entered into engagements with the British

in 1807. Nawab Sir Rasul Khanji, K.C.S.I., was born in 1858 and succeeded his brother in 1892.

The modern town of JUNAGARH (34,251), 60 m. by rail S. of Rajkot, is handsomely built and laid out. In November 1897 the foundation-stones of a hospital, library and museum were laid, and an arts college has recently been opened.

JUNCACEAE (rush family), in botany, a natural order of flowering plants belonging to the series Liliiflorae of the class Monocotyledons, containing about two hundred species in seven genera, widely distributed in temperate and cold regions. It is well represented in Britain by the two genera which comprise nearly the whole order—*Juncus*, rush, and *Luzula*, wood-rush. They are generally perennial herbs with a creeping underground stem and erect, unbranched, aerial stems, bearing slender

Juncus effusus, common rush.

1. Plant ⅓ nat. size.
2. Inflorescence, nat. size.
3. End of branch of inflorescence slightly enlarged.
4. Flower, enlarged.
5. Fruit, enlarged.
6. Seed, nat. size.
7. Seed, much enlarged.

leaves which are grass-like or cylindrical or reduced to membranous sheaths. The small inconspicuous flowers are generally more or less crowded in terminal or lateral clusters, the form of the inflorescence varying widely according to the manner of branching and the length of the pedicels. The flowers are hermaphrodite and regular, with the same number and arrangement of parts as in the order Liliaceae, from which they differ in the inconspicuous membranous character of the perianth, the absence of honey or smell, and the brushlike stigmas with long papillae-adaptations to wind-pollination as contrasted with the methods of pollination by insect agency, which characterize the Liliaceae. Juncaceae are, in fact, a less elaborated group of the same series as Liliaceae, but adapted to a simpler and more uniform environment than that larger and much more highly developed family.

JUNCTION CITY, a city and the county-seat of Geary county, Kansas, U.S.A., between Smoky Hill and Republican rivers, about 3 m. above their confluence to form the Kansas, and 72 m. by rail W. of Topeka. Pop. (1900), 4695, of whom 545 were foreign-born and 292 were negroes; (1905), 5494; (1910), 5598. Junction City is served by the Union Pacific and the Missouri, Kansas & Texas railways. It is the commercial centre of a region in whose fertile valleys great quantities of wheat, Indian corn, oats and hay are grown and live stock is raised, and whose uplands contain extensive beds of limestone, which is quarried for building purposes. Excellent water-power is available and is partly utilized by flour mills. The municipality owns and operates the waterworks. At the confluence of Smoky Hill and Republican rivers and connected with the city by an electric railway is Fort Riley, a U.S. military post, which was established in 1853 as Camp Centre but was renamed in the same year in honour of General Bennett Riley (1787–1853); in 1887 the mounted service school of the U.S. army was established here. Northward from the post is a rugged country over which extends a military reservation of about 19,000 acres. Adjoining the reservation and about 5 m. N.E. of Junction City is the site of the short-lived settlement of Pawnee, where from the 2nd to the 6th of July 1855 the first Kansas legislature met, in a building the ruins of which still remain; the establishment of Pawnee (in December 1854) was a speculative pro-slavery enterprise conducted by the commandant of Fort Riley, other army officers and certain territorial officials, and when a government survey showed that the site lay within the Fort Riley reservation, the settlers were ordered (August 1855) to leave, and the commandant of Fort Riley was dismissed from the army; one of the charges brought against Governor A. H. Reeder was that he had favoured the enterprise. Junction City was founded in 1857 and was chartered as a city in 1859.

JUNE, the sixth month in the Christian calendar, consisting of thirty days. Ovid (*Fasti*, vi. 25) makes Juno assert that the name was expressly given in her honour. Elsewhere (*Fasti*, vi. 87) he gives the derivation *a junioribus*, as May had been derived from *majores*, which may be explained as in allusion either to the two months being dedicated respectively to youth and age in general, or to the seniors and juniors of the government of Rome, the senate and the *comitia curiata* in particular. Others connect the term with the gentile name Junius, or with the consulate of Junius Brutus. Probably, however, it originally denoted the month in which crops grow to ripeness. In the old Latin calendar June was the fourth month, and in the so-called year of Romulus it is said to have had thirty days; but at the time of the Julian reform of the calendar its days were only twenty-nine. To these Caesar added the thirtieth. The Anglo-Saxons called June "the dry month," "midsummer month," and, in contradistinction to July, "the earlier mild month." The summer solstice occurs in June. Principal festival days in this month: 11th June, St Barnabas; 24th June, Midsummer Day (Nativity of St John the Baptist); 29th June, St Peter.

JUNEAU, formerly HARRISBURG, a mining and trading town picturesquely situated at the mouth of Gold Creek on the continental shore of Gastineau channel, south-east Alaska, and the capital of Alaska. Pop. (1900), 1864 (450 Indians); (1910), 1644. It has a United States custom-house and court-house. The city has fishing, manufacturing and trading interests, but its prosperity is chiefly due to the gold mines in the adjacent Silver Bow basin, the source of Gold Creek, and the site of the great Perseverance mine, and to those on the Treadwell lode on Douglas Island, 2 m. from Juneau. Placer gold was found at the mouth of the creek in 1879, and the city was settled in 1880 by two prospectors named Joseph Juneau and Richard Harris. The district was called Juneau and the camp Harrisburg by the first settlers; exploring naval officers named the camp Rockwell, in honour of Commander Charles Henry Rockwell, U.S.N. (b. 1840). A town meeting then adopted the name of Juneau. The town was incorporated in 1900. In October 1906 the seat of government of Alaska was removed from Sitka to Juneau.

JUNG, JOHANN HEINRICH (1740–1817), best known by his assumed name of HEINRICH STILLING, German author, was born in the village of Grund near Hilchenbach in Westphalia on

the 12th of September 1740. His father, Wilhelm Jung, schoolmaster and tailor, was the son of Eberhard Jung, charcoal-burner, and his mother was Dortchen Moritz, daughter of a poor clergyman. Jung became, by his father's desire, schoolmaster and tailor, but found both pursuits equally wearisome. After various teaching appointments he went in 1768 with "half a French dollar" to study medicine at the university of Strassburg. There he met Goethe, who introduced him to Herder. The acquaintance with Goethe ripened into friendship; and it was by his influence that Jung's first and best work, *Heinrich Stillings Jugend* was written. In 1772 he settled at Elberfeld as physician and oculist, and soon became celebrated for operations in cases of cataract. Surgery, however, was not much more to his taste than tailoring or teaching; and in 1778 he was glad to accept the appointment of lecturer on "agriculture, technology, commerce and the veterinary art" in the newly established Kameralschule at Kaiserslautern, a post which he continued to hold when the school was absorbed in the university of Heidelberg. In 1787 he was appointed professor of economical, financial and statistical science in the university of Marburg. In 1803 he resigned his professorship and returned to Heidelberg, where he remained until 1806, when he received a pension from the grand-duke Charles Frederick of Baden, and removed to Karlsruhe, where he remained until his death on the 2nd of April 1817. He was married three times, and left a numerous family. Of his works his autobiography *Heinrich Stillings Leben*, from which he came to be known as Stilling, is the only one now of any interest, and is the chief authority for his life. His early novels reflect the piety of his early surroundings.

A complete edition of his numerous works, in 14 vols. 8vo, was published at Stuttgart in 1835–1838. There are English translations by Sam. Jackson of the *Leben* (1835) and of the *Theorie der Geisterkunde* (London, 1834, and New York, 1851); and of *Theobald, or the Fanatic*, a religious romance, by the Rev. Sam. Schaeffer (1846). See biographies by F. W. Bodemann (1868), J. v. Ewald (1817), Peterson (1890).

JUNG BAHADUR, SIR, Maharaja (1816–1877), prime minister of Nepal, was a grand-nephew of Bhim sena Thapa (Bhim sen Thappa), the famous military minister of Nepal, who from 1804 to 1839 was *de facto* ruler of the state under the rani Tripuri and her successor. Bhimsena's supremacy was threatened by the Kala Pandry, and many of his relations, including Jung Bahadur, went into exile in 1838, thus escaping the cruel fate which overtook Bhimsena in the following year. The Pandry leaders, who then reverted to power, were in turn assassinated in 1843, and Matabar Singh, uncle of Jung Bahadur, was created prime minister. He appointed his nephew general and chief judge, but shortly afterwards he was himself put to death. Fateh Jung thereon formed a ministry, of which Jung Bahadur was made military member. In the following year, 1846, a quarrel was fomented, in which Fateh Jung and thirty-two other chiefs were assassinated, and the rani appointed Jung Bahadur sole minister. The rani quickly changed her mind, and planned the death of her new minister, who at once appealed to the maharaja. But the plot failed. The raja and the rani wisely sought safety in India, and Jung Bahadur firmly established his own position by the removal of all dangerous rivals. He succeeded so well that in January 1850 he was able to leave for a visit to England, from which he did not return to Nepal until the 6th of February 1851. On his return, and frequently on subsequent dates, he frustrated conspiracies for his assassination. The reform of the penal code, and a desultory war with Tibet, occupied his attention until news of the Indian Mutiny reached Nepal. Jung Bahadur resisted all overtures from the rebels, and sent a column to Gorakpur in July 1857. In December he furnished a force of 8000 Gurkhas, which reached Lucknow on the 11th of March 1858, and took part in the siege. The moral support of the Nepalese was more valuable even than the military services rendered by them. Jung Bahadur was made a G.C.B., and a tract of country annexed in 1815 was restored to Nepal. Various frontier disputes were settled, and in 1875 Sir Jung Bahadur was on his way to England when he had a fall from his horse in Bombay and returned home. He received a visit from the Prince of Wales in 1876. On the 25th of February 1877 he died, having reached the age of sixty-one. Three of his widows immolated themselves on his funeral pyre. (W. L.-W.)

JUNG-BUNZLAU (Czech, *Mladá Boleslav*), a town of Bohemia, 44 m. N.N.E. of Prague by rail. Pop. (1900), 13,479, mostly Czech. The town contains several old buildings of historical interest, notably the castle, built towards the end of the 10th century, and now used as barracks. There are several old churches. In that of St Maria the celebrated bishop of the Bohemian brethren, Johann August, was buried in 1595; but his tomb was destroyed in 1621. The church of St Bonaventura with the convent, originally belonging to the friars minor and later to the Bohemian brethren, is now a Piaristic college. The church of St Wenceslaus, once a convent of the brotherhood, is now used for military stores. Jung-Bunzlau was built in 995, under Boleslaus II., as the seat of a *gaugraf* or royal count. Early in the 13th century it was given the privileges of a town and pledged to the lords of Michalovic. In the Hussite wars Jung-Bunzlau adhered to the Taborites and became later the metropolis of the Bohemian Brethren. In 1595 Bohuslav of Lobkovic sold his rights as over-lord to the town, which was made a royal city by Rudolf II. During the Thirty Years' War it was twice burned, in 1631 by the imperialists, and in 1640 by the Swedes.

JUNGFRAU, a well-known Swiss mountain (13,669 ft.), admirably seen from Interlaken. It rises on the frontier between the cantons of Bern and of the Valais, and is reckoned among the peaks of the Bernese Oberland, two of which (the Finsteraarhorn, 14,026 ft., and the Aletschhorn, 13,721 ft.) surpass it in height. It was first ascended in 1811 by the brothers Meyer, and again in 1812 by Gottlieb Meyer (son of J. R. Meyer), in both cases by the eastern or Valais side, the foot of which (the final ascent being made by the 1811–1812 route) was reached in 1828 over the Mönchjoch by six peasants from Grindelwald. In 1841 Principal J. D. Forbes, with Agassiz, Desor and Du Châtelier, made the fourth ascent by the 1812 route. It was not till 1865 that Sir George Young and the Rev. H. B. George succeeded in making the first ascent from the west or Interlaken side. This is a far more difficult route than that from the east, the latter being now frequently taken in the course of the summer. (W. A. B. C.)

JUNGLE (Sans. *jangala*), an Anglo-Indian term for a forest, a thicket, a tangled wilderness. The Hindustani word means strictly waste, uncultivated ground; then such ground covered with trees or long grass; and thence again the Anglo-Indian application is to forest or other wild growth, rather than to the fact that it is not cultivated.

JUNIN, an interior department of central Peru, bounded N. by Huanuco, E. by Loreto and Cuzco, S. by Huancavelica, and W. by Lima and Ancachs. Pop. (1906 estimate), 305,700. It lies wholly within the Andean zone and has an area of 23,353 sq. m. It is rich in minerals, including silver, copper, mercury, bismuth, molybdenum, lead and coal. The Huallaga and Mantaro rivers have their sources in this department, the latter in Lake Junin, or Chanchaycocha, 13,230 ft. above sea-level. The capital of Junin is Cerro de Pasco, and its two principal towns are Jauja and Tarma (pop., 1906, about 12,000 and 5000 respectively).

JUNIPER. The junipers, of which there are twenty-five or more species, are evergreen bushy shrubs or low columnar trees, with a more or less aromatic odour, inhabiting the whole of the cold and temperate northern hemisphere, but attaining their maximum development in the Mediterranean region, the North Atlantic islands, and the eastern United States. The leaves are usually articulated at the base, spreading, sharp-pointed and needle-like in form, destitute of oil-glands, and arranged in alternating whorls of three; but in some the leaves are minute and scale-like, closely adhering to the branches, the apex only being free, and furnished with an oil-gland on the back.

Sometimes the same plant produces both kinds of leaves on different branches, or the young plants produce acicular leaves, while those of the older plants are squamiform. The male and female flowers are usually produced on separate plants. The male flowers are developed at the ends of short lateral branches, are rounded or oblong in form, and consist of several antheriferous scales in two or three rows, each scale bearing three or six almost spherical pollen-sacs on its under side. The female flower is a small bud-like cone situated at the apex of a small branch, and consists of two or three whorls of two or three scales. The scales of the upper or middle series each bear one or two erect ovules. The mature cone is fleshy, with the succulent scales fused together and forming the fruit-like structure known to the older botanists as the *galbulus*, or berry of the juniper. The berries are red or purple in colour, varying in size from that of a pea to a nut. They thus differ considerably from the cones of other members of the order Coniferae, of *Gymnosperms* (*q.v.*), to which the junipers belong. The seeds are usually three in number, sometimes fewer (1), rarely more (8), and have the surface near the middle or base marked with large glands containing oil. The genus occurs in a fossil state, four species having been described from rocks of Tertiary age.

The genus is divided into three sections, *Sabina*, *Oxycedrus* and *Caryocedrus*. *Juniperus Sabina* is the savin, abundant on the mountains of central Europe, an irregularly spreading much-branched shrub with scale-like glandular leaves, and emitting a disagreeable odour when bruised. The plant is poisonous, acting as a powerful local and general stimulant, diaphoretic, emmenagogue and anthelmintic; it was formerly employed both internally and externally. The oil of savin is now occasionally used criminally as an abortifacient. *J. bermudiana*, a tree about 40 or 50 ft. in height, yields a fragrant red wood, which was used for the manufacture of "cedar" pencils. The tree is now very scarce in Bermuda, and the "red cedar," *J. virginiana*, of North America is employed instead for pencils and cigar-boxes. The red cedar is abundant in some parts of the United States and in Virginia is a tree 50 ft. in height. It is very widely distributed from the Great Lakes to Florida and round the Gulf of Mexico, and extends as far west as the Rocky Mountains and beyond to Vancouver Island. The wood is applied to many uses in the United States. The fine red fragrant heart-wood takes a high polish, and is much used in cabinet-work and inlaying, but the small size of the planks prevents its more extended use. The galls produced at the ends of the branches have been used in medicine, and the wood yields cedar-camphor and oil of cedar-wood. *J. thurifera* is the incense juniper of Spain and Portugal, and *J. phoenicea* (*J. lycia*) from the Mediterranean district is stated by Loudon to be burned as incense.

J. communis, the common juniper (see fig.), and several other species, belong to the section *Oxycedrus*. The common juniper is a very widely distributed plant, occurring in the whole of northern Europe, central and northern Asia to Kamchatka, and east and west North America. It grows at considerable elevations in southern Europe, in the Alps, Apennines, Pyrenees and Sierra Nevada (4000 to 8000 ft.). It also grows in Asia Minor, Persia, and at great elevations on the Himalayas. In Great Britain it is usually a shrub with spreading branches, less frequently a low tree. In former times the juniper seems to have been a very well-known plant, the name occurring almost unaltered in many languages. The Lat. *juniperus*, probably formed from *juni*—crude form of *juvenis*, fresh, young, and *parere*, to produce, is represented by Fr. *genièvre*, Sp. *enebro*, Ital. *ginepito*, &c. The dialectical names, chiefly in European languages, were collected by Prince L. L. Bonaparte, and published in the *Academy* (July 17, 1880, No. 428, p. 45). The common juniper is official in the British pharmacopoeia and in that of the United States, yielding the oil of juniper, a powerful diuretic, distilled from the unripe fruits. This oil is closely allied in composition to oil of turpentine and is given in doses of a half to three minims. The *Spiritus juniperi* of the British pharmacopoeia is given in doses up to one drachm. Much safer and more powerful diuretics are now in use. The wood is very aromatic and is used for ornamental purposes. In Lapland the bark is made into ropes. The fruits are used for flavouring gin (a name derived from *juniper*, through Fr. *genièvre*); and in some parts of France a kind of beer called *genèvrette* was made from them by the peasants. *J. Oxycedrus*, from the Mediterranean district and Madeira, yields cedar-oil which is official in most of the European pharmacopoeias, but not in that of Britain. This oil is largely used by microscopists in what is known as the "oil-immersion lens."

The third section, *Caryocedrus*, consists of a single species, *J. drupacea* of Asia Minor. The fruits are large and edible: they are known in the East by the name *habhel*.

(From Bentley and Trimen's *Medicinal Plants*, by permission of J. & A. Churchill.)
Juniper (*Juniperus communis*) half nat. size.
1. Vertical section of fruit.
2. Male catkin.

JUNIUS, the pseudonym of a writer who contributed a series of letters to the London *Public Advertiser*, from the 21st of January 1769 to the 21st of January 1772. The signature had been already used by him in a letter of the 21st of November 1768, which he did not include in his collection of the *Letters of Junius* published in 1772. The name was chosen in all probability because he had already signed "Lucius" and "Brutus," and wished to exhaust the name of Lucius Junius Brutus the Roman patriot. Whoever the writer was, he wrote under other pseudonyms before, during and after the period between January 1769 and January 1772. He acknowledged that he had written as "Philo-Junius," and there is evidence that he was identical with "Veteran," "Nemesis" and other anonymous correspondents of the *Public Advertiser*. There is a marked distinction between the "letters of Junius" and his so-called miscellaneous letters. The second deal with a variety of subjects, some of a purely personal character, as for instance the alleged injustice of Viscount Barrington the secretary at war to the officials of his department. But the "letters of Junius" had a definite object—to discredit the ministry of the duke of Grafton. This administration had been formed in October 1768, when the earl of Chatham was compelled by ill health to retire from office, and was a reconstruction of his cabinet of July 1766. Junius

fought for the return to power of Chatham, who had recovered and was not on good terms with his successors. He communicated with Chatham, with George Grenville, with Wilkes, all enemies of the duke of Grafton, and also with Henry Sampson Woodfall, printer and part owner of the *Public Advertiser*. This private correspondence has been preserved. It is written in the disguised hand used by Junius.

The letters are of interest on three grounds—their political significance, their style, and the mystery which long surrounded their authorship. As political writings they possess no intrinsic value. Junius was wholly destitute of insight, and of the power to disentangle, define and advocate principles. The matter of his letters is always invective. He began by a general attack on the ministry for their personal immorality or meanness. An ill-judged defence of one of the body—the marquess of Granby, commander-in-chief—volunteered by Sir William Draper, gave him an easy victory over a vulnerable opponent. He then went on to pour acrimonious abuse on Grafton, on the duke of Bedford, on King George III. himself in the letter of the 19th of December 1769, and ended with a most malignant and ignorant assault on Lord Chief Justice Mansfield. Several of his accusations were shown to be unfounded. The practical effect of the letters was insignificant. They were noticed and talked about. They provoked anger and retorts. But the letter to the king aroused indignation, and though Grafton's administration fell in January 1770, it was succeeded by the long-lived cabinet of Lord North. Junius confessed himself beaten, in his private letter to Woodfall of the 19th of January 1773. He had materially contributed to his own defeat by his brutal violence. He sinned indeed in a large company. The employment of personal abuse had been habitual in English political controversy for generations, and in the 18th century there was a strong taste for satire. Latin literature, which was not only studied but imitated, supplied the inspiration and the models, in the satires of Juvenal, and the speeches of Cicero against Verres and Catiline.

If, however, Junius was doing what others did, he did it better than anybody else—a fact which sufficiently explains his rapid popularity. His superiority lay in his style. Here also he was by no means original, and he was unequal. There are passages in his writings which can be best described in the words which Burke applied to another writer: "A mere mixture of vinegar and water, at once vapid and sour." But at his best Junius attains to a high degree of artificial elegance and vigour. He shows the influence of Bolingbroke, of Swift, and above all of Tacitus, who appears to have been his favourite author. The imitation is never slavish. Junius adapts, and does not only repeat. The white heat of his malignity animates the whole. No single sentence will show the quality of a style which produces its effect by persistence and repetition, but such a typical passage as follows displays at once the method and the spirit. It is taken from Letter XLIX. to the duke of Grafton, June 22, 1771:—

"The profound respect I bear to the gracious prince who governs this country with no less honour to himself than satisfaction to his subjects, and who restores you to your rank under his standard, will save you from a multitude of reproaches. The attention I should have paid to your failings is involuntarily attracted to the hand which rewards them; and though I am not so partial to the royal judgment as to affirm that the favour of a king can remove mountains of infamy, it serves to lessen at least, for undoubtedly it divides, the burden. While I remember how much is due to his sacred character, I cannot, with any decent appearance of propriety, call you the meanest and the basest fellow in the kingdom. I protest, my Lord, I do not think you so. You will have a dangerous rival in that kind of fame to which you have hitherto so happily directed your ambition, as long as there is one man living who thinks you worthy of his confidence, and fit to be trusted with any share in his government. . . . With any other prince, the shameful desertion of him in the midst of that distress, which you alone had created, in the very crisis of danger, when he fancied he saw the throne already surrounded by men of virtue and abilities, would have outweighed the memory of your former services. But his majesty is full of justice, and understands the doctrine of compensations; he remembers with gratitude how soon you had accommodated your morals to the necessities of his service, how cheerfully you had abandoned the engagements of private friendship, and renounced the most solemn professions to the public. The sacrifice of Lord Chatham was not lost on him. Even the cowardice and perfidy of deserting him may have done you no disservice in his esteem. The instance was painful, but the principle might please."

What is artificial and stilted in this style did not offend the would-be classic taste of the 18th century, and does not now conceal the fact that the laboriously arranged words, and artfully counterbalanced clauses, convey a venomous hate and scorn.

The pre-established harmony between Junius and his readers accounts for the rapidity of his success, and for the importance attributed to him by Burke and Johnson, far better writers than himself. Before 1772 there appeared at least twelve unauthorized republications of his letters, made by speculative printers. In that year he revised the collection named "*Junius: Stat nominis umbra*," with a dedication to the English people and a preface. Other independent editions followed in quick succession. In 1801 one was published with annotations by Robert Heron. In 1806 another appeared with notes by John Almon. The first new edition of real importance was issued by the Woodfall family in 1812. It contained the correspondence of Junius with H. S. Woodfall, a selection of the miscellaneous letters attributed to Junius, facsimiles of his handwriting, and notes by Dr Mason Good. Curiosity as to the mystery of the authorship began to replace political and literary interest in the writings. Junius himself had been early aware of the advantage he secured by concealment. "The mystery of Junius increases his importance" is his confession in a letter to Wilkes dated the 18th of September 1771. The calculation was a sound one. For two generations after the appearance of the letter of the 21st of January 1769, speculations as to the authorship of Junius were rife, and discussion had hardly ceased in 1910. Joseph Parkes, author with Herman Merivale of the *Memoirs of Sir Philip Francis* (1867), gives a list of more than forty persons who had been supposed to be Junius. They are: Edmund Burke, Lord George Sackville, Lord Chatham, Colonel Barré, Hugh Macaulay Boyd, Dr Butler, John Wilkes, Lord Chesterfield, Henry Flood, William Burke, Gibbon, W. E. Hamilton, Charles Lloyd, Charles Lee (general in the American War of Independence), John Roberts, George Grenville, James Grenville, Lord Temple, Duke of Portland, William Greatrakes, Richard Glover, Sir William Jones, James Hollis, Laughlin Maclean, Philip Rosenhagen, Horne Tooke, John Kent, Henry Grattan, Daniel Wray, Horace Walpole, Alexander Wedderburn (Lord Loughborough), Dunning (Lord Ashburton), Lieut.-General Sir R. Rich, Dr Philip Francis, a "junto" or committee of writers who used a common name, De Lolme, Mrs Catherine Macaulay (1733–91), Sir Philip Francis, Lord Littleton, Wolfram Cornwall and Gov. Thomas Pownall. In the great majority of cases the attribution is based on nothing more than a vague guess. Edmund Burke denied that he could have written the letters of Junius if he would, or would have written them if he could. Grattan pointed out that he was young when they appeared. More plausible claims, such as those made for Lord Temple and Lord George Sackville, could not stand the test of examination. Indeed after 1816 the question was not so much "Who wrote Junius?" as "Was Junius Sir Philip Francis, or some undiscoverable man?" In that year John Taylor was led by a careful study of Woodfall's edition of 1812 to publish *The identity of Junius with a distinguished living character established*, in which he claimed the letters for Sir Philip Francis. He had at first been inclined to attribute them to Sir Philip's father, Dr Francis, the author of translations of Horace and Demosthenes. Taylor applied to Sir Philip, who did not die till 1818, for leave to publish, and received from him answers which to an unwary person might appear to constitute denials of the authorship, but were in fact evasions.

The reasons for believing that Sir Philip Francis (*q.v.*) was Junius are very strong. His evasions were only to be expected. Several of the men he attacked lived nearly as long as himself, the sons of others were conspicuous in society, and King George III. survived him. Sir Philip, who had held office, who had been decorated, and who in his later years was ambitious to obtain

the governor-generalship of India, dared not confess that he was Junius. The similarity of his handwriting to the disguised hand used by the writer of the letters is very close. If Sir Philip Francis did, as his family maintain, address a copy of verses to a Miss Giles in the handwriting of Junius (and the evidence that he did is weighty) there can be no further question as to the identity of the two. The similarity of Junius and Francis in regard to their opinions, their likes and dislikes, their knowledge and their known movements, amount, apart from the handwriting, almost to proof. It is certain that many felons have been condemned on circumstantial evidence less complete. The opposition to his claim is based on such assertions as that his known handwriting was inferior to the feigned hand of Junius, and that no man can make a disguised hand better than his own. But the first assertion is unfounded, and the second is a mere expression of opinion. It is also said that Francis must have been guilty of baseness if he wrote Junius, but if that explains why he did not avow the authorship it can be shown to constitute a moral impossibility only by an examination of his life.

AUTHORITIES.—The best edition of the *Letters of Junius*, properly so called, with the *Miscellaneous Letters*, is that of J. Ward (1854). The most valuable contributions to the controversy as to the authorship are: *The Handwriting of Junius investigated by Charles Chabot, expert, with preface and collateral evidence by the Hon. E. Twisleton* (1871); *Memoirs of Sir Philip Francis, K.C.B.*, by Parkes and Merivale (1867); *Junius Revealed by his Surviving Grandson*, by H. R. Francis (1894); *The Francis Letters*, edited by Beata Francis and Eliza Keary, with a note on the Junius controversy by C. F. Keary (1901); and "Francis, Sir Philip," by Sir Leslie Stephen, in *Dict. of Nat. Biog.* The case for those who decline to accept the claim of Sir Philip Francis is stated by C. W. Dilke, *Papers of a Critic* (1875), and Abraham Hayward, *More about Junius, Franciscan Theory Unsound* (1868). (D. H.)

JUNIUS, FRANZ (in French, François du Jon), the name of two Huguenot scholars.

(1) FRANZ JUNIUS (1545–1602) was born at Bourges in France on the 1st of May 1545. He had studied law for two years under Hugo Donellus (1527–1591) when he was given a place in the retinue of the French ambassador to Constantinople, but before he reached Lyons the ambassador had departed. Junius found ample consolation in the opportunities for study at the gymnasium at Lyons. A religious tumult warned him back to Bourges, where he was cured of certain rationalistic principles that he had imbibed at Lyons, and he determined to enter the reformed church. He went in 1562 to study at Geneva, where he was reduced to the direst poverty by the failure of remittances from home, owing to civil war in France. He would accept only the barest sustenance from a humble friend who had himself been a protégé of Junius's family at Bourges, and his health was permanently injured. The long-expected remittance from home was closely followed by the news of the brutal murder of his father by a Catholic fanatic at Issoudun; and Junius resolved to remain at Geneva, where his reputation enabled him to live by teaching. In 1565, however, he was appointed minister of the Walloon church at Antwerp. His foreign birth excluded him from the privileges of the native reformed pastors, and exposed him to persecution. Several times he barely escaped arrest, and finally, after spending six months in preaching at Limburg, he was forced to retire to Heidelberg in 1567. There he was welcomed by the elector Frederick II., and temporarily settled in charge of the Walloon church at Schönau; but in 1568 his patron sent him as chaplain with Prince William of Orange in his unfortunate expedition to the Netherlands. Junius escaped as soon as he could from that post, and returning to his church remained there till 1573. From 1573 till 1578 he was at Heidelberg, assisting Emmanuel Tremellius (1510–1580), whose daughter he married, in his Latin version of the Old Testament (Frankfort, 1579); in 1581 he was appointed to the chair of divinity at Heidelberg. Thence he was taken to France by the duke of Bouillon, and after an interview with Henry IV. was sent again to Germany on a mission. As he was returning to France he was named professor of theology at Leiden, where he died on the 13th of October 1602.

He was a voluminous writer on theological subjects, and translated and composed many exegetical works. He is best known from his own edition of the Latin Old Testament, slightly altered from the former joint edition, and with a version of the New Testament added (Geneva, 1590; Hanover, 1624). The *Opera Theologica Francisci Junii Biturigis* were published at Geneva (2 vols., 1613), to which is prefixed his autobiography, written about 1592 (new ed., edited by Abraham Kuypers, 1882 seq.). The autobiography had been published at Leiden (1595), and is reprinted in the *Miscellanea Groningana*, vol. i., along with a list of the author's other writings.

(2) FRANZ JUNIUS (1589–1677), son of the above, was born at Heidelberg, and brought up at Leiden. His attention was diverted from military to theological studies by the peace of 1609 between Spain and the Netherlands. In 1617 he became pastor at Hillegondsberg, but in 1620 went to England, where he became librarian to Thomas Howard, earl of Arundel, and tutor to his son. He remained in England thirty years, devoting himself to the study of Anglo-Saxon, and afterwards of the cognate old Teutonic languages. His work, intrinsically valuable, is important as having aroused interest in a frequently neglected subject. In 1651 he returned to Holland; and for two years lived in Friesland in order to study the old dialect. In 1675 he returned to England, and during the next year resided in Oxford; in 1677 he went to live at Windsor with his nephew, Isaac Vossius, in whose house he died on the 19th of November 1677. He was buried at Windsor in St George's Chapel.

He was pre-eminently a student. He published *De pictura veterum* (1637) (in English by the author, 1638; enlarged and improved edition, edited by J. G. Graevius, who prefixed a life of Junius, with a catalogue of architects, painters, &c., and their works, Rotterdam, 1694); *Observationes in Willerami Abbatis francicam paraphrasin cantici canticorum* (Amsterdam, 1655); *Annotationes in harmoniam latino-francicam quatuor evangelistarum, latine a Tatiano confectam* (Amsterdam, 1655); *Caedmonis monachi paraphrasis poetica geneseos* (Amsterdam, 1655) (see criticism under CAEDMON); *Quatuor D.N.I.C. evangeliorum versiones perantiquae duae, gothica scilicet et anglo-saxonica* (Dort, 2 vols., 1665) (the Gothic version in this book Junius transcribed from the Silver Codex of Ulfilas; the Anglo-Saxon version is from an edition by Thomas Marshall, whose notes to both versions are given, and a Gothic glossary by Junius); *Etymologicum anglicanum*, edited by Edward Lye, and preceded by a life of Junius and George Hickes's Anglo-Saxon grammar (Oxford, 1743) (its results require careful verification in the light of modern research). His rich collection of ancient MSS., edited and annotated by him, Junius bequeathed to the university of Oxford. Graevius gives a list of them; the most important are a version of the *Ormulum*, the version of Caedmon, and 9 volumes containing *Glossarium v. linguarum septentrionalium.*

JUNK. (1) (Through Port. *junco*, adapted from Javanese *djong*, or Malayan *adjong*, ship), the name of the native sailing vessel, common to the far eastern seas, and especially used by the Chinese and Javanese. It is a flat-bottomed, high-sterned vessel with square bows and masts carrying lug-sails, often made of matting. (2) A nautical term for small pieces of disused rope or cable, cut up to make fenders, oakum, &c., hence applied colloquially by sailors to the salt beef and pork used on board ship. The word is of doubtful origin, but may be connected with "junk" (Lat. *juncus*), a reed, or rush. This word is now obsolete except as applied to a form of surgical appliance, used as a support in cases of fracture where immediate setting is impossible, and consisting of a shaped pillow or cushion stuffed with straw or horsehair, formerly with rushes or reeds.

JUNKER, WILHELM (1840–1892), German explorer of Africa, was born at Moscow on the 6th of April 1840. He studied medicine at Dorpat, Göttingen, Berlin and Prague, but did not practise for long. After a series of short journeys to Iceland, Tunis and Lower Egypt, he remained almost continuously in eastern Equatorial Africa from 1875 to 1886, making first Khartum and afterwards Lado the base of his expeditions, Junker was a leisurely traveller and a careful observer; his main object was to study the peoples with whom he came into contact, and to collect specimens of plants and animals, and the result of his investigations in these particulars is given in his *Reisen in Afrika* (3 vols., Vienna, 1889–1891), a work of high merit. An English translation by A. H. Keane was published in 1890–1892. Perhaps the greatest service he rendered to geographical science

was his investigation of the Nile-Congo watershed, when he successfully combated Georg Schweinfurth's hydrographical theories and established the identity of the Welle and Ubangi. The Mahdist rising prevented his return to Europe through the Sudan, as he had planned to do, in 1884, and an expedition, fitted out in 1885 by his brother in St Petersburg, failed to reach him. Junker then determined to go south. Leaving Wadelai on the 2nd of January 1886 he travelled by way of Uganda and Tabora and reached Zanzibar in December 1886. In 1887 he received the gold medal of the Royal Geographical Society. As an explorer Junker is entitled to high rank, his ethnographical observations in the Niam-Niam (Azandeh) country being especially valuable. He died at St Petersburg on the 13th of February 1892.

See the biographical notice by E. G. Ravenstein in *Proceedings of the Royal Geographical Society* (1892), pp. 185–187.

JUNKET, a dish of milk curdled by rennet, served with clotted cream and flavoured with nutmeg, which is particularly associated in England with Devonshire and Cornwall. The word is of somewhat obscure history. It appears to come through O. Fr. *jonquette*, a rush-basket, from Lat. *juncus*, rush. In Norman dialect this word is used of a cream cheese. The commonly accepted origin is that it refers to the rush-basket on which such cream cheeses or curds were served. *Juncade* appears in Rabelais, and is explained by Cotgrave as "spoon-meat, rose-water and sugar." Nicholas Udall (in his translation of Erasmus's *Apophthegms*, 1542) speaks of "marchepaines or wafers with other like junkerie." The word "junket" is also used for a festivity or picnic.

JUNO, the chief Roman and Latin goddess, and the special object of worship by women at all the critical moments of life. The etymology of the name is not certain, but it is usually taken as a shortened form of *Jovino*, answering to *Jovis*, from a root *div*, shining. Under Greek influence Juno was early identified with the Greek Hera, with whose cult and characteristics she has much in common; thus the Juno with whom we are familiar in Latin literature is not the true Roman deity. In the *Aeneid*, for example, her policy is antagonistic to the plans of Jupiter for the conquest of Latium and the future greatness of Rome; though in the fourth *Eclogue*, as Lucina, she appears in her proper rôle as assisting at childbirth. It was under Greek influence again that she became the wife of Jupiter, the mother of Mars; the true Roman had no such personal interest in his deities as to invent family relations for them.

That Juno was especially a deity of women, and represents in a sense the female principle of life, is seen in the fact that as every man had his *genius*, so every woman had her Juno; and the goddess herself may have been a development of this conception. The various forms of her cult all show her in close connexion with women. As Juno Lucina she was invoked in childbirth, and on the 1st of March, the old Roman New Year's day, the matrons met and made offerings at her temple in a grove on the Esquiline; hence the day was known as the *Matronalia*. As *Caprotina* she was especially worshipped by female slaves on the 7th of July (*Nonae Caprotinae*); as *Sospita* she was invoked all over Latium as the saviour of women in their perils, and later as the saviour of the state; and under a number of other titles, *Cinxia*, *Unxia*, *Pronuba*, &c., we find her taking a leading part in the ritual of marriage. Her real or supposed connexion with the moon is explained by the alleged influence of the moon on the lives of women; thus she became the deity of the Kalends, or day of the new moon, when the *regina sacrorum* offered a lamb to her in the *regia*, and her husband the *rex* made known to the people the day on which the Nones would fall. Thus she is brought into close relation with Janus, who also was worshipped on the Kalends by the *rex sacrorum*, and it may be that in the oldest Roman religion these two were more closely connected than Juno and Jupiter. But in historical times she was associated with Jupiter in the great temple on the Capitoline hill as Juno *Regina*, the queen of all Junones or queen of heaven, as Jupiter there was *Optimus Maximus* (see JUPITER), and under the same title she was enticed from Veii after its capture in 392 B.C., and settled in a temple on the Aventine. Thus exalted above all other female deities, she was prepared for that identification with Hera which was alluded to above. That she was in some sense a deity of light seems certain; as Lucina, *e.g.*, she introduced new-born infants "in luminis oras."

See Roscher's article "Juno" in his Lexicon of Mythology, and his earlier treatise on Juno and Hera; Wissowa, *Religion und Kultus der Römer*, 113 foll.; also a fresh discussion by Walter Otto in *Philologus* for 1905 (p. 161 foll.). (W. W. F.*)

JUNOT, ANDOCHE, DUKE OF ABRANTES (1771–1813), French general, was born at Bussy-le-Grand (Côte d'Or), on the 23rd of October 1771. He went to school at Chatillon, and was known among his comrades as a blustering but lovable creature, with a pugnacious disposition. He was studying law in Paris at the outbreak of the Revolution and joined a volunteer battalion. He distinguished himself by his valour in the first year of the Revolutionary wars, and came under the special notice of Napoleon Bonaparte during the siege of Toulon, while serving as his secretary. It is related that as he was taking down a despatch, a shell burst hard by and covered the paper with sand, whereupon he exclaimed, "Bien! nous n'avions pas de sable pour sécher l'encre! en voici!" He remained the faithful companion of his chief during the latter's temporary disgrace, and went with him to Italy as aide-de-camp. He distinguished himself so much at the battle of Millesimo that he was selected to carry back the captured colours to Paris; returning to Italy he went through the campaign with honour, but was badly wounded in the head at Lonato. Many rash incidents in his career may be traced to this wound, from which he never completely recovered. During the expedition to Egypt he became a general of brigade. His devotion to Bonaparte involved him in a duel with General Lanusse, in which he was again wounded. He had to be left in Egypt to recover, and in crossing to France was captured by English cruisers. On his return to France he was made commandant of Paris, and afterwards promoted general of division. It was at this time that he married Laure Permon (see JUNOT, LAURE). He next served at Arras in command of the grenadiers of the army destined for the invasion of England, and made some alterations in the equipment of the troops which received the praise of the emperor. It was, however, a bitter mortification that he was not appointed a marshal of France when he received the grand cross of the legion of honour. He was made colonel-general of hussars instead and sent as ambassador to Lisbon, his entry into which city resembled a royal progress. But he was so restless and dissatisfied in the Portuguese capital that he set out, without leave, for the army of Napoleon, with which he took part in the battle of Austerlitz, behaving with his usual courage and zeal. But he soon gave fresh offence. Although his early devotion was never forgotten by the emperor, his uncertain temper and want of self-control made it dangerous to employ him at court or headquarters, and he was sent to Parma to put down an insurrection and to be out of the way. In 1806 he was recalled and became governor of Paris. His extravagance and prodigality shocked the government, and some rumours of an intrigue with a lady of the imperial family—it is said Pauline Bonaparte—made it desirable again to send him away. He was therefore appointed to lead an invading force into Portugal. For the first time Junot had a great task to perform, and only his own resources to fall back upon for its achievement. Early in November 1807 he set out from Salamanca, crossed the mountains of Beira, rallied his wearied forces at Abrantes, and, with 1500 men, dashed upon Lisbon, in order, if possible, to seize the Portuguese fleet, which had, however, just sailed away with the regent and court to Brazil. The whole movement only took a month; it was undoubtedly bold and well-conducted, and Junot was made duke of Abrantes and invested with the governorship of Portugal. But administration was his weak point. He was not a civil governor, but a *sabreur*, brave, truculent, and also dissipated and rapacious, though in the last respect he was far from being the worst offender amongst the French generals in Spain. His hold on Portugal was never supported by a really adequate force, and his own conduct, which resembled that of

an eastern monarch, did nothing to consolidate his conquest. After Wellesley encountered him at Vimiera (see PENINSULAR WAR) he was obliged to conclude the so-called convention of Cintra, and to withdraw from Portugal with all his forces. Napoleon was furious, but, as he said, was spared the necessity of sending his old friend before a court martial by the fact that the English put their own generals on their trial. Junot was sent back to Spain, where, in 1810–1811, acting under Masséna, he was once more seriously wounded. His last campaign was made in Russia, and he received more than a just share of discredit for it. Napoleon next appointed him to govern Illyria. But Junot's mind had become deranged under the weight of his misfortunes, and on the 29th of July 1813, at Montbard, he threw himself from a window in a fit of insanity.

JUNOT, LAURE, DUCHESS OF ABRANTES (1783–1834), wife of the preceding, was born at Montpellier. She was the daughter of Mme. Permon, to whom during her widowhood the young Bonaparte made an offer of marriage—such at least is the version presented by the daughter in her celebrated *Memoirs*. The Permon family, after various vicissitudes, settled at Paris, and Bonaparte certainly frequented their house a good deal after the downfall of the Jacobin party in Thermidor 1794. Mlle. Permon was married to Junot early in the consulate, and at once entered eagerly into all the gaieties of Paris, and became noted for her beauty, her caustic wit, and her extravagance. The first consul nicknamed her *petite peste*, but treated her and Junot with the utmost generosity, a fact which did not restrain her sarcasms and slanders in her portrayal of him in her *Memoirs*. During Junot's diplomatic mission to Lisbon, his wife displayed her prodigality so that on his return to Paris in 1806 he was burdened with debts, which his own intrigues did not lessen. She joined him again at Lisbon after he had entered that city as conqueror at the close of 1807; but even the presents and spoils won at Lisbon did not satisfy her demands; she accompanied Junot through part of the Peninsular War. On her return to France she displeased the emperor by her vivacious remarks and by receiving guests whom he disliked. The mental malady of Junot thereafter threatened her with ruin; this perhaps explains why she took some part in the intrigues for bringing back the Bourbons in 1814. She did not side with Napoleon during the Hundred Days. After 1815 she spent most of her time at Rome amidst artistic society, which she enlivened with her sprightly converse. She also compiled her spirited but somewhat spiteful *Memoirs*, which were published at Paris in 1831–1834 in 18 volumes. Many editions have since appeared.

Of her other books the most noteworthy are *Histoires contemporaines* (2 vols., 1835); *Scènes de la vie espagnole* (2 vols., 1836); *Histoire des salons de Paris* (6 vols., 1837–1838); *Souvenirs d'une ambassade et d'un séjour en Espagne et en Portugal, de 1808 à 1811* (2 vols., 1837). (J. HL. R.)

JUNTA (from *juntar*, to join), a Spanish word meaning (1) any meeting for a common purpose; (2) a committee; (3) an administrative council or board. The original meaning is now rather lost in the two derivative significations. The Spaniards have even begun to make use of the barbarism *mêtin*, corrupted from the English "meeting." The word *junta* has always been and still is used in the other senses. Some of the boards by which the Spanish administration was conducted under the Habsburg and the earlier Bourbon kings were styled *juntas*. The superior governing body of the Inquisition was the *junta suprema*. The provincial committees formed to organize resistance to Napoleon's invasion in 1808 were so called, and so was the general committee chosen from among them to represent the nation. In the War of Independence (1808–1814), and in all subsequent civil wars or revolutionary disturbances in Spain or Spanish America, the local executive bodies, elected, or in some cases self-chosen, to appoint officers, raise money and soldiers, look after the wounded, and discharge the functions of an administration, have been known as juntas.

The form "Junto," a corruption due to other Spanish words ending in *-o*, came into use in English in the 17th century, often in a disparaging sense, of a party united for a political purpose, a faction or cabal; it was particularly applied to the advisers of Charles I., to the Rump under Cromwell, and to the leading members of the great Whig houses who controlled the government in the reigns of William III. and Anne.

JUPITER, the chief deity of the Roman state. The great and constantly growing influence exerted from a very early period on Rome by the superior civilization of Greece not only caused a modification of the Roman god on the analogy of Zeus, the supreme deity of the Greeks, but led the Latin writers to identify the one with the other, and to attribute to Jupiter myths and family relations which were purely Greek and never belonged to the real Roman religion. The Jupiter of actual worship was a Roman god; the Jupiter of Latin literature was more than half Greek. This identification was facilitated by the community of character which really belonged to Jupiter and Zeus as the Roman and Greek developments of a common original conception of the god of the light and the heaven.

That this was the original idea of Jupiter, not only in Rome, but among all Italian peoples, admits of no doubt. The earliest form of his name was *Diovis pater*, or *Diespiter*, and his special priest was the flamen dialis; all these words point to a root *div*, shining, and the connexion with *dies*, day, is obvious (cf. JUNO). One of his most ancient epithets is *Lucetius*, the light-bringer; and later literature has preserved the same idea in such phrases as *sub Jove*, under the open sky. All days of the full moon (*idus*) were sacred to him; all emanations from the sky were due to him and in the oldest form of religious thought were probably believed to be manifestations of the god himself. As Jupiter *Elicius* he was propitiated, with a peculiar ritual, to send rain in time of drought; as Jupiter *Fulgur* he had an altar in the Campus Martius, and all places struck by lightning were made his property and guarded from the profane by a circular wall. The vintage, which needs especially the light and heat of the sun, was under his particular care, and in the festivals connected with it (*Vinalia urbana*) and *Meditrinalia*, he was the deity invoked, and his flamen the priest employed. Throughout Italy we find him worshipped on the summits of hills, where nothing intervened between earth and heaven, and where all the phenomena of the sky could be conveniently observed. Thus on the Alban hill south of Rome was an ancient seat of his worship as Jupiter *Latiaris*, which was the centre of the league of thirty Latin cities of which Rome was originally an ordinary member. At Rome itself it is on the Capitoline hill that we find his oldest temple, described by Livy (i. 10); here we have a tradition of his sacred tree, the oak, common to the worship both of Zeus and Jupiter, and here too was kept the *lapis silex*, perhaps a celt, believed to have been a thunderbolt, which was used symbolically by the fetiales when officially declaring war and making treaties on behalf of the Roman state. Hence the curious form of oath, *Jovem lapidem jurare*, used both in public and private life at Rome.

In this oldest Jupiter of the Latins and Romans, the god of the light and the heaven, and the god invoked in taking the most solemn oaths, we may undoubtedly see not only the great protecting deity of the race, but one, and perhaps the only one, whose worship embodies a distinct moral conception. He is specially concerned with oaths, treaties and leagues, and it was in the presence of his priest that the most ancient and sacred form of marriage, *confarreatio*, took place. The lesser deities, Dius Fidius and Fides, were probably originally identical with him, and only gained a separate existence in course of time by a process familiar to students of ancient religion. This connexion with the conscience, with the sense of obligation and right dealing, was never quite lost throughout Roman history. In Virgil's great poem, though Jupiter is in many ways as much Greek as Roman, he is still the great protecting deity who keeps the hero in the path of duty (*pietas*) towards gods, state and family.

But this aspect of Jupiter gained a new force and meaning at the close of the monarchy with the building of the famous temple on the Capitol, of which the foundations are still to be seen. It was dedicated to Jupiter *Optimus Maximus*, *i.e.* the best and greatest of all the Jupiters, and with him were associated

Juno and Minerva, in a fashion which clearly indicates a Graeco-Etruscan origin; for the combination of three deities in one temple was foreign to the ancient Roman religion, while it is found both in Greece and Etruria. This temple was built on a scale of magnificence quite unknown to primitive Rome, and was beyond doubt the work of Etruscan architects employed, we may presume, by the Tarquinii. Its three *cellae* contained the statues of the three deities, with Jupiter in the middle holding his thunderbolt. Henceforward it was the centre of the religious life of the state, and symbolized its unity and strength. Its dedication festival fell on the 13th of September, on which day the consuls originally succeeded to office; accompanied by the senate and other magistrates and priests, and in fulfilment of a vow made by their predecessors, they offered to the great god a white heifer, his favourite sacrifice, and after rendering thanks for the preservation of the state during the past year, made the same vow as that by which they themselves had been bound. Then followed the *epulum Jovis* or feast of Jupiter, in which the three deities seem to have been visibly present in the form of their statues, Jupiter having a couch and each goddess a *sella*, and shared the meal with senate and magistrates. In later times this day became the central point of the great Roman games (*ludi Romani*), originally games vowed in honour of the god if he brought a war to a successful issue. When a victorious army returned home, it was to this temple that the triumphal procession passed, and the triumph of which we hear so often in Roman history may be taken as a religious ceremonial in honour of Jupiter. The general was dressed and painted to resemble the statue of Jupiter himself, and was drawn on a gilded chariot by four white horses through the Porta Triumphalis to the Capitol, where he offered a solemn sacrifice to the god, and laid on his knees the victor's laurels (see TRIUMPH).

Throughout the period of the Republic the great god of the Capitol in his temple looking down on the Forum continued to overshadow all other worships as the one in which the whole state was concerned, in all its length and breadth, rather than any one gens or family. Under Augustus and the new monarchy it is sometimes said that the Capitoline worship suffered to some extent an eclipse (J. B. Carter, *The Religion of Numa*, p. 160 seq.); and it is true that as it was the policy of Augustus to identify the state with the interests of his own family, he did what was feasible to direct the attention of the people to the worships in which he and his family were specially concerned; thus his temple of Apollo on the Palatine, and that of Mars Ultor in the Forum Augusti, took over a few of the prerogatives of the cult on the Capitol. But Augustus was far too shrewd to attempt to oust Jupiter Optimus Maximus from his paramount position; and he became the protecting deity of the reigning emperor as representing the state, as he had been the protecting deity of the free republic. His worship spread over the whole empire; it is probable that every city had its temple to the three deities of the Roman Capitol, and the fact that the Romans chose the name of Jupiter in almost every case, by which to indicate the chief deity of the subject peoples, proves that they continued to regard him, so long as his worship existed at all, as the god whom they themselves looked upon as greatest.

See ZEUS, ROMAN RELIGION. Excellent accounts of Jupiter may be found in Roscher's *Mythological Lexicon*, and in Wissowa's *Religion und Kultus der Römer* (p. 100 seq.).

(W. M. RA.; W. W. F.*)

JUPITER, in astronomy, the largest planet of the solar system; his size is so great that it exceeds the collective mass of all the others in the proportion of 5 to 2. He travels in his orbit at a mean distance from the sun exceeding that of the earth 5·2 times, or 483,000,000 miles. The eccentricity of this orbit is considerable, amounting to 0·048, so that his maximum and minimum distances are 504,000,000 and 462,000,000 miles respectively. When in opposition and at his mean distance, he is situated 390,000,000 miles from the earth. His orbit is inclined about 1° 18′ 40″ to the ecliptic. His sidereal revolution is completed in 4332·585 days or 11 years 314·9 days, and his synodical period, or the mean interval separating his returns to opposition, amounts to 398·87 days. His real polar and equatorial diameters measure 84,570 and 90,190 miles respectively, so that the mean is 87,380 miles. His apparent diameter (equatorial) as seen from the earth varies from about 32″, when in conjunction with the sun, to 50″ in opposition to that luminary. The oblateness, or compression, of his globe amounts to about $\frac{1}{16}$; his volume exceeds that of the earth 1390 times, while his mass is about 300 times greater. These values are believed to be as accurate as the best modern determinations allow, but there are some differences amongst various observers and absolute exactness cannot be obtained.

The discovery of telescopic construction early in the 17th century and the practical use of the telescope by Galileo and others greatly enriched our knowledge of Jupiter and his system. Four of the satellites were detected in 1610, but the dark bands or belts on the globe of the planet do not appear to have been noticed until twenty years later. Though Galileo first sighted the satellites and perseveringly studied the Jovian orb, he failed to distinguish the belts, and we have to conclude either that these features were unusually faint at the period of his observations, or that his telescopes were insufficiently powerful to render them visible. The belts were first recognized by Nicolas Zucchi and Daniel Bartoli on the 17th of May 1630. They were seen also by Francesco Fontana in the same and immediately succeeding years, and by other observers of about the same period, including Zuppi, Giovanni Battista Riccioli and Francesco Maria Grimaldi. Improvements in telescopes were quickly introduced, and between 1655 and 1666 C. Huygens, R. Hooke and J. D. Cassini made more effective observations. Hooke discovered a large dark spot in the planet's southern hemisphere on the 19th of May 1664, and from this object Cassini determined the rotation period, in 1665 and later years, as 9 hours 56 minutes.

The belts, spots and irregular markings on Jupiter have now been assiduously studied during nearly three centuries. These markings are extremely variable in their tones, tints and relative velocities, and there is little reason to doubt that they are atmospheric formations floating above the surface of the planet in a series of different currents. Certain of the markings appear to be fairly durable, though their rates of motion exhibit considerable anomalies and prove that they must be quite detached from the actual sphere of Jupiter. At various times determinations of the rotation period were made as follows:—

Date.	*Observer.*	*Period.*	*Place of Spot.*
1672	J. D. Cassini	9 h. 55 m. 50 s.	Lat. 16° S.
1692	,,	9 h. 50 m.	Equator.
1708	J. P. Maraldi	9 h. 55 m. 48 s.	S. tropical zone
1773	J. Sylvabelle	9 h. 56 m.	,, ,,
1788	J. H. Schröter	9 h. 55 m. 33·6 s.	Lat. 12° N.
1788	,,	9 h. 55 m. 17·6 s.	Lat. 20° S.
1835	J. H. Mädler	9 h. 55 m. 26·5 s.	Lat. 5° N.
1835	G. B. Airy	9 h. 55 m. 21·3 s.	N. tropical zone.

A great number of Jovian features have been traced in more recent years and their rotation periods ascertained. According to the researches of Stanley Williams the rates of motion for different latitudes of the planet are approximately as under:—

Latitude.	*Rotation Period.*
+85° to +28°	9 h. 55 m. 37·5 s.
+28° to +24°	9 h. 54½ m. to 9 h. 56½ m.
+24° to +20°	9 h. 48 m. to 9 h. 49½ m.
+20° to +10°	9 h. 55 m. 33·9 s.
+10° to −12°	9 h. 50 m. 20 s.
−12° to −18°	9 h. 55 m. 40 s.
−18° to −37°	9 h. 55 m. 18·1 s.
−37° to −55°	9 h. 55 m. 5 s.

W. F. Denning gives the following relative periods for the years 1898 to 1905:—

Latitude.	*Rotation Period.*
N.N. temperate	9 h. 55 m. 41·5 s.
N. temperate	9 h. 55 m. 53·8 s.
N. tropical	9 h. 55 m. 30 s.
Equatorial	9 h. 50 m. 27 s.
S. temperate	9 h. 55 m. 19·5 s.
S.S. temperate	9 h. 55 m. 7 s.

The above are the mean periods derived from a large number of markings. The bay or hollow in the great southern equatorial belt north of the red spot has perhaps been observed for a longer period than any other feature on Jupiter except the red spot itself. H. Schwabe saw the hollow in the belt on the 5th of September 1831 and on many subsequent dates. The rotation period of this object during the seventy years to the 5th of September 1901 was 9 h. 55 m. 36 s. from 61,813 rotations. Since 1901 the mean period has been 9 h. 55 m. 40 s., but it has fluctuated between 9 h. 55 m. 38 s. and 9 h. 55 m. 42 s. The motion of the various features is not therefore dependent upon their latitude, though at the equator the rate seems swifter as a rule than in other zones. But exceptions occur, for in 1880 some spots appeared in about 23° N. which rotated in 9 h. 48 m. though in the region immediately N. of this the spot motion is ordinarily the slowest of all and averages 9 h. 55 m. 53·8 s. (from twenty determinations). These differences of speed remind us of the sun-spots and their proper motions. The solar envelope, however, appears to show a pretty regular retardation towards the poles, for according to Gustav Spörer's formula, while the equatorial period is 25 d. 2 h. 15 m. the latitudes 46° N. and S. give a period of 28 d. 15 h. 0 m.

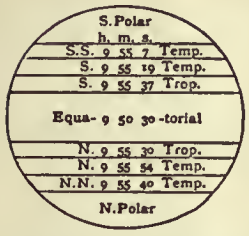


FIG. 1.—Inverted disk of Jupiter, showing the different currents and their rates of rotation.

The Jovian currents flow in a due east and west direction as though mainly influenced by the swift rotatory movement of the globe, and exhibit little sign of deviation either to N. or S. These currents do not blend and pass gradually into each other, but seem to be definitely bounded and controlled by separate phenomena well capable of preserving their individuality. Occasionally, it is true, there have been slanting belts on Jupiter (a prominent example occurred in the spring of 1861), as though the materials were evolved with some force in a polar direction, but these oblique formations have usually spread out in longitude and ultimately formed bands parallel with the equator. The longitudinal currents do not individually present us with an equable rate of motion. In fact they display some curious irregularities, the spots carried along in them apparently oscillating to and fro without any reference to fixed periods or cyclical variations. Thus the equatorial current in 1880 moved at the rate of 9 h. 50 m. 6 s. whereas in 1905 it was 9 h. 50 m. 33 s. The red spot in the S. tropical zone gave 9 h. 55 m. 34 s. in 1879–1880, whereas during 1900–1908 it has varied a little on either side of 9 h. 55 m. 40·6 s. Clearly therefore no fixed period of rotation can be applied for any spot since it is subject to drifts E. or W. and these drifts sometimes come into operation suddenly, and may be either temporary or durable. Between 1878 and 1900 the red spot in the planet's S. hemisphere showed a continuous retardation of speed.

It must be remembered that in speaking of the rotation of these markings, we are simply alluding to the irregularities in the vaporous envelope of Jupiter. The rotation of the planet itself is another matter and its value is not yet exactly known, though it is probably little different from that of the markings, and especially from those of the most durable character, which indicate a period of about 9 h. 56 m. We never discern the actual landscape of Jupiter or any of the individual forms really diversifying it.

Possibly the red spot which became so striking an object in 1878, and which still remains faintly visible on the planet, is the same feature as that discovered by R. Hooke in 1664 and watched by Cassini in following years. It was situated in approximately the same latitude of the planet and appears to have been hidden temporarily during several periods up to 1713. But the lack of fairly continuous observations of this particular marking makes its identity with the present spot extremely doubtful. The latter was seen by W. R. Dawes in 1857, by Sir W. Huggins in 1858, by J. Baxendell in 1859, by Lord Rosse and R. Copeland in 1873, by H. C. Russell in 1876–1877, and in later years it has formed an object of general observation. In fact it may safely be said that no planetary marking has ever aroused such widespread interest and attracted such frequent observation as the great red spot on Jupiter.

The slight inclination of the equator of this planet to the plane of his orbit suggests that he experiences few seasonal changes. From the conditions we are, in fact, led to expect a prevailing calm in his atmosphere, the more so from the circumstance that the amount of the sun's heat poured upon each square mile of it is (on the average) less than the 27th part of that received by each square mile of the earth's surface. Moreover, the seasons of Jupiter have nearly twelve times the duration of ours, so that it would be naturally expected that changes in his atmosphere produced by solar action take place with extreme slowness. But this is very far from being the case. Telescopes reveal the indications of rapid changes and extensive disturbances in the aspect and material forming the belts. New spots covering large areas frequently appear and as frequently decay and vanish, implying an agitated condition of the Jovian atmosphere, and leading us to admit the operation of causes much more active than the heating influence of the sun.

When we institute a comparison between Jupiter and the earth on the basis that the atmosphere of the former planet bears the same relation to his mass as the atmosphere of the earth bears to her mass, we find that a state of things must prevail on Jupiter very dissimilar to that affecting our own globe. The density of the Jovian atmosphere we should expect to be fully six times as great as the density of our air at sea-level, while it would be comparatively shallow. But the telescopic aspect of Jupiter apparently negatives the latter supposition. The belts and spots grow faint as they approach the limb, and disappear as they near the edge of the disk, thus indicating a dense and deep atmosphere. R. A. Proctor considered that the observed features suggested inherent heat, and adopted this conclusion as best explaining the surface phenomena of the planet. He regarded Jupiter as belonging, on account of his immense size, to a different class of bodies from the earth, and was led to believe that there existed greater analogy between Jupiter and the sun than between Jupiter and the earth. Thus the density of the sun, like that of Jupiter, is small compared with the earth's; in fact, the mean density of the sun is almost identical with that of Jupiter, and the belts of the latter planet may be much more aptly compared with the spot zones of the sun than with the trade zones of the earth.

FIG. 2.—Jupiter, 1903, July 10, 2·50 a.m.

FIG. 3.—Jupiter, 1906, April 15, 5·50 p.m.

In support of the theory of inherent heat on Jupiter it has been said that his albedo (or light reflected from his surface) is much greater than the amount would be were his surface similar to that of the moon, Mercury or Mars, and the reasoning has been applied to the large outer planets, Saturn, Uranus and Neptune, as well as to Jupiter. The average reflecting capacity of the moon and five outer planets would seem to be (on the assumption that they possess no inherent light) as follows:—

Moon . .	0·1736	Jupiter .	0·6238	Uranus .	0·6400
Mars . .	0·2672	Saturn .	0·4981	Neptune .	0·4848

These values were considered to support the view that the four larger and more distant orbs shine partly by inherent lustre, and the more so as spectroscopic analysis indicates that they are each involved in a deep vapour-laden atmosphere. But certain observations furnish a contradiction to Proctor's views. The absolute extinction of the satellites, even in the most powerful telescopes, while in the shadow of Jupiter, shows that they cannot receive sufficient light from their primary to render them visible, and the darkness of the shadows of the satellites when projected on the planet's disk proves that the latter cannot be self-luminous except in an insensible degree. It is also to be remarked that, were it only moderately self-luminous, the colour of the light which it sends to us would be red, such light being at first emitted from a heated body when its temperature is raised. Possibly, however, the great red spot, when the colouring was intense in 1878 and several following years, may have represented an opening in the Jovian atmosphere, and the ruddy belts may be extensive rifts in the same envelope. If Jupiter's actual globe emitted a good deal of heat and light we should probably distinguish little of it, owing to the obscuring vapours floating above the surface. Venus reflects relatively more light than Jupiter, and there is little doubt that the albedo of a planet is dependent upon atmospheric characteristics, and is in no case a direct indication of inherent light and heat.

The colouring of the belts appears to be due to seasonal variations, for Stanley Williams has shown that their changes have a cycle of twelve years, and correspond as nearly as possible with a sidereal revolution of Jupiter. The variations are of such character that the two great equatorial belts are alternately affected; when the S. equatorial belt displays maximum redness the N. equatorial is at a minimum and vice versa.

The most plausible hypothesis with regard to the red spot is that it is of the nature of an island floating upon a liquid surface, though its great duration does not favour this idea. But it is an open question whether the belts of Jupiter indicate a liquid or gaseous condition of the visible surface. The difficulty in the way of the liquid hypothesis is the great difference in the times of rotation between the equatorial portions of the planet and the spots in temperate latitudes. The latter usually rotate in periods between 9 h. 55 m. and 9 h. 56 m., while the equatorial markings make a revolution in about five minutes less, 9 h. 50 m. to 9 h. 51 m. The difference amounts to 7·5° in a terrestrial day and proves that an equatorial spot will circulate right round the enormous sphere of Jupiter (circumference 283,000 m.) in 48 days. The motion is equivalent to about 6000 m. per day and 250 m. per hour. (W. F. D.)

Satellites of Jupiter.

Jupiter is attended by eight known satellites, resolvable as regards their visibility into two widely different classes. Four satellites were discovered by Galileo and were the only ones known until 1892. In September of that year E. E. Barnard, at the Lick Observatory, discovered a fifth extremely faint satellite, performing a revolution in somewhat less than twleve hours. In 1904 two yet fainter satellites, far outside the other five, were photographically discovered by C. D. Perrine at the Lick Observatory. The eighth satellite was discovered by P. J. Melotte of Greenwich on the 28th of February 1908. It is of the 17th magnitude and appears to be very distant from Jupiter; a re-observation on the 16th of January 1909 proved it to be retrograde, and to have a very eccentric orbit. These bodies are usually numbered in the order of their discovery, the nearest to the sun being V. In apparent brightness each of the four Galilean satellites may be roughly classed as of the sixth magnitude; they would therefore be visible to a keen eye if the brilliancy of the planet did not obscure them. Some observers profess to have seen one or more of these bodies with the naked eye notwithstanding this drawback, but the evidence can scarcely be regarded as conclusive. It does not however seem unlikely that the third, which is the brightest, might be visible when in conjunction with one of the others.

Under good conditions and sufficient telescopic power the satellites are visible as disks, and not mere points of light. Measures of the apparent diameter of objects so faint are, however, difficult and uncertain. The results for the Galilean satellites range between 0″·9 and 1″·5, corresponding to diameters of between 3000 and 5000 kilometres. The smallest is therefore about the size of our moon. Satellite I. has been found to exhibit marked variations in its brightness and aspect, but the law governing them has not been satisfactorily worked out. It seems probable that one hemisphere of this satellite is brighter than the other, or that there is a large dark region upon it. A revolution on its axis corresponding with that of the orbital revolution around the planet has also been suspected, but is not yet established. Variations of light somewhat similar, but less in amount, have been noticed in the second and third satellites.

The most interesting and easily observed phenomena of these bodies are their eclipses and their transits across the disk of Jupiter. The four inner satellites pass through the shadow of Jupiter at every superior conjunction, and across his disk at every inferior conjunction. The outer Galilean satellite does the same when the conjunctions are not too near the line of nodes of the satellites' orbit. When most distant from the nodes, the satellites pass above or below the shadow and below or above the disk. These phenomena for the four Galilean satellites are predicted in the nautical almanacs.

When one of the four Galilean satellites is in transit across the disk of Jupiter it can generally be seen projected on the face of the planet. It is commonly brighter than Jupiter when it first enters upon the limb but sometimes darker near the centre of the disk. This is owing to the fact that the planet is much darker at the limb. During these transits the shadow of the satellites can also be seen projected on the planet as a dark point.

The theories of the motion of these bodies form one of the more interesting problems of celestial mechanics. Owing to the great ellipticity of Jupiter, growing out of his rapid rotation, the influence of this ellipticity upon the motions of the five inner satellites is much greater than that of the sun, or of the satellites on each other. The inclination of the orbits to the equator of Jupiter is quite small and almost constant, and the motion of each node is nearly uniform around the plane of the planet's equator.

The most marked feature of these bodies is a relation between the mean longitudes of Satellites I., II. and III. The mean longitude of I. plus twice that of III. minus three times that of II. is constantly near to 180°. It follows that the same relations subsist among the mean motions. The cause of this was pointed out by Laplace. If we put L_1 L_2 and L_3 for the mean longitudes, and define an angle U as follows:—

$$U = L_1 - 3L_2 + 2L_3.$$

it was shown mathematically by Laplace that if the longitudes and mean motions were such that the angle U differed a little from 180°, there was a minute residual force arising from the mutual actions of the several bodies tending to bring this angle towards the value 180°. Consequently, if the mean motions were such that this angle increased only with great slowness, it would after a certain period tend back toward the value 180°, and then beyond it, exactly as a pendulum drawn out of the perpendicular oscillates towards and beyond it. Thus an oscillation would be engendered in virtue of which the angle would oscillate very slowly on each side of the central value. Computation of the mean longitude from observations has indicated that the angle does differ from 180°, but it is not certain whether this deviation is greater than the possible result of the errors of observation. However this may be, the existence of the libration, and its period if it does exist, are still unknown.

The following are the principal elements of the orbits of the five inner satellites, arranged in the order of distance from Jupiter. The mean longitudes are for 1891, 20th of October, G.M.T., and are referred to the equinox of the epoch, 1891, 2nd of October:—

Satellite	V.	I.	II.	III.	IV.
Mean Long.	264°·29	313°·7193	39°·1187	171°·2448	62°·2000
Synodic Period	11 h. 58 m.	1 d. 18 h. ·48	3d. 13h. ·30	7d. 3h. ·99	16d. 18m. ·09
Mean Distance	106,400 m.	260,000 m.	414,000 m.	661,000 m.	1,162,000 m.
Mass ÷ Mass of Jup.	(?)	·00002831	·00002324	·00008125	·00002149
Stellar Mag.	13	6·0	6·1	5·6	6·6

The following numbers relating to the planet itself have been supplied mostly by Professor Hermann Struve.

	Filar Mic.	Heliom.
Equatorial diameter of Jupiter (Dist. 5·2028)	38″·50	37″·50
Polar diameter of Jupiter	36″·02	35″·23
Ellipticity	1÷15·5	1÷16·5
Theoretical ellipticity from motion of 900″ in the pericentre of Sat. V.		1÷15·3
Centrifugal force÷gravity at equator		0·0900
Mass of Jupiter÷Mass of Sun, now used in tables		1÷1047·34
Inclination of planet's equator to ecliptic		2° 9′·07+0·006*t*
" " " " orbit		3° 4′·80
Long. of Node of equator on ecliptic		336° 21′·47+0′·762*t*
" " " " orbit		135°25′·81+0·729*t*

The longitudes are referred to the mean terrestrial equinox, and *t* is the time in years from 1900.0.

For the elements of Jupiter's orbit, see SOLAR SYSTEM; and for physical constants, see PLANET. (S. N.)

JUR (DIUR), the Dinka name for a tribe of negroes of the upper Nile valley, whose real name is Luoh, or Lwo. They appear to be immigrants, and tradition places their home in the south; they now occupy a district of the Bahr-el-Ghazal between the Bongo and Dinka tribes. Of a reddish black colour, fairer than the Dinka, they are well proportioned, with the hair short. Tattooing is not common, but when found is similar to that of the Dinka; they pierce the ears and nose, and in addition to the ornaments found among the Dinka (*q.v.*) wear a series of iron rings on the forearm covering it from wrist to elbow. They are mainly agricultural, but hunt and fish to a considerable extent; they are also skilful smiths, smelting their own iron, of which they supply quantities to the Dinka. They are a prosperous tribe and in consequence spinsters are unknown among them. Their chief currency is spears and hoe-blades, and cowrie shells are used in the purchase of wives. Their chief weapons are spears and bows.

See G. Schweinfurth, *The Heart of Africa: Travels 1868–1871*, trans. G. E. E. Frewer (2nd ed., 1874); W. Junker, *Travels in Africa* (Eng. ed., 1890–1892).

JURA, a department of France, on the eastern frontier, formed from the southern portion of the old province of Franche-Comté. It is bounded N. by the department of Haute-Saône, N.E. by Doubs, E. by Switzerland, S. by Ain, and W. by Saône-et-Loire and Côte d'Or. Pop. (1906), 257,725. Area, 1951 sq. m. Jura comprises four distinct zones with a general direction from north to south. In the S.E. lie high eastern chains of the central Jura, containing the Crêt Pela (4915 ft.), the highest point in the department. More to the west there is a chain of forest-clad plateaus bordered on the E. by the river Ain. Westward of these runs a range of hills, the slopes of which are covered with vineyards. The north-west region of the department is occupied by a plain which includes the fertile Finage, the northern portion of the Bresse, and is traversed by the Doubs and its left affluent the Loue, between which lies the fine forest of Chaux, 76 sq. m. in area. Jura falls almost wholly within the basin of the Rhone. Besides those mentioned, the chief rivers are the Valouze and the Bienne, which water the south of the department. There are several lakes, the largest of which is that of Chalin, about 12 m. E. of Lons-le-Saunier. The climate is, on the whole, cold; the temperature is subject to sudden and violent changes, and among the mountains winter sometimes lingers for eight months. The rainfall is much above the average of France.

Jura is an agricultural department: wheat, oats, maize and barley are the chief cereals, the culture of potatoes and rape being also of importance. Vines are grown mainly in the cantons of Arbois, Poligny, Salins and Voiteur. Woodlands occupy about a fifth of the area: the oak, hornbeam and beech, and, in the mountains, the spruce and fir, are the principal varieties. Natural pasture is abundant on the mountains. Forests, gorges, torrents and cascades are characteristic features of the scenery. Its minerals include iron and salt and there are stone-quarries. Peat is also worked. Lons-le-Saunier and Salins have mineral springs. Industries include the manufacture of Gruyère, Septmoncel and other cheeses (made in co-operative cheese factories or *fruitières*), metal founding and forging, saw-milling, flour-milling, the cutting of precious stones (at Septmoncel and elsewhere), the manufacture of nails, tools and other iron goods, paper, leather, brier-pipes, toys and fancy wooden-ware and basket-work. The making of clocks, watches, spectacles and measures, which are largely exported, employs much labour in and around Morez. Imports consist of grain, cattle, wine, leaf-copper, horn, ivory, fancy-wood; exports of manufactured articles, wine, cheese, stone, timber and salt. The department is served chiefly by the Paris-Lyon-Méditerranée railway, the main line from Paris to Neuchâtel traversing its northern region. The canal from the Rhone to the Rhine, which utilizes the channel of the Doubs over portions of its course, traverses it for 25 m. Lons-le-Saunier is the chief town of Jura, which embraces four arrondissements named after the towns of Lons-le-Saunier, Dôle, Poligny and St Claude, with 32 cantons and 584 communes. The department forms the diocese of St Claude and part of the ecclesiastical province of Besançon; it comes within the region of the VIIth army corps and the educational circumscription (académie) of Besançon, where is its court of appeal. Lons-le-Saunier, Dôle, Arbois, Poligny, St Claude and Salins, the more noteworthy towns, receive separate notices. At Baume-les-Messieurs, 8 m. N.E. of Lons-le-Saunier, there is an ancient abbey with a fine church of the 12th century.

JURA ("deer island"), an island of the inner Hebrides, the fourth largest of the group, on the west coast of Argyllshire, Scotland. Pop. (1901), 560. On the N. it is separated from the island of Scarba by the whirlpool of Corrievreckan, caused by the rush of the tides, often running over 13 m. an hour, and sometimes accelerated by gales, on the E. from the mainland by the sound of Jura, and on the S. and S.W. from Islay by the sound of Islay. At Kinuachdrach there is a ferry to Aird in Lorne, in Argyllshire, and at Faolin there is a ferry to Port Askaig in Islay. Its area is about 160 sq. m., the greatest length is about 27 m., and the breadth varies from 2 m. to 8 m. The surface is mountainous and the island is the most rugged of the Hebrides. A chain of hills culminating in the Paps of Jura—Beinn-an-Oir (2571 ft.) and Beinn Chaolais (2407 ft.)—runs the whole length of the island, interrupted only by Tarbert loch, an arm of the sea, which forms an indentation nearly 6 m. deep and almost cuts the island in two. Jura derived its name from the red deer which once abounded on it. Cattle and sheep are raised; oats, barley and potatoes are cultivated along the eastern shore, and there is some fishing. Granite is quarried and silicious sand, employed in glass-making is found. The parish of Jura comprises the islands of Balnahua, Fladda, Garvelloch, Jura, Lunga, Scarba and Skervuile.

JURA, a range which may be roughly described as the block of mountains rising between the Rhine and the Rhone, and forming the frontier between France and Switzerland. The gorges by which these two rivers force their way to the plains cut off the Jura from the Swabian and Franconian ranges to the north and those of Dauphiné to the south. But in very early days, before these gorges had been carved out, there were no openings in the Jura at all, and even now its three chief rivers—the Doubs, the Loue and the Ain—flow down the western slope, which is both much longer and but half as steep as the eastern. Some geographers extend the name Jura to the Swabian and Franconian ranges between the Danube and the Neckar and the Main; but, though these are similar in point of composition and direction to the range to the south, it is most convenient to limit the name to the mountain ridges lying between France and Switzerland, and this narrower sense will be adopted here.

The Jura has been aptly described as a huge plateau about 156 m. long and 38 m. broad, hewn into an oblong shape, and raised by internal forces to an average height of from 1950 to 2600 ft. above the surrounding plains. The shock by which it was raised and the vibration caused by the elevation of the great chain of the Alps, produced many transverse gorges or "cluses," while on the plateaus between these subaerial agencies have exercised their ordinary influence.

Geologically the Jura Mountains belong to the Alpine system; and the same forces which crumpled and tore the strata of the one produced the folds and faults in the other. Both chains

owe their origin to the mass of crystalline and unyielding rock which forms the central plateau of France, the Vosges and the Black Forest, and which, between the Vosges and the central plateau, lies at no great depth beneath the surface. Against this mass the more yielding strata which lay to the south and west were crushed and folded, and the Alps and the Jura were carved from the ridges which were raised. But the folding decreases in intensity towards the north; the folding in the Alps is much more violent than the folding in the Jura, and in the Jura itself the folding is most marked along its southern flanks.

The Jura is composed chiefly of Jurassic rocks—it is from this chain that the Jurassic system derives its name—but Triassic, Cretaceous and Tertiary beds take part in its formation. It may be divided into three zones which run parallel to the length of the chain and differ from one another in their structure. The innermost zone, which rises directly from the plain of Switzerland, is the *folded Jura* (*Jura plissé*, *Kettenjura*), formed of narrow parallel undulations which diminish in intensity towards the French border. This is followed by the *Jura plateau* (*Jura tabulaire*, *Tafeljura*), in which the beds are approximately horizontal but are broken up into blocks by fractures or faults. Finally, along its western face there is a zone of numerous dislocations, and the range descends abruptly to the plain of the Saône. This is the *Région du vignoble* and is well shown at Arbois.

Owing to the convergence of the faults which bound it, the plateau zone decreases in width towards the south, while towards the north it forms a large proportion of the chain. The folded zone is more constant. Along its inner margin the folds are frequently overthrown, leaning towards France, but elsewhere they are simple anticlinals and synclinals, parallel to the length of the chain, and as a rule there is a remarkable freedom from dislocations of any importance, except towards Neuchâtel and Bienne.

The countless blocks of gneiss, granite and other crystalline formations which are found in such numbers on the slopes of the Jura, and go by the name of "erratic blocks" (of which the best known instance—the Pierre à Bot—is 40 ft. in diameter, and rests on the side of a hill 800 ft. above the Lake of Neuchâtel), have been transported thither from the Alps by ancient glaciers, which have left their mark on the Jura range itself in the shape of striations and moraines.

The general direction of the chain is from north-east to south-west, but a careful study reveals the fact that there were in reality two main lines of upheaval, viz. north to south and east to west, the former best seen in the southern part of the range and the latter in the northern; and it was by the union of these two forces that the lines north-east to south-west (seen in the greater part of the chain), and north-west to south-east (seen in the Villebois range at the south-west extremity of the chain), were produced. This is best realized if we take Besançon as a centre; to the north the ridges run east and west, to the south, north and south, while to the east the direction is north-east to south-west.

Before considering the topography of the interior of the Jura, it may be convenient to take a brief survey of its outer slopes.

1. The *northern face* dominates on one side the famous "Trouée" (or Trench) of Belfort, one of the great geographical centres of Europe, whence routes run north down the Rhine to the North Sea, south-east to the Danube basin and Black Sea, and south-west into France, and so to the Mediterranean basin. It is now so strongly fortified that it becomes a question of great strategical importance to prevent its being turned by means of the great central plateau of the Jura, which, as we shall see, is a network of roads and railways. On the other side it overhangs the "Trouée" of the Black Forest towns on the Rhine (Rheinfelden, Säckingen, Laufenburg and Waldshut), through which the central plain of Switzerland is easily gained. On this north slope two openings offer routes into the interior of the chain—the valley of the Doubs belonging to France, and the valley of the Birse belonging to Switzerland. Belfort is the military, Mülhausen the industrial, and Basel the commercial centre of this slope.

2. The *eastern and western faces* offer many striking parallels. The plains through which flow the Aar and the Saône have each been the bed of an ancient lake, traces of which remain in the lakes of Neuchâtel, Bienne and Morat. The west face runs mainly north and south like its great river, and for a similar reason the east face runs north-east to south-west. Again, both slopes are pierced by many transverse gorges or "cluses" (due to fracture and not to erosion), by which access is gained to the great central plateau of Pontarlier. though these are seen more plainly on the east face than on the west; thus the gorges at the exit from which Lons-le-Saunier, Poligny, Arbois and Salins are built balance those of the Suze, of the Val de Ruz, of the Val de Travers, and of the Val d'Orbe, though on the east face there is but one city which commands all these important routes—Neuchâtel. This town is thus marked out by nature as a great military and industrial centre, just as is Besançon on the west, which has besides to defend the route from Belfort down the Doubs. These easy means of communicating with the Free County of Burgundy or Franche-Comté account for the fact that the dialect of Neuchâtel is Burgundian, and that it was held generally by Burgundian nobles, though most of the country near it was in the hands of the house of Savoy until gradually annexed by Bern. The Chasseron (5286 ft.) is the central point of the eastern face, commanding the two great railways which join Neuchâtel and Pontarlier. This ridge is in a certain sense parallel to the valley of the Loue on the west face, which flows into the Doubs a little to the south of Dôle, the only important town of the central portion of the Saône basin. The Chasseron is wholly Swiss, as are the lower summits of the Chasseral (5279 ft.), the Mont Suchet (5220 ft.), the Aiguille de Baulmes (5128 ft.), the Dent de Vaulion (4879 ft.), the Weissenstein (4223 ft.), and the Chaumont (3845 ft.), the two last-named points being probably the best-known points in the Jura, as they are accessible by carriage road from Soleure and Neuchâtel respectively. South of the Orbe valley the east face becomes a rocky wall which is crowned by all the highest summits (the first and second Swiss, the rest French) of the chain—the Mont Tendre (5512 ft.), the Dôle (5505 ft.), the Reculet (5643 ft.), the Crêt de la Neige (5653 ft.) and the Grand Crédo (5328 ft.), the uniformity of level being as striking as on the west edge of the Jura, though there the absolute height is far less. The position of the Dôle is similar to that of the Chasseron, as along the sides of it run the great roads of the Col de St Cergues (3973 ft.) and the Col de la Faucille (4341 ft.), the latter leading through the Vallée des Dappes, which was divided in 1862 between France and Switzerland, after many negotiations. The height of these roads shows that they are passages across the chain, rather than through natural depressions.

3. The *southern face* is supported by two great pillars—on the east by the Grand Crédo and on the west by the ridge of Revermont (2529 ft.) above Bourg en Bresse; between these a huge bastion (the district of *Bugey*) stretches away to the south, forcing the Rhone to make a long détour. On the two sides of this bastion the plains in which Ambérieu and Culoz stand balance one another, and are the meeting points of the routes which cut through the bastion by means of deep gorges. On the eastern side this great wedge is steep and rugged, ending in the Grand Colombier (5033 ft.) above Culoz, and it sinks on the western side to the valley of the Ain, the district of Bresse, and the plateau of Dombes. The junction of the Ain and the Surand at Pont d'Ain on the west balances that of the Valserine and the Rhone at Bellegarde on the east.

The Jura thus dominates on the north one of the great highways of Europe, on the east and west divides the valleys of the Saône and the Aar, and stretches out to the south so as nearly to join hands with the great mass of the Dauphiné Alps. It therefore commands the routes from France into Germany, Switzerland and Italy, and hence its enormous historical importance.

Let us now examine the topography of the interior of the range. This naturally falls into three divisions, each traversed by one of the three great rivers of the Jura—the Doubs, the Loue and the Ain.

1. In the *northern division* it is the east and west line which prevails—the Lomont, the Mont Terrible, the defile of the Doubs from St Ursanne to St Hippolyte, and the "Trouée" of the Black Forest towns. It thus bars access to the central plateau from the north, and this natural wall does away with the necessity of artificial fortifications. This division falls again into two distinct portions.

(*a*) The first is the *part east of the deep gorge of the Doubs* after it turns south at St Hippolyte; it is thus quite cut off on this side, and is naturally Swiss territory. It includes the basin of the river Birse, and the great plateau between the Doubs and the Aar, on which, at an average height of 2600 ft., are situated a number of towns, one of the most striking features of the Jura. These include Le Locle (*q.v.*) and La Chaux de Fonds (*q.v.*), and are mainly occupied with watch-making, an industry which does not require bulky machinery, and is therefore well fitted for a mountain district.

(*b*) *The part west of the "cluse" of the Doubs*: of this, the district east of the river Dessoubre, isolated in the interior of the range (unlike the Le Locle plateau), is called the Haute Montagne, and is given up to cheese-making, curing of hams, saw-mills, &c. But little watch-making is carried on there, Besançon being the chief French centre of this industry, and being connected with Geneva by a chain of places similarly occupied, which fringe the west plateau of the Jura. The part west of the Dessoubre, or the Moyenne Montagne, a huge plateau north of the Loue, is more especially devoted to agriculture, while along its north edge metal-working and manufacture of hardware are carried on, particularly at Besançon and Audincourt.

2. The *central division* is remarkable for being without the deep gorges which are found so frequently in other parts of the range. It consists of the basin of which Pontarlier is the centre, through notches in the rim of which routes converge from every direction; this is the great characteristic of the middle region of the Jura. Hence its immense strategical and commercial importance. On the north-east roads run to Morteau and Le Locle, on the north-west to Besançon, on the west to Salins, on the south-west to Dôle and Lons-le-Saunier, on the east to the Swiss plain. The Pontarlier plateau is nearly horizontal, the slight indentations in it being due to erosion, *e.g.* by the river Drugeon. The keys to this important plateau are to the east the Fort de Joux, under the walls of which meet the two lines of railway from Neuchâtel, and to the west Salins, the meeting place of the routes from the Col de la Faucille, from Besançon, and from the French plain.

The Ain rises on the south edge of this plateau, and on a lower shelf or step, which it waters, are situated two points of great military importance—Nozeroy and Champagnole. The latter is specially important, since the road leading thence to Geneva traverses one after another, not far from their head, the chief valleys which run down into the South Jura, and thus commands the southern routes as well as those by St Cergues and the Col de la Faucille from the Geneva region, and a branch route along the Orbe river from Jougne. The fort of Les Rousses, near the foot of the Dôle, serves as an advanced post to Champagnole, just as the Fort de Joux does to Pontarlier.

The above sketch will serve to show the character of the central Jura as the meeting place of routes from all sides, and the importance to France of its being strongly fortified, lest an enemy approaching from the north-east should try to turn the fortresses of the "Trouée de Belfort." It is in the western part of the central Jura that the north and south lines first appear strongly marked. There are said to be in this district no less than fifteen ridges running parallel to each other, and it is these which force the Loue to the north, and thereby occasion its very eccentric course. The cultivation of wormwood wherewith to make the tonic "absinthe" has its headquarters at Pontarlier.

3. The *southern division* is by far the most complicated and entangled part of the Jura. The lofty ridge which bounds it to the east forces all its drainage to the west, and the result is a number of valleys of erosion (of which that of the Ain is the chief instance), quite distinct from the natural "cluses" or fissures of those of the Doubs and of the Loue. Another point of interest is the number of roads which intersect it, despite its extreme irregularity. This is due to the great "cluses" of Nantua and Virieu, which traverse it from east to west. The north and south line is very clearly seen in the eastern part of this division; the north-east and south-west is entirely wanting, but in the Villebois range south of Ambérieu we have the principal example of the north-west to south-east line. The plateaus west of the Ain are cut through by the valleys of the Valouse and of the Surand, and like all the lowest terraces on the west slope do not possess any considerable towns. The Ain receives three tributaries from the east:—

(*a*) The Bienne, which flows from the fort of Les Rousses by St Claude, the industrial centre of the south Jura, famous for the manufacture of wooden toys, owing to the large quantity of box-wood in the neighbourhood. Septmoncel is busied with cutting of gems, and Morez with watch and spectacle making. Cut off to the east by the great chain, the industrial prosperity of this valley is of recent origin.

(*b*) The Oignin, which flows from south to north. It receives the drainage of the lake of Nantua, a town noted for combs and silk weaving, and which communicates by the "cluse" of the Lac de Silan with the Valserine valley, and so with the Rhone at Bellegarde, and again with the various routes which meet under the walls of the fort of Les Rousses, while by the Val Romey and the Séran Culoz is easily gained.

(*c*) The Albarine, connected with Culoz by the "cluse" of Virieu, and by the Furan flowing south with Belley, the capital of the district of Bugey (the old name for the South Jura).

The "cluses" of Nantua and Virieu are now both traversed by important railways; and it is even truer than of old that the keys of the south Jura are Lyons and Geneva. But of course the strategic importance of these gorges is less than appears at first sight, because they can be turned by following the Rhone in its great bend to the south.

The range is mentioned by Caesar (*Bell. Gall.* i. 2–3, 6 (1), and 8 (1)), Strabo (iv. 3, 4, and 6, 11), Pliny (iii. 31; iv. 105; xvi. 197) and Ptolemy (ii. ix. 5), its name being a word which appears under many forms (*e.g.* Joux, Jorat, Jorasse, Juriens), and is a synonym for a wood or forest. The German name is Leberberg, *Leber* being a provincial word for a hill.

Politically the Jura is French (departments of the Doubs, Jura and Ain) and Swiss (parts of the cantons of Geneva, Vaud, Neuchâtel, Bern, Soleure and Basel); but at its north extremity it takes in a small bit of Alsace (Pfirt or Ferrette). In the middle ages the southern, western and northern sides were parcelled out into a number of districts, all of which were gradually absorbed by the French crown, viz., Gex, Val Romey, Bresse and Bugey (exchanged in 1601 by Savoy for the marquisate of Saluzzo), Franche-Comté, or the Free County of Burgundy, an imperial fief till annexed in 1674, the county of Montbéliard (Mömpelgard) acquired in 1793, and the county of Ferrette (French 1648–1871). The northern part of the eastern side was held till 1792 (part till 1797) by the bishop of Basel as a fief of the empire, and then belonged to France till 1814, but was given to Bern in 1815 (as a recompense for its loss of Vaud), and now forms the Bernese Jura, a French-speaking district. The centre of the eastern slope formed the principality of Neuchâtel (*q.v.*) and the county of Valangin, which were generally held by Burgundian nobles, came by succession to the kings of Prussia in 1707, and were formed into a Swiss canton in 1815, though they did not become free from formal Prussian claims until 1857. The southern part of the eastern slope originally belonged to the house of Savoy, but was conquered bit by bit by Bern, which was forced in 1815 to accept its subject district Vaud as a colleague and equal in the Swiss Confederation. It was Charles the Bold's defeats at Grandson and Morat which led to the annexation by the confederates of these portions of Savoyard territory.

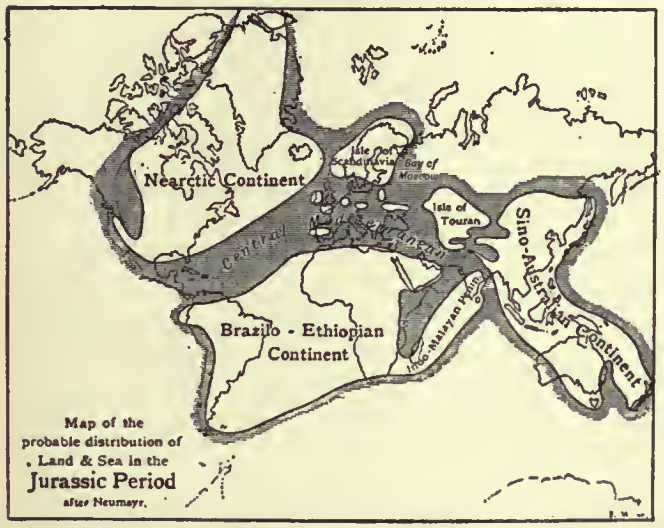
AUTHORITIES.—E.F.Berlioux, *Le Jura* (Paris, 1880); F. Machacek, *Der Schweizer Jura* (Gotha, 1905); A. Magnin, *Les lacs du Jura* (Paris, 1895); J. Zimmerli, "Die Sprachgrenze im Jura" (vol. i. of his *Die Deutsch-französische Sprachgrenze in der Schweiz* (Basel, 1891). For the French slope see Joanne's large *Itinéraire* to the Jura, and the smaller volumes relating to the departments of the Ain, Doubs and Jura, in his *Géographies départementales*. For the Swiss slope see 3 vols. in the series of the *Guides Monod* (Geneva); A. Monnier, *La Chaux de Fonds et le Haut-Jura Neuchâtelois*; J. Monod, *Le Jura Bernois*; and E. J. P. de la Harpe, *Le Jura Vaudois*. (W. A. B. C.)

JURASSIC, in geology, the middle period of the Mesozoic era, that is to say, succeeding the Triassic and preceding the Cretaceous periods. The name Jurassic (French *jurassique*; German *Juraformation* or *Jura*) was first employed by A. Brongniart and A. von Humboldt for the rocks of this age in the western Jura mountains of Switzerland, where they are well developed. It was in England, however, that they were first studied by William Smith, in whose hands they were made to lay the foundations of stratigraphical geology. The names adopted by him for the subdivisions he traced across the country have passed into universal use, and though some of them are uncouth English provincial names, they are as familiar to the geologists of France, Switzerland and Germany as to those of England. During the following three decades Smith's work was elaborated by W. D. Conybeare and W. Phillips. The Jurassic rocks of fossils of the European continent were described by d'Orbigny, 1840–1846; by L. von Buch, 1839; by F. A. Quenstedt, 1843–1888; by A. Oppel, 1856–1858; and since then by many other workers: E. Benecke, E. Hébert, W. Waagen, and others. The study of Jurassic rocks has continued to attract the attention of geologists, partly because the bedding is so well defined and regular—the strata are little disturbed anywhere outside the Swiss Jura and the Alps—and partly because the fossils are numerous and usually well-preserved. The result has been that no other system of rocks has been so carefully examined throughout its entire thickness; many "zones" have been established by means of the fossils—principally by ammonites—and these zones are not restricted to limited districts, but many of them hold good over wide areas. Oppel distinguished no fewer than thirty-three zonal horizons, and since then many more sub-zonal divisions have been noted locally.

The existence of *faunal regions* in Jurassic times was first pointed out by J. Marcou; later M. Neumayr greatly extended observations in this direction. According to Neumayr, three distinct geographical regions of deposit can be made out among the Jurassic rocks of Europe: (1) The Mediterranean province, embracing the Pyrenees, Alps and Carpathians, with all the tracts lying to the south. One of the biological characters of this area was the great abundance of ammonites belonging to

the groups of *Heterophylli* (*Phylloceras*) and *Fimbriati* (*Lytoceras*). (2) The central European province, comprising the tracts lying to the north of the Alpine ridge, and marked by the comparative rarity of the ammonites just mentioned, which are replaced by others of the groups *Inflati* (*Aspidoceras*) and *Oppelia*, and by abundant reefs and masses of coral. (3) The boreal or Russian province, comprising the middle and north of Russia, Spitzbergen and Greenland. The life in this area was much less varied than in the others, showing that in Jurassic times there was a perceptible diminution of temperature towards the north. The ammonites of the more southern tracts here disappear, together with the corals.

The cause of these faunal regions Neumayr attributed to climatic belts—such as exist to-day—and in part, at least, he



Map of the probable distribution of Land & Sea in the Jurassic Period after Neumayr.

was probably correct. It should be borne in mind, however, that although Neumayr was able to trace a broad, warm belt, some 60° in width, right round the earth, with a narrower mild belt to the north and an arctic or boreal belt beyond, and certain indications of a repetition of the climatic zones on the southern side of the thermal equator, more recent discoveries of fossils seem to show that other influences must have been at work in determining their distribution; in short, the identity of the Neumayrian climatic boundaries becomes increasingly obscured by the advance of our knowledge.

The Jurassic period was marked by a great extension of the sea, which commenced after the close of the Trias and reached its maximum during the Callovian and Oxfordian stages; consequently, the Middle Jurassic rocks are much more widely spread than the Lias. In Europe and elsewhere Triassic beds pass gradually up into the Jurassic, so that there is difficulty sometimes in agreement as to the best line for the base of the latter; similarly at the top of the sytsem there is a passage from the Jurassic to the Cretaceous rocks (Alps).

Towards the close of the period elevation began in certain regions; thus, in America, the Sierras, Cascade Mountains, Klamath Mountains, and Humboldt Range probably began to emerge. In England the estuarine Portlandian resulted partly from elevation, but in the Alps marine conditions steadily persisted (in the Tithonian stage). There appears to have been very little crustal disturbance or volcanic activity; tuffs are known in Argentina and California; volcanic rocks of this age occur also in Skye and Mull.

The rocks of the Jurassic system present great petrological diversity. In England the name "Oolites" was given to the middle and higher members of the system on account of the prevalence of oolitic structure in the limestones and ironstones; the same character is a common feature in the rocks of northern Europe and elsewhere, but it must not be overlooked that clays and sandstones together bulk more largely in the aggregate than the oolites. The thickness of Jurassic rocks in England is 4000 to 5000 ft., and in Germany 2000 to 3000 ft. Most of the rocks represent the deposits of shallow seas, but estuarine conditions and land deposits occur as in the Purbeck beds of Dorset and the coals of Yorkshire. Coal is a very important feature among Jurassic rocks, particularly in the Liassic division; it is found in Hungary, where there are twenty-five workable beds; in Persia, Turkestan, Caucasus, south Siberia, China, Japan, Further India, New Zealand and in many of the Pacific Islands.

Being shallow water formations, petrological changes come in rapidly as many of the beds are traced out; sandstones pass laterally into clays, and the latter into limestones, and so on, but a reliable guide to the classification and correlation is found in the fossil contents of the rocks. In the accompanying table a list is given of some of the zonal fossils which regularly occur in the order indicated; other forms are known that are equally useful. It will be noticed that while there is general agreement as to the order in which the zonal forms occur, the line of division between one formation and another is liable to vary according to factors in the personal equation of the authors.

The Jurassic formations stretch across England in a varying band from the mouth of the Tees to the coast of Dorsetshire. They consist of harder sandstones and limestones interstratified with softer clays and shales. Hence they give rise to a characteristic type of scenery—the more durable beds standing out as long ridges, sometimes even with low cliffs, while the clays underlie the level spaces between.

Jurassic rocks cover a vast area in Central Europe. They rise from under the Cretaceous formations in the north-east of France, whence they range southwards down the valleys of the Saone and Rhone to the Mediterranean. They appear as a broken border round the old crystalline nucleus of Auvergne. Eastwards they range through the Jura Mountains up to the high grounds of Bohemia. They appear in the outer chains of the Alps on both sides, and on the south they rise along the centre of the Apennines, and here and there over the Spanish Peninsula. Covered by more recent formations they underlie the great plain of northern Germany, whence they range eastwards and occupy large tracts in central and eastern Russia.

Lower Jurassic rocks are absent from much of northern Russia, the stages represented being the Callovian, Oxfordian and Volgian (of Professor S. Nikitin); the fauna differs considerably from that of western Europe, and the marine equivalents of the Purbeck beds are found in this region. In south Russia, the Crimea and Caucasus, Lias and Lower Jurassic rocks are present. In the Alps, the Lower Jurassic rocks are intimately associated with the underlying Triassic formations, and resemble them in consisting largely of reddish limestones and marbles; the ammonites in this region differ in certain respects from those of western and central Europe. The Oxfordian, Callovian, Corallian and Astartian stages are also present. The Upper Jurassic is mainly represented by a uniform series of limestones, with a peculiar and characteristic fauna, to which Oppel gave the name "Tithonian." This includes most of the horizons from Kimeridgian to Cretaceous; it is developed on the southern flanks of the Alps, Carpathians, Apennines, as well as in south France and other parts of the Mediterranean basin. A characteristic formation on this horizon is the "Diphya limestone," so-called from the fossil *Terebratula diphya* (*Pygope janitor*) seen in the well-known escarpments (*Hochgebirge Kalk*). Above the Diphya limestone comes the Stramberg limestone (Stramberg in Moravia), with "Aptychus" beds and coral reefs. The rocks of the Mediterranean basin are on the whole more calcareous than those of corresponding age in north-west Europe; thus the Lias is represented by 1500 ft. of white crystalline limestone in Calabria and a similar rock occurs in Sicily, Bosnia, Epirus, Corfu; in Spain the Liassic strata are frequently dolomitic; in the Apennines they are variegated limestones and marls. The Higher Jurassic beds of Portugal show traces of the proximity of land in the abundant plant remains that are found in them. In Scania the Lias succeeds the Rhactic beds in a regular manner, and Jurassic rocks have been traced northward well within the polar circle; they are known in the Lofoten Isles, Spitzbergen, east Greenland, King Charles's Island, Cape Stewart in Scoresby Sound, Grinnell Land, Prince Patrick Land, Bathurst and Exmouth Island; in many cases the fossils denote a climate considerably milder than now obtains in these latitudes.

In the American continent Jurassic rocks are not well developed. Marine Lower and Middle Jurassic beds occur on the Pacific coast (California and Oregon), and in Wyoming, the Dakotas, Colorado, east Mexico and Texas. Above the marine beds in the interior are brackish and fresh-water deposits, the Morrison and Como beds (Atlantosaurus and Baptanodon beds of Marsh). Later Jurassic rocks are found in northern British Columbia and perhaps in Alaska, Wyoming, Utah, Montana, Colorado, the Dakotas, &c. In California some of the

gold-bearing metamorphic slates are of this age. Marine Jurassic rocks have not been clearly identified on the Atlantic side of America. The Patuxent and Arundel formations (non-marine) are doubtfully referred to this period. Lower and Middle Jurassic formations occur in Argentina and Bolivia. Jurassic rocks have been recognized in Asia, including India, Afghanistan, Persia, Kurdistan, Asia Minor, the Caspian region, Japan and Borneo. The best marine development is in Cutch, where the following groups

JURASSIC SYSTEM		Stages[1]	Ammonite Zones	Oppel	Substages of Quenstedt	Von Buch	A. de Lapparent, *Traité*, 5th ed.			Alpine
Oolites	Upper Oolites	Purbeckian	Perisphinctes transitorius	Malm		Upper or White Jura	Purbeckien or Aquilonien	Portlandien	Néojurassique	Ammonitico rosso of Tithonien, southern Alps Aptychen-Kalke and Radiolariengesteine
		Portlandian	Perisphinctes giganteus Olcostephanus gigas		ζ		Bononien			*Diphya*-Kalke
		Kimeridgian	Reineckia eudoxus Oppelia tenuilobata		ε δ γ		Virgulien	Kimeridgien		*Acanthicus* Beds
	Middle Oolites	Corallian	Peltoceras bimammatum		β		Pteroceran			
		Oxfordian	Peltoceras transversarium Aspidoceras perarmatum		α		Astartien Rauracien	Sequanien		
							Argovien	Oxfordien		
		Callovian	Peltoceras athleta Cosmoceras Jason Macrocephalites macrocephalus		ζ	Middle or Brown Jura	Neuvizien			
	Lower Oolites	Bathonian	Oppelia aspidoides Parkinsonia ferruginea	Dogger	ε		Upper Divesien Lower Divesien	Callovien		Posidonien Beds (S. Alps) Klauss Beds (N. Alps)
		Bajocian (Inferior Oolite)	Parkinsonia Parkinsoni Cœloceras Humphresianus Sphæroceras Sauzei Sonninia Sowerbyi Harpoceras Murchisonae		δ γ β		Bathonien		Mésojurassique	
		(*passage beds*)	Harpoceras (Lioceras) opalinum		α		Bajocien			*Sauzei*-Kalke Oolite of San Vigilio
Lias		Upper Lias	Lytoceras jurense Posidonia Bronni	Lias	ζ ε	Lower or Black Jura	Toarcien			
		Middle Lias	Amaltheus spinatus Amaltheus margaritatus Dactylioceras Davoëi Phylloceras ibex Aegoceras Jamesoni		δ γ		Charmouthien			
		Lower Lias	Arietites raricostatus Oxynoticeras oxynotum Arietites obtusus Arietites Bucklandi Schlotheimia angulata Psiloceras planorbis		β α		Sinemourien Hettangien (part) Hettangien (part) Rhétien	Infra-Lias Système Liassique	Éojurassique	Grestener Beds (Coal) Adneter Kalke Brachiopod or Hierlatz facies Algäu Beds Fleckenmergel

are distinguished from above downwards: the Umia series = Portlandian and Tithonian of south Europe, passing upwards into the Neocomian; the Katrol series = Oxfordian (part) and Kimeridgian; the Chari series = Callovian and part of the Oxfordian; the Patcham series = Bathonian. In the western half of the Salt Range and the Himalayas, Spiti shales are the equivalents of the European Callovian and Kimeridgian. The upper part of the Gondwana series is not improbably Jurassic. On the African continent, Liassic strata are found in Algeria, and Bathonian formations occur in Abyssinia, Somaliland, Cape Colony and western Madagascar. In Australia the Permo-Carboniferous formations are succeeded in Queensland and Western Australia by what may be termed the Jura-Trias, which include the coal-bearing "Ipswich" and "Burrum" formations of Queensland. In New Zealand there is a thick series of marine beds with terrestrial plants, the Mataura series in the upper part of Hutton's Hokanui system. Sir J. Hector included also the Putakaka series (as Middle Jurassic) and the Flag series with the Catlin's River and Bastion series below. Jurassic rocks have been recorded from New Guinea and New Caledonia.

Life in the Jurassic Period.—The expansion of the sea during this period, with the formation of broad sheets of shallow and probably warmish water, appears to have been favourable to many forms of marine life. Under these conditions several groups of organisms developed rapidly along new directions, so that the Jurassic period as a whole came to have a fauna differing clearly and distinctly from the preceding Palaeozoic or succeeding Tertiary faunas. In the seas, all the main groups were represented as they are to-day

[1] *Purbeckian* from the "Isle" of Purbeck. *Aquilonien* from Aquilo (Nord). *Bononien* from Bononia (Boulogne). *Virgulien* from *Exogyra virgula*. *Pteroceran* from *Pteroceras oceani*. *Astartien* from *Astarte supracorallina*. *Rauracien* from Rauracia (Jura). *Argovien* from Argovie (Switzerland). *Neuvizien* from Neuvizy (Ardennes). *Divesien* from Dives (Calvados). *Bathonien* from Bath (England). *Bajocien* from Bayeux (Calvados). *Toarcien* from Toarcium (Tours). Charmouthien from Charmouth (England). Sinemourien from Sinemurum, Semur (Côte d'Or). *Hettangien* from Hettange (Lorraine).

Corals were abundant, and in later portions of the period covered large areas in Europe; the modern type of coral became dominant; besides reef-building forms such as *Thamnastrea*, *Isastrea*, *Thecosmilia*, there were numerous single forms like *Montivaltia*. Crinoids existed in great numbers in some of the shallow seas; compared with Palaeozoic forms there is a marked reduction in the size of the calyx with a great extension in the number of arms and pinnules; *Pentacrinus*, *Eugeniacrinus*, *Apiocrinus* are all well known; *Antedon* was a stalkless genus. Echinoids (urchins) were gradually developing the so-called "irregular" type, *Echinobrissus*, *Holectypus*, *Collyrites*, *Clypeus*, but the "regular" forms prevailed, *Cidaris*, *Hemicidaris*, *Acrosalenia*. Sponges were important rock-builders in Upper Jurassic times (*Spongiten Kalk*); they include lithistids such as *Cnemediastrum*, *Hyalotragus*, *Peronidella*; hexactinellids, *Tremadictyon*, *Craticularia*; and horny sponges have been found in the Lias and Middle Jurassic.

Polyzoa are found abundantly in some of the beds, *Stomatopora*, *Berenicia*, &c. Brachiopods were represented principally by terebratulids (*Terebratula*, *Waldheimia*, *Megerlea*), and by rhynchonellids; *Thecae*, *Lingula* and *Crania* were also present. The Palaeozoic spirifirids and athyrids still lingered into the Lias. More important than the brachiopods were the pelecypods; *Ostrea*, *Exogyra*, *Gryphaea* were very abundant (Gryphite limestone, Gryphite grit); the genus *Trigonia*, now restricted to Australian waters, was present in great variety; *Aucella*, *Lima*, *Pecten*, *Pseudomonotis Gervillia*, *Astarte*, *Diceras*, *Isocardia*, *Pleuromya* may be mentioned out of many others. Amongst the gasteropods the *Pleurotomariidae* and *Turbinidae* reached their maximum development; the Palaeozoic *Conularia* lived to see the beginning of this period (*Pleurotomaria*, *Nerinea*, *Pteroceras*, *Cerithium*, *Turritella*).

Cephalopods flourished everywhere; first in importance were the ammonites; the Triassic genera *Phylloceras* and *Lytoceras* were still found in the Jurassic waters, but all the other numerous genera were new, and their shells are found with every variation of size and ornamentation. Some are characteristic of the older Jurassic rocks, *Arietites*, *Aegoceras*, *Amaltheus*, *Harpoceras*, *Oxynoticeras*, *Stepheoceras*, and the two genera mentioned above; in the middle stages are found *Cosmoceras*, *Perisphinctes*, *Cardioceras*, *Kepplerites Aspidoceras*; in the upper stages *Olcostephanus*, *Perisphinctes*, *Reineckia*, *Oppelia*. So regularly do certain forms characterize definite horizons in the rocks that some thirty zones have been distinguished in Europe, and many of them can be traced even as far as India. Another cephalopod group, the belemnites, that had been dimly outlined in the preceding Trias, now advanced rapidly in numbers and in variety of form, and they, like the ammonites, have proved of great value as zone-indicators. The Sepioids or cuttlefish made their first appearance in this period (*Belotheuthis*, *Geoteuthis*,) and their ink-bags can still be traced in examples from the Lias and lithographic limestone. Nautiloids existed but they were somewhat rare.

A great change had come over the crustaceans; in place of the Palaeozoic trilobites we find long-tailed lobster-like forms, *Penaeus*, *Eryon*, *Magila*, and the broad crab-like type first appeared in *Prosopon*. Isopods were represented by *Archaeoniscus* and others. Insects have left fairly abundant remains in the Lias of England, Schambelen (Switzerland) and Dobbertin (Mecklenburg), and also in the English Purbeck. Neuropterous forms predominate, but hemiptera occur from the Lias upwards; the earliest known flies (Diptera) and ants (Hymenoptera) appeared; orthoptera, cockroaches, crickets, beetles, &c., are found in the Lias, Stonesfield slate and Purbeck beds.

Fishes were approaching the modern forms during this period, heterocercal ganoids becoming scarce (the *Coelacanthidae* reached their maximum development), while the homocercal forms were abundant (*Gyrodus*, *Microdon*, *Lepidosteus*, *Lepidotus*, *Dapedius*). The Chimaeridae, sea-cats, made their appearance (*Squaloraja*). The ancestors of the modern sturgeons, garpikes and selachians, *Hybodus*, *Acrodus* were numerous. Bony-fish were represented by the small *Leptolepis*.

So important a place was occupied by reptiles during this period that it has been well described as the "age of reptiles." In the seas the fish-shaped Ichthyosaurs and long-necked Plesiosaurs dwelt in great numbers and reached their maximum development; the latter ranged in size from 6 to 40 ft. in length. The Pterosaurs, with bat-like wings and pneumatic bones and keeled breast-bone, flew over the land; *Pterodactyl* with short tail and *Rhamphorhyncus* with long tail are the best known. Curiously modified crocodilians appeared late in the period (*Mystriosaurus*, *Geosaurus*, *Steneosaurus*, *Teleosaurus*). But even more striking than any of the above were the Dinosaurs; these ranged in size from a creature no larger than a rabbit up to the gigantic *Atlantosaurus*, 100 ft. long, in the Jurassic of Wyoming. Both herbivorous and carnivorous forms were present; *Brontosaurus*, *Megalosaurus*, *Stegosaurus*, *Cetiosaurus*, *Diplodocus*, *Ceratosaurus* and *Campsognathus* are a few of the genera. By comparison with the Dinosaurs the mammals took a very subordinate position in Jurassic times; only a few jaws have been found, belonging to quite small creatures; they appear to have been marsupials and were probably insectivorous (*Plagiaulax Bolodon*, *Triconodon*, *Phascolotherium*, *Stylacodon*). Of great interest are the remains of the earliest known bird (*Archaeopteryx*) from the Solenhofen slates of Bavaria. Although this was a great advance beyond the Pterodactyls in avian characters, yet many reptilian features were retained.

Comparatively little change took place in the vegetation in the time that elapsed between the close of the Triassic and the middle of the Jurassic periods. Cycads, *Zamites*, *Podozamites*, &c., appeared to reach their maximum; Equisetums were still found growing to a great size and Ginkgos occupied a prominent place; ferns were common; so too were pines, yews, cypresses and other conifers, which while they outwardly resembled their modern representatives, were quite distinct in species. No flowering plants had yet appeared, although a primitive form of angiosperm has been reported from the Upper Jurassic of Portugal.

The economic products of the Jurassic system are of considerable importance; the valuable coals have already been noticed; the well-known iron ores of the Cleveland district in Yorkshire and those of the Northampton sands occur respectively in the Lias and Inferior Oolites. Oil shales are found in Germany, and several of the Jurassic formations in England contain some petroleum. Building stones of great value are obtained from the Great Oolite, the Portlandian and the Inferior Oolite; large quantities of hydraulic cement and lime have been made from the Lias. The celebrated lithographic stone of Solenhofen in Bavaria belongs to the upper portion of this system.

See D'Orbigny, *Paléontologie française*, *Terrain Jurassique* (1840, 1846); L. von Buch, "Über den Jura in Deutschland" (*Abhand. d. Berlin Akad.*, 1839); F. A. Quenstedt, *Flötzgebirge Württembergs* (1843) and other papers, also *Der Jura* (1883–1888); A. Oppel, *Die Juraformation Englands, Frankreichs und s.w. Deutschlands* (1856–1858). For a good general account of the formations with many references to original papers, see A. de Lapparent, *Traité de géologie*, vol. ii. 5th ed. (1906). The standard work for Great Britain is the series of *Memoirs of the Geological Survey* entitled *The Jurassic Rocks of Britain*, i and ii. "Yorkshire" (1892); iii. "The Lias of England and Wales" (1893); iv. "The Lower Oolite Rocks of England (Yorkshire excepted)" (1894); v. "The Middle and Upper Oolitic Rocks of England (Yorkshire excepted)" (1895). The map is after that of M. Neumayr, "Die geographische Verbreitung der Juraformation," *Denkschr. d. k. Akad. d. Wiss., Wien, Math. u. Naturwiss.*, cl. L., *Abth.* i., *Karte* 1. (1885). (J. A. H.)

JURAT (through Fr. from med. Lat. *juratus*, one sworn, Lat. *jurare*, to swear), a name given to the sworn holders of certain offices. Under the *ancien régime* in France, in several towns, of the south-west, such as Rochelle and Bordeaux, the *jurats* were members of the municipal body. The title was also borne by officials, corresponding to aldermen, in the Cinque Ports, but is now chiefly used as a title of office in the Channel Islands. There are two bodies, consisting each of twelve jurats, for Jersey and the bailiwick of Guernsey respectively. They are elected for life, in Jersey by the ratepayers, in Guernsey by the elective states. They form, with the bailiff as presiding judge, the royal court of justice, and are a constituent part of the legislative bodies. In English law, the word jurat (*juratum*) is applied to that part of an affidavit which contains the names of the parties swearing the affidavit and the person before whom it was sworn, the date, place and other necessary particulars.

JURIEN DE LA GRAVIÈRE, JEAN BAPTISTE EDMOND (1812–1892), French admiral, son of Admiral Jurien, who served through the Revolutionary and Napoleonic wars and was a peer of France under Louis Philippe, was born on the 19th of November 1812. He entered the navy in 1828, was made a commander in 1841, and captain in 1850. During the Russian War he commanded a ship in the Black Sea. He was promoted to be rear-admiral on the 1st of December 1855, and appointed to the command of a squadron in the Adriatic in 1859, when he absolutely sealed the Austrian ports with a close blockade. In October 1861 he was appointed to command the squadron in the Gulf of Mexico, and two months later the expedition against Mexico. On the 15th of January 1862 he was promoted to be vice-admiral. During the Franco-German War of 1870 he had command of the French Mediterranean fleet, and in 1871 he was appointed "director of charts." As having commanded in chief before the enemy, the age-limit was waived in his favour, and he was continued on the active list. Jurien died on the 4th of March 1892. He was a voluminous author of works on naval history and biography, most of which first appeared in the *Revue des deux mondes*. Among the most noteworthy of these are *Guerres maritimes sous la république et l'empire*, which was translated by Lord Dunsany under the title of *Sketches of the Last Naval War* (1848); *Souvenirs d'un amiral* (1860), that is, of his father,

Admiral Jurien; *La Marine d'autrefois* (1865), largely autobiographical; and *La Marine d'aujourd'hui* (1872). In 1866 he was elected a member of the Academy.

JURIEU, PIERRE (1637–1713), French Protestant divine, was born at Mer, in Orléanais, where his father was a Protestant pastor. He studied at Saumur and Sedan under his grandfather, Pierre Dumoulin, and under Leblanc de Beaulieu. After completing his studies in Holland and England, Jurieu received Anglican ordination; returning to France he was ordained again and succeeded his father as pastor of the church at Mer. Soon after this he published his first work, *Examen de livre de la rêunion du Christianisme* (1671). In 1674 his *Traité de la dévotion* led to his appointment as professor of theology and Hebrew at Sedan, where he soon became also pastor. A year later he published his *Apologie pour la morale des Réformés*. He obtained a high reputation, but his work was impaired by his controversial temper, which frequently developed into an irritated fanaticism, though he was always entirely sincere. He was called by his adversaries "the Goliath of the Protestants." On the suppression of the academy of Sedan in 1681, Jurieu received an invitation to a church at Rouen, but, afraid to remain in France on account of his forthcoming work, *La Politique du clergé de France*, he went to Holland and was pastor of the Walloon church of Rotterdam till his death on the 11th of January 1713. He was also professor at the école illustre. Jurieu did much to help those who suffered by the revocation of the Edict of Nantes (1685). He himself turned for consolation to the Apocalypse, and succeeded in persuading himself (*Accomplissement des prophéties*, 1686) that the overthrow of Antichrist (*i.e.* the papal church) would take place in 1689. H. M. Baird says that "this persuasion, however fanciful the grounds on which it was based, exercised no small influence in forwarding the success of the designs of William of Orange in the invasion of England." Jurieu defended the doctrines of Protestantism with great ability against the attacks of Antoine Arnauld, Pierre Nicole and Bossuet, but was equally ready to enter into dispute with his fellow Protestant divines (with Louis Du Moulin and Claude Payon, for instance) when their opinions differed from his own even on minor matters. The bitterness and persistency of his attacks on his colleague Pierre Bayle led to the latter being deprived of his chair in 1693.

One of Jurieu's chief works is *Lettres pastorales adressées aux fidèles de France* (3 vols., Rotterdam, 1686–1687; Eng. trans., 1689), which, notwithstanding the vigilance of the police, found its way into France and produced a deep impression on the Protestant population. His last important work was the *Histoire critique des dogmes et des cultes* (1704; Eng. trans., 1715). He wrote a great number of controversial works.

See the article in Herzog-Hauck, *Realencyklopädie*; also H. M. Baird, *The Huguenots and the Revocation of the Edict of Nantes* (1895).

JURIS, a tribe of South American Indians, formerly occupying the country between the rivers Içа (lower Putumayo) and Japura, north-western Brazil. In ancient days they were the most powerful tribe of the district, but in 1820 their numbers did not exceed 2000. Owing to inter-marrying, the Juris are believed to have been extinct for half a century. They were closely related to the Passês, and were like them a fair-skinned, finely built people with quite European features.

JURISDICTION, in general, the exercise of lawful authority, especially by a court or a judge; and so the extent or limits within which such authority is exercisable. Thus each court has its appropriate jurisdiction; in the High Court of Justice in England administration actions are brought in the chancery division, salvage actions in the admiralty, &c. The jurisdiction of a particular court is often limited by statute, as that of a county court, which is local and is also limited in amount. In international law jurisdiction has a wider meaning, namely, the rights exercisable by a state within the bounds of a given space. This is frequently referred to as the territorial theory of jurisdiction. (See INTERNATIONAL LAW; INTERNATIONAL LAW, PRIVATE.)

JURISPRUDENCE (Lat. *jurisprudentia*, knowledge of law, from *jus*, right, and *prudentia*, from *providere*, to foresee), the general term for "the formal science of positive law" (T. E. Holland); see LAW. The essential principles involved are discussed below and in JURISPRUDENCE, COMPARATIVE; the details of particular laws or sorts of law (CONTRACT, &c.) and of individual national systems of law (ENGLISH LAW, &c.) being dealt with in separate articles.

The human race may be conceived as parcelled out into a number of distinct groups or societies, differing greatly in size and circumstances, in physical and moral characteristics of all kinds. But they all resemble each other in that they reveal on examination certain rules of conduct in accordance with which the relations of the members *inter se* are governed. Each society has its own system of laws, and all the systems, so far as they are known, constitute the appropriate subject matter of jurisprudence. The jurist may deal with it in the following ways. He may first of all examine the leading conceptions common to all the systems, or in other words define the leading terms common to them all. Such are the terms *law* itself, *right*, *duty*, *property*, *crime*, and so forth, which, or their equivalents, may, notwithstanding delicate differences of connotation, be regarded as common terms in all systems. That kind of inquiry is known in England as analytical jurisprudence. It regards the conceptions with which it deals as fixed or stationary, and aims at expressing them distinctly and exhibiting their logical relations with each other. What is really meant by a right and by a duty, and what is the true connexion between a right and a duty, are types of the questions proper to this inquiry. Shifting our point of view, but still regarding systems of law in the mass, we may consider them, not as stationary, but as changeable and changing, we may ask what general features are exhibited by the record of the change. This, somewhat crudely put, may serve to indicate the field of historical or comparative jurisprudence. In its ideal condition it would require an accurate record of the history of all legal systems as its material. But whether the material be abundant or scanty the method is the same. It seeks the explanation of institutions and legal principles in the facts of history. Its aim is to show how a given rule came to be what it is. The legislative source—the emanation of the rule from a sovereign authority—is of no importance here; what is important is the moral source—the connexion of the rule with the ideas prevalent during contemporary periods. This method, it is evident, involves not only a comparison of successive stages in the history of the same system, but a comparison of different systems, of the Roman with the English, of the Hindu with the Irish, and so on. The historical method as applied to law may be regarded as a special example of the method of comparison. The comparative method is really employed in all generalizations about law; for, although the analysis of legal terms might be conducted with exclusive reference to one system, the advantage of testing the result by reference to other systems is obvious. But, besides the use of comparison for purposes of analysis and in tracing the phenomena of the growth of laws, it is evident that for the purposes of practical legislation the comparison of different systems may yield important results. Laws are contrivances for bringing about certain definite ends, the larger of which are identical in all systems. The comparison of these contrivances not only serves to bring their real object, often obscured as it is in details, into clearer view, but enables legislators to see where the contrivances are deficient, and how they may be improved.

The "science of law," as the expression is generally used, means the examination of laws in general in one or other of the ways just indicated. It means an investigation of laws which exist or have existed in some given society in fact—in other words, positive laws; and it means an examination not limited to the exposition of particular systems. Analytical jurisprudence is in England associated chiefly with the name of John Austin (*q.v.*), whose *Province of Jurisprudence Delermined* systematized and completed the work begun in England by Hobbes, and continued at a later date and from a different point of view by Bentham.

Austin's first position is to distinguish between laws properly so called and laws improperly so called. In any of the older writers on law, we find the various senses in which the word is

used grouped together as variations of one common meaning. Thus Blackstone advances to his proper subject, municipal laws, through (1) the laws of inanimate matter, (2) the laws of animal nutrition, digestion, &c., (3) the laws of nature, which are rules imposed by God on men and discoverable by reason alone, and (4) the revealed or divine law which is part of the law of nature directly expounded by God. All of these are connected by this common element that they are "rules of action dictated by some superior being." And some such generalization as this is to be found at the basis of most treatises on jurisprudence which have not been composed under the influence of the analytical school. Austin disposes of it by the distinction that some of those laws are commands, while others are not commands. The so-called laws of nature are not commands; they are uniformities which resemble commands only in so far as they may be supposed to have been ordered by some intelligent being. But they are not commands in the only proper sense of that word—they are not addressed to reasonable beings, who may or may not will obedience to them. Laws of nature are not addressed to anybody, and there is no possible question of obedience or disobedience to them. Austin accordingly pronounces them laws improperly so called, and confines his attention to laws properly so called, which are commands addressed by a human superior to a human inferior.

This distinction seems so simple and obvious that the energy and even bitterness with which Austin insists upon it now seem superfluous. But the indiscriminate identification of everything to which common speech gives the name of a law was, and still is, a fruitful source of confusion. Blackstone's statement that when God "put matter into motion He established certain laws of motion, to which all movable matter must conform," and that in those creatures that have neither the power to think nor to will such laws must be invariably obeyed, so long as the creature itself subsists, for its existence depends on that obedience, imputes to the law of gravitation in respect of both its origin and its execution the qualities of an act of parliament. On the other hand the qualities of the law of gravitation are imputed to certain legal principles which, under the name of the law of nature, are asserted to be binding all over the globe, so that "no human laws are of any validity if contrary to this." Austin never fails to stigmatize the use of "natural laws" in the sense of scientific facts as improper, or as metaphorical.

Having eliminated metaphorical or figurative laws, we restrict ourselves to those laws which are commands. This word is the key to the analysis of law, and accordingly a large portion of Austin's work is occupied with the determination of its meaning. A *command* is an order issued by a superior to an inferior. It is a signification of desire distinguished by this peculiarity that "the party to whom it is directed is liable to evil from the other, in case he comply not with the desire." "If you are able and willing to harm me in case I comply not with your wish, the expression of your wish amounts to a command." Being liable to evil in case I comply not with the wish which you signify, I am *bound* or obliged by it, or I lie under a *duty* to obey it. The evil is called a *sanction*, and the command or duty is said to be *sanctioned* by the chance of incurring the evil. The three terms *command*, *duty* and *sanction* are thus inseparably connected. As Austin expresses it in the language of formal logic, "each of the three terms signifies the same notion, but each *denotes* a different part of that notion and *connotes* the residue."

All commands, however, are not laws. That term is reserved for those commands which oblige generally to the performance of acts of a class. A command to your servant to rise at such an hour on such a morning is a particular command, but not a law or rule; a command to rise always at that hour is a law or rule. Of this distinction it is sufficient to say in the meantime that it involves, when we come to deal with positive laws, the rejection of particular enactments to which by inveterate usage the term law would certainly be applied. On the other hand it is not, according to Austin, necessary that a true law should bind persons as a class. Obligations imposed on the grantee of an office specially created by parliament would imply a law; a general order to go into mourning addressed to the whole nation for a particular occasion would not be a law.

So far we have arrived at a definition of laws properly so called. Austin holds superiority and inferiority to be necessarily implied in command, and such statements as that "laws emanate from superiors" to be the merest tautology and trifling. Elsewhere he sums up the characteristics of true laws as ascertained by the analysis thus: (1) laws, being commands, emanate from a determinate source; (2) every sanction is an evil annexed to a command; and (3) every duty implies a command, and chiefly means obnoxiousness to the evils annexed to commands.

Of true laws, those only are the subject of jurisprudence which are laws strictly so called, or positive laws. Austin accordingly proceeds to distinguish positive from other true laws, which are either laws set by God to men or laws set by men to men, not, however, as political superiors nor in pursuance of a legal right. The discussion of the first of these true but not positive laws leads Austin to his celebrated discussion of the utilitarian theory. The laws set by God are either revealed or unrevealed, *i.e.* either expressed in direct command, or made known to men in one or other of the ways denoted by such phrases as the "light of nature," "natural reason," "dictates of nature," and so forth. Austin maintains that the principle of general utility, based ultimately on the assumed benevolence of God, is the true index to such of His commands as He has not chosen to reveal. Austin's exposition of the meaning of the principle is a most valuable contribution to moral science, though he rests its claims ultimately on a basis which many of its supporters would disavow. And the whole discussion is now generally condemned as lying outside the proper scope of the treatise, although the reason for so condemning it is not always correctly stated. It is found in such assumptions of fact as that there is a God, that He has issued commands to men in what Austin calls the "truths of revelation," that He designs the happiness of all His creatures, that there is a predominance of good in the order of the world—which do not now command universal assent. It is impossible to place these propositions on the same scientific footing as the assumptions of fact with reference to human society on which jurisprudence rests. If the "divine laws" were facts like acts of parliament, it is conceived that the discussion of their characteristics would not be out of place in a scheme of jurisprudence.

The second set of laws properly so called, which are not positive laws, consists of three classes: (1) those which are set by men living in a state of nature; (2) those which are set by sovereigns but not as political superiors, *e.g.* when one sovereign commands another to act according to a principle of international law; and (3) those set by subjects but not in pursuance of legal rights. This group, to which Austin gives the name of positive morality, helps to explain his conception of positive law. Men are living in a state of nature, or a state of anarchy, when they are not living in a state of government or as members of a political society. "Political society" thus becomes the central fact of the theory, and some of the objections that have been urged against it arise from its being applied to conditions of life in which Austin would not have admitted the existence of a political society. Again, the third set in the group is intimately connected with positive laws on the one hand and rules of positive morality which are not even laws properly so called on the other. Thus laws set by subjects in consequence of a legal right are clothed with legal sanctions, and are laws positive. A law set by guardian to ward, in pursuance of a right which the guardian is bound to exercise, is a positive law pure and simple; a law set by master to slave, in pursuance of a legal right, which he is not bound to exercise, is, in Austin's phraseology, to be regarded both as a positive moral rule and as a positive law.[1] On the other hand the rules set by a club or society, and enforced upon its members by exclusion from the society, but not in pursuance of any legal right, are laws, but not positive laws. They are imperative and proceed from

[1] This appears to be an unnecessary complication. The sovereign has authorized the master to set the law, although not compelling him to do so, and enforces the law when set. There seems no good reason why the law should be called a rule of positive morality at all.

a determinate source, but they have no legal or political sanction. Closely connected with this positive morality, consisting of true but not positive laws, is the positive morality whose rules are not laws properly so called at all, though they are generally denominated laws. Such are the laws of honour, the laws of fashion, and, most important of all, international law.

Nowhere does Austin's phraseology come more bluntly into conflict with common usage than in pronouncing the law of nations (which in substance is a compact body of well-defined rules resembling nothing so much as the ordinary rules of law) to be not laws at all, even in the wider sense of the term. That the rules of a private club should be law properly so called, while the whole mass of international jurisprudence is mere opinion, shocks our sense of the proprieties of expression. Yet no man was more careful than Austin to observe these properties. He recognizes fully the futility of definitions which involve a painful struggle with the current of ordinary speech. But in the present instance the apparent paralogism cannot be avoided if we accept the limitation of laws properly so called to commands proceeding from a determinate source. And that limitation is so generally present in our conception of law that to ignore it would be a worse anomaly than this. No one finds fault with the statement that the so-called code of honour or the dictates of fashion are not, properly speaking, laws. We repel the same statement applied to the law of nature, because it resembles in so many of its most striking features—in the certainty of a large portion of it, in its terminology, in its substantial principles—the most universal elements of actual systems of law, and because, moreover, the assumption that brought it into existence was nothing else than this, that it consisted of those abiding portions of legal systems which prevail everywhere by their own authority. But, though "positive morality" may not be the best phrase to describe such a code of rules, the distinction insisted on by Austin is unimpeachable.

The elimination of those laws properly and improperly so called which are not positive laws brings us to the definition of positive law, which is the keystone of the system. Every positive law is "set by a sovereign person, or sovereign body of persons, to a member or members of the independent political society wherein that person or body is sovereign or superior." Though possibly sprung directly from another source, it is a positive law, by the institution of that present sovereign in the character of a political superior. The question is not as to the historical origin of the principle, but as to its present authority. "The legislator is he, not by whose authority the law was first made, but by whose authority it continues to be law." This definition involves the analysis of the connected expressions *sovereignty*, *subjection* and *independent political society*, and of *determinate body*—which last analysis Austin performs in connexion with that of commands. These are all excellent examples of the logical method of which he was so great a master. The broad results alone need be noticed here. In order that a given society may form a society political and independent, the *generality or bulk* of its members must be in a *habit* of obedience to a certain and common superior; whilst that certain person or body of persons must not be *habitually* obedient to a certain person or body. All the italicized words point to circumstances in which it might be difficult to say whether a given society is political and independent or not. Several of these Austin has discussed—*e.g.* the state of things in which a political society yields obedience which may or may not be called habitual to some external power, and the state of things in which a political society is divided between contending claimants for sovereign power, and it is uncertain which shall prevail, and over how much of the society. So long as that uncertainty remains we have a state of *anarchy*. Further, an independent society to be political must not fall below a number which can only be called considerable. Neither then in a state of anarchy, nor in inconsiderable communities, nor among men living in a state of nature, have we the proper phenomena of a political society. The last limitation goes some way to meet the most serious criticism to which Austin's system has been exposed, and it ought to be stated in his own words. He supposes a society which may be styled independent, which is considerable in numbers, and which is in a savage or extremely barbarous condition. In such a society, "the bulk of its members is not in the habit of obedience to one and the same superior. For the purpose of attacking an external enemy, or for the purpose of repelling an attack, the bulk of its members who are capable of bearing arms submits to one leader or one body of leaders. But as soon as that emergency passes the transient submission ceases, and the society reverts to the state which may be deemed its ordinary state. The bulk of each of the families which compose the given society renders habitual obedience to its own peculiar chief, but those domestic societies are themselves independent societies, or are not united and compacted into one political society by habitual and general obedience to one common superior, and there is no law (simply or strictly so styled) which can be called the law of that society. The so-called laws which are common to the bulk of the community are purely and properly customary laws—that is to say, laws which are set or imposed by the general opinion of the community, but are not enforced by legal or political sanctions." Such, he says, are the savage societies of hunters and fishers in North America, and such were the Germans as described by Tacitus. He takes no account of societies in an intermediate stage between this and the condition which constitutes political society.

We need not follow the analysis in detail. Much ingenuity is displayed in grouping the various kinds of government, in detecting the sovereign authority under the disguises which it wears in the complicated state system of the United States or under the fictions of English law, in elucidating the precise meaning of abstract political terms. Incidentally the source of many celebrated fallacies in political thought is laid bare. That the question who is sovereign in a given state is a question of fact and not of law or morals or religion, that the sovereign is incapable of legal limitation, that law is such by the sovereign's command, that no real or assumed compact can limit his action—are positions which Austin has been accused of enforcing with needless iteration. He cleared them, however, from the air of paradox with which they had been previously encumbered, and his influence was in no direction more widely felt than in making them the commonplaces of educated opinion in this generation.

Passing from these, we may now consider what has been said against the theory, which may be summed up in the following terms. Laws, no matter in what form they be expressed, are in the last resort reducible to commands set by the person or body of persons who are in fact sovereigns in any independent political society. The sovereign is the person or persons whose commands are habitually obeyed by the great bulk of the community; and by an independent society we mean that such sovereign head is not himself habitually obedient to any other determinate body of persons. The society must be sufficiently numerous to be considerable before we can speak of it as a political society. From command, with its inseparable incident of sanction, come the duties and rights in terms of which laws are for the most part expressed. Duty means that the person of whom it is predicated is liable to the sanction in case he fails to obey the command. Right means that the person of whom it is predicated may set the sanction in operation in case the command be disobeyed.

We may here interpolate a doubt whether the condition of independence on the part of the head of a community is essential to the legal analysis. It seems to us that we have all the elements of a true law present when we point to a community habitually obedient to the authority of a person or determinate body of persons, no matter what the relations of that superior may be to any external or superior power. Provided that in fact the commands of the lawgiver are those beyond which the community never looks, it seems immaterial to inquire whether this lawgiver in turn takes his orders from somebody else or is habitually obedient to such orders when given. One may imagine a community governed by a dependent legislatorial body or person, while the supreme sovereign whose representative and nominee such body or person may be never directly addresses the community at all. We do not see that in such a case anything is gained in clearness by representing the law of the community as set by the suzerain, rather than the dependent legislator. Nor is the ascertainment of the ultimate seat of power necessary to define

political societies. That we get when we suppose a community to be in the habit of obedience to a single person or to a determinate combination of persons.

The use of the word "command" is not unlikely to lead to a misconception of Austin's meaning. When we say that a law is a command of the sovereign, we are apt to think of the sovereign as enunciating the rule in question for the first time. Many laws are not traceable to the sovereign at all in this sense. Some are based upon immemorial practices, some can be traced to the influence of private citizens, whether practising lawyers or writers on law, and in most countries a vast body of law owes its existence as such to the fact that it has been observed as law in some other society. The great bulk of modern law owes its existence and its shape ultimately to the labours of the Roman lawyers of the empire. Austin's definition has nothing to do with this, the historical origin of laws. Most books dealing with law in the abstract generalize the modes in which laws may be originated under the name of the "sources" of law, and one of these is legislation, or the direct command of the sovereign body. The connexion of laws with each other as principles is properly the subject matter of historical jurisprudence, the ideal perfection of which would be the establishment of the general laws governing the evolution of law in the technical sense. Austin's definition looks, not to the authorship of the law as a principle, not to its inventor or originator, but to the person or persons who in the last resort cause it to be obeyed. If a given rule is enforced by the sovereign it is a law.

It may be convenient to notice here what is usually said about the sources of law, as the expression sometimes proves a stumbling-block to the appreciation of Austin's system. In the *corpus juris* of any given country only a portion of the laws is traceable to the direct expression of his commands by the sovereign. Legislation is one, but only one, of the sources of law. Other portions of the law may be traceable to other sources, which may vary in effect in different systems. The list given in the *Institutes* of Justinian of the ways in which law may be made—*lex, plebiscitum, principis placita, edicta magistratuum*, and so on—is a list of sources. Among the sources of law other than legislation which are most commonly exemplified are the laws made by judges in the course of judicial decisions, and law originating as custom. The source of the law in the one case is the judicial decision, in the other the custom. In consequence of the decisions and in consequence of the custom the rule has prevailed. English law is largely made up of principles derived in each of those ways, while it is deficient in principles derived from the writings of independent teachers, such as have in other systems exercised a powerful influence on the development of law. The *responsa prudentum*, the opinions of learned men, published as such, did undoubtedly originate an immense portion of Roman law. No such influence has affected English law to any appreciable extent—a result owing to the activity of the courts of the legislature. This difference has profoundly affected the form of English law as compared with that of systems which have been developed by the play of free discussion. These are the most definite of the influences to which the beginning of laws may be traced. The law once established, no matter how, is nevertheless law in the sense of Austin's definition. It is enforced by the sovereign authority. It was originated by something very different. But when we speak of it as a command we think only of the way in which it is to-day presented to the subject. The newest order of an act of parliament is not more positively presented to the people as a command to be obeyed than are the elementary rules of the common law for which no legislative origin can be traced. It is not even necessary to resort to the figure of speech by which alone, according to Sir Henry Maine (*Early History of Institutions*, p. 314), the common law can be regarded as the commands of the government. "The common law," he says, "consists of their commands because they can repeal or alter or restate it at pleasure." "They command because, being by the assumption possessed of uncontrollable force, they could innovate without limit at any moment." On the contrary, it may be said that they command because they do as a matter of fact enforce the rules laid down in the common law. It is not because they could innovate if they pleased in the common law that they are said to command it, but because it is known that they will enforce it as it stands.

The criticism of Austin's analysis resolved itself into two different sets of objections. One relates to the theory of sovereignty which underlies it; the other to its alleged failure to include rules which in common parlance are laws, and which it is felt ought to be included in any satisfactory definition of law. As the latter is to some extent anticipated and admitted by Austin himself, we may deal with it first.

Frederic Harrison (*Fortnightly Review*, vols. xxx., xxxi.) was at great pains to collect a number of laws or rules of law which do not square with the Austinian definition of law as a command creating rights and duties. Take the rule that "every will must be in writing." It is a very circuitous way of looking at things, according to Harrison, to say that such a rule creates a specific right in any determinate person of a definite description. So, again, the rule that "a legacy to the witness of a will is void." Such a rule is not "designed to give any one any rights, but simply to protect the public against wills made under undue influence." Again, the technical rule in Shelley's case that a gift to A for life, followed by a gift to the heirs of A, is a gift to A in fee simple, is pronounced to be inconsistent with the definition. It is an idle waste of ingenuity to force any of these rules into a form in which they might be said to create rights.

This would be a perfectly correct description of any attempt to take any of these rules separately and analyse it into a complete command creating specific rights and duties. But there is no occasion for doing anything of the kind. It is not contended that every grammatically complete sentence in a textbook or a statute is *per se* a command creating rights and duties. A law, like any other command, must be expressed in words, and will require the use of the usual aids to expression. The gist of it may be expressed in a sentence which, standing by itself, is not intelligible; other sentences locally separate from the principal one may contain the exceptions and the modifications and the interpretations to which that is subject. In no one of these taken by itself, but in the substance of them all taken together, is the true law, in Austin's sense, to be found. Thus the rule that every will must be in writing is a mere fragment—only the limb of a law. It belongs to the rule which fixes the rights of devisees or legatees under a will. That rule in whatever form it may be expressed is, without any straining of language, a command of the legislator. That "every person named by a testator in his last will and testament shall be entitled to the property thereby given him" is surely a command creating rights and duties. After testament add "expressed in writing"; it is still a command. Add further, "provided he be not one of the witnesses to the will," and the command, with its product of rights and duties, is still there. Each of the additions limits the operation of the command stated imperatively in the first sentence. So with the rule in Shelley's case. It is resolvable into the rule that every person to whom an estate is given by a conveyance expressed in such and such a way shall take such and such rights. To take another example from later legislation. An English statute passed in 1881 enacts nothing more than this, that an act of a previous session shall be construed as if "that" meant "this." It would be futile indeed to force this into conformity with Austin's definition by treating it as a command addressed to the judges, and as indirectly creating rights to have such a construction respected. As it happens, the section of the previous act referred to (the Burials Act 1880) was an undeniable command addressed to the clergy, and imposed upon them a specific duty. The true command—the law—is to be found in the two sections taken together.

All this confusion arises from the fact that laws are not habitually expressed in imperative terms. Even in a mature system like that of England the great bulk of legal rules is hidden under forms which disguise their imperative quality. They appear as principles, maxims, propositions of fact, generalizations, points of pleading and procedure, and so forth. Even in the statutes the imperative form is not uniformly observed. It might be said that the more mature a legal system is the less do its individual rules take the form of commands. The greater portion of Roman law is expressed in terms which would not misbecome scientific or speculative treatises. The institutional works abound in propositions which have no legal significance at all, but which are not distinguished from the true law in which they are embedded by any difference in the forms of expression. Assertions about matters of history, dubious speculations in philology, and reflections on human conduct are mixed up in the same narrative with genuine rules of law. Words of description are used, not words of command, and rules of law assimilate themselves in form to the extraneous matter with which they are mixed up.

It has been said that Austin himself admitted to some extent the force of these objections. He includes among laws which are not imperative "declaratory laws, or laws explaining the

import of existing positive law, and laws abrogating or repealing existing positive law." He thus associates them with rules of positive morality and with laws which are only metaphorically so called. This collocation is unfortunate and out of keeping with Austin's method. Declaratory and repealing laws are as completely unlike positive morality and metaphorical laws as are the laws which he describes as properly so called. And if we avoid the error of treating each separate proposition enunciated by the lawgiver as *a* law, the cases in question need give us no trouble. Read the declaratory and the repealing statutes along with the principal laws which they affect, and the result is perfectly consistent with the proposition that all law is to be resolved into a species of command. In the one case we have in the principal taken together with the interpretative statute a law, and whether it differs or not from the law as it existed before the interpretative statute was passed makes no difference to the true character of the latter. It contributes along with the former to the expression of a command which is a true law. In the same way repealing statutes are to be taken together with the laws which they repeal—the result being that there is no law, no command, at all. It is wholly unnecessary to class them as laws which are not truly imperative, or as exceptions to the rule that laws are a species of commands. The combination of the two sentences in which the lawgiver has expressed himself, yields the result of silence—absence of law—which is in no way incompatible with the assertion that a law, when it exists, is a kind of command. Austin's theory does not logically require us to treat every act of parliament as being a complete law in itself, and therefore to set aside a certain number of acts of parliament as being exceptions to the great generalization which is the basis of the whole system.

Rules of procedure again have been alleged to constitute another exception. They cannot, it is said, be regarded as commands involving punishment if they be disobeyed. Nor is anything gained by considering them as commands addressed to the judge and other ministers of the law. There may be no doubt in the law of procedure a great deal that is resolvable into law in this sense, but the great bulk of it is to be regarded like the rules of interpretation as entering into the substantive commands which are laws. They are descriptions of the sanction and its mode of working. The bare prohibition of murder without any penalty to enforce it would not be a law. To prohibit it under penalty of death implies a reference to the whole machinery of criminal justice by which the penalty is enforced. Taken by themselves the rules of procedure are not, any more than canons of interpretation, complete laws in Austin's sense of the term. But they form part of the complete expression of true laws. They imply a command, and they describe the sanction and the mode in which it operates.

A more formidable criticism of Austin's position is that which attacks the definition of sovereignty. There are countries, it is said, where the sovereign authority cannot by any stretch of language be said to command the laws, and yet where law manifestly exists. The ablest and the most moderate statement of this view is given by Sir Henry Maine in *Early History of Institutions*, p. 380:—

"It is from no special love of Indian examples that I take one from India, but because it happens to be the most modern precedent in point. My instance is the Indian province called the Punjaub, the country of the Five Rivers, in the state in which it was for about a quarter of a century before its annexation to the British Indian Empire. After passing through every conceivable phase of anarchy and dormant anarchy, it fell under the tolerably consolidated dominion of a half-military half-religious oligarchy known as the Sikhs. The Sikhs themselves were afterwards reduced to subjection by a single chieftain belonging to their order, Runjeet Singh. At first sight there could be no more perfect embodiment than Runjeet Singh of sovereignty as conceived by Austin. He was absolutely despotic. Except occasionally on his wild frontier he kept the most perfect order. He could have commanded anything; the smallest disobedience to his commands would have been followed by death or mutilation; and this was perfectly well known to the enormous majority of his subjects. Yet I doubt whether once in all his life he issued a command which Austin would call a law. He took as his revenue a prodigious share of the produce of the soil. He harried villages which recalcitrated at his exactions, and he executed great numbers of men. He levied great armies; he had all material of power, and he exercised it in various ways. But he never made a law. The rules which regulated the lives of his subjects were derived from their immemorial usages, and those rules were administered by domestic tribunals in families or village communities—that is, in groups no larger or little larger than those to which the application of Austin's principles cannot be effected on his own admission without absurdity."

So far as the mere size of the community is concerned, there is no difficulty in applying the Austinian theory. In postulating a considerably numerous community Austin was thinking evidently of small isolated groups which could not without provoking a sense of the ridiculous be termed nations. Two or three families, let us suppose, occupying a small island, totally disconnected with any great power, would not claim to be and would not be treated as an independent political community. But it does not follow that Austin would have regarded the village communities spoken of by Maine in the same light. Here we have a great community, consisting of a vast number of small communities, each independent of the other, and disconnected with all the others, so far as the administration of anything like law is concerned. Suppose in each case that the headman or council takes his orders from Runjeet Singh, and enforces them, each in his own sphere, relying as the last resort on the force at the disposal of the suzerain. The mere size of the separate communities would make no sort of difference to Austin's theory. He would probably regard the empire of Runjeet Singh as divided into small districts—an assumption which inverts no doubt the true historical order, the smaller group being generally more ancient than the larger. But provided that the other conditions prevail, the mere fact that the law is administered by local tribunals for minute areas should make no difference to the theory. The case described by Maine is that of the undoubted possession of supreme power by a sovereign, coupled with the total absence of any attempt on his part to *originate* a law. That no doubt is, as we are told by the same authority, "the type of all Oriental communities in their native state during their rare intervals of peace and order." The empire was in the main in each case a tax-gathering empire. The unalterable law of the Medes and Persians was not a law at all but an occasional command. So again Maine puts his position clearly in the following sentences: "The Athenian assembly made true laws for residents on Attic territory, but the dominion of Athens over her subject cities and islands was clearly a tax-taking as distinguished from a legislating empire." Maine, it will be observed, does not say that the sovereign assembly did not command the laws in the subject islands—only that it did not legislate.

In the same category may be placed without much substantial difference all the societies that have ever existed on the face of the earth previous to the point at which *legislation* becomes active. Maine is undoubtedly right in connecting the theories of Bentham and Austin with the overwhelming activity of legislatures in modern times. And formal legislation, as he elsewhere shows, comes late in the history of most legal systems. Law is generated in other ways, which seem irreconcilable with anything like legislation. Not only the tax-gathering emperors of the East, indifferent to the condition of their subjects, but even actively benevolent governments have up to a certain point left the law to grow by other means than formal enactments. What is *ex facie* more opposed to the idea of a sovereign's commands than the conception of schools of law? Does it not "sting us with a sense of the ridiculous" to hear principles which are the outcome of long debates between Proculians and Sabinians described as commands of the emperor? How is sectarianism in law possible if the sovereign's command is really all that is meant by a law? No mental attitude is more common than that which regards law as a natural product—discoverable by a diligent investigator, much in the same way as the facts of science or the principles of mathematics. The introductory portions of Justinian's *Institutes* are certainly written from this point of view, which may also be described without much unfairness as the point of view of German jurisprudence. And yet the English

jurist who accepts Austin's postulate as true for the English system of our own day would have no difficulty in applying it to German or Roman law generated under the influence of such ideas as these.

Again, referring to the instance of Runjeet Singh, Sir H. Maine says no doubt rightly that "he never did or could have dreamed of changing the civil rules under which his subjects lived. Probably he was as strong a believer in the independent obligatory force of such rules as the elders themselves who applied them." That too might be said with truth of states to which the application of Austin's system would be far from difficult. The sovereign body or person enforcing the rules by all the ordinary methods of justice might conceivably believe that the rules which he enforced had an obligatory authority of their own, just as most lawyers at one time, and possibly some lawyers now, believe in the natural obligatoriness, independently of courts or parliaments, of portions of the law of England. But nevertheless, whatever ideas the sovereign or his delegates might entertain as to "the independent obligatory force" of the rules which they enforce, the fact that they do enforce them distinguishes them from all other rules. Austin seizes upon this peculiarity and fixes it as the determining characteristic of positive law. When the rule is enforced by a sovereign authority as he defines it, it is his command, even if he should never so regard it himself, or should suppose himself to be unable to alter it in a single particular.

It may be instructive to add to these examples of dubious cases one taken from what is called ecclesiastical law. In so far as this has not been adopted and enforced by the state, it would, on Austin's theory, be, not positive law, but either positive morality or possibly a portion of the Divine law. No jurist would deny that there is an essential difference between so much of ecclesiastical law as is adopted by the state and all the rest of it, and that for scientific purposes this distinction ought to be recognized. How near this kind of law approaches to the positive or political law may be seen from the sanctions on which it depended. "The theory of penitential discipline was this: that the church was an organized body with an outward and visible form of government; that all who were outside her boundaries were outside the means of divine grace; that she had a command laid upon her, and authority given to her, to gather men into her fellowship by the ceremony of baptism, but, as some of those who were admitted proved unworthy of their calling, she also had the right by the power of the keys to deprive them temporarily or absolutely of the privilege of communion with her, and on their amendment to restore them once more to church membership. On this power of exclusion and restoration was founded the system of ecclesiastical discipline. It was a purely spiritual jurisdiction. It obtained its hold over the minds of men from the belief, universal in the Catholic church of the early ages, that he who was expelled from her pale was expelled also from the way of salvation, and that the sentence which was pronounced by God's church on earth was ratified by Him in heaven." (Smith's *Dictionary of Christian Antiquities*, art. "Penitence," p. 1587.)

These laws are not the laws of the jurists, though they resemble them closely in many points—indeed in all points except that of the sanction by which they are enforced. It is a spiritual not a political sanction. The force which lies behind them is not that of the sovereign or the state. When physical force is used to compel obedience to the laws of the church they become positive laws. But so long as the belief in future punishments or the fear of the purely spiritual punishments of the church is sufficient to procure obedience to them, they are to be regarded as commands, not by the state, but by the church. That difference Austin makes essential. In rejecting spiritual laws from the field of positive law his example would be followed by jurists who would nevertheless include other laws, not ecclesiastical in purpose, but enforced by very similar methods.

Austin's theory in the end comes to this, that true laws are in all cases obeyed in consequence of the application of regulated physical force by some portion of the community. That is a fair paraphrase of the position that laws are the commands of the sovereign, and is perhaps less objectionable inasmuch as it does not imply or suggest anything about the forms in which laws are enunciated. All rules, customs, practices and laws—or by whatever name these uniformities of human conduct may be called—have either this kind of force at their back or they have not. Is it worth while to make this difference the basis of a scientific system or not? Apparently it is. If it were a question of distinguishing between the law of the law courts and the laws of fashion no one would hesitate. Why should laws or rules having no support from any political authority be termed laws positive merely because there are no other rules in the society having such support?

The question may perhaps be summed up as follows. Austin's definitions are in strict accordance with the facts of government in civilized states; and, as it is put by Maine, certain assumptions or postulates having been made, the great majority of Austin's positions follow as of course or by ordinary logical process. But at the other extreme end of the scale of civilization are societies to which Austin himself refuses to apply his system, and where, it would be conceded on all sides, there is neither political community nor sovereign nor law—none of the facts which jurisprudence assumes to exist. There is an intermediate stage of society in which, while the rules of conduct might and generally would be spoken of as laws, it is difficult to trace the connexion between them and the sovereign authority whose existence is necessary to Austin's system. Are such societies to be thrown out of account in analytical jurisprudence, or is Austin's system to be regarded as only a partial explanation of the field of true law, and his definitions good only for the laws of a portion of the world? The true answer to this question appears to be that when the rules in any given case are habitually enforced by physical penalties, administered by a determinate person or portion of the community, they should be regarded as positive laws and the appropriate subject matter of jurisprudence. Rules which are not so enforced, but are enforced in any other way, whether by what is called public opinion, or spiritual apprehensions, or natural instinct, are rightly excluded from that subject matter. In all stages of society, savage or civilized, a large body of rules of conduct, habitually obeyed, are nevertheless not enforced by any state sanction of any kind. Austin's method assimilates such rules in primitive society, where they subserve the same purpose as positive laws in an advanced society, not to the positive laws which they resemble in purpose but to the moral or other rules which they resemble in operation. If we refuse to accept this position we must abandon the attempt to frame a general definition of law and its dependent terms, or we must content ourselves with saying that law is one thing in one state of society and another thing in another. On the ground of clearness and convenience Austin's method is, we believe, substantially right, but none the less should the student of jurisprudence be on his guard against such assumptions as that legislation is a universal phenomenon, or that the relation of sovereign and subject is discernible in all states of human society. And a careful examination of Maine's criticism will show that it is devoted not so much to a rectification of Austin's position as to correction of the misconceptions into which some of his disciples may have fallen. It is a misconception of the analysis to suppose that it involves a difference in juridical character between custom not yet recognized by any judicial decision and custom after such recognition. There is no such difference except in the case of what is properly called "judicial legislation"—wherein an absolutely new rule is added for the first time to the law. The recognition of a custom or law is not necessarily the beginning of the custom or law. Where a custom possesses the marks by which its legality is determined according to well understood principles, the courts pronounce it to have been law at the time of the happening of the facts as to which their jurisdiction is invoked. The fact that no previous instance of its recognition by a court of justice can be produced is not material. A lawyer before any such decision was given would nevertheless pronounce the custom to be law—with more or less hesitation according as the marks of a legal custom were obvious or not. The character of the custom is not changed when it is for the first time enforced by a court of justice, and hence the language used by Maine must be understood in a very limited sense. "Until customs are enforced by courts of justice"—so he puts the position of Austin—they are merely "positive morality," rules enforced by opinion; but as soon as courts of justice enforce them they become commands of the sovereign, conveyed through the judges who are his delegates or deputies. This proposition, on

Austin's theory, would only be true of customs as to which these marks were absent. It is of course true that when a rule enforced only by opinion becomes for the first time enforceable by a court of justice—which is the same thing as the first time of its being actually enforced—its juridical character is changed. It was positive morality; it is now law. So it is when that which was before the opinion of the judge only becomes by his decision a rule enforceable by courts of justice. It was not even positive morality but the opinion of an individual; it is now law.

The most difficult of the common terms of law to define is *right*; and, as right rather than duty is the basis of classification, it is a point of some importance. Assuming the truth of the analysis above discussed, we may go on to say that in the notion of law is involved an obligation on the part of some one, or on the part of every one, to do or forbear from doing. That obligation is duty; what is right? Dropping the negative of forbearance, and taking duty to mean an obligation to do something, with the alternative of punishment in default, we find that duties are of two kinds. The thing to be done may have exclusive reference to a determinate person or class of persons, on whose motion or complaint the sovereign power will execute the punishment or sanction on delinquents; or it may have no such reference, the thing being commanded, and the punishment following on disobedience, without reference to the wish or complaint of individuals. The last are absolute duties, and the omission to do, or forbear from doing, the thing specified in the command is in general what is meant by a crime. The others are relative duties, each of them implying and relating to a right in some one else. A person has a right who may in this way set in operation the sanction provided by the state. In common thought and speech, however, right appears as something a good deal more positive and definite than this—as a power or faculty residing in individuals, and suggesting not so much the relative obligation as the advantage or enjoyment secured thereby to the person having the right. J. S. Mill, in a valuable criticism of Austin, suggests that the definition should be so modified as to introduce the element of "advantage to the person exercising the right." But it is exceedingly difficult to frame a positive definition of right which shall not introduce some term at least as ambiguous as the word to be defined. T. E. Holland defines right in general as a man's "capacity of influencing the acts of another by means, not of his own strength, but of the opinion or the force of society." Direct influence exercised by virtue of one's own strength, physical or otherwise, over another's acts, is "might" as distinguished from right. When the indirect influence is the opinion of society, we have a "moral right." When it is the force exercised by the sovereign, we have a legal right. It would be more easy, no doubt, to pick holes in this definition than to frame a better one.[1]

The distinction between rights available against determinate persons and rights available against all the world, *jura in personam* and *jura in rem*, is of fundamental importance. The phrases are borrowed from the classical jurists, who used them originally to distinguish actions according as they were brought to enforce a personal obligation or to vindicate rights of property. The owner of property has a right to the exclusive enjoyment thereof, which avails against all and sundry, but not against one person more than another. The parties to a contract have rights available against each other, and against no other persons. The *jus in rem* is the badge of property; the *jus in personam* is a mere personal claim.

[1] In English speech another ambiguity is happily wanting which in many languages besets the phrase expressing "a right." The Latin "jus," the German "Recht," the Italian "diritto," and the French "droit" express, not only a right, but also law in the abstract. To indicate the distinction between "law" and "a right" the Germans are therefore obliged to resort to such phrases as "objectives" and "subjectives Recht," meaning by the former law in the abstract, and by the latter a concrete right. And Blackstone, paraphrasing the distinction drawn by Roman law between the "jus quod ad res" and the "jus quod ad personas attinet," devotes the first two volumes of his *Commentaries* to the "Rights of Persons and the Rights of Things." See Holland's *Elements of Jurisprudence*, 10th ed., 78 seq.

That distinction in rights which appears in the division of law into the law of persons and the law of things is thus stated by Austin. There are certain rights and duties, with certain capacities and incapacities, by which persons are determined to various classes. The rights, duties, &c., are the condition or status of the person; and one person may be invested with many status or conditions. The law of persons consists of the rights, duties, &c., constituting conditions or status; the rest of the law is the law of things. The separation is a mere matter of convenience, but of convenience so great that the distinction is universal. Thus any given right may be exercised by persons belonging to innumerable classes. The person who has the right may be under twenty-one years of age, may have been born in a foreign state, may have been convicted of crime, may be a native of a particular county, or a member of a particular profession or trade, &c.; and it might very well happen, with reference to any given right, that, while persons in general, under the circumstances of the case, would enjoy it in the same way, a person belonging to any one of these classes would not. If belonging to any one of those classes makes a difference not to one right merely but to many, the class may conveniently be abstracted, and the variations in rights and duties dependent thereon may be separately treated under the law of persons. The personality recognized in the law of persons is such as modifies indefinitely the legal relations into which the individual clothed with the personality may enter.

T. E. Holland disapproves of the prominence given by Austin to this distinction, instead of that between public and private law. This, according to Holland, is based on the public or private character of the persons with whom the right is connected, public persons being the state or its delegates. Austin, holding that the state cannot be said to have legal rights or duties, recognizes no such distinction. The term "public law" he confines strictly to that portion of the law which is concerned with political conditions, and which ought not to be opposed to the rest of the law, but "ought to be inserted in the law of persons as one of the limbs or members of that supplemental department."

Lastly, following Austin, the main division of the law of things is into (1) primary rights with primary relative duties, (2) sanctioning rights with sanctioning duties (relative or absolute). The former exist, as it has been put, for their own sake, the latter for the sake of the former. Rights and duties arise from facts and events; and facts or events which are violations of rights and duties are *delicts* or *injuries*. Rights and duties which arise from delicts are remedial or sanctioning, their object being to prevent the violation of rights which do not arise from delicts.

There is much to be said for Frederic Harrison's view (first expressed in the *Fortnightly Review*, vol. xxxi.), that the rearrangement of English law on the basis of a scientific classification, whether Austin's or any other, would not result in advantages at all compensating for its difficulties. If anything like a real code were to be attempted, the scientific classification would be the best; but in the absence of that, and indeed in the absence of any habit on the part of English lawyers of studying the system as a whole, the arrangement of facts does not very much matter. It is essential, however, to the abstract study of the principles of law. Scientific arrangement might also be observed with advantage in treatises affecting to give a view of the whole law, especially those which are meant for educational rather than professional uses. As an example of the practical application of a scientific system of classification to a complete body of law, we may point to W. A. Hunter's elaborate *Exposition of Roman Law* (1876).

It is impossible to present the conclusions of historical jurisprudence in anything like the same shape as those which we have been discussing. Under the heading JURISPRUDENCE, COMPARATIVE, an account will be found of the method and results of what is practically a new science. The inquiry is in that stage which is indicated in one way by describing it as a philosophy. It resembles, and is indeed only part of, the study which is described as the philosophy of history. Its chief interest has been in the light which it has thrown upon rules of law and legal institutions which had been and are generally contemplated as positive facts

merely, without reference to their history, or have been associated historically with principles and institutions not really connected with them.

The historical treatment of law displaces some very remarkable misconceptions. Peculiarities and anomalies abound in every legal system; and, as soon as laws become the special study of a professional class, some mode of explaining or reconciling them will be resorted to. One of the prehistorical ways of philosophizing about law was to account for what wanted explanation by some theory about the origin of technical words. This implied some previous study of words and their history, and is an instance of the deep-seated and persistent tendency of the human mind to identify names with the things they represent. The *Institutes* of Justinian abound in explanations, founded on a supposed derivation of some leading term. *Testamentum*, we are told, *ex eo appellatur quod testatio mentis est.* A testament was no doubt, in effect, a declaration of intention on the part of the testator when this was written. But the *-mentum* is a mere termination, and has nothing to do with *mens* at all. The history of testaments, which, it may be noted incidentally, has been developed with conspicuous success, gives a totally different meaning to the institution from that which was expressed by this fanciful derivation. So the perplexing subject of *possessio* was supposed in some way to be explained by the derivation from *pono* and *sedeo* —*quasi sedibus positio. Posthumi* was supposed to be a compound of *post* and *humus*. These examples belong to the class of rationalizing derivations with which students of philosophy are familiar. Their characteristic is that they are suggested by some prominent feature of the thing as it then appeared to observers—which feature thereupon becomes identified with the essence of the thing at all times and places.

Another prehistorical mode of explaining law may be described as metaphysical. It conceives of a rule or principle of law as existing by virtue of some more general rule or principle in the nature of things. Thus, in the English law of inheritance, until the passing of the Inheritance Act 1833, an estate belonging to a deceased intestate would pass to his uncle or aunt, to the exclusion of his father or other lineal ancestor. This anomaly from an early time excited the curiosity of lawyers, and the explanation accepted in the time of Bracton was that it was an example of the general law of nature: "Descendit itaque jus quasi ponderosum quid cadens deorsum recta linea vel transversali, et nunquam reascendit ea via qua descendit." It has been suggested that the "rule really results from the associations involved in the word descent." It seems more likely, however, that these associations explained rather than that they suggested the rule—that the omission of the lineal ancestor existed in custom before it was discovered to be in harmony with the law of nature. It would imply more influence than the reasoning of lawyers is likely to have exercised over the development of law at that time to believe that a purely artificial inference of this kind should have established so very remarkable a rule. However that may be, the explanation is typical of a way of looking at law which was common enough before the dawn of the historical method. Minds capable of reasoning in this way were, if possible, farther removed from the conceptions implied in the reasoning of the analytical jurists than they were from the historical method itself. In this connexion it may be noticed that the great work of Blackstone marks an era in the development of legal ideas in England. It was not merely the first, as it still remains the only, adequate attempt to expound the leading principles of the whole body of law, but it was distinctly inspired by a rationalizing method. Backstone tried not merely to express but to illustrate legal rules, and he had a keen sense of the value of historical illustrations. He worked of course with the materials at his command. His manner and his work are obnoxious alike to the modern jurist and to the modern historian. He is accused by the one of perverting history, and by the other of confusing the law. But his scheme is a great advance on anything that had been attempted before; and, if his work has been prolific in popular fallacies, at all events it enriched English literature by a conspectus of the law, in which the logical connexion of its principles *inter se*, and its relations to historical facts, were distinctly if erroneously recognized.

While the historical method has superseded the verbal and metaphysical explanation of legal principles, it had apparently, in some cases, come into conflict with the conclusions of the analytical school. The difference between the two systems comes out most conspicuously in relation to customs. There is an unavoidable break in the analytical method between societies in which rules are backed by regulated physical force and those in which no such force exists. At what point in its development a given society passes into the condition of "an independent political society" it may not be easy to determine, for the evidence is obscure and conflicting. To the historical jurist there is no such breach. The rule which in one stage of society is a law, in another merely a rule of "positive morality," is the same thing to him throughout. By the Irish Land Act 1881 the Ulster custom of tenant-right and other analogous customs were legalized. For the purposes of analytical jurisprudence there is no need to go beyond the act of parliament. The laws known as the Ulster custom are laws solely in virtue of the sovereign government. Between the law as it now is and the custom as it existed before the act there is all the difference in the world. To the historical jurist no such separation is possible. His account of the law would not only be imcomplete without embracing the precedent custom, but the act which made the custom law is only one of the facts, and by no means the most significant or important, in the history of its development. An exactly parallel case is the legalization in England of that customary tenant-right known as copyhold. It is to the historical jurist exactly the same thing as the legalization of the Ulster tenant right. In the one case a practice was made law by formal legislation, and in the other without formal legislation. And there can be very little doubt that in an earlier stage of society, when formal legislation had not become the rule, the custom would have been legalized relatively much sooner than it actually was.

Customs then are the same thing as laws to the historical jurist, and his business is to trace the influences under which they have grown up, flourished and decayed, their dependence on the intellectual and moral conditions of society at different times, and their reaction upon them. The recognized science —and such it may now be considered to be—with which historical, or more properly comparative, jurisprudence has most analogy is the science of language. Laws and customs are to the one what words are to the other, and each separate municipal system has its analogue in a language. Legal systems are related together like languages and dialects, and the investigation in both cases brings us back at last to the meagre and obscure records of savage custom and speech. A great master of the science of language (Max Müller) has indeed distinguished it from jurisprudence, as belonging to a totally different class of sciences. "It is perfectly true," he says, "that if language be the work of man in the same sense in which a statue, or a temple, or a poem, or a law are properly called the works of man, the science of language would have to be classed as an historical science. We should have a history of language as we have a history of art, of poetry and of jurisprudence; but we could not claim for it a place side by side with the various branches of natural history." Whatever be the proper position of either philology or jurisprudence in relation to the natural sciences, it would not be difficult to show that laws and customs on the whole are equally independent of the efforts of individual human wills—which appears to be what is meant by language not being the work of man. The most complete acceptance of Austin's theory that law everywhere and always is the command of the sovereign does not involve any withdrawal of laws from the domain of natural science, does not in the least interfere with the scientific study of their affinities and relationships. Max Müller elsewhere illustrates his conception of the different relations of words and laws to the individual will by the story of the emperor Tiberius, who was reproved for a grammatical mistake by Marcellus, whereupon Capito, another grammarian, observed that, if what the emperor said was not good Latin, it would soon be so.

"Capito," said Marcellus, "is a liar; for, Caesar, thou canst give the Roman citizenship to men, but not to words." The mere impulse of a single mind, even that of a Roman emperor, however, probably counts for little more in law than it does in language. Even in language one powerful intellect or one influential academy may, by its own decree, give a bent to modes of speech which they would not otherwise have taken. But whether law or language be conventional or natural is really an obsolete question, and the difference between historical and natural sciences in the last result is one of names.

The application of the historical method to law has not resulted in anything like the discoveries which have made comparative philology a science. There is no Grimm's law for jurisprudence; but something has been done in that direction by the discovery of the analogous processes and principles which underlie legal systems having no external resemblance to each other. But the historical method has been applied with special success to a single system—the Roman law. The Roman law presents itself to the historical student in two different aspects. It is, regarded as the law of the Roman Republic and Empire, a system whose history can be traced throughout a great part of its duration with certainty, and in parts with great detail. It is, moreover, a body of rationalized legal principles which may be considered apart from the state system in which they were developed, and which have, in fact, entered into the jurisprudence of the whole of modern Europe on the strength of their own abstract authority —so much so that the continued existence of the civil law, after the fall of the Empire, is entitled to be considered one of the first discoveries of the historical method. Alike, therefore, in its original history, as the law of the Roman state, and as the source from which the fundamental principles of modern laws have been taken, the Roman law presented the most obvious and attractive subject of historical study. An immense impulse was given to the history of Roman law by the discovery of the *Institutes* of Gaius in 1816. A complete view of Roman law, as it existed three centuries and a half before Justinian, was then obtained, and as the later *Institutes* were, in point of form, a recension of those of Gaius, the comparison of the two stages in legal history was at once easy and fruitful. Moreover, Gaius dealt with antiquities of the law which had become obsolete in the time of Justinian, and were passed over by him without notice.

Nowhere did Roman law in its modern aspect give a stronger impulse to the study of legal history than in Germany. The historical school of German jurists led the reaction of national sentiment against the proposals for a general code made by Thibaut. They were accused by their opponents of setting up the law of past times as intrinsically entitled to be observed, and they were no doubt strongly inspired by reverence for customs and traditions. Through the examination of their own customary laws, and through the elimination and separate study of the Roman element therein, they were led to form general views of the history of legal principles. In the hands of Savigny, the greatest master of the school, the historical theory was developed into a universal philosophy of law, covering the ground which we should assign separately to jurisprudence, analytical and historical, and to theories of legislation. There is not in Savigny's system the faintest approach to the Austinian analysis. The range of it is not the analysis of law as a command, but that of a *Rechtsverhältniss* or legal relation. Far from regarding law as the creation of the will of individuals, he maintains it to be the natural outcome of the consciousness of the people, like their social habits or their language. And he assimilates changes in law to changes in language. "As in the life of individual men no moment of complete stillness is experienced, but a constant organic development, such also is the case in the life of nations, and in every individual element in which this collective life consists; so we find in language a constant formation and development, and in the same way in law." German jurisprudence is darkened by metaphysical thought, and weakened, as we believe, by defective analysis of positive law. But its conception of laws is exceedingly favourable to the growth of a historical philosophy, the results of which have a value of their own, apart altogether from the character of the first principles. Such, for instance, is Savigny's famous examination of the law of possession.

There is only one other system of law which is worthy of being placed by the side of Roman law, and that is the law of England. No other European system can be compared with that which is the origin and substratum of them all; but England, as it happens, is isolated in jurisprudence. She has solved her legal problems for herself. Whatever element of Roman law may exist in the English system has come in, whether by conscious adaptation or otherwise, *ab extra*; it is not of the essence of the system, nor does it form a large portion of the system. And, while English law is thus historically independent of Roman law, it is in all respects worthy of being associated with it on its own merits. Its originality, or, if the phrase be preferred, its peculiarity, is not more remarkable than the intellectual qualities which have gone to its formation—the ingenuity, the rigid logic, the reasonableness, of the generations of lawyers and judges who have built it up. This may seem extravagant praise for a legal system, the faults of which are and always have been matter of daily complaint, but it would be endorsed by all unprejudiced students. What men complain of is the practical hardship and inconvenience of some rule or process of law. They know, for example, that the law of real property is exceedingly complicated, and that, among other things, it makes the conveyance of land expensive. But the technical law of real property, which rests to this day on ideas that have been buried for centuries, has nevertheless the qualities we have named. So too with the law of procedure as it existed under the "science" of special pleading. The greatest practical law reformer, and the severest critic of existing systems that has ever appeared in any age or country, Jeremy Bentham, has admitted this: "Confused, indeterminate, inadequate, ill-adapted, and inconsistent as to a vast extent the provision or no provision would be found to be that has been made by it for the various cases that have happened to present themselves for decision, yet in the character of a repository of such cases it affords, for the manufactory of real law, a stock of materials which is beyond all price. Traverse the whole continent of Europe, ransack all the libraries belonging to all the jurisprudential systems of the several political states, add the contents together, you would not be able to compose a collection of cases equal in variety, in amplitude, in clearness of statement—in a word, all points taken together, in constructiveness—to that which may be seen to be afforded by the collection of English reports of adjudged cases" (Bentham's *Works*, iv. 460). On the other hand, the fortunes of English jurisprudence are not unworthy of comparison even with the catholic position of Roman law. In the United States of America, in India, and in the vast Colonial Empire, the common law of England constitutes most of the legal system in actual use, or is gradually being superimposed upon it. It would hardly be too much to say that English law of indigenous growth, and Roman law, between them govern the legal relations of the whole civilized world. Nor has the influence of the former on the intellectual habits and the ideas of men been much if at all inferior. Those who set any store by the analytical jurisprudence of the school of Austin will be glad to acknowledge that it is pure outcome of English law. Sir Henry Maine associated its rise with the activity of modern legislatures, which is of course a characteristic of the societies in which English laws prevail. And it would not be difficult to show that the germs of Austin's principles are to be found in legal writers who never dreamed of analysing a law. It is certainly remarkable, at all events, that the acceptance of Austin's system is as yet confined strictly to the domain of English law. Maine found no trace of its being even known to the jurists of the Continent, and it would appear that it has been equally without influence in Scotland, which, like the continent of Europe, is essentially Roman in the fundamental elements of its jurisprudence.

The substance of the above article is repeated from Professor E. Robertson's (Lord Lochee's) article "Law," in the 9th ed. of this work.

Among numerous English textbooks, those specially worth mention are: T. E. Holland, *The Elements of Jurisprudence* (1880; 10th ed., 1906); J. Austin, *Lectures on Jurisprudence* (4th ed., 1873); W. Jethro Brown, *The Austinian Theory of Law* (1906); Sir F. Pollock, *A First Book on Jurisprudence* (1896; 2nd ed., 1904).

JURISPRUDENCE, COMPARATIVE. The object of this article is to give a general survey of the study of the evolution of law. It is not concerned with analytical jurisprudence as a theory of legal thought, or an encyclopaedic introduction to legal teaching. Jurisprudence in such a philosophic or pedagogical sense has certainly to reckon with the methods and results of a comparative study of law, but its aims are distinct from those of the latter: it deals with more general problems. On the other hand, the comparative study of law may itself be treated in two different ways: it may be directed to a comparison of existing systems of legislation and law, with a view to tracing analogies and contrasts in the treatment of practical problems and taking note of expedients and of possible solutions. Or else it may aim at discovering the principles regulating the development of legal systems, with a view to explain the origin of institutions and to study the conditions of their life. In the first sense, comparative jurisprudence resolves itself into a study of home and foreign law (cf. Hofmann in the *Zeitschrift für das private und öffentliche Recht der Gegenwart*, 1878). In the second sense, comparative jurisprudence is one of the aspects of so-called sociology, being the study of social evolution in the special domain of law. From this point of view it is, in substance, immaterial whether the legal phenomena subjected to investigation are ancient or modern, are drawn from civilized or from primitive communities. The fact that they are being observed and explained as features of social evolution characterizes the inquiry and forms the distinctive attribute separating these studies from kindred subjects. It is only natural, however, that early periods and primitive conditions have attracted investigators in this field more than recent developments. The interest of students seems to have stood in inverse ratio to the chronological vicinity of the facts under consideration—the farther from the observer, the more suggestive and worthy of attention the facts were found to be. This peculiarity is easily explained if we take into account the tendency of all evolutionary investigations to obtain a view of origins in order to follow up the threads of development from their initial starting-point. Besides, it has been urged over and over again that the simpler phenomena of ancient and primitive society afford more convenient material for generalizations as to legal evolution than the extremely complex legal institutions of civilized nations. But there is no determined line of division between ancient and modern comparative jurisprudence in so far as both are aiming at the study of legal development. The law of Islam or, for that matter, the German civil code, may be taken up as a subject of study quite as much as the code of Hammurabi or the marriage customs of Australian tribes.

The fact that the comparative study of legal evolution is chiefly represented by investigations of early institutions is therefore a characteristic, but not a necessary feature in the treatment of the subject. But it is essential to this treatment that it should be *historical* and *comparative*. Historical, because it is only as history, *i.e.* a sequence of stages and events, that development can be thought of. Comparative, because it is not the casual notices about one or the other chain of historical facts that can supply the basis for any scientific induction. Comparisons of kindred processes have to be made in order to arrive at any conception of their general meaning and scientific regularity. As linguistic science differs from philology in so far as it treats of the general evolution of language and not of particular languages, even so comparative jurisprudence differs from the history of law as a study of general legal evolution distinct from the development of one or the other national branch of legal enactment. Needless to say that there are intermediate shades between these groups, but it is not to these shades we have to attend, but to the main distinctions and divisions.

1. The idea that the legal enactments and customs of different countries should be compared for the purpose of deducing general principles from them is as old as political science itself. It was realized with especial vividness in epochs when a considerable material of observations was gathered from different sources and in various forms. The wealth of varieties and the recurrence of certain leading views in them led to comparison and to generalizations based on comparison. Aristotle, who lived at the close of a period marked by the growth of free Greek cities, summarized, as it were, their political experience in his *Constitutions* and *Politics*; students of these know that the Greek philosopher had to deal with not only public law and political institutions, but also to some extent private, criminal law, equity, the relations between law and morals, &c.

Another great attempt at comparative observation was made at the close of the pre-revolutionary period of modern Europe. Montesquieu took stock of the analogies and contrasts of law in the commonwealths of his time and tried to show to what extent particular enactments and rules were dependent on certain general currents in the life of societies—on forms of government, on moral conditions corresponding to these, and ultimately on the geographical facts with which various nationalities and states have to reckon in their development.

These were, however, only slight beginnings, general forecasts of a coming line of thought, and Montesquieu's remarks on laws and legal customs read now almost as if they were meant to serve as materials for social utopias, although they were by no means conceived in this sense. At this distance of time we cannot help perceiving how fragmentary, incomplete and uncritical his notions of the facts of legal history were, and how strongly his thought was biased by didactic considerations, by the wish to teach his contemporaries what politics and law should be.

It was reserved for the 19th century to come forward with connected and far-reaching investigations in this field as in many others. We are not deceived by proximity and self-consciousness when we affirm that comparative jurisprudence, as understood in these introductory remarks, dates from the 19th century and especially from its second half.

There were many reasons for such a new departure: two of these reasons have been especially manifest and decisive. The 19th century was an eminently historical and an eminently scientific age. In the domain of history it may be said that it opened an entirely new vista. While, speaking roughly, before that time history was conceived as a narrative of memorable events, more or less skilful, more or less sensational, but appealing primarily to the literary sense of the reader, it became in the course of the 19th century an encyclopaedia of reasoned knowledge, a means of understanding social life by observing its phenomena in the past. The immense growth of historical scholarship in that sense, and the transformation of its aims, can hardly be denied.

Apart from the personal efforts of eminent writers, a great and general movement has to be taken into account in order to explain this remarkable stage of human thought. The historic bent of mind of 19th-century thinkers was to a great extent the result of heightened political and cultural self-consciousness. It was the reflection in the world of letters of the tremendous upheaval in the states of Europe and America which took place from the close of the 18th century onwards. As one of the greatest leaders of the movement, Niebuhr, pointed out, the fact of being a witness of such struggles and catastrophes as the American Revolution, the French Revolution, the Napoleonic Empire and the national reaction against it, taught every one to think historically, to appreciate the importance of historical factors, to measure the force not only of logical argument and moral impulse, but also of instinctive habits and traditional customs. It is not a matter of chance that the *historical school* of jurisprudence, Savigny's doctrine of the organic growth of law, was formed and matured while Europe collected its forces after the most violent revolutionary crisis it had ever experienced, and in most intimate connexion with the romantic movement, a movement animated by

enthusiastic belief in the historical, traditional life of social groups as opposed to the intellectual conceptions of individualistic radicalism.

On the other hand, the 19th century was a scientific age and especially an age of biological science. Former periods—the 16th and 17th centuries especially—had bequeathed to it high standards of scientific investigation, an ever-increasing weight of authority in the direction of an exact study of natural phenomena and a conception of the world as ruled by laws and not by capricious interference. But these scientific views had been chiefly applied in the domain of mathematics, astronomy and physics; although great discoveries had already been made in physiology and other branches of biology, yet the achievements of 19th-century students in this respect far surpassed those of the preceding period. And the doctrine of transformation which came to occupy the central place in scientific thought was eminently fitted to co-ordinate and suggest investigations of social facts. As F. York Powell put it, Darwin is the greatest historian of modern times, and certainly an historian not in the sense of a reader of annals, but in that of a guide in the understanding of organic evolution. Though much is expressed in the one name of Darwin, it is perhaps even more momentous as a symbol of the tendency of a great age than as a mark of personal work. To this tendency we are indebted for the rise of anthropology and of sociology, of the scientific study of man and of the scientific study of society. Of course it ought not to be disregarded that the application of scientific principles and methods to human and social facts was made possible by the growth of knowledge in regard to savage and half-civilized nations called forth by the increased activity of European and American business men, administrators and explorers. Ethnography and ethnology have brought some order into the wealth of materials accumulated by generations of workers in this direction, and it is with their help that the far-reaching generalizations of modern inquirers as to man and society have been achieved.

2. It is not difficult to see that the comparative study of legal evolution finds its definite place in a scientific scheme elaborated from such points of view. Let us see how, as a matter of fact, the study in question arose and what its progress has been. The immediate incitement for the formation of comparative jurisprudence was given by the great discoveries of comparative philology. When the labours of Franz Bopp, August Schleicher, Max Müller, W. D. Whitney and others revealed the profound connexion between the different branches of the Indo-European race in regard to their languages, and showed that the development of these languages proceeded on lines which might be studied in a strictly scientific manner, on the basis of comparative observation and with the object of tracing the uniformities of the process, it was natural that students of religion, of folk-lore and of legal institutions took up the same method and tried to win similar results (Sir H. Maine, Rede lecture in *Village Communities*, 3rd ed.).

It is interesting to note that one of the leading scholars of the Germanistic revival in the beginning of the 19th century, Jacob Grimm, a compeer of Savigny in his own line, took up with fervent zeal and remarkable results not only the scientific study of the German language, but also that of Germanic mythology and popular law. His *Rechtsalterthümer* are still unrivalled as a collection of data as to the legal lore of Teutonic tribes. Their basis is undoubtedly a narrow one: they treat of the varieties of legal custom among the continental Germans, the Scandinavians and the Germanic tribes of Great Britain, but the method of treatment is already a comparative one. Grimm takes up the different subjects—property, contract, procedure, succession, crime, &c.—and examines them in the light of national, provincial and local customs, sometimes noticing expressly affinities with Roman and Greek law (*e.g.* the subject of imprisonment for debt, *Rechtsalterthümer*, 4th ed., vol. ii., p. 165).

A broader basis was taken up by a linguist who tried to trace the primitive institutions and customs of the early Aryans before their separation into divers branches. Adolphe Pictet (*Les Origines indo-européennes*, i. 1859; ii. 1863) had to touch constantly on questions of family law, marriage, property, public authority, in his attempt to reconstruct the common civilization of the Aryan race, and he did so on the strength of a comparative study of terms used in the different Indo-European languages. He showed, for instance, how the idea of protection was the predominant element in the position of the father in the Aryan household. The names *pître*, *pater*, *πατήρ*, *fâther*, which recur in most branches of the Aryan race, go back to a root *pā-*, pointing to guardianship or protection. Thus we are led to consider the *patria potestas*, so stringently formulated in Roman law, as an expression of a common Aryan notion, which was already in existence before the Aryan tribes parted company and went their different ways. Descriptions of Aryan early culture have been given several times since in connexion with linguistic observations. An example is W. E. Hearn's *Aryan Household* (1879). Fustel de Coulanges' famous volume on the ancient city and Rudolf von Jhering's studies of primitive Indo-European institutions (*Vorgeschichte der Indoeuropäer*) start from similar observations, although the first of these scholars is chiefly interested in tracing the influence of religion on the material arrangements of life, while the latter draws largely on principles of public and private law, studied more especially in Roman antiquity.

3. The chief work in that direction has been achieved in one sense by a German scholar, B. W. Leist. His Graeco-Roman legal history, his *Jus Gentium of Primitive Aryans*, and his *Jus Civile of Primitive Aryans*, form the most complete and learned attempt not only to reconstitute the fundamental rules of common Aryan law before the separation of tongues and nations, but also to trace the influence of this original stock of juridical ideas in the later development of different branches of the Aryan race. These three books present three stages of comparison, marked by a successive widening of the horizon. He began his legal history by putting together the data as to Roman and Greek legal origins; in the *Alt-arisches Jus Gentium* the material of Hindu law is not only drawn into the range of observation, but becomes its very centre; in the *Alt-arisches Jus Civile* the legal customs of the Zend branch, of Celts, Germans and Slavs, are taken into account, although the most important part of the inquiry is still directed to the combination of Hindu, Greek and Roman law. In this way Leist builds up his theories by the comparative method, but he restricts its use consciously and consistently to a definite range. He does not want to plunge into haphazard analogies, but seeks common ground before all things in order to be able to watch for the appearance of ramifications and to explain them. According to his view comparison is of use only between "coherent" lines of facts. Common origin, not similarity of features, appears to him as the fundamental basis for fruitful comparison. It may be said that Leist's work is characterized by the attempt to draw up a continuous history of a supposed archaic common law of the Aryan race rather than to put different solutions of kindred legal problems by the side of each other. For him Aryan tribal organization with its double-sided relationship—cognatic and agnatic—through men and through women—is one, and although he does not draw its picture as Fustel de Coulanges does by the help of traits taken indiscriminately from Hindu, Roman and Greek material, although he notices divisions, degrees and variations, at bottom he writes the history of one set of principles exemplified and modulated, as it were, in the six or seven main varieties of the race. Even so the nine rules of conduct prescribed by Hindu sacral law are, according to his view, the directing rules of Roman, Greek, Germanic, Celtic, Slavonic legal custom—the duties in regard to gods, parents and fatherland, guests, personal purity, the prohibitions against homicide, adultery and theft—are variations of one and the same religious, moral and legal system, and their original unity is reflected and proved by the unity of legal terminology itself.

The same leading idea is embodied in the books of Otto Schrader—*Urgeschichte und Sprachvergleichung* (1st ed., 1883; 2nd ed., 1890) and *Reallexikon der indogermanischen Altertumskunde* (1901). In this case we have to do not with a jurist

but with a linguist and a student of cultural history. His training made him especially fit to trace the national affinities in the data of language, and the sense of the intimate connexion between the growth of institutions on one side, of words and linguistic forms on the other, underlies all his investigations. But Schrader testifies also to another powerful influence—to that of Victor Hehn, the author of a remarkable book on early civilization, *Kulturpflanzen und Hausthiere in ihrem Übergang aus Asien in Europa* (1st ed., 1870; 7th ed., 1902), dealing with the migrations of tribes and their modes of acquiring material civilization. Although the linguistic and archaeological sides naturally predominate in Schrader's works, he has constantly to consider legal subjects, and he strives conscientiously to obtain a clear and common-sense view of the early legal notions of the Aryans. Speaking of the "ordeals," the "waging of God's law," for example, he traces the customs of purification by fire, water, iron, &c., to the practice of oaths (Sans. *am*; Gr. ὄμνυμι; O. Ital. *omr* = first group; O. Ger. *aiþs*, Ir. *óeth* = second group; O. Norse *rota*, Arm. *erdnum* = I swear = third group). The central idea of the ordeal is thus shown to be the imprecation—"Let him be cursed whose assertion is false."

The comparative study of the Aryan group assumed another aspect in the works of Sir Henry Maine. He did not rely on linguistic affinities, but made great use of another element of investigation which plays hardly any part in the books of the writers mentioned hitherto. His best personal preparation for the task was that he had not only taught law in England, but had come into contact with living legal customs in India. For him the comparison between the legal lore of Rome and that of India did not depend on linguistic roots or on the philological study of the laws of Manu, but was the result of recognizing again and again, in actual modern custom, the views, rules and institutions of which he had read in Gaius or in the fragments of the Twelve Tables. The sense of historical analogy and evolution which had shown itself already in the lectures on *Ancient Law*, which, after all, were mainly a presentment of Roman legal history mapped out by a man of the world, averse from pedantic disquisitions. But what appears as the expression of Maine's personal aptitude and intelligent reading in *Ancient Law* gets to be the interpretation of popular legal principles by modern as well as by ancient instances of their application in *Village Communities, The Early History of Institutions, Early Law and Custom.* The evolution of property in land out of archaic collectivism, ancient forms of contract and compulsion, rudimentary forms of feudalism and the like, were treated in a new light in consequence of systematic comparisons with the conditions not only of India but of southern Slavonic nations, medieval celts and Teutons. This breadth of view seemed startling when the lectures appeared, and the original treatment of the subject was hailed on all sides as a most welcome new departure in the study of legal customs and institutions. And yet Maine set very definite boundaries to his comparative surveys. He renounced the chronological limitation confining such inquiries to the domain of antiquaries, but he upheld the ethnographical limitation confining them to laws of the same race. In his case it was the Aryan race, and in his *Law and Custom* he opposed in a determined manner the attempts of more daring students to extend to the Aryans generalizations drawn from the life of savage tribes unconnected with the Aryans by blood.

Thus, notwithstanding all diversities in the treatment of particular problems, one leading methodical principle runs through the works of all the above-mentioned exponents of comparative study. It was to proceed on the basis of common origin and on the assumption of a certain common stock of language, religion, material culture, and law to start with. What Pictet, Leist, Schrader, and Maine were doing for the Aryans, F. Hommel, Robertson Smith and others did in a lesser degree for the Semitic race.

4. The literary group which started from the discoveries of comparative philology and history was met on the way by what may be called the ethnological school of inquirers. The original impetus was given, in this case, by jurists and historians who took up the study in the field of ancient history, but treated it from the beginning in such a way as to break up the subdivisions of historic races and to direct the inquiry to a state of culture best illustrated by savage customs. The first impulse may be said to have come from J. J. Bachofen (*Mutterrecht*, 1861; *Antiquarische Briefe*, 1880; *Die Sage von Tanaquil*). All the representatives of Aryan antiquities are at one in laying stress on the patriarchal and agnatic system of the kindreds in the different Aryan nations; even Leist, although dwelling on the importance of cognatic ties, looks to agnatic relationship for the explanation of military organization and political authority. And undoubtedly, if we argue from the predominant facts and from the linguistic evidence of parallel terms, we are led to assume that already before their separation the Aryans lived in a patriarchal state of society. Now, Bachofen discovered in the very tradition of classical antiquity traces of a fundamentally different state of things, the central conception of which was not patriarchal power, but maternity, relationship being traced through mothers, the wife presenting the constant and directing element of the household, while the husband (and perhaps several husbands) joined her from time to time in more or less inconstant unions. Such a state of society is definitely described by Herodotus in the case of the Lycians, it is clearly noticeable even in later historical times in Sparta; the passage from this matriarchal conception to the recognition of the claims of the father is reflected in poetical fiction in the famous Orestes myth, based on the struggle between the moral incitement which prompted the son to avenge his father and the absolute reverence for the mother required by ancient law. Although chiefly drawing his materials from classical literature, Bachofen included in his *Antiquarian Letters* an interesting study of the marriage custom and systems of relationship of the Malabar Coast in India; they attracted his attention by the contrasts between different layers of legal tradition—the Brahmans living in patriarchal order, while the class next to them, the Nayirs (Nairs), follow rules of matriarchy.

Similar ideas were put forward in a more comprehensive form by J. F. McLennan. His early volume (*Studies in Ancient History*, 1876) contains several essays published some time before that date. He starts from the wide occurrence of marriage by capture in primitive societies, and groups the tribes of which we have definite knowledge into endogamous and exogamous societies according as they take their wives from among the kindred or outside it. Marriage by capture and by purchase are signs of exogamy, connected with the custom in many tribes of killing female offspring. The development of marriage by capture and purchase is a powerful agent in bringing about patriarchal rule, agnatic relationship, and the formation of clans or *gentes*, but the more primitive forms of relationship appear as variations of systems based on mother-right. These views are supported by ethnological observations and used as a clue to the history of relationship and family law in ancient Greece. In further contributions published after McLennan's death these researches are supplemented and developed in many ways. The peculiarities of exogamous societies, for instance, are traced back to the even more primitive practice of Totemism, the grouping of men according to their conceptions of animal worship and to their symbols. McLennan's line of inquiry was taken up in a very effective manner not only by anthropologists like E. B. Tylor or A. Lang, but also in a more special manner by students of primitive family law. One of the most brilliant monographs in this direction is Robertson Smith's study of *Kinship and Marriage in Arabia.*

But perhaps the most decisive influence was exercised on the development of the ethnological study of law by the discoveries of an American, Lewis H. Morgan. In his epoch-making works on *Systems of Consanguinity* (1869) and on *Ancient Society* (1877) he drew attention to the remarkable fact that in the case of a number of tribes—the Red Indians of America, the Australian black tribes, some of the polar races, and several Asiatic tribes, mostly of Turanian race—degrees of relationship are reckoned and distinguished by names, not as ties between

individuals, but as ties between entire groups, classes or generations. Instead of a mother and a father a man speaks of fathers and mothers; all the individuals of a certain group are deemed husbands or wives of corresponding individuals of another group; sisters and brothers have to be sought in entire generations, and not among the descendants of a definite and common parent, and so forth. There are variations and types in these forms of organization, and intermediate links may be traced between unions of consanguine people—brothers and sisters of the same blood—on the one hand, and the monogamic marriage prevailing nowadays, on the other; but the central and most striking fact seems to be that in early civilizations, in conditions which we should attribute to savage and barbarian life, marriage appears as a tie, not between single pairs, but between classes, all the men of a class being regarded as potential or actual husbands of the women of a corresponding class. Facts of this kind produce very peculiar and elaborate systems of relationship, which have been copiously illustrated by Morgan in his tables. In his *Ancient Society* he attempted to reduce all the known forms and facts of marriage and kinship arrangements to a comprehensive view of evolution leading up to the Aryan, Semitic and Uralian family, as exhibiting the most modern type of relationship.

These observations, in conjunction with Bachofen's and McLennan's teaching on mother-right, brought about a complete change of perspective in the comparative study of man and society. The rights of ethnologists to have their say in regard to legal, political and social development was forcibly illustrated from both ends, as it were. On the one hand, classical antiquity itself proved to be a rather thin layer of human civilization hardly sufficient to conceal the long periods of barbarism and primitive evolution which had gone to its making. On the other hand, unexpected combinations in regard to family, property, social order, were discovered in every corner of the inhabited world, and our trite notions as to the character of laws and institutions were reduced to the rank of variations on themes which recur over and over again, but may be and have been treated in very different ways.

There is no need to speak of the use made of ethnological material in the wider range of anthropological and sociological studies—the works of Tylor, Lubbock, Lippert, Spencer are in everybody's hands—but attention must be called to the further influence of the ethnological point of view in comparative jurisprudence. An interesting example of the passage from one line of investigation to another, from the historical to the anthropological line, if the expression may be used for the sake of brevity, is presented in the works of one of the founders of the *Zeitschrift für vgl. Rechtswissenschaft*—Franz Bernhöft. He appears in his earlier books as an exponent of the comparative study of Greek and Roman antiquities, more or less in the style of Leist. Like the latter he was gradually incited to draw India into the range of his observations, but unlike Leist, he ended by fully recognizing the importance of ethnological evidence, and although he did not do much original research in that direction himself, the influence of Bachofen and of the ethnologists made itself felt in Bernhöft's treatment of classical antiquity itself: in his *State and Law in Rome at the Time of the Kings* he starts from the view that patricians and plebeians represent two ethnological layers of society—a patriarchal Aryan and a matriarchal pre-Aryan one.

But, of course, the utmost use was made of ethnological evidence by writers who cut themselves entirely free from the special study of classical or European antiquities. The enthusiasm of the explorers of new territory led them naturally to disregard the peculiar claims of European development in the history of higher civilization. They wanted material for a study of the *genus homo* in all its varieties, and they had no time to look after the minute questions of philological and antiquarian research which had so long constituted the daily bread of inquirers into the history of laws. The most characteristic representative of the new methods of extensive comparison was undoubtedly A. H. Post (1839–1895)—the author of many works, in which he ranges over the whole domain of mankind—Hovas, Zulus, Maoris, Tunguses, alternating in a kaleidoscopic fashion with Hindus, Teutons, Jews, Egyptians. The order of his compositions is systematic, not chronological or even ethnographical in the sense of grouping kindred races together. He takes up the different subdivisions of law and traces them through all the various tribes which present any data in regard to them. His method is not only not bound by history, it is opposed to it. He writes:—

"The method of comparative ethnology is different from the historical method, inasmuch as it collects the given material from an entirely distinct point of view. Historical investigation tries to get at the causes of the facts of rational life by observing the development of these facts from such as preceded them within the range of separate kindreds, tribes and peoples. The investigation of comparative ethnology inquires after the causes of facts in national life by collecting identical or similar ethnological data wherever they may be found in the world, and by drawing inferences from these materials to identical or similar causes. This method is therefore *quite unhistorical*. It severs things that have been hitherto regarded as closely joined and arranges these shreds into new combinations" (*Grundriss*, i. 14).

This is not a mere paradox, but the necessary outcome of the situation in respect of the material used. What is being sought is not common origin or a common stock of ideas, but recourse to similar expedients in similar situations, and it is one of the most striking results of ethnology that it can show how peoples entirely cut off from each other and even placed in very different planes of development can resort to analogous solutions in analogous emergencies. Is not the custom of the so-called *Couvade*—the pretended confinement of the husband when a child is born to his wife—a most quaint and seemingly recondite ceremony? Yet we find it practised in the same way by Basques, Californian Indians, and some Siberian tribes. They have surely not borrowed from each other, nor have they kept the ceremony as a remnant of the time when they formed one race: in each case, evidently the passage from a matriarchal state to a patriarchal has suggested it, and a very appropriate method it seems to establish the fact of fatherhood in a solemn and graphic though artificial manner. Again, an inscription from the Cretan town of Gortyn, published in the American *Journal of Archaeology* (2nd series, vol. i., 1897) by Halbherr, tells us that the weapons of a warrior, the wool of a woman, the plough of a peasant, could not be taken from them as pledges. We find a similar idea in the prohibition to take from a knight his weapons, from a villein his plough, in payment of fines, which obtained in medieval England and was actually inserted in Magna Carta. Here also the similarity extends to details, and is certainly not derived from direct borrowing or common origin but from analogies of situations translating themselves into analogies of legal thought. It may be said in a sense that for the ethnological school the less relationship there is between the compared groups the more instructive the comparison turns out to be.

The collection of ethnological parallels for the use of sociology and comparative jurisprudence has proceeded in a most fruitful manner. By the side of special monographs about single tribes or geographical groups of tribes, such as *Kamilaroi and Kurnai*, by L. Fison & A. W. Howitt (1880), and *The Native Tribes of Australia*, by Baldwin Spencer & F. G. Gillen (1899), the whole range of ethnological jurisprudence was gone through by Wilken in regard to the inhabitants of the Dutch possessions in Asia, by M. M. Kovalevsky in regard to Caucasians, &c. As a rule the special monographs turned out to be more successful than the general surveys, but the interest of the special monographs themselves depended partly on the fact that people's eyes had been opened to the recurrence of certain widespread phenomena and types of development.

5. Ethnologists of Post's school have not had it entirely their own way, however. Not only did their natural opponents, the philologists, historians and jurists, reproach them with lack of critical discrimination, with a tendency to disregard fundamental distinctions, to wipe out characteristic features, to throw the most disparate elements into the same pot. In their own ranks a number of conscientious and scientifically trained

investigators protested against the haphazard manner in which the most intricate problems were treated, and sought to evolve more definite methodical rules. P. and F. Sarrasin in their description of the Ceylon Veddahs showed a most primitive race scattered in small clusters, monogamous and patriarchal in their marriage customs and systems of relationship. E. A. Westermarck challenged the sweeping generalizations indulged in by many ethnologists about primitive promiscuity in sexual relations and the necessary passage of all human tribes through the stages of matriarchy and group marriage.

A very interesting departure was attempted by Dargun in his studies on the origin and development of property and his treatise on mother-right and marriage by capture. His lead was followed by R. Hildebrand in the monograph on law and custom. The principal idea of these inquirers may be stated as follows. We must utilize ethnological as well as historical materials from the whole world, but it is no use doing this indiscriminately. Fruitful comparisons may be instituted mainly in the case of tribes on the same level in their general culture and especially their economic pursuits. Hunting tribes must be primarily compared with other hunters, fishers with fishers, pastoral nations with pastoral nations, agriculturists with agriculturists; nations in transitional stages from one type of culture to the other have to be grouped and examined by themselves. The result would be to establish certain parallel lines in the development of institutions and customs. From this point of view both Dargun and Hildebrand attacked the prevailing theory of primitive communism and insisted on the atomistic individualism of the rudimentary civilization of hunting tribes. Collectivism in the treatment of ownership, common field husbandry, practices of joint holdings, co-aration, common stores, &c., make their appearance according to Dargun in consequence of the drawing together of scattered groups and smaller independent settlements. An evolution of the same kind leading from loose unions around mothers through marriage by capture to patriarchal kindreds was traced in the history of relationship. Grosse (*Die Formen der Familie und der Wirtschaft*, 1896) followed in a similar strain. Another line of criticism was opened up from the side of exact sociological study. Its best exponent is Steinmetz, who represents with Wilken the Dutch group of investigators of social phenomena. He takes up a standpoint which severs him entirely from the linguistic and historic school. In a discourse on the *Meaning of Sociology* (p. 10) he expresses himself in the following words: "One who judges of the social state of the Hindus by the book of Manu takes the ideal notions of one portion of the people for the actual conditions of all its parts." In regard to jurisprudence he distinguishes carefully between art and science. "Jurisprudence in the wider sense is an art, the art of framing rules for social intercourse in so far as these rules can be put into execution by the state and its organs, as well as the art of interpreting and applying these rules. In another sense it is pure science, the investigation of all consciously formulated and actually practised rules, and of their conditions and foundations, in fact of the entire social life of existing and bygone nations, without a knowledge and understanding of which a knowledge and understanding of law as its outcome is, of course, impossible." In this sense jurisprudence is a part of ethnology and of the comparative history of culture. But in order to grapple with such a tremendous task comparative jurisprudence has not only to call to help the study of scattered ethnological facts. This is not sufficient to widen the frame of observation and to realize the relative character of the principles with which practical lawyers operate, without ever putting in question their general acceptance or logical derivations. Ethnological studies themselves have to look for guidance to psychology, especially to the psychology of emotional life and of character. Although these branches of psychological science have been much less investigated than the study of intellectual processes, they still afford material help to the ethnologist and the comparative jurist; and Steinmetz himself made a remarkable attempt to utilize a psychological analysis of the feelings of revenge in his *Origins of Punishment*.

6. The necessity of employing more stringent standards of criticisms and more exact methods is now recognized, and it is characteristic that the foremost contemporary representative of comparative jurisprudence, Joseph Kohler of Berlin, principal editor of the *Zeitschrift für vgl. Rechtswissenschaft*, often gives expression to this view. Beginning with studies of procedure and private law in the provinces of Germany where the French law of the Code Napoléon was still applied, he has thrown his whole energy into monographic surveys and investigations in all the departments of historical and ethnological jurisprudence. The code of Khammurabi and the Babylonian contracts, the ancient Hindu codes and juridical commentaries on them, the legal customs of the different tribes and provinces of India, the collection and sifting of the legal customs of aborigines in the German colonies in Africa, the materials supplied by investigators of Australian and American tribes, the history of legal customs of the Mahommedans, and numberless other points of ethnological research, have been treated by him in articles in his *Zeitschrift* and in other publications. Comprehensive attempts have also been made by him at a synthetic treatment of certain sides of the law—like the law of debt in his *Shakespeare vor dem Forum der Jurisprudenz* (1883) or his *Primitive History of Marriage*. Undoubtedly we have not to deal in this case with mere accumulation of material or with remarks on casual analogies. And yet the importance of these works consists mainly in their extensive range of observation. The critical side is still on the second plane, although not conspicuously absent as in the case of Post and some of his followers. We may sympathize cordially with Kohler's exhortation to work for a universal history of law without yet perceiving clearly what the stages of this universal history are going to be. We may acknowledge the enormous importance of Morgan's and Bachofen's discoveries without feeling bound to recognize that all tribes and nations of the earth have gone substantially through the same forms of development in respect of marriage custom, and without admitting that the evidence for a universal spread of group-marriage has been produced. Altogether the reproach seems not entirely unfounded that investigations of this kind are carried on too much under the sway of a preconceived notion that some highly peculiar arrangement entirely different from what we are practising nowadays—say sexual promiscuity or communism in the treatment of property—must be made out as a universal clue to earlier stages of development. Kohler's occasional remarks on matters of method (*e.g. Zeitschift für vgl. Rechtswissenschaft*, xii. 193 seq.) seem hardly adequate to dispel this impression. But in his own work and in that of some of his compeers and followers, J. E. Hitzig, Hellwig, Max Huber, R. Dareste, more exact forms and means of inquiry are gradually put into practice, and the results testify to a distinct heightening of the scientific standard in this group of studies on comparative jurisprudence. Especially conspicuous in this respect are three tendencies: (*a*) the growing disinclination to accept superficial analysis between phenomena belonging to widely different spheres of culture as necessarily produced by identical causes (*e.g.* Darinsky's review of Kovalevsky's assumptions as to group marriage among the Caucasian tribes, *Z. für vgl. Rw.*, xiv. 151 seq.); (*b*) the selection of definite historical or ethnological territories for monographic inquiries, in the course of which arrangements observed elsewhere are treated as suggestive material for supplying gaps and starting possible explanations: Kohler's own contributions have been mainly of this kind; (*c*) the treatment of selected subjects by an intensive legal analysis, bringing out the principles underlying one or the other rule, its possible differentiation, the means of its application in practice, &c.: Hellwig's monograph on the right of sanctuary in savage communities (*Das Asylrecht der Naturvölker*) may be named in illustration of this analytical tendency. Altogether, there can be no doubt that the stage has been reached by comparative jurisprudence when, after a hasty, one might almost say a voracious consumption of materials, investigators begin to strive towards careful sifting of evidence and a conscious examination of methods and critical rules which have to be followed in order

to make the investigations undertaken in this line worthy of their scientific aims. Until the latter has been done many students, whose trend of thought would seem to lead them naturally into this domain, may be repelled by the uncritical indistinctness with which mere analogies are treated as elusive proofs by some of the representatives of the comparative school. F. W. Maitland, for instance, was always kept back by such considerations.

7. It is desirable, in conclusion, to review the entire domain of comparative jurisprudence, and to formulate the chief principles of method which have to be taken into consideration in the course of this study. It is evident, to begin with, that a scientific comparison of facts must be directed towards two aims —towards establishing and explaining similarity, and towards enumerating and explaining differences. As a matter of fact the same material may be studied from both points of view, though logically these are two distinct processes.

(*a*) Now at this initial stage we have already to meet a difficulty and to guard against a misconception: we have namely to reckon with the *plurality of causes*, and are therefore debarred from assuming that wherever similar phenomena are forthcoming they are always produced by identical causes. Death may be produced by various agents—by sickness, by poison, by a blow. The habit of wearing mourning upon the death of a relation is a widespread habit, and yet it is not always to be ascribed to real or supposed grief and the wish to express it in one's outward get-up. Savage people are known to go into mourning in order to conceal themselves from the terrible spirit of the dead which would recognize them in their everyday costume (Jhering, *Der Zweck im Recht*, 2nd ed., 1884–1886). This is certainly a momentous difficulty at the start, but it can be greatly reduced and guarded against in actual investigation. In the example taken we are led to suppose different origin because we are informed as to the motives of the external ceremony, and thus we are taught to look not only to bare facts, but to the psychological environment in which they appear. And it is evident that the greater the complexity of observed phenomena, the more they are made up of different elements welded into one sum, the less probability there is that we have to do with consequences derived from different causes. The recurrence of group-marriage in Australia and among the Red Indians of North America can in no way be explained by the working of entirely different agencies. And it may be added that in most cases of an analysis of social institutions the limits of human probability and reasonable assumption do not coincide with mathematical possibility in any sense. When we register our facts and causes in algebraic forms, marking the first with *a*, *b*, *c*, and the latter with *x*, *y*, *z*, we are apt to demand a degree of precision which is hardly ever to be met with in dealing with social facts and causes. Let us rest content with reasonable inferences and probable explanations.

(*b*) The easiest way of explaining a given similarity is by attributing it to a direct *loan*. The process of reception, of the borrowing of one people from the other, plays a most notable part in the history of institutions and ideas. The Japanese have in our days engrafted many European institutions on their perfectly distinct civilization; the Germans have used for centuries what was termed euphemistically the Roman law of the present time (*heutiges römisches Recht*); the Romans absorbed an enormous amount of Greek and Oriental law in their famous jurisprudence. A check upon explanation by direct loan will, of course, lie in the fact that two societies are entirely disconnected, so that it comes to be very improbable that one drew its laws from the other. Although migrations of words, legends, beliefs, charms, have been shown by Theodor Benfey and his school to range over much wider areas than might be supposed on the face of it, still, in the case of law, in so far as it has to regulate material conditions, the limits have perhaps to be drawn rather narrowly. In any case we shall not look to India in order to explain the burning of widows among the negroes of Africa; the *suttee* may be the example of this custom which happens to be most familiar to us, but it is certainly not the only root of it on the surface of the earth.

It is much more difficult to make out the share of direct borrowing in the case of peoples who might conceivably have influenced one another. A hard and fast rule cannot be laid down in such cases, and everything depends on the weighing of evidence and sometimes on almost instinctive estimates. The use of a wager for the benefit of the tribunal in the early procedure of the Romans and Greeks, the *sacramentum* and the *πρυτανεία*, with a similar growth of the sum laid down by the parties in proportion to the interests at stake, has been explained by a direct borrowing by the Romans from the Greeks at the time of the Twelve Tables legislation (Hofmann, *Beiträge zur Geschichte des griechischen und römischen Rechts*). No direct proof is available for this hypothesis, and the question in dispute might have lain for ever between this explanation and that based on the analogous development in the two closely related branches of law. The further study of the legal antiquities of other branches of the Aryan race leads one to suppose, however, that we have actually to do with the latter and not with the former eventuality. Why should the popular custom of the *Vzdání* in Bohemia (Kapras, "Das Pfandrecht in altböhmischen Landrecht," *Z. für vgl. R.-wissenschaft*, xvii. 424 seq.), regulating the wager of litigation in the case of two parties submitting their dispute to the decision of a public tribunal, turn out to be so similar to the Greek and the Roman process? And the Teutonic Wedde would further countenance the view that we have to do in this case with analogous expediency or, possibly, common origin, not loans. But while dwelling on considerations which may disprove the assumption of direct loans, we must not omit to mention circumstances that may render such an assumption the best available explanation for certain points of similarity. We mean especially the recurrence of special secondary traits not deducible from the nature of the relations compared. Terminological parallels are especially convincing in such cases. An example of most careful linguistic investigation attended by important results is presented by W. Thomsen's treatment of the affinities between the languages and cultures of the peoples of northern and eastern Europe. Taking the indications in regard to the influence of Germanic tribes on Finns and Lapps, we find, for instance, that the Finnish race has stood for some 1500 or 2000 years under "the influence of several Germanic languages—partly of a more ancient form of Gothic than that represented by Ulfilas, partly of a northern (Scandinavian) tongue and even possibly of a common Gothic-northern one." The importance of these linguistic investigations for our subject becomes apparent when we find that a series of most important legal and political terms has been imported from Teutonic into Finnish. For example, the Finnish *Kuningas*, "king," comes from a Germanic root illustrated by O. Norse *konung*, O. H. Ger. *chuning*, A.-S. *cyning*, Goth. *thiudans*. The Finnish *valta*, "power," "authority," is of Germanic origin, as shown by O. N. *vald*, Goth. *valdan*. The Finnish *kihla*, a compact secured by solemn promise, is akin with O. N. *gisl*, A.-S. *gīsel*, O. H. Ger. *gīsal*, "hostage." The explanation for Finnish *vuokra*, "interest," "usury," is to be found in Gothic *vokrs*, O. N. *okr*, Ger. *Wucher*, &c. (W. Thomsen, *Über den Einfluss der germanischen Sprachen auf die Finnisch-lappischen*, trans. E. Sievers, 1870, p. 166 seq.; cf. W. Thomsen, *The Relations between Ancient Russia and Scandinavia and the Origin of the Russian State*, p. 127 seq.; Miklosich, "Die Fremdwörter in den slavischen Sprachen," *Denkschriften der Wiener Akademie*, Ph. hist. Klasse, XV.).

(*c*) The next group of analogies is formed by cases which may be reduced to *common origin*. In addition to what has already been said on the subject in connexion with the literature of the historical school, we must point out that in the case of kindred peoples this form of derivation has, of course, to be primarily considered. This is especially the case when we have to deal with the original stock of cultural notions of a race, and when analogies in the framing and working of institutions and legal rules are supported by linguistic affinities. The testimony of the Aryan languages in regard to terms denoting family organization and relationship can in no way be disregarded, whatever our view may be about the most primitive

stages of development in this respect. The fact that the common stock of Aryan languages and of Aryan legal customs points to a patriarchal organization of the family may be regarded as established, and it is certainly an important fact drawn from a very ancient stage of human history, although there are indications that still more primitive formations may be discovered.

Inferences in the direction of common origin become more doubtful when we argue, not that certain facts proceed from a common stock of notions embodied in the early culture of a race before it was broken up into several branches, but that they have to be accounted for as instances of a similar treatment of legal problems by different peoples of the same ethnic family. The only thing that can be said in such a case is that, methodically, the customs of kindred nations have the first claim to comparison. It is evident that in dealing with blood feud, composition for homicide, and the like, among the Germans or Slavs, the evidence of other Aryan tribes has to be primarily studied. But it is by no means useless for the investigator of these problems to inform himself about the aspect of such customs in the life of nations of other descent, and especially of savage tribes. The motives underlying legal rules in this respect are to a large extent suggested by feelings and considerations which are not in any way peculiarly Aryan, and may be fully illustrated from other sources, as has been done *e.g.* in Steinmetz's *Origins of Punishment.*

(*d*) This leads to the consideration of what may be called *disconnected analogies*. They are instructive in so far as they go back, not to any continuous development, but to the fundamental, psychological and logical unity of human nature. In similar circumstances human beings are likely to solve the same problems in the same way. Take a rather late and special case. In the Anglo-Saxon laws of Ine, a king who lived in the 7th century, it is enacted that no landowner should be allowed to claim personal labour service from his tenants unless he provides them not merely with land, but with their homesteads. Now an exactly similar rule is found in the statement of rural by-laws to be enforced on great domains in Africa, which had been taken over by the imperial fiscus—the Lex Manciana (cf. Schulten, *Lex manciana*). There is absolutely no reason for assuming a direct transference of the rule from one place to the other: it reflects considerations of natural equity which in both cases were directed against similar encroachments of powerful landowners on a dependent peasant population. In both instances government interfered to draw the line between the payment of rent and the performance of labour, and fastened on the same feature to fix the limit, namely, on the difference between peasants living in their own homes and those who had been settled by the landowner on his farms. Of such analogies, the study of savage life presents a great number, *e.g.* the widely spread practices of purification by ordeal (H. C. Lea, *Superstition and Force*).

(*e*) Organizing thought always seeks to substitute order for chaotic variety. Observations as to disconnected analogies lead to attempts to systematize them from some comprehensive point of view. These attempts may take the shape of a theory of *consecutive stages* of development. Similar facts appear over and over again in ethnological and antiquarian evidence, because all peoples and tribes, no matter what their race and geographical position, go through the same series of social arrangements. This is the fundamental idea which directed the researches of Maine, McLennan, Morgan, Post, Kohler, although each of these scholars formulated his sequence of stages in a peculiar way. McLennan, for instance, puts the idea referred to in the following words:—

"In short, it is suggested to us, that the history of human society is that of a development following very slowly one general law, and that the variety of forms of life—of domestic and civil institution—is ascribable mainly to the unequal development of the different sections of mankind. . . . The first thing to be done is to inform ourselves of the facts relating to the least developed races. To begin with them is to begin with history at the farthest-back point of time to which, except by argument and inference, we can reach. Their condition, as it may to-day be observed, is truly the most ancient condition of man" (*Studies in Ancient History*, 2nd series, 9, 15).

On this basis we might draw up tables of consecutive stages, of which the simplest may be taken from Post:—

"Four types of organization: the tribal, the territorial, the seignorial, and the social. The first has as its basis marriage and relationship by blood; the second, neighbouring occupation of a district; the third, patronage relations between lord and dependants; the fourth, social intercourse and contractual relations between individual personalities" (Post, *Grundriss*, i. 14).

This may be supplemented from Friedrichs in regard to initial stages of family organization. He reckons four stages of this kind: promiscuity, loose relations, matriarchal family, patriarchal family, modern, bilateral family (*Z. f. vgl. R. wissenschaft*). This mode of grouping similar phenomena as a sequence of stages leads to a conception of universal history of a peculiar kind. And as such it has been realized and advocated by Kohler (see *e.g.* his article in Helmolt's *World's History*, Eng. trans. i.). Prompted by this conception several representatives of comparative jurisprudence have found no difficulty to insert such a peculiar institution as group-marriage into the general and obligatory course of legal evolution. It is to be noticed, however, that Kohler himself has entered a distinct protest against McLennan's and Post's view that the more rudimentary a people's culture is, the more archaic it is, and the earlier it has to be placed in the natural sequence of evolution. This would create difficulties in the case of tribes of exceedingly low culture, like the Ceylon Veddahs, who live in monogamous and patriarchal groups. According to Kohler's view, neither the mere fact of a low standard of culture, nor the fact that a certain legal custom precedes another in some cases in point of time, settles the natural sequence of development. The process of development must be studied in cases when it is sufficiently clear, gaps in other cases have to be supplied accordingly, and the working together of distinct institutions, especially in cases when there is no ethnic connexion, has to be especially noticed. These are counsels of perfection, but Kohler's own example shows sufficiently that it is not easy to follow them to the letter. One thing is, however, clearly indicated by these and similar criticisms; it is, at the least, premature to sketch anything like a course of universal development for legal history. We have grave doubts whether the time will ever come for laying down any single course of that kind. The attempts made hitherto have generally led to overstating the value of certain parts of the evidence and to squeezing special traits into a supposed general course of evolution.

(*f*) Another group of thinkers is therefore content to systematize and explain the material from the point of view, not of universal history, but of *correspondence to economic stages and types*. This is, as we have seen, the leading idea in Dargun's or Hildebrand's investigations. It is needless to go into the question of the right or wrong of particular suggestions made by these writers. The place assigned to individualism and collectivism may be adequate or not; how far can be settled only by special inquiries. But the general trend of study initiated in this direction is certainly a promising one, if only one consideration of method is well kept in view. Investigators ought to be very chary of laying down certain combinations as the necessary outcome of certain economic situations. Such combinations or consequences certainly exist; pastoral husbandry, the life of scattered hunting groups, the conditions of agriculturists under feudal rule, certainly contain elements which will recur in divers ethnical surroundings. But we must not forget a feature which is constantly before our eyes in real life: namely, that different minds and characters will draw different and perhaps opposite conclusions in exactly similar outward conditions. This may happen in identical or similar geographical environment; let us only think of ancient Greeks and Turks on the Balkan peninsula, or of ancient Greeks and modern Greeks for that matter. But even the same *historical medium* leaves, as a rule, scope for treatment of legal problems on divers lines. Take systems of succession. They exercise the most potent influence on the

structure and life of society. Undivided succession, whether in the form of primogeniture or in that of junior right, sacrifices equity and natural affection to the economic efficiency of estates. Equal-partition rules, like *gavelkind* or *parage*, lead in an exactly opposite direction. And yet both sets of rules co-existed among the agriculturists of feudal England; communities placed in nearly identical historical positions followed one or the other of these rules. The same may be said of types of dwelling and forms of settlement. In other words, it is not enough to start from a given economic condition as if it were bound to regulate with fatalistic precision all the incidents of legal custom and social intercourse. We have to start from actual facts as complex results of many causes, and to try to reduce as much as we can of this material to the action of economic forces in a particular stage or type of development.

(*g*) The psychological diversities of mankind in dealing with the same or similar problems of food and property, of procreation and marriage, of common defence and relationship, of intercourse and contrast, &c., open another possibility for the grouping of facts and the explanation of their evolution. It may be difficult or impossible to trace the reasons and causes of synthetic combinations in the history of society. That is, we can hardly go beyond noting that certain disconnected features of social life appear together and react on each other. But it is easier and more promising to approach the mass of our material from the *analytical* side, taking hold of certain principles, or rules, or institutions, and tracing them to their natural consequences either through a direct systematization of recorded facts or, when these fail, through logical inferences. Some of the most brilliant and useful work in the historical study of law has been effected on these lines. Mommsen's theory of Roman magistracy, Jhering's theory of the struggle for right, Kohler's view of the evolution of contract, &c., have been evolved by such a process of legal analysis; and, even when such generalizations have to be curtailed or complicated later on, they serve their turn as a powerful means of organizing evidence and suggesting reasonable explanations. The attribute of "reasonableness" has to be reckoned with largely in such cases. Analytical explanations are attractive to students because they substitute logical clearness for irrational accumulation of traits and facts. They do so to a large extent through appeals to the logic and to the reason common to us and to the people we are studying. This deductive element has to be closely watched and tested from the side of a concrete study of the evidence, but it seems destined to play a very prominent part in the comparative history of law, because legal analysis and construction have at all times striven to embody logic and equity in the domain of actual interests and forces. And, as we have seen in our survey of the literature of the subject, recent comparative studies tend to make the share of juridical analysis in given relative surroundings larger and larger. What is so difficult of attainment to single workers—a harmonious appreciation of the combined influences of common origin, reception of foreign custom, recurring psychological combinations, the driving forces of economic culture and of the dialectical process of legal thought, will be achieved, it may be hoped, by the enthusiastic and brotherly exertions of all the workers in the field.

BIBLIOGRAPHY.—Of the principal works of reference may be mentioned: *Zeitschrift für vergleichende Rechtswissenschaft*, edited by Bernhöft, Cohn and Kohler (1878–); *Nouvelle revue historique de droit français et étranger*, edited by Dareste, Esmein, Appert, Fournier, Tardiff and Prou (1877–); A. Pictet, *Les Origines indo-européennes* (i. 1859, ii. 1863); Fustel de Coulanges, *La Cité antique* (1890); W. E. Hearn, *The Aryan Household* (1879); R. v. Jhering, *Vorgeschichte der Indoeuropäer* (1894); B. W. Leist, *Graekoitalische Rechtsgeschichte* (1884), *Alt-arisches Jus Gentium* (1889), *Alt-arisches Jus Civile* (1892–1896); Hruza, *Geschichte des griechischen und römischen Familienrechtes* (1893); O. Schrader, *Urgeschichte und Sprachvergleichung* (1890), *Reallexikon des indo-germanischen Altertumskunde* (1901); B. Delbrück, *Die indo-germanischen Verwandtschaftsnamen* (1889), *Das Mutterrecht bei den Indogermanen*; Sir H. S. Maine, *Ancient Law*, with notes by Sir F. Pollock (1906), *Village Communities* (1871), *Early History of Institutions* (1875), *Early Law and Custom* (1883); M. H. d'Arbois de Jubainville, *Études de droit celtique* (1895), *La Famille celtique* (1905); J. J. Bachofen, *Das Mutterrecht* (1861), *Antiquarische Briefe* (1880); J. F. McLennan, *Studies in Ancient History* (1876), *Patriarchal Theory* (1885), *Studies in Ancient History* (2nd series, 1896); Giraud Teulon, *Origines de la famille et du mariage* (1884); L. H. Morgan, "Systems of Consanguinity" in the publications of the Smithsonian Institution, vol. xvii. (1869); *Ancient Society* (1877); E. B. Tylor, *Primitive Culture* (1871); Lord Avebury (Sir J. Lubbock), *Origin of Civilization* (1870); J. Lippert, *Kulturgeschichte der Menschheit* (1887); W. Robertson Smith, *Kinship and Marriage in Arabia* (1885); F. Bernhöft, *Staat und Recht der römischen Königszeit im Verhältniss zu verwandten Rechten* (1882); A. H. Post, *Aufgaben einer allgemeinen Rechtswissenschaft* (1891), *Die Anfänge des Staats- und Rechtslebens* (1878), *Bausteine einer allgemeinen Rechtsgeschichte auf vergleichend-ethnologischer Basis* (1881), *Einleitung in das Studium der ethnologischen Jurisprudenz* (1886), *Grundlagen des Rechts und Grundzüge seiner Entwickelungsgeschichte* (1882), *Studien zur Entwickelungsgeschichte des Familienrechts* (1889), *Afrikanische Jurisprudenz* (1887), *Grundriss der ethnologischen Jurisprudenz* (1894); Wilken, *Das Matriarchat im alten Arabien* (1884); M. M. Kovalevsky, *Coutume contemporaine et loi ancienne* (1893), *Gesetz und Gewohnheit im Kaukasus* (1890), *Tableau du développement de la famille et de la propriété* (1889); Dargun, "Mutterrecht und Raubehe," in Otto Gierke's *Untersuchungen zur deutschen Staats- und Rechtsgeschichte* (1883); R. Hildebrand, *Das Problem einer allgemeinen Entwickelungsgeschichte des Rechts und der Sitte* (1894), *Recht und Sitte auf den verschiedenen wirtschaftlichen Kulturstufen* (1896); E. Grosse, *Die Formen der Familie und der Wirtschaft* (1896); E. A. Westermarck, *History of Human Marriage* (1894), *The Origin and Development of the Moral Ideas* (1906); C. N. Starcke, *Die primitive Familie* (1888); G. Tarde, *Les Transformations du droit* (2nd ed., 1894); Steinmetz, *Ethnologische Studien zur ersten Entwickelung der Strafe* (1894); J. Kohler, *Das Recht als Kulturerscheinung: Einleitung in die vergleichende Rechtswissenschaft* (1885), *Shakespeare vor dem Forum der Jurisprudenz* (1884), "Das chinesische Strafrecht," *Beitrag zur Universalgeschichte des Strafrechts* (1886), *Rechtsvergleichende Studien über islamitisches Recht, Recht der Berbern, chinesisches Recht und Recht auf Ceylon* (1889), *Altindisches Prozessrecht* (1892), *Zur Urgeschichte der Ehe* (1897), *Kulturrechte des Alten Amerikas, das Recht der Azteken* (1892), *Das Negerrecht* (1895); Kohler and Peisker, *Aus dem babylonischen Rechtsleben* (1890), *Hammurubi's Gesetz* (1904); A. Lang, *The Secret of the Totem* (1905); P. J. H. Grierson, *The Silent Trade* (1903); J. G. Frazer, *Lectures on the Early History of the Kingship* (1905); R. Dareste, *Études d'histoire de droit* (1889), *Nouvelles études d'histoire de droit* (1896); Lambert, *La Fonction du droit civil comparé* (1903); Fritz Hommel, *Semitische Alterthumskunde* (Eng. trans., *The Ancient Hebrew Tradition as illustrated by the Monuments*, 1897); H. C. Lea, *Superstition and Force* (1866); A. Hellwig, *Das Asylrecht der Naturvölker* (Berliner juristische Beiträge, 1893); F. Seebohm, *Tribal Custom in Anglo-Saxon Law* (1902). (P. VI.)

JURJĀNĪ, the name of two Arabic scholars.

1. ABŪ BAKR 'ABDU-L-QĀHIR IBN 'ABDUR-RAḤMĀN UL-JURJĀNĪ (d. 1078,) Arabian grammarian, belonged to the Persian school and wrote a famous grammar, the *Kitāb ul-'Awāmil ul-Mi'a* or *Kitāb Mi'at 'Āmil*, which was edited by Erpenius (Leiden, 1617), by Baillie (Calcutta, 1803), and by A. Lockett (Calcutta, 1814). Ten Arabic commentaries on this work exist in MS., also two Turkish. It has been versified five times and translated into Persian. Another of his grammatical works on which several commentaries have been written is the *Kilāb Jumal fin-Nahw*.

For other works see C. Brockelmann's *Gesch. der Arabischen Litteratur* (1898), i. 288.

2. 'ALĪ IBN MAḤOMMED UL-JURJĀNĪ (1339–1414), Arabian encyclopaedic writer, was born near Astarābād and became professor in Shīrāz. When this city was plundered by Tīmūr (1387) he removed to Samarkand, but returned to Shīrāz in 1405, and remained there until his death. Of his thirty-one extant works, many being commentaries on other works, one of the best known is the *Ta'rifāt* (*Definitions*), which was edited by G. Flügel (Leipzig, 1845), published also in Constantinople (1837), Cairo (1866, &c.), and St Petersburg (1897). (G. W. T.)

JURY, in English law, a body of laymen summoned and sworn (*juratī*) to ascertain, under the guidance of a judge, the truth as to questions of fact raised in legal proceedings whether civil or criminal. The development of the system of trial by jury has been regarded as one of the greatest achievements of English jurisprudence; it has even been said that the ultimate aim of the English constitution is "to get twelve good men into a box."[1] In modern times the English system of trial by jury

[1] *I.e.* the jury-box, or enclosed space in which the jurors sit in court.

has been adopted in many countries in which jury trial was not native or had been strangled or imperfectly developed under local conditions.

The origin of the system in England has been much investigated by lawyers and historians. The result of these investigations is a fairly general agreement that the germ of jury trial is to be found in the Frankish inquest (*recognitio* or *inquisitio*) transplanted into England by the Norman kings. The essence of this inquest was the summoning of a body of neighbours by a public officer to give answer upon oath (*recognoscere veritatem*) on some question of fact or law (*jus*), or of mixed fact and law. At the outset the object of the inquiry was usually to obtain information for the king, *e.g.* to ascertain facts needed for assessing taxation. Indeed Domesday Book appears to be made up by recording the answers of inquests.

The origin of juries is very fully discussed in W. Forsyth's *History of Trial by Jury* (1852), and the various theories advanced are more concisely stated in W. Stubbs's *Constitutional History* (vol. i.) and in E. A. Freeman's *Norman Conquest* (vol. v.). Until the modern examination of historical documents proved the contrary, the jury system, like all other institutions, was popularly regarded as the work of a single legislator, and in England it has been usually assigned to Alfred the Great. This supposition is without historical foundation, nor is it correct to regard the jury as "copied from this or that kindred institution to be found in this or that German of Scandinavian land," or brought over ready made by Hengist or by William.[1] "Many writers of authority," says Stubbs, "have maintained that the entire jury system is indigenous in England, some deriving it from Celtic tradition based on the principles of Roman law, and adopted by the Anglo-Saxons and Normans from the people they had conquered. Others have regarded it as a product of that legal genius of the Anglo-Saxons of which Alfred is the mythical impersonation, or as derived by that nation from the customs of primitive Germany or from their intercourse with the Danes. Nor even when it is admitted that the system of 'recognition' was introduced from Normandy have legal writers agreed as to the source from which the Normans themselves derived it. One scholar maintains that it was brought by the Norsemen from Scandinavia; another that it was derived from the processes of the canon law; another that it was developed on Gallic soil from Roman principles; another that it came from Asia through the crusades," or was borrowed by the Angles and Saxons from their Slavonic neighbours in northern Europe. The true answer is that forms of trial resembling the jury system in various particulars are to be found in the primitive institutions of all nations. That which comes nearest in time and character to trial by jury is the system of recognition by sworn inquest, introduced into England by the Normans. "That inquest," says Stubbs, "is directly derived from the Frank capitularies, into which it may have been adopted from the fiscal regulations of the Theodosian code, and thus own some distant relationship with the Roman jurisprudence." However that may be, the system of "recognition" consisted in questions of fact, relating to fiscal or judicial business, being submitted by the officers of the crown to sworn witnesses in the local courts. Freeman points out that the Norman rulers of England were obliged, more than native rulers would have been, to rely on this system for accurate information. They needed to have a clear and truthful account of disputed points set before them, and such an account was sought for in the oaths of the recognitors.[2] The Norman conquest, therefore, fostered the growth of those native germs common to England with other countries out of which the institution of juries grew. Recognition, as introduced by the Normans, is only, in this point of view, another form of the same principle which shows itself in the compurgators, in the *frith-borh* (frank-pledge), in every detail of the action of the popular courts before the conquest. Admitting with Stubbs that the Norman recognition was the instrument which the lawyers in England ultimately shaped into trial by jury, Freeman maintains none the less that the latter is distinctively English. Forsyth comes to substantially the same conclusion. Noting the jury germs of the Anglo-Saxon period, he shows how out of those elements, which continued in full force under the Anglo-Normans, was produced at last the institution of the jury. "As yet it was only implied in the requirement that disputed questions should be determined by the voice of sworn witnesses taken from the neighbourhood, and deposing to the truth of what they had seen or heard." The conclusions of Sir F. Pollock and F.W. Maitland, expressed in their *History of English Law*, and based on a closer study, are to the same effect.

This inquest then was a royal institution and not a survival from Anglo-Saxon law or popular custom, under which compurgation and the ordeal were the accepted modes of trying issues of fact.

The inquest by recognition, formerly an inquest of office, *i.e.* to ascertain facts in the interests of the crown or the exchequer, was gradually allowed between subjects as a mode of settling disputes of fact. This extension began with the assize of novel disseisin, whereby the king protected by royal writ and inquest of neighbours every seisin of a freehold. This was followed by the grand assize, applicable to questions affecting freehold or status. A defendant in such an action was enabled by an enactment of Henry II. to decline trial by combat and choose trial by assize, which was conducted as follows. The sheriff summoned four knights of the neighbourhood, who being sworn chose the twelve lawful knights most cognisant of the facts, to determine on their oaths which had the better right to the land. If they all knew the facts and were agreed as to their verdict, well and good; if some or all were ignorant, the fact was certified in court, and new knights were named, until twelve were found to be agreed. The same course was followed when the twelve were not unanimous. New knights were added until the twelve were agreed. This was called afforcing the assize. At this time the knowledge on which the jurors acted was their own personal knowledge, acquired independently of the trial. "So entirely," says Forsyth, "did they proceed upon their own previously formed view of the facts in dispute that they seem to have considered themselves at liberty to pay no attention to evidence offered in court, however clearly it might disprove the case which they were prepared to support." The use of recognition is prescribed by the constitutions of Clarendon (1166) for cases of dispute as to lay or clerical tenure. See Forsyth, p. 131; Stubbs, i. 617.

This procedure by the assize was confined to real actions, and while it preceded, it is not identical with the modern jury trial in civil cases, which was gradually introduced by consent of the parties and on pressure from the judges. Jury trial proper differs from the grand and petty assizes in that the assizes were summoned at the same time as the defendant to answer a question formulated in the writ; whereas in the ordinary jury trial no order for a jury could be made till the parties by their pleadings had come to an issue of fact and had put themselves on the country, *posuerunt se super patriam* (Pollock and Maitland, i. 119–128; ii. 601, 615, 621).

The Grand Jury.—In Anglo-Saxon times there was an institution analogous to the grand jury in criminal cases, viz. the twelve senior thegns, who, according to an ordinance of Æthelred II., were sworn in the county court that they would accuse no innocent man and acquit no guilty one. The twelve thegns were a jury of presentment or accusation, like the grand jury of later times, and the absolute guilt or innocence of those accused by them had to be determined by subsequent proceedings—by compurgation or ordeal. Whether this is the actual origin of the grand jury or not, the assizes of Clarendon (1166) and Northampton (1176) establish the criminal jury on a definite basis.

In the laws of Edward the Confessor and the earlier Anglo-Saxon kings are found many traces of a public duty to bring

[1] Freeman, *Norman Conquest*, v, 451.

[2] This fact would account for the remarkable development of the system on English ground, as contrasted with its decay and extinction in France.

offenders to justice, by hue and cry, or by action of the *frithborh*, township, tithing or hundred. By the assize of Clarendon it is directed that inquiry be made in each county and in each hundred by twelve lawful (*legaliores*) men of the hundred, and by four lawful men from each of the four vills nearest to the scene of the alleged crime, on oath to tell the truth if in the hundred or vill there is any man accused (*rettatus aut publicatus*) as a robber or murderer or thief, or receiver of such. The assize of Northampton added forgery of coin or charters (*falsonaria*) and arson. The inquiry is to be held by the justices in eyre, and by the sheriffs in their county courts. On a finding on the oath aforesaid, the accused was to be taken and to go to the ordeal. By the articles of visitation of 1194, four knights are to be chosen from the county who by their oath shall choose two lawful knights of each hundred or wapentake, or, if knights be wanting, free and legal men, so that the twelve may answer for all matters within the hundred, including, says Stubbs, "all the pleas of the crown, the trial of malefactors and their receivers, as well as a vast amount of civil business." The process thus described is now regarded as an employment of the Frankish inquest for the collection of *fama publica*. It was alternative to the rights of a private accuser by appeal, and the inquest were not exactly either accusers or witnesses, but gave voice to public repute as to the criminality of the persons whom they presented. From this form of inquest has developed the grand jury of presentment or accusation, and the coroner's inquest, which works partly as a grand jury as to homicide cases, and partly as an inquest of office as to treasure trove, &c.

The number of the grand jury is fixed by usage at not less than twelve nor more than twenty-three jurors. Unanimity is not required, but twelve must concur in the presentment or indictment.[1] This jury retains so much of its ancient character that it may present of its own knowledge or information, and is not tied down by rules of evidence. After a general charge by the judge as to the bills of indictment on the file of the court, the grand jury considers the bills in private and hears upon oath in the grand jury chamber some or all the witnesses called in support of an indictment whose names are endorsed upon the bill. It does not as a rule hear counsel or solicitors for the prosecution, nor does it see or hear the accused or his witnesses, and it is not concerned with the nature of the defence, its functions being to ascertain whether there is a prima facie case against the accused justifying his trial. If it thinks that there is such a case, the indictment is returned into court as a true bill; if it thinks that there is not, the bill is ignored and returned into court torn up or marked "no bill," or "*ignoramus*." Inasmuch as no man can be put on trial for treason or felony, and few are tried for misdemeanour, without the intervention of the grand jury, the latter has a kind of veto with respect to criminal prosecutions. The grand jurors are described in the indictment as "the jurors for our lord the king." As such prosecutions in respect of indictable offences are now in almost all cases begun by a full preliminary inquiry before justices, and inasmuch as cases rarely come before a grand jury until after committal of the accused for trial, the present utility of the grand jury depends very much on the character of the justices' courts. As a review of the discretion of stipendiary magistrates in committing cases for trial, the intervention of the grand jury is in most cases superfluous; and even when the committing justices are not lawyers, it is now a common opinion that their views as to the existence of a case to be submitted to a jury for trial should not be over-ridden by a lay tribunal sitting in private, and in this opinion many grand jurors concur. But the abolition of the grand jury would involve great changes in criminal procedure for which parliament seems to have no appetite. Forsyth thinks that the grand jury will often baffle "the attempts of malevolence" by ignoring a malicious and unfounded prosecution; but it may also defeat the ends of justice by shielding a criminal with whom it has strong political or social sympathies. The qualification of the grand jurymen is that they should be freeholders of the county—to what amount appears to be uncertain—and they are summoned by the sheriff, or failing him by the coroner.

The *coroner's jury* must by statute (1887) consist of not more than twenty-three nor less than twelve jurors. It is summoned by the coroner to hold an inquest *super visum corporis* in cases of sudden or violent death, and of death in prisons or lunatic asylums, and to deal with treasure trove. The qualification of the coroner's jurors does not depend on the Juries Acts 1825 and 1870, and in practice they are drawn from householders in the immediate vicinity of the place where the inquest is held. Unanimity is not required of a coroner's jury; but twelve must concur in the verdict. If it charges anyone with murder or manslaughter, it is duly recorded and transmitted to a court of assize, and has the same effect as an indictment by a grand jury, *i.e.* it is accusatory only and is not conclusive, and is traversable, and the issue of guilt or innocence is tried by a petty jury.

The Petty Jury.— The ordeal by water or fire was used as the final test of guilt or innocence until its abolition by decree of the Lateran council (1219). On its abolition it became necessary to devise a new mode of determining guilt as distinguished from ill fame as charged by the grand jury. So early as 1221 accused persons had begun to put themselves on the country, or to pay to have a verdict for "good or ill"; and the trial seems to have been by calling for the opinions of the twelve men and the four townships, who may have been regarded as a second body of witnesses who could traverse the opinion of the hundred jury. (See Pollock and Maitland, ii. 646.) The reference to *judicium parium* in Magna Carta is usually taken to refer to the jury, but it is clear that what is now known as the petty jury was not then developed in its present form. "The history of that institution is still in manuscript," says Maitland.

It is not at all clear that at the outset the trial by the country (*in pais; in patria*) was before another and different jury. The earliest instances look as if the twelve men and the four vills were the *patria* and had to agree. But by the time of Edward I. the accused seems to have been allowed to call in a second jury. A person accused by the inquest of the hundred was allowed to have the truth of the charge tried by another and different jury.[2] "There is," says Forsyth, "no possibility of assigning a date to this alteration." "In the time of Bracton (middle of the 13th century) the usual mode of determining innocence or guilt was by combat or appeal. But in most cases the appellant had the option of either fighting with his adversary or putting himself on his country for trial"—the exceptions being murder by secret poisoning, and certain circumstances presumed by the law to be conclusive of guilt.[3] But the separation must have been complete by 1352, in which year it was enacted "that no indictor shall be put in inquests upon deliverance of the indictees of felonies or trespass if he be challenged for that same cause by the indictee."

The jurors, whatever their origin, differed from the Saxon doomsmen and the jurats of the Channel Islands in that they adjudged nothing; and from compurgators or oath-helpers in

[1] Blackstone puts the principle as being that no man shall be convicted except by the unanimous voice of twenty-four of his equals or neighbours—twelve on the grand, and twelve on the petty jury.

[2] The distinction between the functions of the grand jury, which presents or accuses criminals, and the petty jury, which tries them, has suggested the theory that the system of compurgation is the origin of the jury system—the first jury representing the compurgators of the accuser, the second the compurgators of the accused.

[3] Forsyth, 206. The number of the jury (twelve) is responsible for some unfounded theories of the origin of the system. This use of twelve is not confined to England, nor in England or elsewhere to judicial institutions. "Its general prevalence," says Hallam (*Middle Ages*, ch. viii.), "shows that in searching for the origin of trial by jury we cannot rely for a moment upon any analogy which the mere number affords." In a *Guide to English Juries* (1682), by a person of quality (attributed to Lord Somers), the following passage occurs: "In analogy of late the jury is reduced to the number of twelve, like as the prophets were twelve to foretell the truth; the apostles twelve to preach the truth; the discoverers twelve, sent into Canaan to seek and report the truth; and the stones twelve that the heavenly Hierusalem is built on." Lord Coke indulged in similar speculations.

that they were not witnesses called by a litigant to support his case (Pollock and Maitland, i. 118). Once established, the jury of trial whether of actions or indictments developed on the same lines. But at the outset this jury differed in one material respect from the modern trial jury. The ancient trial jury certify to the truth from their knowledge of the facts, however acquired. In other words, they resemble witnesses or collectors of local evidence or gossip rather than jurors. The complete withdrawal of the witness character from the jury is connected by Forsyth with the ancient rules of law as to proof of written instruments, and a peculiar mode of trial *per sectam*. When a deed is attested by witnesses, you have a difference between the testimony of the witness, who deposes to the execution of the deed, and the verdict of the jury as to the fact of execution. It has been contended with much plausibility that in such cases the attesting witnesses formed part of the jury. Forsyth doubts that conclusion, although he admits that, as the jurors themselves were originally mere witnesses, there was no distinction in principle between them and the attesting witnesses, and that the attesting witnesses might be associated with the jury in the discharge of the function of giving a verdict. However that may be, in the reign of Edward III., although the witnesses are spoken of "as joined to the assize," they are distinguished from the jurors. The trial *per sectam* was used as an alternative to the assize or jury, and resembled in principle the system of compurgation. The claimant proved his case by vouching a certain number of witnesses (*secta*), who had seen the transaction in question, and the defendant rebutted the presumption thus created by vouching a larger number of witnesses on his own side. In cases in which this was allowed, the jury did not interpose at all, but in course of time the practice arose of the witnesses of the *secta* telling their story to the jury. In these two instances we have the jury as judges of the facts sharply contrasted with the witnesses who testify to the facts; and, with the increasing use of juries and the development of rules of evidence, this was gradually established as the true principle of the system. In the reign of Henry IV. we find the judges declaring that the jury after they have been sworn should not see or take with them any other evidence than that which has been offered in open court. But the personal knowledge of the jurors was not as yet regarded as outside the evidence on which they might found a verdict, and the stress laid upon the selection of jurymen from the neighbourhood of the cause of the action shows that this element was counted on, and, in fact, deemed essential to a just consideration of the case. Other examples of the same theory of the duties of the jury may be found in the language used by legal writers. Thus it has been said that the jury may return a verdict although no evidence at all be offered, and again, that the evidence given in court is not binding on the jury, because they are assumed from their local connexion to be sufficiently informed of the facts to give a verdict without or in opposition to the oral evidence. A recorder of London, *temp.* Edward VI., says that, "if the witnesses at a trial do not agree with the jurors, the verdict of the twelve shall be taken and the witnesses shall be rejected." Forsyth suggests as a reason for the continuance of this theory that it allowed the jury an escape from the *attaint*, by which penalties might be imposed on them for delivering a false verdict in a civil case. They could suggest that the verdict was according to the fact, though not according to the evidence.

In England the trial jury (also called petty jury or traverse jury) consists of twelve jurors, except in the county court, where the number is eight. In civil but not in criminal cases the trial may by consent be by fewer than twelve jurors, and the verdict may by consent be that of the majority. The rule requiring a unanimous verdict has been variously explained. Forsyth regards the rule as intimately connected with the original character of the jury as a body of witnesses, and with the conception common in primitive society that safety is to be found in the number of witnesses, rather than the character of their testimony. The old notion seems to have been that to justify an accusation, or to find a fact, twelve sworn men must be agreed. The afforcing of the jury, already described, marks an intermediate stage in the development. Where the juries were not unanimous new jurors were added until twelve were found to be of the same opinion. From the unanimous twelve selected out of a large number to the unanimous twelve constituting the whole jury was a natural step, which, however, was not taken without hesitation. In some old cases the verdict of eleven jurors out of twelve was accepted, but it was decided in the reign of Edward III. that the verdict must be the unanimous opinion of the whole jury. Diversity of opinion was taken to imply perversity of judgment, and the law sanctioned the application of the harshest methods to produce unanimity. The jurors while considering their verdict were not allowed a fire nor any refreshment, and it is said in some of the old books that, if they failed to agree, they could be put in a cart and drawn after the justices to the border of the county, and then upset into a ditch. These rude modes of enforcing unanimity has been softened in later practice, but in criminal cases the rule of unanimity is still absolutely fixed.

In civil cases and in trials for misdemeanour, the jurors are allowed to separate during adjournments and to return to their homes; in trials for treason, treason-felony and murder, the jurors, once sworn, must not separate until discharged. But by an act of 1897 jurors on trials for other felonies may be allowed by the court to separate in the same way as on trials for misdemeanour.

These rules do not apply to a jury which has retired to consider its verdict. During the period of retirement it is under the keeping of an officer of the court.

At common law aliens were entitled to be tried by a jury *de medietate linguae*—half Englishmen, half foreigners, not necessarily compatriots of the accused. This privilege was abolished by the Naturalization Act 1870; but by the Juries Act 1870 aliens who have been domiciled in England or Wales for ten years or upwards, if in other respects duly qualified, are liable to jury service as if they were natural-born subjects (s. 8).

A jury of matrons is occasionally summoned, viz. on a writ *de ventre inspiciendo*, or where a female condemned to death pleads pregnancy in stay of execution.

The jurors are selected from the inhabitants of the county, borough or other area for which the court to which they are summoned is commissioned to act. In criminal cases, owing to the rules as to venue and that crime is to be tried in the neighbourhood where it is committed, the mode of selection involves a certain amount of independent local knowledge on the part of the jurors. Where local prejudice has been aroused for or against the accused, which is likely to affect the chance of a fair trial, the proceedings may be removed to another jurisdiction, and there are a good many offences in which by legislation the accused may be tried where he is caught, irrespective of the place where he is alleged to have broken the law. As regards civil cases, a distinction was at an early date drawn between local actions which must be tried in the district in which they originated, and transitory actions which could be tried in any county. These distinctions are now of no importance, as the place of trial of a civil action is decided as a matter of procedure and convenience, and regard is not necessarily paid to the place at which a wrong was done or a contract broken.

The qualifications for, and exemptions from, service as a petty juror are in the main contained in the Juries Acts 1825 and 1870, though a number of further exemptions are added by scattered enactments. The exemptions include members of the legislature and judges, ministers of various denominations, and practising barristers and solicitors, registered medical practitioners and dentists, and officers and soldiers of the regular army. Persons over sixty are exempt but not disqualified. Lists of the jurors are prepared by the overseers in rural parishes and by the town clerks in boroughs, and are submitted to justices for revision. When jurors are required for a civil or criminal trial they are summoned by the sheriff or, if he cannot act, by the coroner.

Special and Common Juries.—For the purpose of civil trials in the superior courts there are two lists of jurors, special and

common. The practice of selecting special jurors to try important civil cases appears to have sprung up, without legislative enactment, in the procedure of the courts. Forsyth says that the first statutory recognition of it is so late as 3 Geo. II. c. 25, and that in the oldest book of practice in existence (Powell's *Attourney's Academy*, 1623) there is no allusion to two classes of jurymen. The acts, however, which regulate the practice allude to it as well established. The Juries Act 1870 (33 & 34 Vict. c. 77) defines the class of persons entitled and liable to serve on special juries thus: Every man whose name shall be on the jurors' book for any county, &c., and who shall be legally entitled to be called an esquire, or shall be a person of higher degree, or a banker or merchant, or who shall occupy a house of a certain rateable value (*e.g.* £100 in a town of 20,000 inhabitants, £50 elsewhere), or a farm of £300 or other premises at £100. A special juryman receives a fee of a guinea for each cause. Either party may obtain an order for a special jury, but must pay the additional expenses created thereby unless the judge certifies that it was a proper case to be so tried. For the common jury any man is qualified and liable to serve who has £10 by the year in land or tenements of freehold, copyhold or customary tenure; or £20 on lands or tenement held by lease for twenty-one years or longer, or who being a householder is rated at £30 in the counties of London and Middlesex, or £20 in any other county. A special jury cannot be ordered in cases of treason or felony, and may be ordered in cases of misdemeanour only when the trial is in the king's bench division of the High Court, or the civil side at assizes.

Challenge.—It has always been permissible for the parties to challenge the jurors summoned to consider indictments or to try cases. Both in civil and criminal cases a challenge "for cause" is allowed; in criminal cases a peremptory challenge is also allowed. Challenge "for cause" may be either to the *array*, *i.e.* to the whole number of jurors returned, or to the *polls*, *i.e.* to the jurors individually. A challenge to the array is either a *principal* challenge (on the ground that the sheriff is a party to the cause, or related to one of the parties), or a challenge for *favour* (on the ground of circumstances implying "at least a probability of bias or favour in the sheriff"). A challenge to the polls is an exception to one or more jurymen on either of the following grounds: (1) *propter honoris respectum*, as when a lord of parliament is summoned; (2) *propter defectum*, for want of qualification; (3) *propter affectum*, on suspicion of bias or partiality; and (4) *propter delictum*, when the juror has been convicted of an infamous offence. The challenge *propter affectum* is, like the challenge to the array, either principal challenge or "to the favour." In England as a general rule the juror may be interrogated to show want of qualification; but in other cases the person making the challenge must prove it without questioning the juror, and the courts do not allow the protracted examination on the *voir dire* which precedes every *cause célèbre* in the United States. On indictments for treason the accused has a right peremptorily to challenge thirty-five of the jurors on the panel; in cases of felony the number is limited to twenty, and in cases of misdemeanour there is no right of peremptory challenge. The Crown has not now the right of peremptory challenge and may challenge only for cause certain (Juries Act 1825, s. 29). In the case of felony, on the first call of the list jurors objected to by the Crown are asked to stand by, and the cause of challenge need not be assigned by the Crown until the whole list has been perused or gone through, or unless there remain no longer twelve jurors left to try the case, exclusive of those challenged. This arrangement practically amounts to giving the Crown the benefit of a peremptory challenge.

Function of Jury.—The jurors were originally the mouthpiece of local opinion on the questions submitted to them, or witnesses to fact as to such questions. They have now become the judges of fact upon the evidence laid before them. Their province is strictly limited to questions of fact, and within that province they are still further restricted to matters proved by evidence in the course of the trial and in theory must not act upon their own personal knowledge and observation except so far as it proceeds from what is called a "view" of the subject matter of the litigation. Indeed it is now well established that if a juror is acquainted with facts material to the case, he should inform the court so that he may be dismissed from the jury and called as a witness; and Lord Ellenborough ruled that a judge would misdirect the jury if he told them that they might reject the evidence and go by their own knowledge. The old *decantatum* assigns to judge and jury their own independent functions: *Ad quaestionem legis respondent judices: ad quaestionem facti juratores* (Plowden, 114). But the independence of the jurors as to matters of fact was from an early time not absolute. In certain civil cases a litigant dissatisfied by the verdict could adopt the procedure by attaint, and if the attaint jury of twenty-four found that the first jury had given a false verdict, they were fined and suffered the villainous judgment. Attaints fell into disuse on the introduction about 1665 of the practice of granting new trials when the jury found against the weight of the evidence, or upon a wrong direction as to the law of the case.

In criminal cases the courts attempted to control the verdicts by fining the jurors for returning a verdict *contra plenam et manifestam evidentiam.* But this practice was declared illegal in Bushell's case (1670); and so far as criminal cases are concerned the independence of the jury as sole judges of fact is almost absolute. If they acquit, their action cannot be reviewed nor punished, except on proof of wilful and corrupt consent to "embracery" (Juries Act 1825, s. 61). If they convict no new trial can be ordered except in the rare instances of misdemeanours tried as civil cases in the High Court. In trials for various forms of libel during the 18th century, the judges restricted the powers of juries by ruling that their function was limited to finding whether the libel had in fact been published, and that it was for the court to decide whether the words published constituted an offence.[1] By Fox's Libel Act 1792 the jurors in such cases were expressly empowered to bring in a general verdict of libel or no libel, *i.e.* to deal with the whole question of the meaning and extent of the incriminated publication. In other words, they were given the same independence in cases of libel as in other criminal cases. This independence has in times of public excitement operated as a kind of local option against the existing law and as an aid to procuring its amendment. Juries in Ireland in agrarian cases often acquit in the teeth of the evidence. In England the independence of the jury in criminal trials is to some extent menaced by the provisions of the Criminal Appeal Act 1907.

While the jury is in legal theory absolute as to matters of fact, it is in practice largely controlled by the judges. Not only does the judge at the trial decide as to the relevancy of the evidence tendered to the issues to be proved, and as to the admissibility of questions put to a witness, but he also advises the jury as to the logical bearing of the evidence admitted upon the matters to be found by the jury. The rules as to admissibility of evidence, largely based upon scholastic logic, sometimes difficult to apply, and almost unknown in continental jurisprudence, coupled with the right of an English judge to sum up the evidence (denied to French judges) and to express his own opinion as to its value (denied to American judges), fetter to some extent the independence or limit the chances of error of the jury.

"The whole theory of the jurisdiction of the courts to interfere with the verdict of the constitutional tribunal is that the court is satisfied that the jury have not acted reasonably upon the evidence but have been misled by prejudice or passion" (*Watt* v. *Watt* (1905), App. Cas. 118, per Lord Halsbury). In civil cases the verdict may be challenged on the ground that it is against the evidence or against the weight of the evidence, or unsupported by any evidence. It is said to be against the evidence when the jury have completely misapprehended the facts proved and have drawn an inference so wrong as to be in substance perverse. The dissatisfaction of the trial judge with the verdict is a potent but not conclusive element in determining as to the perversity of a verdict, because of his special opportunity of appreciating the

[1] See *R.* v. *Dean of St. Asaph* (1789), 3 T.R. 418.

evidence and the demeanour of the witnesses. But his opinion is less regarded now that new trials are granted by the court of appeal than under the old system when the new trial was sought in the court of which he was a member.

The appellate court will not upset a verdict when there is substantial and conflicting evidence before the jury. In such cases it is for the jury to say which side is to be believed, and the court will not interfere with the verdict. To upset a verdict on the ground that there is no evidence to go to the jury implies that the judge at the trial ought to have withdrawn the case from the jury. Under modern procedure, in order to avoid the risk of a new trial, it is not uncommon to take the verdict of a jury on the hypothesis that there was evidence for their consideration, and to leave the unsuccessful party to apply for judgment notwithstanding the verdict. The question whether there was any evidence proper to be submitted to the jury arises oftenest in cases involving an imputation of negligence—*e.g.* in an action of damages against a railway company for injuries sustained in a collision. Juries are somewhat ready to infer negligence, and the court has to say whether, on the facts proved, there was any evidence of negligence by the defendant. This is by no means the same thing as saying whether, in the opinion of the court, there was negligence. The court may be of opinion that on the facts there was none, yet the facts themselves may be of such a nature as to be evidence of negligence to go before a jury. When the facts proved are such that a reasonable man might have come to the conclusion that there was negligence, then, although the court would not have come to the same conclusion, it must admit that there is evidence to go before the jury. This statement indicates existing practice but scarcely determines what relation between the facts proved and the conclusion to be established is necessary to make the facts evidence from which a jury may infer the conclusion. The true explanation is to be found in the principle of relevancy. Any fact which is relevant to the issue constitutes evidence to go before the jury, and any fact, roughly speaking, is relevant between which and the fact to be proved there may be a connexion as cause and effect (see EVIDENCE). As regards damages the court has always had wide powers, as damages are often a question of law. But when the amount of the damages awarded by a jury is challenged as excessive or inadequate, the appellate court, if it considers the amount unreasonably large or unreasonably small, must order a new trial unless both parties consent to a reduction or increase of the damages to a figure fixed by the court; see *Watt* v. *Watt* (1905), App. Cas. 115.

Value of Jury System.—The value of the jury in past history as a bulwark against aggression by the Crown or executive cannot be over-rated, but the working of the institution has not escaped criticism. Its use protracts civil trials. The jurors are usually unwilling and are insufficiently remunerated; and jury trials in civil cases often drag out much longer and at greater expense than trials by a judge alone, and the proceedings are occasionally rendered ineffective by the failure of the jurors to agree.

There is much force in the arguments of Bentham and others against the need of unanimity—the application of pressure to force conviction on the minds of jurors, the indifference to veracity which the concurrence of unconvinced minds must produce in the public mind, the probability that jurors will disagree and trials be rendered abortive, and the absence of any reasonable security in the unanimous verdict that would not exist in the verdict of a majority. All this is undeniably true, but disagreements are happily not frequent, and whatever may happen in the jury room no compulsion is now used by the court to induce agreement.

But, apart from any incidental defects, it may be doubted whether, as an instrument for the investigation of truth, the jury system deserves all the encomiums which have been passed upon it. In criminal cases, especially of the graver kind, it is perhaps the best tribunal that could be devised. There the element of moral doubt enters largely into the consideration of the case, and that can best be measured by a popular tribunal. Opinion in England has hitherto been against subjecting a man to serious punishment as a result of conviction before a judge sitting without a jury, and the judges themselves would be the first to deprecate so great a responsibility, and the Criminal Appeal Act 1907, which constituted the court of criminal appeal, recognized the responsibility by requiring a quorum of three judges in order to constitute a court. The same act, by permitting an appeal to persons convicted on indictment both on questions of fact and of law, removed to a great extent any possibility of error by a jury. But in civil causes, where the issue must be determined one way or the other on the balance of probabilities, a single judge would probably be a better tribunal than the present combination of judge and jury. Even if it be assumed that he would on the whole come to the same conclusion as a jury deliberating under his directions, he would come to it more quickly. Time would be saved in taking evidence, summing up would be unnecessary, and the addresses of counsel would inevitably be shortened and concentrated on the real points at issue. Modern legislation and practice in England have very much reduced the use of the jury both in civil and criminal cases.

In the county courts trial by jury is the exception and not the rule. In the court of chancery and the admiralty court it was never used. Under the Judicature Acts many cases which in the courts of common law would have been tried with a jury are now tried before a judge alone, or (rarely) with assessors, or before an official referee. Indeed cynics say that a jury is insisted on chiefly in cases when a jury, from prejudice or other causes, is likely to be more favourable than a judge alone.

In criminal cases, by reason of the enormous number of offences punishable on summary conviction and of the provisions made for trying certain indictable offences summarily if the offender is young or elects for summary trial, juries are less called on in proportion to the number of offences committed than was the practice in former years.

Scotland.—According to the *Regiam Majestatem*, which is identical with the treatise of Glanvill on the law of England (but whether the original or only a copy of that work is disputed), trial by jury existed in Scotland for civil and criminal cases from as early a date as in England, and there is reason to believe that at all events the system became established at a very early date. Its history was very different from that of the English jury system. There was no grand jury under Scots law, but it was introduced in 1708 for the purpose of high treason (7 Anne c. 21). For the trial of criminal cases the petty jury is represented by the criminal "assize." This jury has always consisted of fifteen persons and the jurors are chosen by ballot by the clerk of the court from the list containing the names of the special and common jurors, five from the special, ten from the common. Prosecutor and accused each have five peremptory challenges, of which two only may be directed against the special jurors; but there is no limit to challenges for cause. The jury is not secluded during the trial except in capital cases or on special order of the court made *proprio motu* or on the application of prosecutor or accused. The verdict need not be unanimous, nor is enclosure a necessary preliminary to a majority verdict. It is returned viva voce by the chancellor or foreman, and entered on the record by the clerk of the court, and the entry read to the jury. Besides the verdicts of "guilty" and "not guilty," a Scots jury may return a verdict of "not proven," which has legally the same effect as not guilty in releasing the accused from further proceedings on the particular charge, but inflicts on him the stigma of moral guilt.

Jury trial in civil cases was at one time in general if not prevailing use, but was gradually superseded for most purposes on the institution of the Court of Session (1 Mackay, *Ct. Sess. Pr.* 33). In this, as in many other matters, Scots law and procedure tend to follow continental rather than insular models. The civil jury was reintroduced in 1815 (55 Geo. III. c. 42), mainly on account of the difficulties experienced by the House of Lords in dealing with questions of fact raised on Scottish appeals. At the outset a special court was instituted in the nature of a judicial commission to ascertain by means of a jury facts deemed relevant to the issues in a cause and sent for such determination at the discretion of the court in which the cause was pending. The process was analogous to the sending of an issue out of chancery for trial in a superior court of common law, or in a court of assize. In 1830 the jury court ceased to exist as a separate tribunal and was merged in the Court of Session. By legislation of 1819 and 1825 certain classes of cases were indicated as appropriate to be tried by a jury; but in 1850 the cases so to be tried were limited to actions for defamation and nuisance, or properly and in substance actions for damages, and under an act of 1866 even in these cases the jury may be dispensed with by consent of parties.

The civil jury consists as in England of twelve jurors chosen by ballot from the names on the list of those summoned. There is a right of peremptory challenge limited to four, and also a right to challenge for cause. Unanimity was at first but is not now required. The jury if unanimous may return a verdict immediately on the close of the case. If they are not unanimous they are enclosed and may at any time not less than three hours after being enclosed return a verdict by a bare majority. If after six hours they do not agree by the requisite majority, *i.e.* are equally divided, they must be discharged. It was stated by Commissioner Adam, under whom the Scots civil jury was originated, that in twenty years he knew of only one case in which the jury disagreed. Jury trial in civil cases in Scotland has not flourished or given general satisfaction, and is resorted to only in a small proportion of cases. This is partly due to its being transplanted from England.

Ireland.—The jury laws of Ireland do not differ in substance from those of England. The qualifications of jurors are regulated by O'Hagan's Acts 1871 and 1872, and the Juries Acts 1878 and 1894. In criminal cases much freer use is made than in England of the rights of the accused to challenge, and of the Crown to order jurors to stand by, and what is called "jury-packing" seems to be the object of both sides when some political or agrarian issue is involved in the trial. Until the passing of the Irish Local Government Act 1898, the grand jury, besides its functions as a jury of accusation, had large duties with respect to local government which are now transferred to the county councils and other elective bodies.

British Empire.—In most parts of the British Empire the jury system is in force as part of the original law of the colonists or under the colonial charters of justice or by local legislation. The grand jury is not in use in India; was introduced but later abolished in the Cape Colony; and in Australia has been for most purposes superseded by the public prosecutor. The ordinary trial jury for criminal cases is twelve, but in India may be nine, seven, five or three, according to certain provisions of the Criminal Procedure Code 1898. In countries where the British Crown has foreign jurisdiction the jury for criminal trials has in some cases been fixed at a less number than twelve and the right of the Crown to fix the number is established; see *ex p. Carew*, 1897, A.C. 719. In civil cases the number of the jury is reduced in some colonies, *e.g.* to seven in Tasmania and Trinidad.

European Countries.—In France there is no civil jury. In criminal cases the place of the grand jury is taken by the *chambre des mises en accusation*, and the more serious crimes are tried before a jury of twelve which finds its verdict by a majority, the exact number of which may not be disclosed. In Belgium, Spain, Italy and Germany, certain classes of crime are tried with the aid of a jury.

United States.—The English jury system was part of the law of the American colonies before the declaration of independence; and grand jury, coroner's jury and petty jury continue in full use in the United States. Under the Federal Constitution (Article iii.) there is a right to trial by jury in all criminal cases (except on impeachment) and in all civil actions at common law in which the subject matter exceeds $20 in value (amendments vi. and vii.). The trial jury must be of twelve and its verdict must be unanimous; see Cooley, *Constitutional Limitations* (6th ed.), 389. The respective provinces of judge and jury have been much discussed and there has been a disposition to declare the jury supreme as to law as well as fact. The whole subject is fully treated by reference to English and American authorities, and the conflicting views are stated in *Sparf* v. *United States*, 1895, 156 U.S. 61. The view of the majority of the court in that case was that it is the duty of the jury in a criminal case to receive the law from the court and to apply it as laid down by the court, subject to the condition that in giving a general verdict the jury may incidentally determine both law and fact as compounded in the issues submitted to them in the particular case. The power to give a general verdict renders the duty one of imperfect obligation and enables the jury to take its own view of the terms and merits of the law involved.

The extent to which the jury system is in force in the states of the union depends on the constitution and legislation of each state. In some the use of juries in civil and even in criminal cases is reduced or made subject to the election of the accused. In others unanimous verdicts are not required, while the constitutions of others require the unanimous verdict of the common law dozen. (W. F. C.)

JUS PRIMAE NOCTIS, or DROIT DU SEIGNEUR, a custom alleged to have existed in medieval Europe, giving the overlord a right to the virginity of his vassals' daughters on their wedding-night. For the existence of the custom in a legalized form there is no trustworthy evidence. That some such abuse of power may have been occasionally exercised by brutal nobles in the lawless days of the early middle ages is only too likely, but the *jus*, it seems, is a myth, invented no earlier than the 16th or 17th century. There appears to have been an entirely religious custom established by the council of Carthage in 398, whereby the Church required from the faithful continence on the wedding-night, and this may have been, and there is evidence that it was, known as *Droit du Seigneur*, or "God's right." Later the clerical admonition was extended to the first three days of marriage. This religious abstention, added to the undoubted fact that the feudal lord extorted fines on the marriages of his vassals and their children, doubtless gave rise to the belief that the *jus* was once an established custom.

The whole subject has been exhaustively treated by Louis Veuillot in *Le Droit du seigneur au moyen âge* (1854).

JUS RELICTAE, in Scots law, the widow's right in the movable property of her deceased husband. The deceased must have been domiciled in Scotland, but the right accrues from movable property, wherever situated. The widow's provision amounts to one-third where there are children surviving, and to one-half where there are no surviving children. The widow's right vests by survivance, and is independent of the husband's testamentary provisions; it may however be renounced by contract, or be discharged by satisfaction. It is subject to alienation of the husband's movable estate during his lifetime or by its conversion into heritage. See also WILL.

JUSSERAND, JEAN ADRIEN ANTOINE JULES (1855–), French author and diplomatist, was born at Lyons on the 18th of February 1855. Entering the diplomatic service in 1876, he became in 1878 consul in London. After an interval spent in Tunis he returned to London in 1887 as a member of the French Embassy. In 1890 he became French minister at Copenhagen, and in 1902 was transferred to Washington. A close student of English literature, he produced some very lucid and vivacious monographs on comparatively little-known subjects: *Le Théâtre en Angleterre depuis la conquête jusqu' aux prédécesseurs immédiats de Shakespeare* (1878); *Le Roman au temps de Shakespeare* (1887; Eng. trans. by Miss E. Lee, 1890); *Les Anglais au moyen âge: la vie nomade et les routes d'Angleterre au XIVe siècle* (1884; Eng. trans., *English Wayfaring Life in the Middle Ages*, by L. T. Smith, 1889); and *L'Épopée de Langland* (1893; Eng. trans., *Piers Plowman*, by M. C. R., 1894). His *Histoire littéraire du peuple anglais*, the first volume of which was published in 1895, was completed in three volumes in 1909. In English he wrote *A French Ambassador at the Court of Charles II.* (1892), from the unpublished papers of the count de Cominges.

JUSSIEU, DE, the name of a French family which came into prominent notice towards the close of the 16th century, and for a century and a half was distinguished for the botanists it produced. The following are its more eminent members:—

1. ANTOINE DE JUSSIEU (1686–1758), born at Lyons on the 6th of July 1686, was the son of Christophe de Jussieu (or Dejussieu), an apothecary of some repute, who published a *Nouveau traité de la thériaque* (1708). Antoine studied at the university of Montpellier, and travelled with his brother Bernard through Spain, Portugal and southern France. He went to Paris in 1708, J. P. de Tournefort, whom he succeeded at the Jardin des Plantes, dying in that year. His own original publications are not of marked importance, but he edited an edition of Tournefort's *Institutiones rei herbariae* (3 vols., 1719), and also a posthumous work of Jacques Barrelier, *Plantae per Galliam, Hispaniam, et Italiam observatae*, &c. (1714). He practised medicine, chiefly devoting himself to the very poor. He died at Paris on the 22nd of April 1758.

2. BERNARD DE JUSSIEU (1699–1777), a younger brother of the above, was born at Lyons on the 17th of August 1699. He took a medical degree at Montpellier and began practice in 1720, but finding the work uncongenial he gladly accepted his brother's invitation to Paris in 1722, when he succeeded Sébastien Vaillant as sub-demonstrator of plants in the Jardin du Roi. In 1725 he brought out a new edition of Tournefort's *Histoire des plantes qui naissent aux environs de Paris*, 2 vols., which was afterwards translated into English by John Martyn, the original work being incomplete. In the same year he was admitted into the académie des sciences, and communicated several papers to that body. Long before Abraham Trembley (1700–1784) published his *Histoire des polypes d'eau douce*, Jussieu maintained the doctrine that these organisms were animals, and not the flowers of marine plants, then the current notion; and to confirm his views he made

three journeys to the coast of Normandy. Singularly modest and retiring, he published very little, but in 1759 he arranged the plants in the royal garden of the Trianon at Versailles, according to his own scheme of classification. This arrangement is printed in his nephew's *Genera*, pp. lxiii.–lxx., and formed the basis of that work. He cared little for the credit of enunciating new discoveries, so long as the facts were made public. On the death of his brother Antoine, he could not be induced to succeed him in his office, but prevailed upon L. G. Lemonnier to assume the higher position. He died at Paris on the 6th of November 1777.

3. Joseph de Jussieu (1704–1779), brother of Antoine and Bernard, was born at Lyons on the 3rd of September 1704. Educated like the rest of the family for the medical profession, he accompanied C. M. de la Condamine to Peru, in the expedition for measuring an arc of meridian, and remained in South America for thirty-six years, returning to France in 1771. Amongst the seeds he sent to his brother Bernard were those of *Heliotropium peruvianum*, Linn., then first introduced into Europe. He died at Paris on the 11th of April 1779.

4. Antoine Laurent de Jussieu (1748–1836), nephew of the three preceding, was born at Lyons on the 12th of April 1748. Called to Paris by his uncle Bernard, and carefully trained by him for the pursuits of medicine and botany, he largely profited by the opportunities afforded him. Gifted with a tenacious memory, and the power of quickly grasping the salient points of subjects under observation, he steadily worked at the improvement of that system of plant arrangement which had been sketched out by his uncle. In 1789 was issued his *Genera plantarum secundum ordines naturales disposita, juxta methodum in horto regio Parisiensi exaratam, anno* MDCCLXXIV. This volume formed the basis of modern classification; more than this, it is certain that Cuvier derived much help in his zoological classification from its perusal. Hardly had the last sheet passed through the press, when the French Revolution broke out, and the author was installed in charge of the hospitals of Paris. The muséum d'histoire naturelle was organized on its present footing mainly by him in 1793, and he selected for its library everything relating to natural history from the vast materials obtained from the convents then broken up. He continued as professor of botany there from 1770 to 1826, when his son Adrien succeeded him. Besides the *Genera*, he produced nearly sixty memoirs on botanical topics. He died at Paris on the 17th of September 1836.

5. Adrien Laurent Henri de Jussieu (1797–1853), son of Antoine Laurent, was born at Paris on the 23rd of December 1797. He displayed the qualities of his family in his thesis for the degree of M.D., *De Euphorbiacearum generibus medicisque earundem viribus tentamen*, Paris, 1824. He was also the author of valuable contributions to botanical literature on the *Rutaceae*, *Meliaceae* and *Malpighiaceae* respectively, of "Taxonomie" in the *Dictionnaire universelle d'histoire naturelle*, and of an introductory work styled simply *Botanique*, which reached nine editions, and was translated into the principal languages of Europe. He also edited his father's *Introductio in historiam plantarum*, issued at Paris, without imprint or date, it being a fragment of the intended second edition of the *Genera*, which Antoine Laurent did not live to complete. He died at Paris on the 29th of June 1853, leaving two daughters, but no son, so that with him closed the brilliant botanical dynasty.

6. Laurent Pierre de Jussieu (1792–1866), miscellaneous writer, nephew of Antoine Laurent, was born at Villeurbanne on the 7th of February 1792. His *Simon de Nantua, ou le marchand forain* (1818), reached fifteen editions, and was translated into seven languages. He also wrote *Simples notions de physique et d'histoire naturelle* (1857), and a few geological papers. He died at Passy on the 23rd of February 1866.

JUSTICE (Lat. *justitia*), a term used both in the abstract, for the quality of being or doing what is just, *i.e.* right in law and equity, and in the concrete for an officer deputed by the sovereign to administer justice, and do right by way of judgment. It has long been the official title of the judges of two of the English superior courts of common law, and it is now extended to all the judges in the supreme court of judicature—a judge in the High Court of Justice being styled Mr Justice, and in the court of appeal Lord Justice. The president of the king's bench division of the High Court is styled Lord Chief Justice (*q.v.*). The word is also applied, and perhaps more usually, to certain subordinate magistrates who administer justice in minor matters, and who are usually called *justices of the peace* (*q.v.*).

JUSTICE OF THE PEACE, an inferior magistrate appointed in England by special commission under the great seal to keep the peace within the jurisdiction for which he is appointed. The title is commonly abbreviated to J.P. and is used after the name. "The whole Christian world," said Coke, "hath not the like office as justice of the peace if duly executed." Lord Cowper, on the other hand, described them as "men sometimes illiterate and frequently bigoted and prejudiced." The truth is that the justices of the peace perform without any other reward than the consequence they acquire from their office a large amount of work indispensable to the administration of the law, and (though usually not professional lawyers, and therefore apt to be ill-informed in some of their decisions) for the most part they discharge their duties with becoming good sense and impartiality. For centuries they have necessarily been chosen mainly from the landed class of country gentlemen, usually Conservative in politics; and in recent years the attempt has been made by the Liberal party to reduce the balance by appointing others than those belonging to the landed gentry, such as tradesmen, Nonconformist ministers, and working-men. But it has been recognized that the appointment of justices according to their political views is undesirable, and in 1909 a royal commission was appointed to consider and report whether any and what steps should be taken to facilitate the selection of the most suitable persons to be justices of the peace irrespective of creed and political opinion. In great centres of population, when the judicial business of justices is heavy, it has been found necessary to appoint paid justices or stipendiary magistrates[1] to do the work, and an extension of the system to the country districts has been often advocated.

The commission of the peace assigns to justices the duty of keeping and causing to be kept all ordinances and statutes for the good of the peace and for preservation of the same, and for the quiet rule and government of the people, and further assigns "to you and every two or more of you (of whom any one of the aforesaid A, B, C, D, &c., we will, shall be one) to inquire the truth more fully by the oath of good and lawful men of the county of all and all manner of felonies, poisonings, enchantments, sorceries, arts, magic, trespasses, forestallings, regratings, engrossings, and extortions whatever." This part of the commission is the authority for the jurisdiction of the justices in *sessions*. Justices named specially in the parenthetical clause are said to be on the quorum. Justices for counties are appointed by the Crown on the advice of the lord chancellor, and usually with the recommendation of the lord lieutenant of the county. Justices for boroughs having municipal corporations and separate commissions of the peace are appointed by the crown, the lord chancellor either adopting the recommendation of the town council or acting independently. Justices cannot act as such until they have taken the oath of allegiance and the judicial oath. A justice for a borough while acting as such must reside in or within seven miles of the borough or occupy a house, warehouse or other property in the borough, but he need not be a burgess. The mayor of a borough is *ex officio* a justice during his year of office and the succeeding year. He takes precedence over all borough justices, but not over justices acting in and for the county in which the borough or any part thereof is situated, unless when acting in relation to the business of the borough.

[1] Where a borough council desire the appointment of a stipendiary magistrate they may present a petition for the same to the secretary of state and it is thereupon lawful for the king to appoint to that office a barrister of seven years' standing. He is by virtue of his office a justice for the borough, and receives a yearly salary, payable in four equal quarterly instalments. On a vacancy, application must again be made as for a first appointment. There may be more than one stipendiary magistrate for a borough.

The chairman of a county council is *ex officio* a justice of the peace for the county, and the chairman of an urban or rural district council for the county in which the district is situated. Justices cannot act beyond the limits of the jurisdiction for which they are appointed, and the warrant of a justice cannot be executed out of his jurisdiction unless it be backed, that is, endorsed by a justice of the jurisdiction in which it is to be carried into execution. A justice improperly refusing to act on his office, or acting partially and corruptly, may be proceeded against by a criminal information, and a justice refusing to act may be compelled to do so by the High Court of Justice. An action will lie against a justice for any act done by him in excess of his jurisdiction, and for any act within his jurisdiction which has been done wrongfully and with malice, and without reasonable or probable cause. But no action can be brought against a justice for a wrongful conviction until it has been quashed. By the Justices' Qualification Act 1744, every justice for a county was required to have an estate of freehold, copyhold, or customary tenure in fee, for life or a given term, of the yearly value of £100. By an act of 1875 the occupation of a house rated at £100 was made a qualification. No such qualifications were ever required for a borough justice, and it was not until 1906 that county justices were put on the same footing in this respect. The Justices of the Peace Act 1906 did away with all qualification by estate. It also removed the necessity for residence within the county, permitting the same residential qualification as for borough justices, "within seven miles thereof." The same act removed the disqualification of solicitors to be county justices and assimilated to the existing power to remove other justices from the commission of the peace the power to exclude *ex officio* justices.

The justices for every petty sessional division of a county or for a borough having a separate commission of the peace must appoint a fit person to be their salaried clerk. He must be either a barrister of not less than fourteen years' standing, or a solicitor of the supreme court, or have served for not less than seven years as a clerk to a police or stipendiary magistrate or to a metropolitan police court. An alderman or councillor of a borough must not be appointed as clerk, nor can a clerk of the peace for the borough or for the county in which the borough is situated be appointed. A borough clerk is not allowed to prosecute. The salary of a justice's clerk comes, in London, out of the police fund; in counties out of the county fund; in county boroughs out of the borough fund, and in other boroughs out of the county fund.

The vast and multifarious duties of the justices cover some portion of every important head of the criminal law, and extend to a considerable number of matters relating to the civil law.

In the United States these officers are sometimes appointed by the executive, sometimes elected. In some states, justices of the peace have jurisdiction in civil cases given to them by local regulations.

JUSTICIAR (med. Lat. *justiciarius* or *justitiarius*, a judge), in English history, the title of the chief minister of the Norman and earlier Angevin kings. The history of the title in this connotation is somewhat obscure. *Justiciarius* meant simply "judge," and was originally applied, as Stubbs points out (*Const. Hist.* i. 389, note), to any officer of the king's court, to the chief justice, or in a very general way to all and sundry who possessed courts of their own or were qualified to act as *judices* in the shire-courts, even the style *capitalis justiciarius* being used of judges of the royal court other than the chief. It was not till the reign of Henry II. that the title *summus* or *capitalis justiciarius*, or *justiciarius totius Angliae* was exclusively applied to the king's chief minister. The office, however, existed before the style of its holder was fixed; and, whatever their contemporary title (*e.g. Custos Angliae*), later writers refer to them as *justiciarii*, with or without the prefix *summus* or *capitalis* (ibid. p. 346). Thus Ranulf Flambard, the minister of William II., who was probably the first to exercise the powers of a justiciar, is called *justiciarius* by Ordericus Vitalis.

The origin of the justiciarship is thus given by Stubbs (ibid. p. 276). The sheriff "was the king's representative in all matters judicial, military and financial in the shire. From him, or from the courts of which he was the presiding officer, appeal lay to the king alone; but the king was often absent from England and did not understand the language of his subjects. In his absence the administration was entrusted to a justiciar, a regent or lieutenant of the kingdom; and the convenience being once ascertained of having a minister who could in the whole kingdom represent the king, as the sheriff did in the shire, the justiciar became a permanent functionary."

The fact that the kings were often absent from England, and that the justiciarship was held by great nobles or churchmen, made this office of an importance which at times threatened to overshadow that of the Crown. It was this latter circumstance which ultimately led to its abolition. Hubert de Burgh (*q.v.*) was the last of the great justiciars; after his fall (1231) the justiciarship was not again committed to a great baron, and the chancellor soon took the position formerly occupied by the justiciar as second to the king in dignity, as well as in power and influence. Finally, under Edward I. and his successor, in place of the justiciar—who had presided over all causes *vice regis*—separate heads were established in the three branches into which the *curia regis* as a judicial body had been divided: justices of common pleas, justices of the king's bench and barons of the exchequer.

Outside England the title justiciar was given under Henry II. to the seneschal of Normandy. In Scotland the title of justiciar was borne, under the earlier kings, by two high officials, one having his jurisdiction to the north, the other to the south of the Forth. They were the king's lieutenants for judicial and administrative purposes and were established in the 12th century, either by Alexander I. or by his successor David I. In the 12th century a *magister justitiarius* also appears in the Norman kingdom of Sicily, title and office being probably borrowed from England; he presided over the royal court (*Magna curia*) and was, with his assistants, empowered to decide, *inter alia*, all cases reserved to the Crown (see Du Cange, *s.v. Magister Justitiarius*).

See W. Stubbs, *Const. Hist. of England*; Du Cange, *Glossarium* (Niort, 1885) *s.v.* "Justitiarius."

JUSTICIARY, HIGH COURT OF, in Scotland, the supreme criminal court, consisting of five of the lords of session together with the lord justice-general and the lord justice-clerk as president and vice-president respectively. The constitution of the court is settled by the Act 1672 c. 16. The lords of justiciary hold circuits regularly twice a year according to the ancient practice, which, however, had been allowed to fall into disuse until revived in 1748. For circuit purposes Scotland is divided into northern, southern and western districts (see CIRCUIT). Two judges generally go on a circuit, and in Glasgow they are by special statute authorized to sit in separate courts. By the Criminal Procedure (Scotland) Act 1887 all the senators of the college of justice are lords commissioners of justiciary. The high court, sitting in Edinburgh, has, in addition to its general jurisdiction, an exclusive jurisdiction for districts not within the jurisdiction of the circuits—the three Lothians, and Orkney and Shetland. The high court also takes up points of difficulty arising before the special courts, like the court for crown cases reserved in England. The court of justiciary has authority to try all crimes, unless when its jurisdiction has been excluded by special enactment of the legislature. It is also stated to have an inherent jurisdiction to punish all criminal acts, even if they have never before been treated as crimes. Its judgments are believed to be not subject to any appeal or review, but it may be doubted whether an appeal on a point of law would not lie to the house of lords. The following crimes must be prosecuted in the court of justiciary: treason, murder, robbery, rape, fire-raising, deforcement of messengers, breach of duty by magistrates, and all offences for which a statutory punishment higher than imprisonment is imposed.

JUSTIFICATION, in law, the showing by a defendant in a suit of sufficient reason why he did what he was called upon to answer,

For example, in an action for assault and battery, the defendant may prove in justification that the prosecutor assaulted or beat him first, and that he acted merely in self-defence. The word is employed particularly in actions for defamation, and has in this connexion a somewhat special meaning. When a libel consists of a specific charge a plea of justification is a plea that the words are true in substance and in fact (see LIBEL AND SLANDER).

JUSTIN I. (450–527), East Roman emperor (518–527), was born in 450 as a peasant in Asia, but enlisting under Leo I. he rose to be commander of the imperial guards of Anastasius. On the latter's death in 518 Justin used for his own election to the throne money that he had received for the support of another candidate. Being ignorant even of the rudiments of letters, Justin entrusted the administration of state to his wise and faithful quaestor Proclus and to his nephew Justinian, though his own experience dictated several improvements in military affairs. An orthodox churchman himself, he effected in 519 a reconciliation of the Eastern and Western Churches, after a schism of thirty-five years (see HORMISDAS). In 522 he entered upon a desultory war with Persia, in which he co-operated with the Arabs. In 522 also Justin ceded to Theodoric, the Gothic king of Italy, the right of naming the consuls. On the 1st of April 527 Justin, enfeebled by an incurable wound, yielded to the request of the senate and assumed Justinian at his colleague; on the 1st of August he died. Justin bestowed much care on the repairing of public buildings throughout his empire, and contributed large sums to repair the damage caused by a destructive earthquake at Antioch.

See E. Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury, 1896), iv. 206–209.

JUSTIN II. (d. 578), East Roman emperor (565–578), was the nephew and successor of Justinian I. He availed himself of his influence as master of the palace, and as husband of Sophia, the niece of the late empress Theodora, to secure a peaceful election. The first few days of his reign—when he paid his uncle's debts, administered justice in person, and proclaimed universal religious toleration—gave bright promise, but in the face of the lawless aristocracy and defiant governors of provinces he effected few subsequent reforms. The most important event of his reign was the invasion of Italy by the Lombards (*q.v.*), who, entering in 568, under Alboin, in a few years made themselves masters of nearly the entire country. Justin's attention was distracted from Italy towards the N. and E. frontiers. After refusing to pay the Avars tribute, he fought several unsuccessful campaigns against them. In 572 his overtures to the Turks led to a war with Persia. After two disastrous campaigns, in which his enemies overran Syria, Justin bought a precarious peace by payment of a yearly tribute. The temporary fits of insanity into which he fell warned him to name a colleague. Passing over his own relatives, he raised, on the advice of Sophia, the general Tiberius (*q.v.*) to be Caesar in December 574 and withdrew for his remaining years into retirement.

See E. Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury, 1896), v. 2–17; G. Finlay, *History of Greece* (ed. 1877), i. 291–297; J. Bury, *The Later Roman Empire* (1889), ii. 67–79. (M. O. B. C.)

JUSTIN (JUNIANUS JUSTINUS), Roman historian, probably lived during the age of the Antonines. Of his personal history nothing is known. He is the author of *Historiarum Philippicarum libri XLIV.*, a work described by himself in his preface as a collection of the most important and interesting passages from the voluminous *Historiae philippicae et totius mundi origines et terrae situs*, written in the time of Augustus by Pompeius Trogus (*q.v.*). The work of Trogus is lost; but the *prologi* or arguments of the text are preserved by Pliny and other writers. Although the main theme of Trogus was the rise and history of the Macedonian monarchy, Justin yet permitted himself considerable freedom of digression, and thus produced a capricious anthology instead of a regular epitome of the work. As it stands, however, the history contains much valuable information. The style, though far from perfect, is clear and occasionally elegant. The book was much used in the middle ages, when the author was sometimes confounded with Justin Martyr.

Ed. princeps (1470); J. G. Graevius (1668); J. F. Gronovius (1719); C. H. Frotscher (1827–1830); J. Jeep (1859); F. Rühl (1886, with prologues); see also J. F. Fischer, *De elocutione Justini* (1868); F. Rühl, *Die Verbreitung des J. im Mittelalter* (1871); O. Eichert, *Wörterbuch zu J.* (1881); Köhler and Rühl in *Neue Jahrbücher für Philologie*, xci., ci., cxxxiii. There are translations in the chief European languages; in English by A. Goldyng (1564); R. Codrington (1682); Brown-Dykes (1712); G. Turnbull (1746); J. Clarke (1790); J. S. Watson (1853).

JUSTINIAN I. (483–565). Flavius Anicius Justinianus, surnamed the Great, the most famous of all the emperors of the Eastern Roman Empire, was by birth a barbarian, native of a place called Tauresium in the district of Dardania, a region of Illyricum,[1] and was born, most probably, on the 11th of May 483. His family has been variously conjectured, on the strength of the proper names which its members are stated to have borne, to have been Teutonic or Slavonic. The latter seems the more probable view. His own name was originally Uprauda.[2] Justinianus was a Roman name which he took from his uncle Justin I., who adopted him, and to whom his advancement in life was due. Of his early life we know nothing except that he went to Constantinople while still a young man, and received there an excellent education. Doubtless he knew Latin before Greek; it is alleged that he always spoke Greek with a barbarian accent. When Justin ascended the throne in 518, Justinian became at once a person of the first consequence, guiding, especially in church matters, the policy of his aged, childless and ignorant uncle, receiving high rank and office at his hands, and soon coming to be regarded as his destined successor. On Justin's death in 527, having been a few months earlier associated with him as co-emperor, Justinian succeeded without opposition to the throne. About 523 he had married the famous Theodora (*q.v.*), who, as empress regnant, was closely associated in all his actions till her death in 547.

Justinian's reign was filled with great events, both at home and abroad, both in peace and in war. They may be classed under four heads: (1) his legal reforms; (2) his administration of the empire; (3) his ecclesiastical policy; and (4) his wars and foreign policy generally.

1. It is as a legislator and codifier of the law that Justinian's name is most familiar to the modern world; and it is therefore this department of his action that requires to be most fully dealt with here. He found the law of the Roman empire in a state of great confusion. It consisted of two masses, which were usually distinguished as old law (*jus vetus*) and new law (*jus novum*). The first of these comprised: (i.) all such of the statutes (*leges*) passed under the republic and early empire as had not become obsolete; (ii.) the decrees of the senate (*senatus consulta*) passed at the end of the republic and during the first two centuries of the empire; (iii.) the writings of the jurists of the later republic and of the empire, and more particularly of those jurists to whom the right of declaring the law with authority (*jus respondendi*) had been committed by the emperors. As these jurists had in their commentaries upon the *leges*, *senatus consulta* and edicts of the magistrates practically incorporated all that was of importance in those documents, the books of the jurists may substantially be taken as including (i.) and (ii.). These writings were of course very numerous, and formed a vast mass of literature. Many of them had become exceedingly scarce—many had been altogether lost. Some were of doubtful authenticity. They were so costly that no person of moderate means could hope to possess any large number; even the public libraries had nothing approaching to a complete collection. Moreover, as they proceeded from a large number of independent authors, who wrote expressing their own opinions, they contained many discrepancies and contradictions, the dicta of one writer being controverted by another, while yet both writers might enjoy the same formal authority. A remedy had been attempted to be applied to this evil by a law of the

[1] It is commonly identified with the modern Küstendil, but Usküb (the ancient Skupi) has also been suggested. See Tozer, *Highlands of European Turkey*, ii. 370.

[2] The name Uprauda is said to be derived from the word *prauda*, which in Old Slavic means *jus*, *justitia*, the prefix being simply a breathing frequently attached to Slavonic names.

emperors Theodosius II. and Valentinian III., which gave special weight to the writings of five eminent jurists (Papinian, Paulus, Ulpian, Modestinus, Gaius); but it was very far from removing it. As regards the *jus vetus*, therefore, the judges and practitioners of Justinian's time had two terrible difficulties to contend with—first, the bulk of the law, which made it impossible for any one to be sure that he possessed anything like the whole of the authorities bearing on the point in question, so that he was always liable to find his opponent quoting against him some authority for which he could not be prepared; and, secondly, the uncertainty of the law, there being a great many important points on which differing opinions of equal legal validity might be cited, so that the practising counsel could not advise, nor the judge decide, with any confidence that he was right, or that a superior court would uphold his view.

The new law (*jus novum*), which consisted of the ordinances of the emperors promulgated during the middle and later empires (*edicta*, *rescripta*, *mandata*, *decreta*, usually called by the general name of *constitutiones*), was in a condition not much better. These ordinances or constitutions were extremely numerous. No complete collection of them existed, for although two collections (*Codex gregorianus* and *Codex hermogenianus*) had been made by two jurists in the 4th century, and a large supplementary collection published by the emperor Theodosius II. in 438 (*Codex theodosianus*), these collections did not include all the constitutions; there were others which it was necessary to obtain separately, but many whereof it must have been impossible for a private person to procure. In this branch too of the law there existed some, though a less formidable, uncertainty; for there were constitutions which practically, if not formally, repealed or superseded others without expressly mentioning them, so that a man who relied on one constitution might find that it had been varied or abrogated by another he had never heard of or on whose sense he had not put such a construction. It was therefore clearly necessary with regard to both the older and the newer law to take some steps to collect into one or more bodies or masses so much of the law as was to be regarded as binding, reducing it within a reasonable compass, and purging away the contradictions or inconsistencies which it contained. The evil had been long felt, and reforms apparently often proposed, but nothing (except by the compilation of the *Codex theodosianus*) had been done till Justinian's time. Immediately after his accession, in 528, he appointed a commission to deal with the imperial constitutions (*jus novum*), this being the easier part of the problem. The commissioners, ten in number, were directed to go through all the constitutions of which copies existed, to select such as were of practical value, to cut these down by retrenching all unnecessary matter, and gather them, arranged in order of date, into one volume, getting rid of any contradictions by omitting one or other of the conflicting passages.[1] These statute law commissioners, as one may call them, set to work forthwith, and completed their task in fourteen months, distributing the constitutions which they placed in the new collection into ten books, in general conformity with the order of the Perpetual Edict as settled by Salvius Julianus and enacted by Hadrian. By this means the bulk of the statute law was immensely reduced, its obscurities and internal discrepancies in great measure removed, its provisions adapted, by the abrogation of what was obsolete, to the circumstances of Justinian's own time. This *Codex constitutionum* was formally promulgated and enacted as one great consolidating statute in 529, all imperial ordinances not included in it being repealed at one stroke.

The success of this first experiment encouraged the emperor to attempt the more difficult enterprise of simplifying and digesting the older law contained in the treatises of the jurists. Before entering on this, however, he wisely took the preliminary step of settling the more important of the legal questions as to which the older jurists had been divided in opinion, and which had therefore remained sources of difficulty, a difficulty aggravated by the general decline, during the last two centuries, of the level of forensic and judicial learning. This was accomplished by a series of constitutions known as the "Fifty Decisions" (*Quinquaginta decisiones*), along with which there were published other ordinances amending the law in a variety of points, in which old and now inconvenient rules had been suffered to subsist. Then in December 530 a new commission was appointed, consisting of sixteen eminent lawyers, of whom the president, the famous Tribonian (who had already served on the previous commission), was an exalted official (*quaestor*), four were professors of law, and the remaining eleven practising advocates. The instructions given to them by the emperor were as follows:—they were to procure and peruse all the writings of all the authorized jurists (those who had enjoyed the *jus respondendi*); were to extract from these writings whatever was of most permanent and substantial value, with power to change the expressions of the author wherever conciseness or clearness would be thereby promoted, or wherever such a change was needed in order to adapt his language to the condition of the law as it stood in Justinian's time; were to avoid repetitions and contradictions by giving only one statement of the law upon each point; were to insert nothing at variance with any provision contained in the *Codex constitutionum*; and were to distribute the results of their labours into fifty books, subdividing each book into titles, and following generally the order of the Perpetual Edict.[2]

These directions were carried out with a speed which is surprising when we remember not only that the work was interrupted by the terrible insurrection which broke out in Constantinople in January 532, and which led to the temporary retirement from office of Tribonian, but also that the mass of literature which had to be read through consisted of no less than two thousand treatises, comprising three millions of sentences. The commissioners, who had for greater despatch divided themselves into several committees, presented their selection of extracts to the emperor in 533, and he published it as an imperial statute on December 16th of that year, with two prefatory constitutions (those known as *Omnem reipublicae* and *Dedit nobis*). It is the Latin volume which we now call the *Digest* (*Digesta*) or *Pandects* (Πάνδεκται) and which is by far the most precious monument of the legal genius of the Romans, and indeed, whether one regards the intrinsic merits of its substance or the prodigious influence it has exerted and still exerts, the most remarkable law-book that the world has seen. The extracts comprised in it are 9123 in number, taken from thirty-nine authors, and are of greatly varying length, mostly only a few lines long. About one-third (in quantity) come from Ulpian, a very copious writer; Paulus stands next. To each extract there is prefixed the name of the author, and of the treatise whence it is taken.[3] The worst thing about the *Digest* is its highly unscientific arrangement. The order of the Perpetual Edict, which appears to have been taken as a sort of model for the general scheme of books and titles, was doubtless convenient to the Roman lawyers from their familiarity with it, but was in itself rather accidental and historical than logical. The disposition of the extracts inside each title was still less rational; it has been shown by a modern jurist to have been the result of the way in which the committees of the commissioners worked through the books they had to peruse.[4] In enacting the *Digest* as a law book, Justinian repealed all the other law contained in the treatises of the jurists (that *jus vetus* which has been already mentioned), and directed that those treatises should never be cited in future even by way of illustration; and he of course at the same time abrogated all the older statutes, from the Twelve Tables downwards, which had formed a part of the *jus vetus*. This was a necessary incident of his scheme of reform. But he went

[1] See, for an account of the instructions given to the commission, the constitution *Haec quae*, prefixed to the revised *Codex* in the *Corpus juris civilis*.

[2] See the constitution *Deo auctore* (*Cod.* i. 17, 1).

[3] In the middle ages people used to cite passages by the initial words; and the Germans do so still, giving, however, the number of the paragraph in the extract (if there are more paragraphs than one), and appending the number of the book and title. We in Britain and America usually cite by the numbers of the book, the title and the paragraph, without referring to the initial words.

[4] See Bluhme, "Die Ordnung der Fragmente in den Pandektentiteln," in Savigny's *Zeitschr. f. gesch. Rechtswissenschaft*, vol. iv.

too far, and indeed attempted what was impossible, when he forbade all commentaries upon the *Digest*. He was obliged to allow a Greek translation to be made of it, but directed this translation to be exactly literal.

These two great enterprises had substantially despatched Justinian's work; however, he, or rather Tribonian, who seems to have acted both as his adviser and as his chief executive officer in all legal affairs, conceived that a third book was needed, viz. an elementary manual for beginners which should present an outline of the law in a clear and simple form. The little work of Gaius, most of which we now possess under the title of *Commentarii institutionum*, had served this purpose for nearly four centuries; but much of it had, owing to changes in the law, become inapplicable, so that a new manual seemed to be required. Justinian accordingly directed Tribonian, with two coadjutors, Theophilus, professor of law in the university of Constantinople, and Dorotheus, professor in the great law school at Beyrout, to prepare an elementary textbook on the lines of Gaius. This they did while the *Digest* was in progress, and produced the useful little treatise which has ever since been the book with which students commonly begin their studies of Roman law, the *Institutes of Justinian*. It was published as a statute with full legal validity shortly before the *Digest*. Such merits as it possesses—simplicity of arrangement, clearness and conciseness of expression—belong less to Tribonian than to Gaius, who was closely followed wherever the alterations in the law had not made him obsolete. However, the spirit of that great legal classic seems to have in a measure dwelt with and inspired the inferior men who were recasting his work; the *Institutes* is better both in Latinity and in substance than we should have expected from the condition of Latin letters at that epoch, better than the other laws which emanate from Justinian.

In the four years and a half which elapsed between the publication of the *Codex* and that of the *Digest*, many important changes had been made in the law, notably by the publication of the "Fifty Decisions," which settled many questions that had exercised the legal mind and given occasion to intricate statutory provisions. It was therefore natural that the idea should present itself of revising the *Codex*, so as to introduce these changes into it, for by so doing, not only would it be simplified, but the one volume would again be made to contain the whole statute law, whereas now it was necessary to read along with it the ordinances issued since its publication. Accordingly another commission was appointed, consisting of Tribonian with four other coadjutors, full power being given them not only to incorporate the new constitutions with the *Codex* and make in it the requisite changes, but also to revise the *Codex* generally, cutting down or filling in wherever they thought it necessary to do so. This work was completed in a few months; and in November 534 the revised *Codex* (*Codex repetitae praelectionis*) was promulgated with the force of law, prefaced by a constitution (*Cordi nobis*) which sets forth its history, and declares it to be alone authoritative, the former *Codex* being abrogated. It is this revised *Codex* which has come down to the modern world, all copies of the earlier edition having disappeared.

The constitutions contained in it number 4652, the earliest dating from Hadrian, the latest being of course Justinian's own. A few thus belong to the period to which the greater part of the *Digest* belongs, *i.e.* the so-called classical period of Roman law down to the time of Alexander Severus (244); but the great majority are later, and belong to one or other of the four great eras of imperial legislation, the eras of Diocletian, of Constantine, of Theodosius II., and of Justinian himself. . Although this *Codex* is said to have the same general order as that of the *Digest*, viz. the order of the Perpetual Edict, there are considerable differences of arrangement between the two. It is divided into twelve books. Its contents, although of course of the utmost practical importance to the lawyers of that time, and of much value still, historical as well as legal, are far less interesting and scientifically admirable than the extracts preserved in the *Digest*. The difference is even greater than that between the English reports of cases decided since the days of Lord Holt and the English acts of parliament for the same two centuries.

The emperor's scheme was now complete. All the Roman law had been gathered into two volumes of not excessive size, and a satisfactory manual for beginners added. But Justinian and Tribonian had grown so fond of legislating that they found it hard to leave off. Moreover, the very simplifications that had been so far effected brought into view with more clearness such anomalies or pieces of injustice as still continued to deform the law. Thus no sooner had the work been rounded off than fresh excrescences began to be created by the publication of new laws. Between 534 and 565 Justinian issued a great number of ordinances, dealing with all sorts of subjects and seriously altering the law on many points—the majority appearing before the death of Tribonian, which happened in 545. These ordinances are called, by way of distinction, new constitutions, *Novellae constitutiones post codicem* (νεαραὶ διατάξεις), *Novels*. Although the emperor had stated in publishing the *Codex* that all further statutes (if any) would be officially collected, this promise does not seem to have been redeemed. The three collections of the *Novels* which we possess are apparently private collections, nor do we even know how many such constitutions were promulgated. One of the three contains 168 (together with 13 Edicts), but some of these are by the emperors Justin II. and Tiberius II. Another, the so-called *Epitome of Julian*, contains 125 Novels in Latin; and the third, the *Liber authenticarum* or *vulgata versio*, has 134, also in Latin. This last was the collection first known and chiefly used in the West during the middle ages; and of its 134 only 97 have been written on by the *glossatores* or medieval commentators; these therefore alone have been received as binding in those countries which recognize and obey the Roman law,—according to the maxim *Quicquid non agnoscit glossa, nec agnoscit curia*. And, whereas Justinian's constitutions contained in the *Codex* were all issued in Latin, the rest of the book being in that tongue, these *Novels* were nearly all published in Greek, Latin translations being of course made for the use of the western provinces. They are very bulky, and with the exception of a few, particularly the 116th and 118th, which introduce the most sweeping and laudable reforms into the law of intestate succession, are much more interesting, as supplying materials for the history of the time, social, economical and ecclesiastical, than in respect of any purely legal merits. They may be found printed in any edition of the *Corpus juris civilis*.

This *Corpus juris*, which bears and immortalizes Justinian's name, consists of the four books described above: (1) The authorized collection of imperial ordinances (*Codex constitutionum*); (2) the authorized collection of extracts from the great jurists (*Digesta* or *Pandectae*); (3) the elementary handbook (*Institutiones*); (4) the unauthorized collection of constitutions subsequent to the *Codex* (*Novellae*).

From what has been already stated, the reader will perceive that Justinian did not, according to a strict use of terms, codify the Roman law. By a codification we understand the reduction of the whole pre-existing body of law to a new form, the re-stating it in a series of propositions, scientifically ordered, which may or may not contain some new substance, but are at any rate new in form. If he had, so to speak, thrown into one furnace all the law contained in the treatises of the jurists and in the imperial ordinances, fused them down, the gold of the one and the silver of the other, and run them out into new moulds, this would have been codification. What he did do was something quite different. It was not codification but consolidation, not remoulding but abridging. He made extracts from the existing law, preserving the old words, and merely cutting out repetitions, removing contradictions, retrenching superfluities, so as immensely to reduce the bulk of the whole. And he made not one set of such extracts but two, one for the jurist law, the other for the statute law. He gave to posterity not one code but two digests or collections of extracts, which are new only to this extent that they are arranged in a new order, having been previously altogether unconnected with one another, and that here and there their words have been modified in order to bring one extract into harmony with some other. Except for this, the matter is old in expression as well as in substance.

Thus regarded, even without remarking that the *Novels*, never having been officially collected, much less incorporated with the *Codex*, mar the symmetry of the structure, Justinian's work may appear to entitle him and Tribonian to much less credit than they have usually received for it. But let it be observed, first, that to reduce the huge and confused mass of pre-existing law into the compass of these two collections was an immense practical benefit to the empire; secondly, that, whereas the work which he undertook was accomplished in seven years, the infinitely more difficult task of codification might probably have been left unfinished at Tribonian's death, or even at Justinian's own, and been abandoned by his successor; thirdly, that in the extracts preserved in the *Digest* we have the opinions of the greatest legal luminaries given in their own admirably lucid, philosophical and concise

language, while in the extracts of which the *Codex* is composed we find valuable historical evidence bearing on the administration and social condition of the later Pagan and earlier Christian empire; fourthly, that Justinian's age, that is to say, the intellect of the men whose services he commanded, was quite unequal to so vast an undertaking as the fusing upon scientific principles into one new organic whole of the entire law of the empire. With sufficient time and labour the work might no doubt have been done; but what we possess of Justinian's own legislation, and still more what we know of the general condition of literary and legal capacity in his time, makes it certain that it would not have been well done, and that the result would have been not more valuable to the Romans of that age, and much less valuable to the modern world, than are the results, preserved in the *Digest* and the *Codex*, of what he and Tribonian actually did.

To the merits of the work as actually performed some reference has already been made. The chief defect of the *Digest* is in point of scientific arrangement, a matter about which the Roman lawyers, perhaps one may say the ancients generally, cared very little. There are some repetitions and some inconsistencies, but not more than may fairly be allowed for in a compilation of such magnitude executed so rapidly. Tribonian has been blamed for the insertions the compilers made in the sentences of the old jurists (the so-called *Emblemata Triboniani*); but it was a part of Justinian's plan that such insertions should be made, so as to adapt those sentences to the law as settled in the emperor's time. On Justinian's own laws, contained in the *Codex* and in his *Novels*, a somewhat less favourable judgment must be pronounced. They, and especially the latter, are diffuse and often lax in expression, needlessly prolix, and pompously rhetorical. The policy of many, particularly of those which deal with ecclesiastical matters, may also be condemned; yet some gratitude is due to the legislator who put the law of intestate succession on that plain and rational footing whereon it has ever since continued to stand. It is somewhat remarkable that, although Justinian is so much more familiar to us by his legislation than by anything else, this sphere of his imperial labour is hardly referred to by any of the contemporary historians, and then only with censure. Procopius complains that he and Tribonian were always repealing old laws and enacting new ones, and accuses them of venal motives for doing so.

The *Corpus Juris* of Justinian continued to be, with naturally a few additions in the ordinances of succeeding emperors, the chief law-book of the Roman world till the time of the Macedonian dynasty when, towards the end of the 9th century, a new system was prepared and issued by those sovereigns, which we know as the *Basilica*. It is of course written in Greek, and consists of parts of the substance of the *Codex* and the *Digest*, thrown together and often altered in expression, together with some matter from the *Novels* and imperial ordinances posterior to Justinian. In the western provinces, which had been wholly severed from the empire before the publication of the *Basilica*, the law as settled by Justinian held its ground; but copies of the *Corpus Juris* were extremely rare, nor did the study of it revive until the end of the 11th century.

The best edition of the *Digest* is that of Mommsen (Berlin 1868–1870), and of the *Codex* that of Krüger (Berlin 1875–1877).

2. In his financial administration of the empire, Justinian is represented to us as being at once rapacious and extravagant. His unwearied activity and inordinate vanity led him to undertake a great many costly public works, many of them, such as the erection of palaces and churches, unremunerative. The money needed for these, for his wars, and for buying off the barbarians who threatened the frontiers, had to be obtained by increasing the burdens of the people. They suffered, not only from the regular taxes, which were seldom remitted even after bad seasons, but also from monopolies; and Procopius goes so far as to allege that the emperor made a practice of further recruiting his treasury by confiscating on slight or fictitious pretexts the property of persons who had displeased Theodora or himself. Fiscal severities were no doubt one cause of the insurrections which now and then broke out, and in the gravest of which, (532) thirty thousand persons are said to have perished in the capital. It is not always easy to discover, putting together the trustworthy evidence of Justinian's own laws and the angry complaints of Procopius, what was the nature and justification of the changes made in the civil administration. But the general conclusion seems to be that these changes were always in the direction of further centralization, increasing the power of the chief ministers and their offices, bringing all more directly under the control of the Crown, and in some cases limiting the powers and appropriating the funds of local municipalities. Financial necessities compelled retrenchment, so that a certain number of offices were suppressed altogether, much to the disgust of the office-holding class, which was numerous and wealthy, and had almost come to look on the civil service as its hereditary possession. The most remarkable instance of this policy was the discontinuance of the consulship. This great office had remained a dignity centuries after it had ceased to be a power; but it was a very costly dignity, the holder being expected to spend large sums in public displays. As these sums were provided by the state, Justinian saved something considerable by stopping the payment. He named no consul after Basilius, who was the name-giving consul of 541.

In a bureaucratic despotism the greatest merit of a sovereign is to choose capable and honest ministers. Justinian's selections were usually capable, but not so often honest; probably it was hard to find thoroughly upright officials; possibly they would not have been most serviceable in carrying out the imperial will, and especially in replenishing the imperial treasury. Even the great Tribonian labours under the reproach of corruption, while the fact that Justinian maintained John of Cappadocia in power long after his greed, his unscrupulousness, and the excesses of his private life had excited the anger of the whole empire, reflects little credit on his own principles of government and sense of duty to his subjects. The department of administration in which he seems to have felt most personal interest was that of public works. He spent immense sums on buildings of all sorts, on quays and harbours, on fortifications, repairing the walls of cities and erecting castles in Thrace to check the inroads of the barbarians, on aqueducts, on monasteries, above all, upon churches. Of these works only two remain perfect, St Sophia in Constantinople, now a mosque, and one of the architectural wonders of the world, and the church of SS Sergius and Bacchus, now commonly called Little St Sophia, which stands about half a mile from the great church, and is in its way a very delicate and beautiful piece of work. The church of S. Vitale at Ravenna, though built in Justinian's reign, and containing mosaic pictures of him and Theodora, does not appear to have owed anything to his mind or purse.

3. Justinian's ecclesiastical policy was so complex and varying that it is impossible within the limits of this article to do more than indicate its bare outlines. For many years before the accession of his uncle Justin, the Eastern world had been vexed by the struggles of the Monophysite party, who recognized only one nature in Christ, against the view which then and ever since has maintained itself as orthodox, that the divine and human natures coexisted in Him. The latter doctrine had triumphed at the council of Chalcedon, and was held by the whole Western Church, but Egypt, great part of Syria and Asia Minor, and a considerable minority even in Constantinople clung to Monophysitism. The emperors Zeno and Anastasius had been strongly suspected of it, and the Roman bishops had refused to communicate with the patriarchs of Constantinople since 484, when they had condemned Acacius for accepting the formula of conciliation issued by Zeno. One of Justinian's first public acts was to put an end to this schism by inducing Justin to make the then patriarch renounce this formula and declare his full adhesion to the creed of Chalcedon. When he himself came to the throne he endeavoured to persuade the Monophysites to come in by summoning some of their leaders to a conference. This failing, he ejected suspected prelates, and occasionally persecuted them, though with far less severity than that applied to the heretics of a deeper dye, such as Montanists or even Arians. Not long afterwards, his attention having been called to the spread of Origenistic opinions in Syria, he issued an edict condemning fourteen propositions drawn from the writings of the great Alexandrian,

and caused a synod to be held under the presidency of Mennas (whom he had named patriarch of Constantinople), which renewed the condemnation of the impugned doctrines and anathematized Origen himself. Still later, he was induced by the machinations of some of the prelates who haunted his court, and by the influence of Theodora, herself much interested in theological questions, and more than suspected of Monophysitism, to raise a needless, mischievous, and protracted controversy. The Monophysites sometimes alleged that they could not accept the decrees of the council of Chalcedon because that council had not condemned, but (as they argued) virtually approved, three writers tainted with Nestorian principles, Theodore of Mopsuestia, Theodoret, and Ibas, bishop of Edessa. It was represented to the emperor, who was still pursued by the desire to bring back the schismatics, that a great step would have been taken towards reconciliation if a condemnation of these teachers, or rather of such of their books as were complained of, could be brought about, since then the Chalcedonian party would be purged from any appearance of sympathy with the errors of Nestorius. Not stopping to reflect that in the angry and suspicious state of men's minds he was sure to lose as much in one direction as he would gain in the other, Justinian entered into the idea, and put forth an edict exposing and denouncing the errors contained in the writings of Theodore generally, in the treatise of Theodoret against Cyril of Alexandria, and in a letter of Bishop Ibas (a letter whose authenticity was doubted, but which passed under his name) to the Persian bishop Maris. This edict was circulated through the Christian world to be subscribed by the bishops. The four Eastern patriarchs, and the great majority of the Eastern prelates generally, subscribed, though reluctantly, for it was felt that a dangerous precedent was being set when dead authors were anathematized, and that this new movement could hardly fail to weaken the authority of the council of Chalcedon. Among the Western bishops, who were less disposed both to Monophysitism and to subservience, and especially by those of Africa, the edict was earnestly resisted. When it was found that Pope Vigilius did not forthwith comply, he was summoned to Constantinople. Even there he resisted, not so much, it would seem, from any scruples of his own, for he was not a high-minded man, as because he knew that he dared not return to Italy if he gave way. Long disputes and negotiations followed, the end of which was that Justinian summoned a general council of the church, that which we reckon the Fifth, which condemned the impugned writings, and anathematized several other heretical authors. Its decrees were received in the East but long contested in the Western Church, where a schism arose that lasted for seventy years. This is the controversy known as that of the Three Chapters (*Tria capitula*, τρία κεφάλαια), apparently from the three propositions or condemnations contained in Justinian's original edict, one relating to Theodore's writings and person, the second to the incriminated treatise of Theodoret (whose person was not attacked), the third to the letter (if genuine) of Ibas (see Hefele, *Conciliengeschichte*, ii. 777).

At the very end of his long career of theological discussion, Justinian himself lapsed into heresy, by accepting the doctrine that the earthly body of Christ was incorruptible, insensible to the weaknesses of the flesh, a doctrine which had been advanced by Julian, bishop of Halicarnassus, and went by the name of Aphthartodocetism. According to his usual practice, he issued an edict enforcing this view, and requiring all patriarchs, metropolitans, and bishops to subscribe to it. Some, who not unnaturally held that it was rank Monophysitism, refused at once, and were deprived of their sees, among them Eutychius the eminent patriarch of Constantinople. Others submitted or temporized; but before there had been time enough for the matter to be carried through, the emperor died, having tarnished if not utterly forfeited by this last error the reputation won by a life devoted to the service of Orthodoxy.

As no preceding sovereign had been so much interested in church affairs, so none seems to have shown so much activity as a persecutor both of pagans and of heretics. He renewed with additional stringency the laws against both these classes. The former embraced a large part of the rural population in certain secluded districts, such as parts of Asia Minor and Peloponnesus; and we are told that the efforts directed against them resulted in the forcible baptism of 70,000 persons in Asia Minor alone. Paganism, however, survived; we find it in Laconia in the end of the 9th century, and in northern Syria it has lasted till our own times. There were also a good many crypto-pagans among the educated population of the capital. Procopius, for instance, if he was not actually a Pagan, was certainly very little of a Christian. Inquiries made in the third year of Justinian's reign drove nearly all of these persons into an outward conformity, and their offspring seem to have become ordinary Christians. At Athens, the philosophers who taught in the schools hallowed by memories of Plato still openly professed what passed for Paganism, though it was really a body of moral doctrine, strongly tinged with mysticism, in which there was far more of Christianity and of the speculative metaphysics of the East than of the old Olympian religion. Justinian, partly from religious motives, partly because he discountenanced all rivals to the imperial university of Constantinople, closed these Athenian schools (529). The professors sought refuge at the court of Chosroes, king of Persia, but were soon so much disgusted by the ideas and practices of the fire-worshippers that they returned to the empire, Chosroes having magnanimously obtained from Justinian a promise that they should be suffered to pass the rest of their days unmolested. Heresy proved more obstinate. The severities directed against the Montanists of Phrygia led to a furious war, in which most of the sectaries perished, while the doctrine was not extinguished. Harsh laws provoked the Samaritans to a revolt, from whose effects Palestine had not recovered when conquered by the Arabs in the following century. The Nestorians and the Eutychian Monophysites were not threatened with such severe civil penalties, although their worship was interdicted, and their bishops were sometimes banished; but this vexatious treatment was quite enough to keep them disaffected, and the rapidity of the Mahommedan conquests may be partly traced to that alienation of the bulk of the Egyptian and a large part of the Syrian population which dates from Justinian's persecutions.

4. Justinian was engaged in three great foreign wars, two of them of his own seeking, the third a legacy which nearly every emperor had come into for three centuries, the secular strife of Rome and Persia. The Sassanid kings of Persia ruled a dominion which extended from the confines of Syria to those of India, and from the straits of Oman to the Caucasus. The martial character of their population made them formidable enemies to the Romans, whose troops were at this epoch mainly barbarians, the settled and civilized subjects of the empire being as a rule averse from war. When Justinian came to the throne, his troops were maintaining an unequal struggle on the Euphrates against the armies of Kavadh I. (*q.v.*). After some campaigns, in which the skill of Belisarius obtained considerable successes, a peace was concluded in 533 with Chosroes I. (*q.v.*). This lasted till 539, when Chosroes declared war, alleging that Justinian had been secretly intriguing against him with the Hephthalite Huns, and doubtless moved by alarm and envy at the victories which the Romans had been gaining in Italy. The emperor was too much occupied in the West to be able adequately to defend his eastern frontier. Chosroes advanced into Syria with little resistance, and in 540 captured Antioch, then the greatest city in Asia, carrying off its inhabitants into captivity. The war continued with varying fortunes for four years more in this quarter; while in the meantime an even fiercer struggle had begun in the mountainous region inhabited by the Lazi at the south-eastern corner of the Black Sea (see Colchis). When after two-and-twenty years of fighting no substantial advantage had been gained by either party, Chosroes agreed in 562 to a peace which left Lazica to the Romans, but under the dishonourable condition of their paying 30,000 pieces of gold annually to the Persian king. Thus no result of permanent importance flowed from these Persian wars, except that they greatly weakened the Roman Empire, increased Justinian's financial embarrassments, and prevented him from prosecuting with sufficient vigour his

enterprises in the West. (See further PERSIA: *Ancient History*, "The Sassanid Dynasty.")

These enterprises had begun in 533 with an attack on the Vandals, who were then reigning in Africa. Belisarius, despatched from Constantinople with a large fleet and army, landed without opposition, and destroyed the barbarian power in two engagements. North Africa from beyond the straits of Gibraltar to the Syrtes became again a Roman province, although the Moorish tribes of the interior maintained a species of independence; and part of southern Spain was also recovered for the empire. The ease with which so important a conquest had been effected encouraged Justinian to attack the Ostrogoths of Italy, whose kingdom, though vast in extent, for it included part of south-eastern Gaul, Raetia, Dalmatia and part of Pannonia, as well as Italy, Sicily, Sardinia and Corsica, had been grievously weakened by the death first of the great Theodoric, and some years later of his grandson Athalaric, so that the Gothic nation was practically without a head. Justinian began the war in 535, taking as his pretext the murder of Queen Amalasuntha, daughter of Theodoric, who had placed herself under his protection, and alleging that the Ostrogothic kingdom had always owned a species of allegiance to the emperor at Constantinople. There was some foundation for this claim, although of course it could not have been made effective against Theodoric, who was more powerful than his supposed suzerain. Belisarius, who had been made commander of the Italian expedition, overran Sicily, reduced southern Italy, and in 536 occupied Rome. Here he was attacked in the following year by Vitiges, who had been chosen king by the Goths, with a greatly superior force. After a siege of over a year, the energy, skill, and courage of Belisarius, and the sickness which was preying on the Gothic troops, obliged Vitiges to retire. Belisarius pursued his diminished army northwards, shut him up in Ravenna, and ultimately received the surrender of that impregnable city. Vitiges was sent prisoner to Constantinople, where Justinian treated him, as he had previously treated the captive Vandal king, with clemency. The imperial administration was established through Italy, but its rapacity soon began to excite discontent, and the kernel of the Gothic nation had not submitted. After two short and unfortunate reigns, the crown had been bestowed on Totila or Baduila, a warrior of distinguished abilities, who by degrees drove the imperial generals and governors out of Italy. Belisarius was sent against him, but with forces too small for the gravity of the situation. He moved from place to place during several years, but saw city after city captured by or open its gates to Totila, till only Ravenna, Otranto and Ancona remained. Justinian was occupied by the ecclesiastical controversy of the Three Chapters, and had not the money to fit out a proper army and fleet; indeed, it may be doubted whether he would ever have roused himself to the necessary exertions but for the presence at Constantinople of a knot of Roman exiles, who kept urging him to reconquer Italy, representing that with their help and the sympathy of the people it would not be a difficult enterprise. The emperor at last complied, and in 552 a powerful army was despatched under Narses, an Armenian eunuch now advanced in life, but reputed the most skilful general of the age, as Belisarius was the hottest soldier. He marched along the coast of the Gulf of Venice, and encountered the army of Totila at Taginae not far from Cesena. Totila was slain, and the Gothic cause irretrievably lost. The valiant remains of the nation made another stand under Teias on the Lactarian Hill in Campania; after that they disappear from history. Italy was recovered for the empire, but it was an Italy terribly impoverished and depopulated, whose possession carried little strength with it. Justinian's policy both in the Vandalic and in the Gothic War stands condemned by the result. The resources of the state, which might better have been spent in defending the northern frontier against Slavs and Huns and the eastern frontier against Persians, were consumed in the conquest of two countries which had suffered too much to be of any substantial value, and which, separated by language as well as by intervening seas, could not be permanently retained. However, Justinian must have been almost preternaturally wise to have foreseen this: his conduct was in the circumstances only what might have been expected from an ambitious prince who perceived an opportunity of recovering territories that had formerly belonged to the empire, and over which its rights were conceived to be only suspended.

Besides these three great foreign wars, Justinian's reign was troubled by a constant succession of border inroads, especially on the northern frontier, where the various Slavonic and Hunnish tribes who were established along the lower Danube and on the north coast of the Black Sea made frequent marauding expeditions into Thrace and Macedonia, sometimes penetrating as far as the walls of Constantinople in one direction and the Isthmus of Corinth in another. Immense damage was inflicted by these marauders on the subjects of the empire, who seem to have been mostly too peaceable to defend themselves, and whom the emperor could not spare troops enough to protect. Fields were laid waste, villages burnt, large numbers of people carried into captivity; and on one occasion the capital was itself in danger.

5. It only remains to say something regarding Justinian's personal character and capacities, with regard to which a great diversity of opinion has existed among historians. The civilians, looking on him as a patriarch of their science, have as a rule extolled his wisdom and virtues; while ecclesiastics of the Roman Church, from Cardinal Baronius downwards, have been offended by his arbitrary conduct towards the popes, and by his last lapse into heresy, and have therefore been disposed to accept the stories which ascribe to him perfidy, cruelty, rapacity and extravagance. The difficulty of arriving at a fair conclusion is increased by the fact that Procopius, who is our chief authority for the events of his reign, speaks with a very different voice in his secret memoirs (the *Anecdota*) from that which he has used in his published history, and that some of the accusations contained in the former work are so rancorous and improbable that a certain measure of discredit attaches to everything which it contains. The truth seems to be that Justinian was not a great ruler in the higher sense of the word, that is to say, a man of large views, deep insight, a capacity for forming just such plans as the circumstances needed, and carrying them out by a skilful adaptation of means to ends. But he was a man of considerable abilities, wonderful activity of mind, and admirable industry. He was interested in many things, and threw himself with ardour into whatever he took up; he contrived schemes quickly, and pushed them on with an energy which usually made them succeed when no long time was needed, for, if a project was delayed, there was a risk of his tiring of it and dropping it. Although vain and full of self-confidence, he was easily led by those who knew how to get at him, and particularly by his wife. She exercised over him that influence which a stronger character always exercises over a weaker, whatever their respective positions; and unfortunately it was seldom a good influence, for Theodora (*q.v.*) seems to have been a woman who, with all her brilliant gifts of intelligence and manner, had no principles and no pity. Justinian was rather quick than strong or profound; his policy does not strike one as the result of deliberate and well-considered views, but dictated by the hopes and fancies of the moment. His activity was in so far a misfortune as it led him to attempt too many things at once, and engage in undertakings so costly that oppression became necessary to provide the funds for them. Even his devotion to work, which excites our admiration, in the centre of a luxurious court, was to a great extent unprofitable, for it was mainly given to theological controversies which neither he nor any one else could settle. Still, after making all deductions, it is plain that the man who accomplished so much, and kept the whole world so occupied, as Justinian did during the thirty-eight years of his reign, must have possessed no common abilities. He was affable and easy of approach to all his subjects, with a pleasant address; nor does he seem to have been, like his wife, either cruel or revengeful. We hear several times of his sparing those who had conspired against him. But he was not scrupulous in the means he employed, and he was willing to maintain in power detestable ministers if only they served him efficiently and filled his coffers. His chief passion, after that for his own fame and

glory, seems to have been for theology and religion; it was in this field that his literary powers exerted themselves (for he wrote controversial treatises and hymns), and his taste also, for among his numerous buildings the churches are those on which he spent most thought and money. Considering that his legal reforms are those by which his name is mainly known to posterity, it is curious that we should have hardly any information as to his legal knowledge, or the share which he took in those reforms. In person he was somewhat above the middle height, well-shaped, with plenty of fresh colour in his cheeks, and an extraordinary power of doing without food and sleep. He spent most of the night in reading or writing, and would sometimes go for a day with no food but a few green herbs. Two mosaic figures of him exist at Ravenna, one in the apse of the church of S. Vitale, the other in the church of S. Apollinare in Urbe; but of course one cannot be sure how far in such a material the portrait fairly represents the original. He had no children by his marriage with Theodora, and did not marry after her decease. On his death, which took place on the 14th of November 565, the crown passed to his nephew Justin II.

AUTHORITIES.—For the life of Justinian the chief authorities are Procopius (*Historiae, De aedificiis, Anecdota*) and (from 552 A.D.) the *History* of Agathias; the Chronicle of Johannes Malalas is also of value. Occasional reference must be made to the writings of Jordanes and Marcellinus, and even to the late compilations of Cedrenus and Zonaras. The *Vita Justiniani* of Ludewig or Ludwig (Halle, 1731), a work of patient research, is frequently referred to by Gibbon in his important chapters relating to the reign of Justinian, in the *Decline and Fall* (see Bury's edition, 1900). There is a *Vie de Justinien* by Isambert (2 vols., Paris, 1856). See also Hutton's *Church of the Sixth Century* (1897); J. B. Bury's *Later Roman Empire* (1889); Hodgkin's *Italy and her Invaders* (1880). (J. BR.)

JUSTINIAN II., RHINOTMETUS (669–711), East Roman emperor 685–695 and 704–711, succeeded his father Constantine IV., at the age of sixteen. His reign was unhappy both at home and abroad. After a successful invasion he made a truce with the Arabs, which admitted them to the joint possession of Armenia, Iberia and Cyprus, while by removing 12,000 Christian Maronites from their native Lebanon, he gave the Arabs a command over Asia Minor of which they took advantage in 692 by conquering all Armenia. In 688 Justinian decisively defeated the Bulgarians. Meanwhile the bitter dissensions caused in the Church by the emperor, his bloody persecution of the Manichaeans, and the rapacity with which, through his creatures Stephanus and Theodatus, he extorted the means of gratifying his sumptuous tastes and his mania for erecting costly buildings, drove his subjects into rebellion. In 695 they rose under Leontius, and, after cutting off the emperor's nose (whence his surname), banished him to Cherson in the Crimea. Leontius, after a reign of three years, was in turn dethroned and imprisoned by Tiberius Absimarus, who next assumed the purple. Justinian meanwhile had escaped from Cherson and married Theodora, sister of Busirus, khan of the Khazars. Compelled, however, by the intrigues of Tiberius, to quit his new home, he fled to Terbelis, king of the Bulgarians. With an army of 15,000 horsemen Justinian suddenly pounced upon Constantinople, slew his rivals Leontius and Tiberius, with thousands of their partisans, and once more ascended the throne in 704. His second reign was marked by an unsuccessful war against Terbelis, by Arab victories in Asia Minor, by devastating expeditions sent against his own cities of Ravenna and Cherson, where he inflicted horrible punishment upon the disaffected nobles and refugees, and by the same cruel rapacity towards his subjects. Conspiracies again broke out: Bardanes, surnamed Philippicus, assumed the purple, and Justinian, the last of the house of Heraclius, was assassinated in Asia Minor, December 711.

See E. Gibbon, *Decline and Fall of the Roman Empire* (ed. Bury, 1896), v. 179–183; J. B. Bury, *The Later Roman Empire* (1889), ii. 320–330, 358–367.

JUSTIN MARTYR, one of the earliest and ablest Christian apologists, was born about 100 at Flavia Neapolis (anc. *Sichem*), now Nablus, in Palestinian Syria (Samaria). His parents, according to his own account, were Pagans (*Dial. c. Tryph.* 28). He describes the course of his religious development in the introduction to the dialogue with the Jew Trypho, in which he relates how chance intercourse with an aged stranger brought him to know the truth. Though this narrative is a mixture of truth and fiction, it may be said with certainty that a thorough study of the philosophy of Peripatetics and Pythagoreans, Stoics and Platonists, brought home to Justin the conviction that true knowledge was not to be found in them. On the other hand, he came to look upon the Old Testament prophets as approved by their antiquity, sanctity, mystery and prophecies to be interpreters of the truth. To this, as he tells us in another place (*Apol.* ii. 12), must be added the deep impression produced upon him by the life and death of Christ. His conversion apparently took place at Ephesus; there, at any rate, he places his decisive interview with the old man, and there he had those discussions with Jews and converts to Judaism, the results of which he in later years set down in his *Dialogue*. After his conversion he retained his philosopher's cloak (Euseb., *Hist. Eccl.* iv. 11. 8), the distinctive badge of the wandering professional teacher of philosophy, and went about from place to place discussing the truths of Christianity in the hope of bringing educated Pagans, as he himself had been brought, through philosophy to Christ. In Rome he made a fairly long stay, giving lectures in a class-room of his own, though not without opposition from his fellow-teachers. Among his opponents was the Cynic Crescentius (*Apol.* ii. 13). Eusebius (*Hist. Eccl.* iv. 16. 7–8) concludes somewhat hastily, from the statement of Justin and his disciple Tatian (*Orat. ad Graec.* 19), that the accusation of Justin before the authorities, which led to his death, was due to Crescentius. But we know, from the undoubtedly genuine *Acta SS Justini et sociorum*, that Justin suffered the death of a martyr under the prefect Rusticus between 163 and 167.

To form an opinion of Justin as a Christian and theologian, we must turn to his *Apology* and to the *Dialogue* with the Jew Trypho, for the authenticity of all other extant works attributed to him is disputed with good reason. The *Apology*—it is more correct to speak of one *Apology* than of two, for the second is only a continuation of the first, and dependent upon it—was written in Rome about 150. In the first part Justin defends his fellow-believers against the charge of atheism and hostility to the state. He then draws a positive demonstration of the truth of his religion from the effects of the new faith, and especially from the excellence of its moral teaching, and concludes with a comparison of Christian and Pagan doctrines, in which the latter are set down with naïve confidence as the work of demons. As the main support of his proof of the truth of Christianity appears his detailed demonstration that the prophecies of the old dispensation, which are older than the Pagan poets and philosophers, have found their fulfilment in Christianity. A third part shows, from the practices of their religious worship, that the Christians had in truth dedicated themselves to God. The whole closes with an appeal to the princes, with a reference to the edict issued by Hadrian in favour of the Christians. In the so-called *Second Apology*, Justin takes occasion from the trial of a Christian recently held in Rome to argue that the innocence of the Christians was proved by the very persecutions.

Even as a Christian Justin always remained a philosopher. By his conscious recognition of the Greek philosophy as a preparation for the truths of the Christian religion, he appears as the first and most distinguished in the long list of those who have endeavoured to reconcile Christian with non-Christian culture. Christianity consists for him in the doctrines, guaranteed by the manifestation of the Logos in the person of Christ, of God, righteousness and immortality, truths which have been to a certain extent foreshadowed in the monotheistic religious philosophies. In this process the conviction of the reconciliation of the sinner with God, of the salvation of the world and the individual through Christ, fell into the background before the vindication of supernatural truths intellectually conceived. Thus Justin may give the impression of having

rationalized Christianity, and of not having given it its full value as a religion of salvation. It must not, however, be forgotten that Justin is here speaking as the apologist of Christianity to an educated Pagan public, on whose philosophical view of life he had to base his arguments, and from whom he could not expect an intimate comprehension of the religious position of Christians. That he himself had a thorough comprehension of it he showed in the *Dialogue* with the Jew Trypho. Here, where he had to deal with the Judaism that believed in a Messiah, he was far better able to do justice to Christianity as a revelation; and so we find that the arguments of this work are much more completely in harmony with primitive Christian theology than those of the *Apology*. He also displays in this work a considerable knowledge of the Rabbinical writings and a skilful polemical method which was surpassed by none of the later anti-Jewish writers.

Justin is a most valuable authority for the life of the Christian Church in the middle of the 2nd century. While we have elsewhere no connected account of this, Justin's *Apology* contains a few paragraphs (61 seq.), which give a vivid description of the public worship of the Church and its method of celebrating the sacraments (Baptism and the Eucharist). And from this it is clear that though, as a theologian, Justin wished to go his own way, as a believing Christian he was ready to make his standpoint that of the Church and its baptismal confession of faith. His works are also of great value for the history of the New Testament writings. He knows of no canon of the New Testament, *i.e.* no fixed and inclusive collection of the apostolic writings. His sources for the teachings of Jesus are the "Memoirs of the Apostles," by which are probably to be understood the Synoptic Gospels (without the Gospel according to St John), which, according to his account, were read along with the prophetic writings at the public services. From his writings we derive the impression of an amiable personality, who is honestly at pains to arrive at an understanding with his opponents. As a theologian, he is of wide sympathies; as a writer, he is often diffuse and somewhat dull. There are not many traces of any particular literary influence of his writings upon the Christian Church, and this need not surprise us. The Church as a whole took but little interest in apologetics and polemics, nay, had at times even an instinctive feeling that in these controversies that which she held holy might easily suffer loss. Thus Justin's writings were not much read, and at the present time both the *Apology* and the *Dialogue* are preserved in but a single MS. (cod. Paris, 450, A.D. 1364).

BIBLIOGRAPHY.—The editions of Robert Étienne (Stephanus) (1551); H. Sylburg (1593); F. Morel (1615); Prudentius Maranuis (1742) are superseded by J. C. T. Otto, *Justini philosophi et martyris opera quae feruntur omnia* (3rd ed. 5 vols., Jena, 1876–1881). This edition contains besides the *Apologies* (vol. i.) and the *Dialogue* (vol. ii.) the following writings: *Speech to the Greeks* (*Oratio*); *Address to the Greeks* (*Cohortatio*): *On the Monarchy of God*; *Epistle to Diognetus*; *Fragments on the Resurrection and other Fragments*; *Exposition of the True Faith*; *Epistle to Zenas and Serenus*; *Refutation of certain Doctrines of Aristotle*; *Questions and Answers to the Orthodox*; *Questions of Christians to Pagans*; *Questions of Pagans to Christians*. None of these writings, not even the *Cohortatio*, which former critics ascribed to Justin, can be attributed to him. The authenticity of the *Dialogue* has occasionally been disputed, but without reason. For a handy edition of the *Apology* see G. Krüger, *Die Apologien Justins des Märtyrers* (3rd ed. Tübingen, 1904). There is a good German translation with a comprehensive commentary by H. Veil (1894). For English translations consult the "Oxford Library of the Fathers" and the "Ante-Nicene Library." Full information about Justin's history and views may be had from the following monographs: C. Semisch, *Justin der Märtyrer* (2 vols., 1840–1842); J. Donaldson, *A Critical History of Christian Literature and Doctrine*, vol. 2 (1866); C. E. Freppel, *St Justin* (3rd ed., 1886); Moritz von Engelhardt, *Das Christentum Justins des Märtyrers* (1878); T. M. Wehofer, *Die Apologie Justins des Philosophen und Märtyrers in litterarhistorischer Beziehung zum ersten Male untersucht* (1897); Alfred Leonhard Feder, *Justins des Märtyrers Lehre von Jesus Christus* (1906). On the critical questions raised by the spurious writings consult W. Gaul, *Die Abfassungsverhältnisse der pseudo-justinischen Cohortatio ad Graecos* (1902); Adolf Harnack, *Diodor von Tarsus. Vier pseudo-justinische Schriften als Eigentum Diodors nachgewiesen* (1901). (G. K.)

JUTE, a vegetable fibre now occupying a position in the manufacturing scale inferior only to cotton and flax. The term jute appears to have been first used in 1746, when the captain of the "Wake" noted in his log that he had sent on shore "60 bales of gunney with all the jute rope" (*New Eng. Dict. s.v.*). In 1795 W. Roxburgh sent to the directors of the East India Company a bale of the fibre which he described as "the jute of the natives." Importations of the substance had been made at earlier times under the name of *pāt*, an East Indian native term by which the fibre continued to be spoken of in England till the early years of the 19th century, when it was supplanted by the name it now bears. This modern name appears to be derived from *jhot* or *jhout* (Sansk. *jhat*), the vernacular name by which the substance is known in the Cuttack district, where the East India Company had extensive roperies when Roxburgh first used the term.

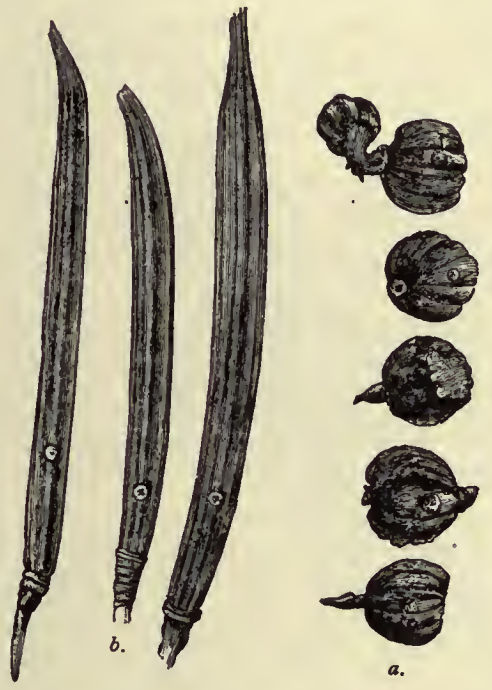


FIG. 1.—Capsules of Jute Plants. *a*, *Corchorus capsularis*; *b*, *C. olitorius*.

The fibre is obtained from two species of *Corchorus* (nat. ord. *Tiliaceae*), *C. capsularis* and *C. olitorius*, the products of both being so essentially alike that neither in commerce nor agriculture is any distinction made between them. These and various other species of *Corchorus* are natives of Bengal, where they have been cultivated from very remote times for economic purposes, although there is reason to believe that the cultivation did not originate in the northern parts of India. The two species cultivated for jute fibre are in all respects very similar to each other, except in their fructification and the relatively greater size attained by *C. capsularis*. They are annual plants from 5 to 10 ft. high, with a cylindrical stalk as thick as a man's finger, and hardly branching except near the top. The light-green leaves are from 4 to 5 in. long by 1½ in. broad above the base, and taper upward into a fine point; the edges are serrated; the two lower teeth are drawn out into bristle-like points. The small whitish-yellow flowers are produced in clusters of two or three opposite the leaves.

The capsules or seed-pods in the case of *C. capsularis* are globular, rough and wrinkled, while in *C. olitorius* they are slender, quill-like cylinders (about 2 in. long), a very marked distinction, as may be noted from fig. 1, in which *a* and *b* show the capsules of *C. capsularis* and *C. olitorius* respectively. Fig. 2 represents a flowering top of *C. olitorius*.

Both species are cultivated in India, not only on account

of their fibre, but also for the sake of their leaves, which are there extensively used as a pot-herb. The use of *C. olitorius* for the latter purpose dates from very ancient times, it if may be identified, as some suppose, with the mallows (מַלּוּחַ) mentioned in Job xxx. 4; hence the name Jew's mallow. It is certain that the Greeks used this plant as a pot-herb; and by many other nations around the shores of the Mediterranean this use of it was, and is still, common. Throughout Bengal the name by which the plants when used as edible vegetables are recognized is *nalitā*; when on the other hand they are spoken of as fibre-producers it is generally under the name *pāt*. The cultivation of *C. capsularis* is most prevalent in central and eastern Bengal, while in the neighbourhood of Calcutta, where, however, the area under cultivation is limited, *C. olitorius* is principally grown. The fibre known as China jute or Tien-tsin jute is the product of another plant, *Abutilon Avicennae*, a member of the Mallow family.

Cultivation and Cropping.—Attempts have been made to grow the jute plant in America, Egypt, Africa and other places, but up to the present the fibre has proved much inferior to that obtained from plants grown in India. Here the cultivation of the plant extends from the Hugli through eastern and northern Bengal. The successful cultivation of the plant demands a hot, moist climate, with a fair amount of rain. Too much rain at the beginning of the season is detrimental to the growth, while a very dry season is disastrous. The climate of eastern and northern Bengal appears to be ideal for the growth of the plant.

The quality of the fibre and the produce per acre depend in a measure on the preparation of the soil. The ground should be ploughed about four times and all weeds removed. The seed is then sown broadcast as in the case of flax. It is only within quite recent years that any attention has been paid to the selection of the seed. The following extract from *Capital* (Jan. 17, 1907) indicates the new interest taken in it.

"Jute seed experiments are being continued and the report for 1906 has been issued. The object of these experiments is, of course, to obtain a better class of jute seed by growing plants, especially for no other purpose than to obtain their seed. The agricultural department has about 300 maunds (25,000 lb) of selected seed for distribution this year. The selling price is to be *Rs.* 10 per maund. The agricultural department of the government of Bengal are now fully alive to the importance of fostering the jute industry by showing conclusively that attention to scientific agriculture will make two maunds of jute grow where only one maund grew before. Let them go on (as they will) till all the ryots are thoroughly indoctrinated into the new system."

The time of sowing extends from the middle of March to the middle of June, while the reaping, which depends upon the time of sowing and upon the weather, is performed from the end of June to the middle of October. The crop is said to be ready for gathering when the flowers appear; if gathered before, the fibre is weak, while if left until the seed is ripe, the fibre is stronger, but is coarser and lacks the characteristic lustre.

The fibre is separated from the stalks by a process of retting similar to that for flax and hemp. In certain districts of Bengal it is the practice to stack the crop for a few days previous to retting in order to allow the leaves to dry and to drop off the stalks. It is stated that the colour of the fibre is darkened if the leaves are allowed to remain on during the process of retting. It is also thought that the drying of the plants before retting facilitates the separation of the fibre. Any simple operation which improves the colour of the fibre or shortens the operation of retting is worthy of consideration. The benefits to be derived from the above process, however, cannot be great, for the bundles are usually taken direct to the pools and streams. The period necessary for the completion of the retting process varies according to the temperature and to the properties of the water, and may occupy from two days to a month. After the first few days of immersion the stalks are examined daily to test the progress of the retting. When the fibres are easily separated from the stalk, the operation is complete and the bundles should be withdrawn. The following description of the retting of jute is taken from Royle's *Fibrous Plants of India*:—

"The proper point being attained, the native operator, standing up to his middle in water, takes as many of the sticks in his hands as he can grasp, and removing a small portion of the bark from the ends next the roots, and grasping them together, he strips off the whole with a little management from end to end, without breaking either stem or fibre. Having prepared a certain quantity into this half state, he next proceeds to wash off: this is done by taking a large handful; swinging it round his head he dashes it repeatedly against the surface of the water, drawing it through towards him, so as to wash off the impurities; then, with a dexterous throw he fans it out on the surface of the water and carefully picks off all remaining black spots. It is now wrung out so as to remove as much water as possible, and then hung up on lines prepared on the spot, to dry in the sun."

The separated fibre is then made up into bundles ready for sending to one of the jute presses. The jute is carefully sorted into different qualities, and then each lot is subjected to an enormous hydraulic pressure from which it emerges in the shape of the well-known bales, each weighing 400 lb.

The crop naturally depends upon the quality of the soil, and upon the attention which the fibre has received in its various stages; the yield per acre varies in different districts. Three bales per acre, or 1200 lb is termed a 100% crop, but the usual quantity obtained is about 2·6 bales per acre. Sometimes the crop is stated in lakhs of 100,000 bales each. The crop in 1906 reached nearly 9,000,000 bales, and in 1907 nearly 10,000,000 was reached. The following particulars were issued on the 19th of September 1906 by Messrs. W. F. Souter & Co., Dundee:—

Year.	Actual acreage.	Estimated yield (100% equal 3 bales per acre).	Estimated total crop. Bales.	Shipment to Europe.		Shipment to America.		Supplies to Indian mills and local consumption.	Out-turn total crop. Bales.
				Jute. Bales.	Cuttings. Bales.	Jute. Bales.	Cuttings. Bales.		
1901—1st	2,216,500	94% =	6,250,000						
Final	2,249,000	96% =	6,500,000	3,528,691	54,427	295,921	426,331	3,100,000 =	7,405,370
1902—1st	2,200,000	80% =	5,280,000						
Final	2,200,000	80% =	5,280,000	2,773,621	39,019	230,415	207,999	2,600,000 =	5,851,054
1903—1st	2,100,000	85% =	5,400,000						
Final	2,250,000	93¾% =	6,500,000	3,161,791	59,562	329,048	236,959	3,650,000 =	7,437,360
1904—1st	2,700,000	87½% =	7,100,000						
Final	2,850,000	85% =	7,400,000	2,939,940	44,002	253,882	290,854	3,475,782 =	7,004,460
1905—1st	3,163,500	87% =	8,250,000						
Final	3,145,000	87% = Outlying	8,200,000 } 200,000 } Madras	3,483,315 75,384	63,118	347,974	245,044	4,018,523 } =	8,233,358
1906—1st	3,271,400 }	87% = Madras	8,713,000						
Outlying	67,000 }		100,000						
Final	3,336,400		8,736,220						
(Outlying districts and Madras, say 250,000 bales additional)									

Estimated consumption of jute 1906–1907.

In Europe	Bales per annum.	
Scotland	1,250,000	
England	20,000	
Ireland	25,000	
France	475,000	
Belgium	120,000	
Germany	750,000	
Austria and Bohemia	262,000	
Norway and Sweden	62,500	
Russia	180,000	
Holland	25,000	
Spain	90,000	
Italy	160,000	
		3,419,500 bales
In America	600,000	
		600,000 ,,
In India—		
Mills	3,900,000	
Local	500,000	
		4,400,000 ,,
		8,419,500 bales

Statistics of consumption of jute, rejections and cuttings.

Consumption.	1894. Bales.	1904. Bales.	1906. Bales.
United Kingdom	1,200,000	1,200,000	1,295,000
Continent	1,100,000	1,800,000	2,124,500
America	500,000	500,000	600,000
Indian mills	1,500,000	2,900,000	3,900,000
Local Indian consumption	500,000	500,000	500,000
Total jute crop consumption	4,800,000	6,900,000	8,419,500

A number of experiments in jute cultivation were made during 1906, and the report showed that very encouraging results were obtained from land manured with cow-dung. If more scientific attention be given to the cultivation it is quite possible that what is now considered as 100% yield may be exceeded.

Characteristics.—The characters by which qualities of jute are judged are colour, lustre, softness, strength, length, firmness, uniformity and absence of roots. The best qualities are of a clear whitish-yellow colour, with a fine silky lustre, soft and smooth to the touch, and fine, long and uniform in fibre. When the fibre is intended for goods in the natural colour it is essential that it should be of a light shade and uniform, but if intended for yarns which are to be dyed a dark shade, the colour is not so important. The cultivated plant yields a fibre with a length of from 6 to 10 ft., but in exceptional cases it has been known to reach 14 or 15 ft. in length. The fibre is decidedly inferior to flax and hemp in strength and tenacity; and, owing to a peculiarity in its microscopic structure, by which the walls of the separate cells composing the fibre vary much in thickness at different points, the single strands of fibre are of unequal strength. Recently prepared fibre is always stronger, more lustrous, softer and whiter than such as has been stored for some time—age and exposure rendering it brown in colour and harsh and brittle in quality. Jute, indeed, is much more woody in texture than either flax or hemp, a circumstance which may be easily demonstrated by its behaviour under appropriate reagents; and to that fact is due the change in colour and character it undergoes on exposure to the air. The fibre bleaches with facility, up to a certain point, sufficient to enable it to take brilliant and delicate shades of dye colour, but it is with great difficulty brought to a pure white by bleaching. A very striking and remarkable fact, which has much practical interest, is its highly hygroscopic nature. While in a dry position and atmosphere it may not possess more than 6% of moisture, under damp conditions it will absorb as much as 23%.

Sir G. Watt, in his *Dictionary of the Economic Products of India*, mentions the following eleven varieties of jute fibre: Serajganji, Narainganji, Desi, Deora, Uttariya, Deswāl, Bākrabadi, Bhatial, Karimginji, Mirganji and Jungipuri. There are several other varieties of minor importance. The first four form the four classes into which the commercial fibre is divided, and they are commonly known as Serajgunge, Naraingunge, Daisee and Dowrah. Serajgunge is a soft fibre, but it is superior in colour, which ranges from white to grey. Naraingunge is a strong fibre, possesses good spinning qualities, and is very suitable for good warp yarns. Its colour, which is not so high as Serajgunge, begins with a cream shade and approaches red at the roots. All the better class yarns are spun from these two kinds. Daisee is similar to Serajgunge in softness, is of good quality and of great length; its drawback is the low colour, and hence it is not so suitable for using in natural colour. It is, however, a valuable fibre for carpet yarns, especially for dark yarns. Dowrah is a strong, harsh and low quality fibre, and is used principally for heavy wefts. Each class is subdivided according to the quality and colour of the material, and each class receives a distinctive mark called a baler's mark. Thus, the finest fibres may be divided as follows:—

Superfine first marks.
Extra fine first marks 1st, 2nd and 3rd numbers.
Superior first marks ,, ,, ,, ,,
Standard ,, ,, ,, ,, ,,
Good ,, ,, ,, ,, ,,
Ordinary ,, ,, ,, ,, ,,
Good second ,, ,, ,, ,, ,,
Ordinary ,, ,, ,, ,, ,,

The lower qualities are, naturally, divided into fewer varieties.

Each baler has his own marks, the fibres of which are guaranteed equal in equality to some standard mark. It would be impossible to give a list of the different marks, for there are hundreds, and new marks are constantly being added. A list of all the principal marks is issued in book form by the Calcutta Jute Baler's association.

The relative prices of the different classes depend upon the crop, upon the demand and upon the quality of the fibre; in 1905 the prices of Daisee jute and First Marks were practically the same, although the former is always considered inferior to the latter. It does not follow that a large crop of jute will result in low prices, for the year 1906–1907 was not only a record one for crops, but also for prices. R. F. C. grade has been as high as £40 per ton, while its lowest recorded price is £12. Similarly the price for First Marks reached £29, 15s. in 1906 as compared with £9, 5s. per ton in 1897. The following table shows a few well-known grades with the average prices during December for the years 1903, 1904, 1905 and 1906.

FIG. 2.—*Corchorus olitorius.*

Class.	Dec. 1903.	Dec. 1904.	Dec. 1905.	Dec. 1906.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
First marks	12 15 0	16 0 0	19 15 0	27 15 0
Black S C C	11 2 6	14 5 0	17 15 0	20 15 0
Red S C C	12 0 0	14 17 6	18 15 0	23 15 0
Native rejections	8 2 6	—	14 10 0	15 17 6
S 4 group	—	—	25 10 0	38 0 0
R F block D group	—	—	—	36 0 0
R F circle D group	14 10 0	16 15 0	21 10 0	—
R F D group	11 15 0	14 2 6	17 12 6	22 0 0
N B green D	14 5 0	—	21 0 0	32 0 0
Heart T 4	14 12 6	17 10 0	22 10 0	34 0 0
Heart T 5.	14 12 6	17 10 0	21 0 0	31 0 0
Daisee 2	12 17 6	—	18 15 0	25 10 0
Daisee assortment	12 10 0	14 17 6	18 5 0	—
Mixed cuttings	4 5 0	—	10 0 0	10 0 0

Jute Manufacture.—Long before jute came to occupy a prominent place amongst the textile fibres of Europe, it formed

the raw material of a large and important industry throughout the regions of Eastern Bengal. The Hindu population made the material up into cordage, paper and cloth, the chief use of the latter being in the manufacture of gunny bags. Indeed, up to 1830–1840 there was little or no competition with hand labour for this class of material. The process of weaving gunnies for bags and other coarse articles by these hand-loom weavers has been described as follows:—

"Sêven sticks or chattee weaving-posts, called *tanā parā* or warp, are fixed upon the ground, occupying the length equal to the measure of the piece to be woven, and a sufficient number of twine or thread is wound on them as warp called *tanā*. The warp is taken up and removed to the weaving machine. Two pieces of wood are placed at two ends, which are tied to the *ohari* and *okher* or roller; they are made fast to the *khoti*. The *belut* or treadle is put into the warp; next to that is the *sarsul*; a thin piece of wood is laid upon the warp, called *chupari* or regulator. There is no sley used in this, nor is a shuttle necessary; in the room of the latter a stick covered with thread called *singa* is thrown into the warp as woof, which is beaten in by a piece of plank called *beyno*, and as the cloth is woven it is wound up to the roller. Next to this is a piece of wood called *khetone*, which is used for smoothing and regulating the woof; a stick is fastened to the warp to keep the woof straight."

Gunny cloth is woven of numerous qualities, according to the purpose to which it is devoted. Some kinds are made close and dense in texture, for carrying such seed as poppy or rape and sugar; others less close are used for rice, pulses, and seeds of like size, and coarser and opener kinds again are woven for the outer cover of packages and for the sails of country boats. There is a thin close-woven cloth made and used as garments among the females of the aboriginal tribes near the foot of the Himalayas, and in various localities a cloth of pure jute or of jute mixed with cotton is used as a sheet to sleep on, as well as for wearing purposes. To indicate the variety of uses to which jute is applied, the following quotation may be cited from the official report of Hem Chunder Kerr as applying to Midnapur.

"The articles manufactured from jute are principally (1) gunny bags; (2) string, rope and cord; (3) *kampa*, a net-like bag for carrying wood or hay on bullocks; (4) *chat*, a strip of stuff for tying bales of cotton or cloth; (5) *dola*, a swing on which infants are rocked to sleep; (6) *shika*, a kind of hanging shelf for little earthen pots, &c.; (7) *dulina*, a floor-cloth; (8) *beera*, a small circular stand for wooden plates used particularly in *poojahs*; (9) painter's brush and brush for white-washing; (10) *ghunsi*, a waist-band worn next to the skin; (11) *gochh-dari*, a hair-band worn by women; (12) *mukbar*, a net bag used as muzzle for cattle; (13) *parchula*, false hair worn by players; (14) *rakhi-bandhan*, a slender arm-band worn at the Rakhi-poornima festival; and (15) *dhup*, small incense sticks burned at *poojahs*."

The fibre began to receive attention in Great Britain towards the close of the 18th century, and early in the 19th century it was spun into yarn and woven into cloth in the town of Abingdon. It is claimed that this was the first British town to manufacture the material. For years small quantities of jute were imported into Great Britain and other European countries and into America, but it was not until the year 1832 that the fibre may be said to have made any great impression in Great Britain. The first really practical experiments with the fibre were made in this year in Chapelshade Works, Dundee, and these experiments proved to be the foundation of an enormous industry. It is interesting to note that the site of Chapelshade Works was in 1907 cleared for the erection of a large new technical college.

In common with practically all new industries progress was slow for a time, but once the value of the fibre and the cloth produced from it had become known the development was more rapid. The pioneers of the work were confronted with many difficulties; most people condemned the fibre and the cloth, many warps were discarded as unfit for weaving, and any attempt to mix the fibre with flax, tow or hemp was considered a form of deception. The real cause of most of these objections was the fact that suitable machinery and methods of treatment had not been developed for preparing yarns from this useful fibre. Warden in his *Linen Trade* says:—

"For years after its introduction the principal spinners refused to have anything to do with jute, and cloth made of it long retained a tainted reputation. Indeed, it was not until Mr. Rowan got the Dutch government, about 1838, to substitute jute yarns for those made from flax in the manufacture of the coffee bagging for their East Indian possessions, that the jute trade in Dundee got a proper start. That fortunate circumstance gave an impulse to the spinning of the fibre which it never lost, and since that period its progress has been truly astonishing."

The demand for this class of bagging, which is made from fine hessian yarns, is still great. These fine Rio hessian yarns form an important branch of the Dundee trade, and in some weeks during 1906 as many as 1000 bales were despatched to Brazil, besides numerous quantities to other parts of the world.

For many years Great Britain was the only European country engaged in the manufacture of jute, the great seat being Dundee. Gradually, however, the trade began to extend, and now almost every European country is partly engaged in the trade.

The success of the mechanical method of spinning and weaving of jute in Dundee and district led to the introduction of textile machinery into and around Calcutta. The first mill to be run there by power was started in 1854, while by 1872 three others had been established. In the next ten years no fewer than sixteen new mills were erected and equipped with modern machinery from Great Britain, while in 1907 there were thirty-nine mills engaged in the industry. The expansion of the Indian power trade may be gathered from the following particulars of the number of looms and spindles from 1892 to 1906. In one or two cases the number of spindles is obtained approximately by reckoning twenty spindles per loom, which is about the average for the Indian mills.

Year.	Looms.	Spindles.
1892–3	8,479	177,732
1893–4	9,082	189,144
1894–5	9,504	197,673
1895–6	10,071	212,595
1896–7	12,276	254,610
1897–8	12,737	271,363
1898–9	13,323	277,398
1899–1900	14,021	293,218
1900–01	15,242	315,264
1901–02	16,059	329,300
1902–03	17,091	350,120
1904[1]	19,901	398,020[2]
1905[1]	21,318	426,360[2]
1906[1]	26,799	520,980[2]

The Calcutta looms are engaged for the most part with a few varieties of the commoner classes of jute fabrics, but the success in this direction has been really remarkable. Dundee, on the other hand, turns out not only the commoner classes of fabrics, but a very large variety of other fabrics. Amongst these may be mentioned the following: Hessian, bagging, tarpaulin, sacking, scrims, Brussels carpets, Wilton carpets, imitation Brussels, and several other types of carpets, rugs and matting, in addition to a large variety of fabrics of which jute forms a part. Calcutta has certainly taken a large part of the trade which Dundee held in its former days, but the continually increasing demands for jute fabrics for new purposes have enabled Dundee to enter new markets and so to take part in the prosperity of the trade.

The development of the trade with countries outside India from 1828 to 1906 may be seen by the following figures of exports:—

Average	per	year	from	1828	to 1832–33	11,800 cwt.
,,	,,	,,		1833–34	,, 1837–38	67,483 ,,
,,	,,	,,		1838–39	,, 1842–43	117,047 ,,
,,	,,	,,		1843–44	,, 1847–48	234,055 ,,
,,	,,	,,		1848–49	,, 1852–53	439,850 ,,
,,	,,	,,		1853–54	,, 1857–58	710,826 ,,
,,	,,	,,		1858–59	,, 1862–63	969,724 ,,
,,	,,	,,		1863–64	,, 1867–68	2,628,110 ,,
,,	,,	,,		1868–69	,, 1872–73	4,858,162 ,,
,,	,,	,,		1873–74	,, 1877–78	5,362,267 ,,
,,	,,	,,		1878–79	,, 1882–83	7,274,000 ,,
,,	,,	,,		1883–84	,, 1887–88	8,223,859 ,,
,,	,,	,,		1888–89	,, 1892–93	10,372,991 ,,
,,	,,	,,		1893–94	,, 1897–98	12,084,292 ,,
,,	,,	,,		1898–99	,, 1902–03	11,959,189 ,,
,,	,,	,,		1903–04	,, 1905–06	13,693,090 ,,

[1] End of calendar year, the remainder being taken to the 31st of March, the end of financial year.

[2] Approximate number of spindles.

The subjoined table shows the extent of the trade from an agricultural, as well as from a manufacturing, point of view. The difference between the production and the exports represents the native consumption, for very little jute is sent overland. The figures are taken to the 31st of March, the end of the Indian financial year.

Year.	Acres under cultivation.	Production in cwt.	Exports by sea in cwt.
1893	2,181,334	20,419,000	10,537,512
1894	2,230,570	17,863,000	8,690,133
1895	2,275,335	21,944,400	12,976,791
1896	2,248,593	19,825,000	12,266,781
1897	2,215,105	20,418,000	11,464,356
1898	2,159,908	24,425,000	15,023,325
1899	1,690,739	19,050,000	9,864,545
1900	2,070,668	19,329,000	9,725,245
1901	2,102,236	23,307,000	12,414,552
1902	2,278,205	26,564,000	14,755,115
1903	2,142,700	23,489,000	13,036,486
1904	2,275,050	25,861,000	13,721,447
1905	2,899,700	26,429,000	12,875,312
1906	3,181,600	29,945,000	14,581,307

Manufacture.—In their general features the spinning and weaving of jute fabrics do not differ essentially as to machinery and processes from those employed in the manufacture of hemp and heavy flax goods. Owing, however, to the woody and brittle nature of the fibre, it has to undergo a preliminary treatment peculiar to itself. The pioneers of the jute industry, who did not understand this necessity, or rather who did not know how the woody and brittle character of the fibre could be remedied, were greatly perplexed by the difficulties they had to encounter, the fibre spinning badly into a hard, rough and hairy yarn owing to the splitting and breaking of the fibre. This peculiarity of jute, coupled also with the fact that the machinery on which it was first spun, although quite suitable for the stronger and more elastic fibres for which it was designed, required certain modifications to suit it to the weaker jute, was the cause of many annoyances and failures in the early days of the trade.

The first process in the manufacture of jute is termed batching. Batch setting is the first part of this operation; it consists of selecting the different kinds or qualities of jute for any predetermined kind of yarn. The number of bales for a batch seldom exceeds twelve, indeed it is generally about six, and of these there may be three, four or even more varieties or marks. The "streaks"[1] or "heads" of jute as they come from the bale are in a hard condition in consequence of having been subjected to a high hydraulic pressure during baling; it is therefore necessary to soften them before any further process is entered. The streaks are sometimes partly softened or crushed by means of a steam hammer during the process of opening the bale, then taken to the "strikers-up" where the different varieties are selected and hung on pins, and then taken to the jute softening machine. The more general practice, however, is to employ what is termed a "bale opener," or "jute crusher." The essential parts of one type of bale opener are three specially shaped rollers, the peripheries of which contain a number of small knobs. Two of these rollers are supported in the same horizontal plane of the framework, while the third or top roller is kept in close contact by means of weights and springs acting on each end of the arbor. Another type of machine termed the three pair roller jute opener is illustrated in fig. 3. The layers from the different bales are laid upon the feed cloth which carries them up to the rollers, between which the layers are crushed and partly separated. The proximity of the weighted roller or rollers to the fixed ones depends upon the thickness of material passing through the machine. The fibre is delivered by what is called the delivery cloth, and the batcher usually selects small streaks of about 1½ lb to 2 lb weight each and passes them on to the attendant or feeder of the softening machine. These small streaks are now laid as regularly as possible upon the feed-cloth of the softening machine, a general view of which is shown in fig. 4. The fibre passes between a series of fluted rollers, each pair of which is kept in contact by spiral springs as shown in the figure. The standard number of pairs is sixty-three, but different lengths obtain. There is also a difference in the structure of the

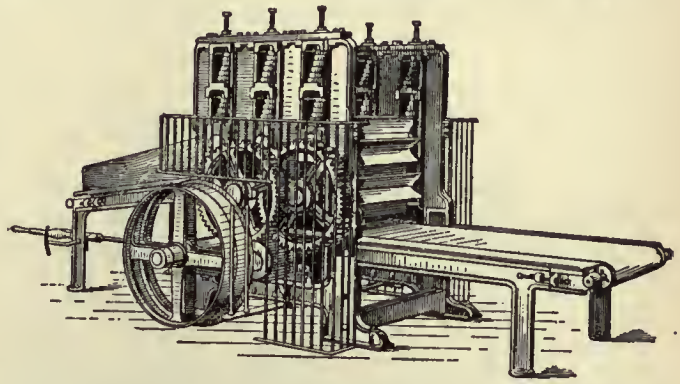


FIG. 3.—Jute Opener. (The three machines shown in this article are made by Urquhart, Lindsay & Co., Ltd., Dundee.)

flutes, some being straight, and others spiral, and each pair may or may not contain the same number of flutes. The springs allow the top rollers of each pair to rise as the material passes through the machine. Advantage is taken of this slight upward and downward movement of the top rollers to automatically regulate the flow of water and oil upon the material. The apparatus for this function is placed immediately over the 11th and 12th rollers of the softening machine and an idea of its construction may be gathered from fig. 5. In many cases the water and oil are applied by less automatic, but equally effective, means. The main object is to see that the liquids are distributed evenly while the fibre is passing through, and to stop the supply when the machine stops or when no fibre is passing. The uniform moistening of the fibre in this machine facilitates the subsequent operations, indeed the introduction of this preliminary process (originally by hand) constituted the first important step in the practical solution of the difficulties of jute spinning. The relative quantities of oil and water depend upon the quality of the batch. Sometimes both whale and mineral oils are used, but in most cases the whale oil is omitted. About 1 to 1¼ gallons of oil is the usual amount given per bale of 400 lb of jute, while the quantity of water per bale varies from 3 to 7 gallons. The delivery attendants remove the streaks, give them a twist to facilitate future handling, and place

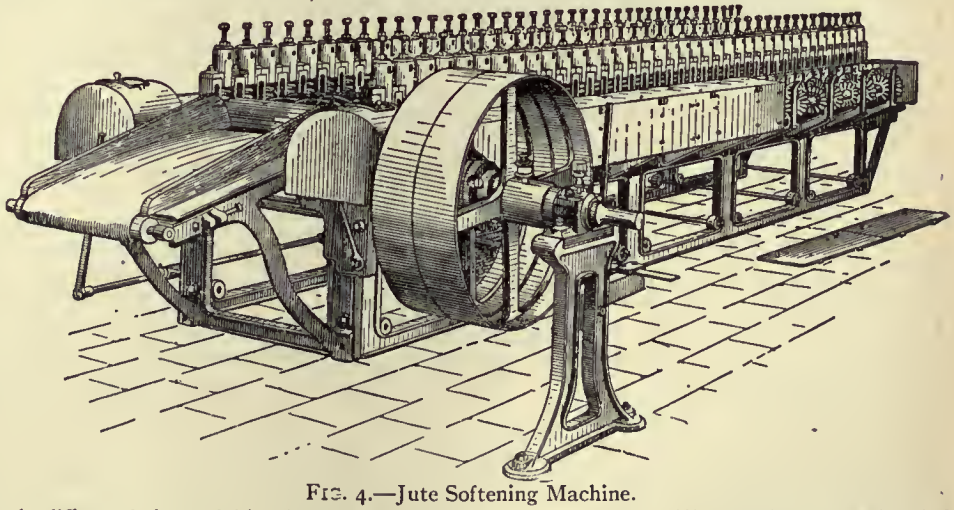


FIG. 4.—Jute Softening Machine.

them on what are termed jute barrows. The streaks are now handed over to the cutters who cut off the roots, and finally the material is allowed to remain for twelve to twenty-four hours to allow the mixture of oil and water to thoroughly spread over the fibre.

When the moisture has spread sufficiently, the material is taken to the "breaker card," the first machine in the preparing department. A certain weight of jute, termed a "dollop," is laid upon the feed cloth for each revolution of the latter. The fibre, which should be arranged on the sheet as evenly as possible, is carried up by the feed cloth and passes between the feed roller and the shell on to the

[1] Also in the forms "streek," "strick" or "strike," as in Chaucer, *Cant. Tales*, Prologue 676, where the Pardoner's hair is compared with a "strike of flax." The term is also used of a handful of hemp or other fibre, and is one of the many technical applications of "strike" or "streak," which etymologically are cognate words.

large cylinder. This cylinder, which has a high surface speed, carries part of the fibre towards the workers and strippers; the surface speed of the workers being much slower than that of the cylinder. The pins in the two rollers oppose each other, those of the workers being "back-set," and this arrangement, combined with the relative angle of the pins, and the difference in the surface speeds of the two rollers, results in part of the fibre being broken and carried round by the worker towards the stripper. This, as its

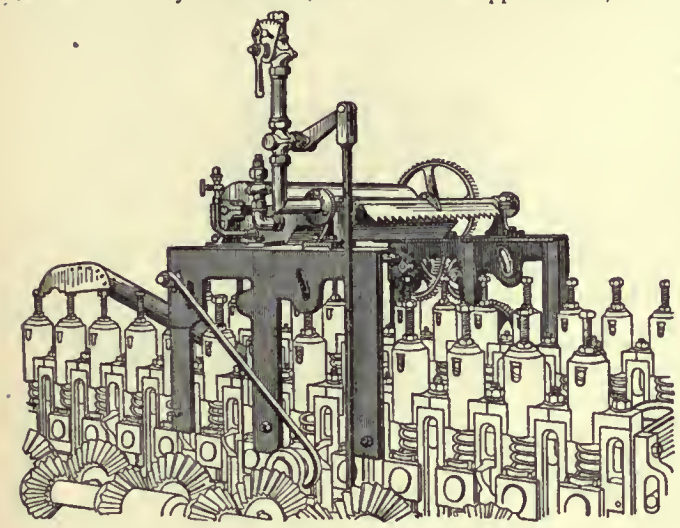


FIG. 5.—Improved Batching Gear.

name implies, strips the fibre off the worker, and carries it round to the cylinder. The pins of the stripper and cylinder point in the same direction, but since the surface speed of the cylinder is much greater than the surface speed of the stripper, it follows that the fibre is combed between the two, and that part is carried forward by the cylinder to be reworked. The strippers and workers are in pairs, of which there may be two or more. After passing the last pair of workers and strippers the fibre is carried forward towards the doffing roller, the pins of which are back-set, and the fibre is removed from the cylinder by the doffer, from which it passes between the drawing and pressing rollers into the conductor, and finally between the delivery and pressing rollers into the sliver can. It may be mentioned that more or less breaking takes place between each pair of rollers, the pins of which are opposed, and that combing and drawing out obtains between those rollers with pins pointing in the same direction. The ratio of the surface speeds of the drawing roller and the feed roller is termed the draft:—

$$\frac{\text{surface speed of drawing roller}}{\text{surface speed of feed roller}} = \text{draft.}$$

In this machine the draft is usually about thirteen.

The sliver from the can of the breaker card may be wound into balls, or it may be taken direct to the finisher card. In the latter method from eight to fifteen cans are placed behind the feed rollers, and all the slivers from these cans are united before they emerge from the machine. The main difference between a breaker card and a finisher card is that the latter is fitted with finer pins, that it contains two doffing rollers, and that it usually possesses a greater number of pairs of workers and strippers—a full circular finisher card having four sets.

After the fibre has been thoroughly carded by the above machines, the cans containing the sliver from the finisher card are taken to the first drawing frame. A very common method is to let four slivers run into one sliver at the first drawing, then two slivers from the first drawing are run into one sliver at the second drawing frame. There are several types of drawing frames, *e.g.* push-bar or slide, rotary, spiral, ring, open-link or chain, the spiral being generally used for the second drawing. All, however, perform the same function, viz., combing out the fibres and thus laying them parallel, and in addition drawing out the sliver. The designation of the machine indicates the particular method in which the gill pins are moved. These pins are much finer than those of the breaker and finisher cards, consequently the fibres are more thoroughly separated. The draft in the first drawing varies from three to five, while that in the second drawing is usually five to seven. It is easy to see that a certain amount of draft, or drawing out of the sliver, is necessary, otherwise the various doublings would cause the sliver to emerge thicker and thicker from each machine. The doublings play a very important part in the appearance of the ultimate rove and yarn, for the chief reason for doubling threads or slivers is to minimize irregularities of thickness and of colour in the material. In an ordinary case, the total doublings in jute from the breaker card to the end of the second drawing is ninety-six: $12 \times 4 \times 2 = 96$; and if the slivers were made thinner and more of them used the ultimate result would naturally be improved.

The final preparing process is that of roving. In this operation there is no doubling of the slivers, but each sliver passes separately through the machine, from the can to the spindle, is drawn out to about eight times its length, and receives a small amount of twist to strengthen it, in order that it may be successfully wound upon the roving bobbin by the flyer. The chief piece of mechanism in the roving frame is the gearing known as the "differential motion." It works in conjunction with the disk and scroll, the cones, or the expanding pulley, to impart an intermittingly variable speed to the bobbin (each layer of the bobbin has its own particular speed which is constant for the full traverse, but each change of direction of the builder is accompanied by a quick change of speed to the bobbin). It is essential that the bobbin should have such a motion, because the delivery of the sliver and the speed of the flyer are constant for a given size of rove, whereas the layers of rove on the bobbin increase in length as the bobbin fills. In the jute roving frame the bobbin is termed the "follower," because its revolutions per minute are fewer than those of the flyer. Each layer of rove increases the diameter of the material on the bobbin shank; hence, at the beginning of each layer, the speed of the bobbin must be increased, and kept at this increased speed for the whole traverse from top to bottom or vice versa.

Let R = the revolutions per second of the flyer;
r = the revolutions per second of the bobbin;
d = the diameter of bobbin shaft plus the material;
L = the length of sliver delivered per second;
then $(R - r)\, d \,.\, \pi = L$.

In the above expression R, π and L are constant, therefore as d increases the term $(R - r)$ must decrease; this can happen only when r is increased, that is, when the bobbin revolves quicker. It is easy to see from the above expression that if the bobbin were the "leader" its speed would have to decrease as it filled.

The builder, which receives its motion from the disk and scroll, from the cones, or from the expanding pulley, has also an intermittingly variable speed. It begins at a maximum speed when the bobbin is empty, is constant for each layer, but decreases as the bobbin fills.

The rove yarn is now ready for the spinning frame, where a further draft of about eight is given. The principles of jute spinning are similar to those of dry spinning for flax. For very heavy jute yarns the spinning frame is not used—the desired amount of twist being given at the roving frame.

The count of jute yarn is based upon the weight in pounds of 14,400 yds., such length receiving the name of "spyndle." The finest yarns weigh 2½ lb to 3 lb per spyndle, but the commonest kinds are 7 lb, 8 lb, 9 lb and 10 lb per spyndle. The sizes rise in pounds up to about 20 lb, then by 2 lb up to about 50 lb per spyndle, with much larger jumps above this weight. It is not uncommon to find 200 lb to 300 lb rove yarn, while the weight occasionally reaches 450 lb per spyndle. The different sizes of yarn are extensively used in a large variety of fabrics, sometimes alone, sometimes in conjunction with other fibres, *e.g.* with worsted in the various kinds of carpets, with cotton in tapestries and household cloths, with line and tow yarns for the same fabrics and for paddings, &c., and with wool for horse clothing. The yarns are capable of being dyed brilliant colours, but, unfortunately, the colours are not very fast to light. The fibre can also be prepared to imitate human hair with remarkable closeness, and advantage of this is largely taken in making stage wigs.

For detailed information regarding jute, the cloths made from it and the machinery used, see the following works: Watts's *Dictionary of the Economic Products of India*; Royle's *Fibrous Plants of India*; Sharp's *Flax, Tow and Jute Spinning*; Leggatt's *Jute Spinning*; Woodhouse and Milne's *Jute and Linen Weaving*; and Woodhouse and Milne's *Textile Design: Pure and Applied.* (T. Wo.)

JÜTERBOG, or GÜTERBOG, a town of Germany in the Prussian province of Brandenburg, on the Nuthe, 39 m. S.W. of Berlin, at the junction of the main lines of railway from Berlin to Dresden and Leipzig. Pop. (1900), 7407. The town is surrounded by a medieval wall, with three gateways, and contains two Protestant churches, of which that of St Nicholas (14th century) is remarkable for its three fine aisles. There are also a Roman Catholic church, an old town-hall and a modern school. Jüterbog carries on weaving and spinning both of flax and wool, and trades in the produce of those manufactures and in cattle. Vines are cultivated in the neighbourhood. Jüterbog belonged in the later middle ages to the archbishopric of Magdeburg, passing to electoral Saxony in 1648, and to Prussia in 1815. It was here that a treaty over the succession to the duchy of Jülich was made in March 1611 between Saxony and Brandenburg, and here in November 1644 the Swedes defeated the Imperialists. Two miles S.W. of the town is the battlefield of Dennewitz where the Prussians defeated the French on the 6th of September 1813.

JUTES, the third of the Teutonic nations which invaded Britain in the 5th century, called by Bede *Iutae* or *Iuti* (see BRITAIN, ANGLO-SAXON). They settled in Kent and the Isle of Wight together with the adjacent parts of Hampshire. In the latter case the national name is said to have survived until Bede's own time, in the New Forest indeed apparently very much later. In Kent, however, it seems to have soon passed out of use, though there is good reason for believing that the inhabitants of that kingdom were of a different nationality from their neighbours (see KENT, KINGDOM OF). With regard to the origin of the Jutes, Bede only says that Angulus (Angel) lay between the territories of the Saxons and the Iutae—a statement which points to their identity with the Iuti or Jyder of later times, *i.e.* the inhabitants of Jutland. Some recent writers have preferred to identify the Jutes with a tribe called Eucii mentioned in a letter from Theodberht to Justinian (*Mon. Germ. Hist., Epist. iii.*, p. 132 seq.) and settled apparently in the neighbourhood of the Franks. But these people may themselves have come from Jutland.

See Bede, *Hist. Eccles.* i. 15, iv. 16. (H. M. C.)

JUTIGALPA, or JUTICALPA, the capital of the department of Jutigalpa in eastern Honduras, on one of the main roads from the Bay of Fonseca to the Atlantic coast, and on a small left-hand tributary of the river Patuca. Pop. (1905), about 18,000. Jutigalpa is the second city of Honduras, being surpassed only by Tegucigalpa. It is the administrative centre of a mountainous region rich in minerals, though mining is rendered difficult by the lack of communications and the unsettled condition of the country. The majority of the inhabitants are Indians or half-castes, engaged in the cultivation of coffee, bananas, tobacco, sugar or cotton.

JUTLAND (Danish *Jylland*), though embracing several islands as well as a peninsula, may be said to belong to the continental portion of the kingdom of Denmark. The peninsula (Chersonese or Cimbric peninsula of ancient geography) extends northward, from a line between Lübeck and the mouth of the Elbe, for 270 m. to the promontory of the Skaw (Skagen), thus preventing a natural communication directly east and west between the Baltic and North Seas. The northern portion only is Danish, and bears the name Jutland. The southern is German, belonging to Schleswig-Holstein. The peninsula is almost at its narrowest (36 m.) at the frontier, but Jutland has an extreme breadth of 110 m. and the extent from the south-western point (near Ribe) to the Skaw is 180 m. Jutland embraces nine *amter* (counties), namely, Hjörring, Thisted, Aalborg, Ringkjöbing, Viborg, Randers, Aarhus, Vejle and Ribe. The main watershed of the peninsula lies towards the east coast; therefore such elevated ground as exists is found on the east, while the western slope is gentle and consists of a low sandy plain of slight undulation. The North Sea coast (western) and Skagerrack coast (north-western) consist mainly of a sweeping line of dunes with wide lagoons behind them. In the south the northernmost of the North Frisian Islands (Fanö) is Danish. Towards the north a narrow mouth gives entry to the Limfjord, or Liimfjord, which, wide and ramifying among islands to the west, narrows to the east and pierces through to the Cattegat, thus isolating the counties of Hjörring and Thisted (known together as Vendsyssel). It is, however, bridged at Aalborg, and its depth rarely exceeds 12 ft. The seaward banks of the lagoons are frequently broken in storms, and the narrow channels through them are constantly shifting. The east coast is slightly bolder than the west, and indented with true estuaries and bays. From the south-east the chain of islands forming insular Denmark extends towards Sweden, the strait between Jutland and Fünen having the name of the Little Belt. The low and dangerous coasts, off which the seas are generally very shallow, are efficiently served by a series of lifeboat stations. The western coast region is well compared with the Landes of Gascony. The interior is low. The Varde, Omme, Skjerne, Stor and Karup, sluggish and tortuous streams draining into the western lagoons, rise in and flow through marshes, while the eastern Limfjord is flanked by the swamps known as Vildmose. The only considerable river is the Gudenaa, flowing from S.W. into the Randersfjord (Cattegat), and rising among the picturesque lakes of the county of Aarhus, where the principal elevated ground in the peninsula is found in the Himmelbjerg and adjacent hills (exceeding 500 ft.). The German portion of the peninsula is generally similar to that of western Jutland, the main difference lying in the occurrence of islands (the North Frisian) off the west coast in place of sand-bars and lagoons. Erratic blocks are of frequent occurrence in south Jutland. (For geology, and the general consideration of Jutland in connexion with the whole kingdom, see DENMARK.)

Although in ancient times well wooded, the greater portion of the interior of Jutland consisted for centuries of barren drift-sand, which grew nothing but heather; but since 1866, chiefly through the instrumentality of the patriotic Heath association, assisted by annual contributions from the state, a very large proportion of this region has been more or less reclaimed for cultivation. The means adopted are: (i.) the plantation of trees; (ii.) the making of irrigation canals and irrigating meadows; (iii.) exploring for, extracting and transporting loam, a process aided by the construction of short light railways; and (iv.), since 1889, the experimental cultivation of fenny districts. The activity of the association takes the form partly of giving gratuitous advice, partly of experimental attempts, and partly of model works for imitation. The state also makes annual grants directly to owners who are willing to place their plantations under state supervision, for the sale of plants at half price to the poorer peasantry, for making protective or sheltering plantations, and for free transport of marl or loam. The species of timber almost exclusively planted are the red fir (*Picea excelsa*) and the mountain pine (*Pinus montana*). This admirable work quickly caused the population to increase at a more rapid rate in the districts where it was practised than in any other part of the Danish kingdom. The counties of Viborg, Ringkjöbing and Ribe cover the principal heath district.

Jutland is well served by railways. Two lines cross the frontier from Germany on the east and west respectively and run northward near the coasts. The eastern touches the ports of Kolding, Fredericia, Vejle, Horsens, Aarhus, Randers, Aalborg on Limfjord, Frederikshavn and Skagen. On the west the only port of first importance is Esbjerg. The line runs past Skjerne, Ringkjöbing, Vemb and Holstebro to Thisted. Both throw off many branches and are connected by lines east and west between Kolding and Esbjerg, Skanderborg and Skjerne, Langaa and Struer on Limfjord via Viborg. Of purely inland towns only Viborg in the midland and Hjörring in the extreme north are of importance.

JUTURNA (older form Diuturna, the lasting), an old Latin divinity, a personification of the never-failing springs. Her original home was on the river Numicius near Lavinium, where there was a spring called after her, supposed to possess healing qualities (whence the old Roman derivation from *juvare*, to help). Her worship was early transferred to Rome, localized by the Lacus Juturnae near the temple of Vesta, at which Castor and Pollux, after announcing the victory of lake Regillus, were said to have washed the sweat from their horses. At the end of the First Punic War Lutatius Catulus erected a temple in her honour on the Campus Martius, subsequently restored by Augustus. Juturna was associated with two festivals: the Juturnalia on the 11th of January, probably a dedication festival of a temple built by Augustus, and celebrated by the college of the *fontani*, workmen employed in the construction and maintenance of aqueducts and fountains; and the Volcanalia on the 23rd of August, at which sacrifice was offered to Volcanus, the Nymphs and Juturna, as protectors against outbreaks of fire. In Virgil, Juturna appears as the sister of Turnus (probably owing to the partial similarity of the names), on whom Jupiter, to console her for the loss of her chastity, bestowed immortality and the control of all the lakes and rivers of Latium. For the statement that she was the wife of Janus and mother of Fontus (or Fons), the god of fountains, Arnobius (*Adv. gentes* iii. 29) is alone responsible.

See Virgil, *Aeneid*, xii. 139 and Servius *ad loc.*; Ovid, *Fasti*, ii. 583–616; Valerius Maximus, i. 8. 1; L. Deubner, "Juturna und die Ausgrabungen auf dem römischen Forum," in *Neue Jahrb. f. das klassische Altertum* (1902), p. 370.

JUVENAL (DECIMUS JUNIUS JUVENALIS) (*c.* 60–140), Roman poet and satirist, was born at Aquinum. Brief accounts of his life, varying considerably in details, are prefixed to different MSS. of the works. But their common original cannot be traced to any competent authority, and some of their statements are intrinsically improbable. According to the version which appears to be the earliest:—

"Juvenal was the son or ward of a wealthy freedman; he practised declamation till middle age, not as a professional teacher, but as an amateur, and made his first essay in satire by writing the lines on Paris, the actor and favourite of Domitian, now found in the seventh satire (lines 90 seq.). Encouraged by their success, he devoted himself diligently to this kind of composition, but refrained for a long time from either publicly reciting or publishing his verses. When at last he did come before the public, his recitations were attended by great crowds and received with the utmost favour. But the lines originally written on Paris, having been inserted in one of his new satires, excited the jealous anger of an actor of the time, who was a favourite of the emperor, and procured the poet's banishment under the form of a military appointment to the extremity of Egypt. Being then eighty years of age, he died shortly afterwards of grief and vexation."

Some of these statements are so much in consonance with the indirect evidence afforded by the satires that they may be a series of conjectures based upon them. The rare passages in which the poet speaks of his own position, as in satires xi. and xiii., indicate that he was in comfortable but moderate circumstances. We should infer also that he was not dependent on any professional occupation, and that he was separated in social station, and probably too by tastes and manners, from the higher class to which Tacitus and Pliny belonged, as he was by character from the new men who rose to wealth by servility under the empire. Juvenal is no organ of the pride and dignity, still less of the urbanity, of the cultivated representatives of the great families of the republic. He is the champion of the more sober virtues and ideas, and perhaps the organ of the rancours and detraction, of an educated but depressed and embittered middle class. He lets us know that he has no leanings to philosophy (xiii. 121) and pours contempt on the serious epic writing of the day (i. 162). The statement that he was a trained and practised declaimer is confirmed both by his own words (i. 16) and by the rhetorical mould in which his thoughts and illustrations are cast. The allusions which fix the dates when his satires first appeared, and the large experience of life which they imply, agree with the statement that he did not come before the world as a professed satirist till after middle age.

The statement that he continued to write satires long before he gave them to the world accords well with the nature of their contents and the elaborate character of their composition, and might almost be inferred from the emphatic but yet guarded statement of Quintilian in his short summary of Roman literature. After speaking of the merits of Lucilius, Horace and Persius as satirists, he adds, "There are, too, in our own day, distinguished writers of satire whose names will be heard of hereafter" (*Inst. Or.* x. 1, 94). There is no Roman writer of satire who could be mentioned along with those others by so judicious a critic, except Juvenal. The motive which a writer of satire must have had for secrecy under Domitian is sufficiently obvious; and the necessity of concealment and self-suppression thus imposed upon the writer may have permanently affected his whole manner of composition.

So far the original of these lives follows a not improbable tradition. But when we come to the story of the poet's exile the case is otherwise. The undoubted reference to Juvenal in Sidonius Apollinaris as the victim of the rage of an actor only proves that the original story from which all the varying versions of the lives are derived was generally believed before the middle of the 5th century of our era. If Juvenal was banished at the age of eighty, the author of his banishment could not have been the "enraged actor" in reference to whom the original lines were written, as Paris was put to death in 83, and Juvenal was certainly writing satires long after 100. The satire in which the lines now appear was probably first published soon after the accession of Hadrian, when Juvenal was not an octogenarian but in the maturity of his powers. The cause of the poet's banishment at that advanced age could not therefore have been either the original composition or the first publication of the lines.

An expression in xv. 45 is quoted as a proof that Juvenal had visited Egypt. He may have done so as an exile or in a military command; but it seems hardly consistent with the importance which the emperors attached to the security of Egypt, or with the concern which they took in the interests of the army, that these conditions were combined at an age so unfit for military employment. If any conjecture is warrantable on so obscure a subject, it is more likely that this temporary disgrace should have been inflicted on the poet by Domitian. Among the many victims of Juvenal's satire it is only against him and against one of the vilest instruments of his court, the Egyptian Crispinus, that the poet seems to be animated by personal hatred. A sense of wrong suffered at their hands may perhaps have mingled with the detestation which he felt towards them on public grounds. But if he was banished under Domitian, it must have been either before or after 93, at which time, as we learn from an epigram of Martial, Juvenal was in Rome.

More ancient evidence is supplied by an inscription found at Aquinum, recording, so far as it has been deciphered, the dedication of an altar to Ceres by a Iunius Iuvenalis, tribune of the first cohort of Dalmatians, *duumvir quinquennalis*, and *flamen Divi . Vespasiani*, a provincial magistrate whose functions corresponded to those of the censor at Rome. This Juvenalis may have been the poet, but he may equally well have been a relation. The evidence of the satires does not point to a prolonged absence from the metropolis. They are the product of immediate and intimate familiarity with the life of the great city. An epigram of Martial, written at the time when Juvenal was most vigorously employed in their composition, speaks of him as settled in Rome. He himself hints (iii. 318) that he maintained his connexion with Aquinum, and that he had some special interest in the worship of the "Helvinian Ceres." Nor is the tribute to the national religion implied by the dedication of the altar to Ceres inconsistent with the beliefs and feelings expressed in the satires. While the fables of mythology are often treated contemptuously or humorously by him, other passages in the satires clearly imply a conformity to, and even a respect for, the observances of the national religion. The evidence as to the military post filled by Juvenal is curious, when taken in connexion with the confused tradition of his exile in a position of military importance. But it cannot be said that the satires bear traces of military experience; the life described in them is rather such as would present itself to the eyes of a civilian.

The only other contemporary evidence which affords a glimpse of Juvenal's actual life is contained in three epigrams of Martial. Two of these (vii. 24 and 91) were written in the time of Domitian, the third (xii. 18) early in the reign of Trajan, after Martial had retired to his native Bilbilis. The first attests the strong regard which Martial felt for him; but the subject of the epigram seems to hint that Juvenal was not an easy person to get on with. In the second, addressed to Juvenal himself, the epithet *facundus* is applied to him, equally applicable to his "eloquence" as satirist or rhetorician. In the last Martial imagines his friend wandering about discontentedly through the crowded streets of Rome, and undergoing all the discomforts incident to attendance on the levées of the great. Two lines in the poem suggest that the satirist, who inveighed with just severity against the worst corruptions of Roman morals, was not too rigid a censor of the morals of his friend. Indeed, his intimacy with Martial is a ground for not attributing to him exceptional strictness of life.

The additional information as to the poet's life and circumstances derivable from the satires themselves is not important. He had enjoyed the training which all educated men received in his day (i. 15); he speaks of his farm in the territory of Tibur

(xi. 65), which furnished a young kid and mountain asparagus for a homely dinner to which he invites a friend during the festival of the Megalesia. From the satire in which this invitation is contained we are able to form an idea of the style in which he habitually lived, and to think of him as enjoying a hale and vigorous age (203), and also as a kindly master of a household (159 seq.). The negative evidence afforded in the account of his establishment suggests the inference that, like Lucilius and Horace, Juvenal had no personal experience of either the cares or the softening influence of family life. A comparison of this poem with the invitation of Horace to Torquatus (*Ep.* i. 5) brings out strongly the differences not in urbanity only but in kindly feeling between the two satirists. Gaston Boissier has drawn from the indications afforded of the career and character of the persons to whom the satires are addressed most unfavourable conclusions as to the social circumstances and associations of Juvenal. If we believe that these were all real people, with whom Juvenal lived in intimacy, we should conclude that he was most unfortunate in his associates, and that his own relations to them were marked rather by outspoken frankness than civility. But they seem to be more "nominis umbrae" than real men; they serve the purpose of enabling the satirist to aim his blows at one particular object instead of declaiming at large. They have none of the individuality and traits of personal character discernible in the persons addressed by Horace in his *Satires* and *Epistles*. It is noticeable that, while Juvenal writes of the poets and men of letters of a somewhat earlier time as if they were still living, he makes no reference to his friend Martial or the younger Pliny and Tacitus, who wrote their works during the years of his own literary activity. It is equally noticeable that Juvenal's name does not appear in Pliny's letters.

The times at which the satires were given to the world do not in all cases coincide with those at which they were written and to which they immediately refer. Thus the manners and personages of the age of Domitian often supply the material of satiric representation, and are spoken of as if they belonged to the actual life of the present,[1] while allusions even in the earliest show that, as a finished literary composition, it belongs to the age of Trajan. The most probable explanation of these discrepancies is that in their present form the satires are the work of the last thirty years of the poet's life, while the first nine at least may have preserved with little change passages written during his earlier manhood. The combination of the impressions, and, perhaps of the actual compositions, of different periods also explains a certain want of unity and continuity found in some of them.

There is no reason to doubt that the sixteen satires which we possess were given to the world in the order in which we find them, and that they were divided, as they are referred to in the ancient grammarians, into five books. Book I., embracing the first five satires, was written in the freshest vigour of the author's powers, and is animated with the strongest hatred of Domitian. The publication of this book belongs to the early years of Trajan. The mention of the exile of Marius (49) shows that it was not published before 100. In the second satire, the lines 29 seq.,

> "Qualis erat nuper tragico pollutus adulter
> Concubitu,"

show that the memory of one of the foulest scandals of the reign of Domitian was still fresh in the minds of men. The third satire, imitated by Samuel Johnson in his *London*, presents such a picture as Rome may have offered to the satirist at any time in the 1st century of our era; but it was under the worst emperors, Nero and Domitian, that the arts of flatterers and foreign adventurers were most successful, and that such scenes of violence as that described at 277 seq. were most likely to occur;[2] while the mention of Veiento (185) as still enjoying influence is a distinct reference to the court of Domitian. The fourth, which alone has any political significance, and reflects on the emperor as a frivolous trifler rather than as a monster of lust and cruelty, is the reproduction of a real or imaginary scene from the reign of Domitian, and is animated by the profoundest scorn and loathing both of the tyrant himself and of the worst instruments of his tyranny. The fifth is a social picture of the degradation to which poor guests were exposed at the banquets of the rich, but many of the epigrams of Martial and the more sober evidence of one of Pliny's letters show that the picture painted by Juvenal, though perhaps exaggerated in colouring, was drawn from a state of society prevalent during and immediately subsequent to the times of Domitian.[3] Book II. consists of the most elaborate of the satires, by many critics regarded as the poet's masterpiece, the famous sixth satire, directed against the whole female sex, which shares with Domitian and his creatures the most cherished place in the poet's antipathies. It shows certainly no diminution of vigour either in its representation or its invective. The time at which this satire was composed cannot be fixed with certainty, but some allusions render it highly probable that it was given to the world in the later years of Trajan, and before the accession of Hadrian. The date of the publication of Book III., containing the seventh, eighth and ninth satires, seems to be fixed by its opening line to the first years after the accession of Hadrian. In the eighth satire another reference is made (120) to the misgovernment of Marius in Africa as a recent event, and at line 51 there may be an allusion to the Eastern wars that occupied the last years of Trajan's reign. The ninth has no allusion to determine its date, but it is written with the same outspoken freedom as the second and the sixth, and belongs to the period when the poet's power was most vigorous, and his exposure of vice most uncompromising. In Book IV., comprising the famous tenth, the eleventh and the twelfth satires, the author appears more as a moralist than as a pure satirist. In the tenth, the theme of the "vanity of human wishes" is illustrated by great historic instances, rather than by pictures of the men and manners of the age; and, though the declamatory vigour and power of expression in it are occasionally as great as in the earlier satires, and although touches of Juvenal's saturnine humour, and especially of his misogyny, appear in all the satires of this book, yet their general tone shows that the white heat of his indignation is abated; and the lines of the eleventh, already referred to (201 seq.),

> "Spectent juvenes quos clamor et audax
> Sponsio, quos cultae decet assedisse puellae:
> Nostra bibat vernum contracta cuticula solem,"

leave no doubt that he was well advanced in years when they were written.

Two important dates are found in Book V., comprising satires xiii.–xvi. At xiii. 16 Juvenal speaks of his friend Calvinus as now past sixty years of age, having been born in the consulship of Fonteius. Now L. Fonteius Capito was consul in 67. Again at xv. 27 an event is said to have happened in Egypt "nuper consule Iunco." There was a L. Aemilius Iuncus consul *suffectus* in 127. The fifth book must therefore have been published some time after this date. More than the fourth, this book bears the marks of age, both in the milder tone of the sentiments expressed, and in the feebler power of composition exhibited. The last satire is now imperfect, and the authenticity both of this and of the fifteenth has been questioned, though on insufficient grounds.

Thus the satires were published at different intervals, and for the most part composed between 100 and 130, but the most powerful in feeling and vivid in conception among them deal with the experience and impressions of the reign of Domitian, occasionally recall the memories or traditions of the times of Nero and Claudius, and reproduce at least one startling page from the annals of Tiberius.[4] The same overmastering feeling which constrained Tacitus (*Agric.* 2, 3), when the time of long endurance and silence was over, to recall the "memory of the

[1] This is especially noticeable in the seventh satire, but it applies also to the mention of Crispinus, Latinus, the class of *delatores*, &c., in the first, to the notice of Veiento in the third, of Rubellius Blandus in the eighth, of Gallicus in the thirteenth, &c.

[2] Cf. Tacitus, *Annals*, xiii. 25.

[3] Pliny's remarks on the vulgarity as well as the ostentation of his host imply that he regarded such behaviour as exceptional, at least in the circle in which he himself lived (*Ep.* ii. 6).

[4] x. 56–107.

former oppression," acted upon Juvenal. There is no evidence that these two great writers, who lived and wrote at the same time, who were animated by the same hatred of the tyrant under whom the best years of their manhood were spent, and who both felt most deeply the degradation of their times, were even known to one another. Tacitus belonged to the highest official and senatorial class, Juvenal apparently to the middle class and to that of the struggling men of letters; and this difference in position had much influence in determining the different bent of their genius, and in forming one to be a great national historian, the other to be a great social satirist. If the view of the satirist is owing to this circumstance more limited in some directions, and his taste and temper less conformable to the best ancient standards of propriety, he is also saved by it from prejudices to which the traditions of his class exposed the historian. But both writers are thoroughly national in sentiment, thoroughly masculine in tone. No ancient authors express so strong a hatred of evil. The peculiar greatness and value of both Juvenal and Tacitus is that they did not shut their eyes to the evil through which they had lived, but deeply resented it—the one with a vehement and burning passion, like the "saeva indignatio" of Swift, the other with perhaps even deeper but more restrained emotions of mingled scorn and sorrow, like the scorn and sorrow of Milton when "fallen on evil days and evil tongues." In one respect there is a difference. For Tacitus the prospect is not wholly cheerless, the detested tyranny was at an end, and its effects might disappear with a more beneficent rule. But the gloom of Juvenal's pessimism is unlighted by hope.

A. C. Swinburne has suggested that the secret of Juvenal's concentrated power consisted in this, that he knew what he hated, and that what he did hate was despotism and democracy. But it would be hardly true to say that the animating motive of his satire was political. It is true that he finds the most typical examples of lust, cruelty, levity and weakness in the emperors and their wives—in Domitian, Otho, Nero, Claudius and Messalina. It is true also that he shares in the traditional idolatry of Brutus, that he strikes at Augustus in his mention of the "three disciples of Sulla," and that he has no word of recognition for what even Tacitus acknowledges as the beneficent rule of Trajan. So too his scorn for the Roman populace of his time, who cared only for their dole of bread and the public games, is unqualified. But it is only in connexion with its indirect effects that he seems to think of despotism; and he has no thought of democracy at all. It is not for the loss of liberty and of the senatorian rule that he chafes, but for the loss of the old national manliness and self-respect. This feeling explains his detestation of foreign manners and superstitions, his loathing not only of inhuman crimes and cruelties but even of the lesser derelictions from self-respect, his scorn of luxury and of art as ministering to luxury, his mockery of the poetry and of the stale and dilettante culture of his time, and perhaps, too, his indifference to the schools of philosophy and his readiness to identify all the professors of stoicism with the reserved and close-cropped puritans, who concealed the worst vices under an outward appearance of austerity. The great fault of his character, as it appears in his writings, is that he too exclusively indulged this mood. It is much more difficult to find what he loved and admired than what he hated. But it is characteristic of his strong nature that, where he does betray any sign of human sympathy or tenderness, it is for those who by their weakness and position are dependent on others for their protection—as for "the peasant boy with the little dog, his playfellow,"[1] or for "the home-sick lad from the Sabine highlands, who sighs for his mother whom he has not seen for a long time, and for the little hut and the familiar kids."[2]

If Juvenal is to be ranked as a great moralist, it is not for his greatness and consistency as a thinker on moral questions. In the rhetorical exaggeration of the famous tenth satire, for instance, the highest energies of patriotism—the gallant and desperate defence of great causes, by sword or speech—are quoted as mere examples of disappointed ambition; and, in the indiscriminate condemnation of the arts by which men sought to gain a livelihood, he leaves no room for the legitimate pursuits of industry. His services to morals do not consist in any positive contributions to the notions of active duty, but in the strength with which he has realized and expressed the restraining influence of the old Roman and Italian ideal of character, and also of that religious conscience which was becoming a new power in the world. Though he disclaims any debt to philosophy (xiii. 121), yet he really owes more to the "Stoica dogmata," then prevalent, than he is aware of. But his highest and rarest literary quality is his power of painting characters, scenes, incidents and actions, whether from past history or from contemporary life. In this power, which is also the great power of Tacitus, he has few equals and perhaps no superior among ancient writers. The difference between Tacitus and Juvenal in power of representation is that the prose historian is more of an imaginative poet, the satirist more of a realist and a grotesque humorist. Juvenal can paint great historical pictures in all their detail—as in the famous representation of the fall of Sejanus; he can describe a character elaborately or hit it off with a single stroke. The picture drawn may be a caricature, or a misrepresentation of the fact—as that of the father of Demosthenes, "blear-eyed with the soot of the glowing mass," &c.—but it is, with rare exceptions, realistically conceived, and it is brought before us with the vivid touches of a Defoe or a Swift, or of the great pictorial satirist of the 18th century, Hogarth. Yet even in this, his most characteristic talent, his proneness to exaggeration, the attraction which coarse and repulsive images have for his mind, and the tendency to sacrifice general effect to minuteness of detail not infrequently mar his best effects.

The difficulty is often felt of distinguishing between a powerful rhetorician and a genuine poet, and it is felt particularly in the case of Juvenal. He himself knew and has well described (vii. 53 seq.) the conditions under which a great poet could flourish; and he felt that his own age was incapable of producing one. He has little sense of beauty either in human life or nature. Whenever such sense is evoked it is only as a momentary relief to his prevailing sense of the hideousness of contemporary life, or in protest against what he regarded as the enervating influences of art. Even his references to the great poets of the past indicate rather a *blasé* sense of indifference and weariness than a fresh enjoyment of them. Yet his power of touching the springs of tragic awe and horror is a genuine poetical gift, of the same kind as that which is displayed by some of the early English dramatists. But he is, on the whole, more essentially a great rhetorician than a great poet. His training, the practical bent of his understanding, his strong but morose character, the circumstances of his time, and the materials available for his art, all fitted him to rebuke his own age and all after-times in the tones of a powerful preacher, rather than charm them with the art of an accomplished poet. The composition of his various satires shows no negligence, but rather excess of elaboration; but it produces the impression of mechanical contrivance rather than of organic growth. His movement is sustained and powerful, but there is no rise and fall in it. The verse is most carefully constructed, and is also most effective, but it is so with the rhetorical effectiveness of Lucan, not with the musical charm of Virgil. The diction is full, even to excess, of meaning, point and emphasis. Few writers have added so much to the currency of quotation. But his style altogether wants the charm of ease and simplicity. It wearies by the constant strain after effect, its mock-heroics and allusive periphrasis, and excites distrust by its want of moderation.

On the whole no one of the ten or twelve really great writers of ancient Rome leaves on the mind so mixed an impression, both as a writer and as a man, as Juvenal. He has little, if anything at all, of the high imaginative mood—the mood of reverence and noble admiration—which made Ennius, Lucretius and Virgil the truest poetical representatives of the genius of Rome. He has nothing of the wide humanity of Cicero, of the urbanity of Horace, of the ease and grace of Catullus. Yet he

[1] . . . . "Meliusne hic rusticus infans
Cum matre et casulis et conlusore catello," &c.—ix. 60.
[2] xi. 152, 153.

represents another mood of ancient Rome, the mood natural to her before she was humanized by the lessons of Greek art and thought. If we could imagine the elder Cato living under Domitian, cut off from all share in public life, and finding no outlet for his combative energy except in literature, we should perhaps understand the motives of Juvenal's satire and the place which is his due as a representative of the genius of his country. As a man he shows many of the strong qualities of the old Roman plebeian—the aggressive boldness, the intolerance of superiority and privilege, which animated the tribunes in their opposition to the senatorian rule. Even where we least like him we find nothing small or mean to alienate our respect from him. Though he loses no opportunity of being coarse, he is not licentious; though he is often truculent, he cannot be called malignant. It is, indeed, impossible to say what motives of personal chagrin, of love of detraction, of the mere literary passion for effective writing, may have contributed to the indignation which inspired his verse. But the prevailing impression we carry away after reading him is that in all his early satires he was animated by a sincere and manly detestation of the tyranny and cruelty, the debauchery and luxury, the levity and effeminacy, the crimes and frauds, which we know from other sources were then rife in Rome, and that a more serene wisdom and a happier frame of mind were attained by him when old age had somewhat allayed the fierce rage which vexed his manhood.

AUTHORITIES.—The remarkable statements in a "life" found in a late Italian MS. (Barberini, viii. 18), "Iunius Iuvenalis Aquinas Iunio Iuvenale patre matre vero Septumuleia ex Aquinati municipio Claudio Nerone et L. Antistio consulibus (55) natus est, sororem habuit Septumuleiam quae Fuscino (*Sat.* xiv. 1) nupsit," though not necessarily false, cannot be accepted without confirmation.

The earliest evidence for the banishment of Juvenal is that of Sidonius Apollinaris (*c.* 480), *Carm.* ix. 269, "Non qui tempore Caesaris secundi | Aeterno coluit Tomos reatu | Nec qui consimili deinde casu | Ad vulgi tenuem strepentis auram | Irati fuit histrionis exul," lines which by the exact parallel drawn between Ovid's fate and Juvenal's imply the belief that Juvenal died in exile. The banishment is also mentioned by J. Malalas, a Greek historian subsequent to Justinian, who gives the place as Pentapolis in Africa, *Chron.* x. 262, Dindorf. The inscription (on a stone now lost) is as follows, the words and letters in brackets being the conjectural restorations of scholars:—"[Cere] ri sacrum| [D. Iu] nius Iuvenalis | trib. coh. [I] Delmatarum | IIvir quinq. flamen | divi Vespasiani | vovit dedicav[it] que | sua pec.," *Corp. inscr. lat.* X. 5382, xiii. 201 sqq. The best of the known manuscripts of Juvenal (P) is at Montpellier (125); but there are several others which cannot be neglected. Amongst these may be specially mentioned the Bodleian MS. (Canon. Lat. 41), which contains a portion of Satire vi., the existence of which was unknown until E. O. Winstedt published it in the *Classical Review* (1899), pp. 201 seq. Another fragment in the Bibliothèque Nationale was described by C. E. Stuart in the *Classical Quarterly* (Jan. 1909). Numerous scholia and glossaries attest the interest taken in Juvenal in post-classical times and the middle ages. There are two classes of scholia—the older or "Pithoeana," first published by P. Pithoeus, and the "Cornutus scholia" of less value, specimens of which have been published by various scholars. The earliest edition which need now be mentioned is that of P. Pithoeus, 1585, in which P was first used for the text. Amongst later ones we may mention the commentaries of Ruperti (1819) and C. F. Heinrich (1839, with the old scholia), O. Jahn (1851, critical with the old scholia), A. Weidner (1889), L. Friedländer (1895, with a full verbal index). The most useful English commentaries are those of J. E. B. Mayor (a voluminous and learned commentary on thirteen of the *Satires*, ii., vi. and ix. being omitted), J. D. Lewis (1882, with a prose translation) and J. D. Duff (1898, expurgated, and ii. and ix. being omitted). There are recent critical texts: conservative and chiefly based on P, by F. Buecheler (1893, with selections from the scholia) and S. G. Owen (in the Oxford Series of Texts); on the other side, by A. E. Housman (1905) and by the same, but with fewer innovations, in the new *Corpus poetarum latinorum*, fasc. v. The two last-named editors alone give the newly discovered lines of Satire vi. There are no recent translations of Juvenal into English verse. Dryden translated i., iii., vi., x. and xvi., the others being committed to inferior hands. Other versions are Gifford's (1802), of some merit, and C. Badham's (1814). Johnson's imitations of Satires iii. and x. are well known. For the numerous articles and contributions to the criticism and elucidation of the *Satires*, reference should be made to Teuffel's *Geschichte der römischen Litteratur* (Eng. trans. by Warre), § 331, and Schanz, ditto (1901, ii. § 2, § 420*a*). (W. Y. S.; J. P. P.)

JUVENCUS, GAIUS VETTIUS AQUILINUS, Christian poet, flourished during the reign of Constantine the Great. Nothing is known of him except that he was a Spanish presbyter of distinguished family. About 330 he published his *Libri evangeliorum IV.*, each book containing about 800 hexameters. The division into books is possibly a reminiscence of the number of the Gospels. The work itself, written with the idea of ousting the absurdities of Pagan mythology and replacing them by the truths of Christianity, may be called the first Christian epic. In the *Praefatio* the author expresses the hope that the sacredness of his subject may procure him safety at the final conflagration of the world and admission into heaven. The whole is, in the main, a poetical version of the Gospel of Matthew, the other evangelists only being used for supplementary details. It is founded upon a pre-vulgate Latin translation, although there is evidence that Juvencus also consulted the Greek. In spite of metrical irregularities, the language and style are simple and show good taste, being free from the artificiality of other Christian poets and prose writers, and the author has made excellent use of Virgil (his chief model) and other classical writers. Juvencus set the fashion of verse translations of the Bible, and the large number of MSS. of his poem mentioned in lists and still extant are sufficient evidence of its great popularity. According to Jerome, he was also the author of some poems on the sacraments, but no trace of these has survived. The Latin *Heptateuch*, a hexameter version of the first seven books of the Old Testament, has been attributed to Juvencus amongst others; but it is now generally supposed to be the work of a certain Cyprianus, a Gaul who lived in the 6th century, possibly a bishop of Toulon, author of the *Life of Caesarius*, bishop of Arelate (Arles).

See M. Manitius, *Geschichte der christlich-lateinischen Poesie* (1891); A. Ebert, *Allgemeine Geschichte der Literatur des Mittelalters*, vol. i. (1889); editions of Juvencus by C. Marold (1886); J. Hümer in *Corpus scriptorum ecclesiasticorum latinorum*, vol. xxiv. (Vienna, 1891); J. T. Hatfield, *A Study of Juvencus* (1890), dealing with syntax, metre and language; editions of the *Heptateuch* by J. E. B. Mayor (1889; reviewed by W. Sanday in *Classical Review*, October 1889, and by J. T. Hatfield in *American Journal of Philology*, vol. xi., 1890), and R. Peiper, vol. xxiii. of the Vienna series above.

JUVENILE OFFENDERS. In modern social science the question of the proper penal treatment of juvenile (*i.e.* non-adult) offenders has been increasingly discussed; and the reformatory principle, first applied in the case of children, has even been extended to reclaimable adult offenders (juveniles in crime, if not in age) in a way which brings them sufficiently within the same category to be noticed in this article. In the old days the main idea in England was to use the same penal methods for all criminals, young and old; when the child broke the law he was sent to prison like his elders. It was only in comparatively recent times that it was realized that child criminals were too often the victims to circumstances beyond their own control. They were cursed with inherited taint; they were brought up among evil surroundings; they suffered from the culpable neglect of vicious parents, and still more from bad example and pernicious promptings. They were rather potential than actual criminals, calling for rescue and regeneration rather than vindictive reprisals. Under the old system a painstaking English gaol chaplain calculated that 58% of all criminals had made their first lapse at fifteen. Boys and girls laughed at imprisonment. Striplings of thirteen and fourteen had been committed ten, twelve, sixteen or seventeen times. Religion and moral improvement were little regarded in prisons, industrial and technical training were impossible. The chief lesson learnt was an intimate and contemptuous acquaintance with the demoralizing interior of a gaol. There were at one time in London 200 "flash houses" frequented by 6000 boys trained and proficient in thieving and depredation.

The substantial movement for reform dates from the protests of Charles Dickens, who roused public opinion to such an extent that the first Reformatory School Act was passed in 1854. Sporadic efforts to meet the evil had indeed been made earlier. In 1756 the Marine Society established a school for the reception and reform of younger criminals; in 1788 the City of London formed a similar institution, which grew much later into

the farm school at Redhill. In 1838 an act of parliament created an establishment at Parkhurst for the detention and correction of juvenile offenders, to whom pardon was given conditional on their entrance into some charitable institution. Parkhurst was technically a prison, and the system combined industrial training with religious and educational instruction. These earlier efforts had, however, been quite insufficient to meet the evils, for in the years immediately preceding 1854 crime was being so constantly reinforced in its beginnings, under the existing penal system, that it threatened to swamp the country. Unofficial, but more or less accurate, figures showed that between 11,000 and 12,000 juveniles passed annually through the prisons of England and Wales, a third of the whole number being contributed by London alone. In 1854 the total reached 14,000. The ages of offenders ranged from less than twelve to seventeen; 60% of the whole were between fourteen and seventeen; 46% had been committed more than once; 18% four times and more.

The Reformatory School Act 1854, which was thrashed out at conferences held in Birmingham in 1851 and 1853, substituted the school for the gaol, and all judicial benches were empowered to send delinquents to schools when they had been guilty of acts punishable by short imprisonment, the limit of which was at first fourteen and became afterwards ten days. A serious flaw in this act long survived; this was the provision that a short period of imprisonment in gaol must precede reception into the reformatory; it was upheld by well-meaning but mistaken people as essential for deterrence. But more enlightened opinion condemned the rule as inflicting an indelible prison taint and breeding contamination, even with ample and effective safeguards. Wiser legislation has followed, and an act of 1899 abolished preliminary imprisonment.

Existing reformatories, or "senior home office schools" as they are officially styled, in England numbered 44 in 1907. They receive all juvenile offenders, up to the age of sixteen, who have been convicted of an offence punishable with penal servitude or imprisonment. The number of these during the years between 1894 and 1906 constantly varied, but the figure of the earliest date, 6604, was never exceeded, and in some years it was considerably less, while in 1906 it was no more than 5586, though the general population had increased by several millions in the period. These figures, in comparison with those of 1854, must be deemed highly satisfactory, even when we take into account that the latter went up to the age of seventeen. Older offenders, between sixteen and twenty-one, come within the category of juvenile adults and are dealt with differently (see *Borstal Scheme* below).

Other schools must be classed with the reformatory, although they have no connexion with prisons and deal with youths who are only potential criminals. The first in importance are the industrial schools. When the newly devised reformatories were doing excellent service it was realized that many of the rising generation might some day lapse into evil ways but were still on the right side and might with proper precautions be kept there. They wanted preventive, not punitive treatment, and for them industrial schools were instituted. The germ of these establishments existed in the Ragged Schools, "intended to educate destitute children and save them from vagrancy and crime." They had been invented by John Pounds (1766–1839), a Portsmouth shoemaker, who, early in the 19th century, was moved with sympathy for these little outcasts and devoted himself to this good work. The ragged school movement found powerful support in active philanthropists when public attention was aroused to the prevalence of juvenile delinquency. The first Industrial School Act was passed in 1856 and applied only to Scotland. Next year its provisions were extended to England, and their growth was rapid. There were 45 schools in the beginning; in 1878 the number had more than been doubled; in 1907 there were 102 in England and Wales and 31 in Scotland.

The provisions of the Education Acts 1871 and 1876 led to a large increase in the number of children committed for breaches of the law and to the establishment of two kinds of subsidiary industrial schools, short detention of truant schools and day industrial schools in which children do not reside but receive their meals, their elementary education and a certain amount of industrial training. The total admissions to truant schools in 1907 were 1368 boys, and the numbers actually in the schools on the last day of that year were 1125 with 2568 on licence. The average length of detention was fourteen weeks and three days on first admission, seventeen weeks and five days on first re-admission, and twenty-three weeks six days on second re-admission. The total number of admissions into truant schools from 1878 to the end of 1907 was 44,315, of whom just half had been licensed and not returned, 11,239 had been licensed and once re-admitted, 8900 had been re-admitted twice or oftener.

The day industrial schools owed their origin to another reason than the enforcement of the Education Acts. It was found that some special treatment was required for large masses of youths in large cities, who were in such a neglected or degraded condition that there was little hope of their growing into healthy men and women or becoming good citizens. They were left unclean, were ill-fed and insufficiently clothed, and were not usefully taught. The total number who attended these day schools in 1907 was 1951 boys and 1232 girls.

The disciplinary system of the English schools is planned upon the establishment or institution system, as opposed to that of the "family" or "boarding out" systems adopted in some countries, and some controversy has been aroused as to the comparative value of the methods. The British practice has always favoured the well-governed school, with the proviso that it is kept small so that the head may know all of his charges. But a compromise has been effected in large establishments by dividing the boys into "houses," each containing a small manageable total as a family under an official father or head. Under this system the idea of the home is maintained, while uniformity of treatment and discipline is secured by grouping several houses together under one general authority. The plan of "boarding out" is not generally approved of in England; the value of the domestic training is questionable and of uncertain quality, depending entirely upon the character and fitness of the foster-parents secured. Education must be less systematic in the private home, industrial training is less easily carried out, and there can be none of that *esprit de corps* that stimulates effort in physical training as applied to athletics and the playing of games. No very definite decision has been arrived at as to the comparative merits of institution life and boarding out. Among the Latin races—France, Italy, Portugal and Spain—the former is as a rule preferred; also in Belgium; in Germany, Holland and the United States placing out in private families is very much the rule; in Austria-Hungary and Russia both methods are in use.

The total admissions to English reformatory schools from their creation to the 31st of December 1907 amounted to 76,455, or 64,031 boys and 12,424 girls. The total discharges for the same period were 70,890, or 59,081 boys and 11,809 girls. The results may be tested by the figures for those discharged in 1904, 1905 and 1906:—

Boys.—3573 were placed out, of whom 66 had died, leaving 3507; of these it was found that 2735 (or about 78%) were in regular employment; 158 (or about 4%) were in casual employment; 439 (or about 13%) had been convicted; and 175 (or about 5%) were unknown.

Girls.—480, of whom 11 had died, leaving 469; of these it was found that 384 (or about 82%) were in regular employment; 28 (or about 6%) were in casual employment; 17 (or about 4%) had been convicted, and 40 (or about 8%) were unknown.

For industrial schools, including truant and day schools, the total admissions, up to the 31st of December 1907, were 153,893, or 120,955 boys and 32,938 girls. The total discharges to the same date (excluding transfers) were 136,961, or 108,398 boys and 28,563 girls. The results as tested by those discharged in 1904, 1905 and 1906 were as follow:—

Boys.—8909 were placed out, of whom 118 had since died, leaving 8791 to be reported on; of these it was found that 7547 (or about 86%) were in regular employment; 415 (or about 4·7%) were in casual employment; 419 (or about 4·7%) convicted or recommitted; and 410 (or about 4·6%) unknown.

Girls.—2505 placed out, of whom 50 had died, leaving 2455; of

these 2180 (or about 89 %) were in regular employment; 112 (or about 4 %) were in casual employment; 21 (or about 1 %) convicted or re-committed; and 142 (or about 6 %) unknown.

These results are of course wholly independent of those achieved by the juvenile-adult prison reformatory at Borstal instituted in October 1902. The record of the first year's work of this excellent system showed that 50 % of cases placed out had done well, thanks to the system and philanthropic labours of the Borstal Association.

An interesting point in regard to the reclamation of these criminally inclined juveniles is the nature of the employments to which they have been recommended, and in which, as shown, they have done so well. In 1904, 1905 and 1906, the total number of boys discharged and placed was 12,482. By far the largest number of these, nearly a sixth, joined the army, 679 of them entering the bands; 292 joined the navy; 961 the mercantile marine; 1567 went to farm service; 414 worked in factories or mills as skilled hands; but others joined as labourers, a general class the total of which was 1096. Other jobs found included miners (629), carters (352), iron or steel workers (214), mechanics (301), shoemakers (181), tailors (161), shop assistants (228), carpenters (178), bakers (131), messengers and porters, including 112 errand boys (315). The balance found employment in smaller numbers at other trades. The fate of 585 was unknown, 858 had been re-convicted, and the balance were in unrecorded or casual employment.

The outlets found by the girls from these various schools naturally follow lines appropriate to their sex and the instruction received. Out of a total of 2985 discharged in the three years mentioned, 1235 became general servants, 268 housemaids, 203 laundry-maids, 52 cooks, 98 nursemaids, 65 dressmakers, 221 were engaged in factories and mills, and the balance was made up by marriage, death or casual employment.

In Ireland the reformatory and industrial school system conforms to that of Great Britain. There were in 1905 six reformatory and 70 industrial schools in Ireland, mostly under Roman Catholic management.

A short account of the reformatory methods of dealing with juvenile offenders in certain other countries will fitly find a place here.

Austria-Hungary.—The law leaves children of less than ten years of age to domestic discipline, as also children above that age if not exactly criminal, although the latter may be sent to correctional schools. There they are detained for varying periods, but never after twenty years of age, and they may be sent out on licence to situations or employment found for them. These schools also receive children between ten and fourteen guilty of crimes which are, however, by law deemed "contraventions" only; also the destitute between the same ages and the incorrigible whose parents cannot manage them.

In Hungary the penal code prescribes that children of less than twelve cannot be charged with offences; those between twelve and sixteen may be deemed to have acted without discretion, and thus escape sentence, but are sent to a correctional school where they may be detained till they are twenty years of age. An excellent system prevails in Hungary by which the supervision of those liberated is entrusted to a "protector," a philanthropic person in the district who visits and reports upon the conduct of the boys, much like the "probation officer" in the United States.

Belgium.—The law of November 1891 places the whole mass of juveniles—those who are likely to give trouble and those who have already done so—at the disposal of the state. The system is very elastic, realizing the infinite variety of childish natures. The purely paternal régime would be wasted upon the really vicious; a severe discipline would press too heavily on the well-disposed. Accordingly, all juveniles, male and female, are divided into six principal classes with a corresponding treatment, it being strictly ruled that there is no intermingling of the classes; the very youngest, rescued early, are never to be associated with the older, who may be already vicious and degraded and who could not fail to exercise a pernicious influence. One of the great merits of the Belgian system is that the regulations may be relaxed, and children of whose amendment good hopes are entertained may be released provisionally, either to the care of parents and guardians or to employers, artisans or agriculturists who will teach them a trade.

Denmark.—There were 61 establishments of all classes for juveniles in Denmark in 1906, holding some 2000 inmates. In 1874, by the will of Countess Danner, a large female refuge was founded at Castle Jagerspris, which holds some 360 girls. Another of the same class is the Royal Vodrofsvei Bonnehjem at Copenhagen, founded in the same year by Mlle Schneider. The régime preferred in Denmark is that of the family or the very small school. The Jagerspris system is to divide the whole number of 360 into small parties of 20 each under a nurse or official mother. Employment in Danish schools is mainly agricultural, field labour and gardening, with a certain amount of industrial training; and on discharge the inmates go to farms or to apprenticeship, while a few emigrate.

France.—There are five methods of disposing of juvenile offenders in France:—

1. The preliminary or preventative prison (*maisons d'arrêt* and *de justice*) for those arrested and accused.
2. The ordinary prison for all sentenced to less than six months, whose time of detention is too short to admit of their transfer to a provincial colony. It also receives children whom parents have found unmanageable.
3. The public or private penitentiary colony for the irresponsible children, acquitted as "without discretion," as well as for the guilty sentenced to more than six months' and less than two years' detention.
4. The correctional colony, where the system is more severe, receiving all sentenced for more than two years and all who have misconducted themselves in the milder establishments.
5. Various penitentiary houses for young females, whatever their particular sentence.

Foremost among French penal reformers stands the name of F. A. Demetz (1796–1873), the founder of the famous colony of Mettray. M. Demetz was a judge who, aghast at the evils inflicted upon children whom he was compelled by law to imprison, left the bench and undertook to find some other outlet for them. At that time the French law, while it acquitted minors shown to have acted without discretion, still consigned them for safe keeping and inevitable contamination to the common gaols. M. Demetz conceived the idea of an agricultural colony, and in 1840 organized a small "*société paternelle*," as it was called, of which he became vice-president. Another philanthropist, the Vicomte de Bretignières de Courteilles, a landed proprietor in Touraine, associated himself in the enterprise and endowed the institution with land at Mettray near Tours. The earliest labours at Mettray were in the development of the institution, but as this approached completion they were applied to farmwork, agricultural employment being the chief feature of the place. The motto and device of Mettray was "the moralization of youth by the cultivation of the soil"; a healthy life in the open air was to replace the enervating and demoralizing influences of the confined prisons; and this was effected in the usual farming operations, to which were added gardening, vine-dressing, the raising of stock and the breeding of silkworms. The labour was not light; on the contrary, the directors of the colony sought by constant employment to send their charges to bed tired, ready to sleep soundly and not romp and chatter in their dormitories. The excellence of its aims, and the manifestly good results that were growing out of the system, soon made Mettray a model for imitation in France and beyond it. Many establishments were planned upon it, started by the state or private enterprise; penitentiary colonies were created for boys in connexion with some of the great central prisons. The colony of Val de Yèvre has a good record. It was started by a private philanthropist, Charles J. M. Lucas, (1803–1889) but after five-and-twenty years was handed over to the state. Other cognate establishments are those of Petit Quevilly near Rouen, Petit Bourg near Paris, St Hiliar and Eysses. There are several female colonies, especially that of Darnetal at Rouen.

It is for the magistrate or *juge d'instruction* to select the class of establishment to which the juvenile delinquents brought before him shall be committed. The very young, those of twelve years of age and under, are placed out in the country with families, unless they can be again entrusted to their parents or committed to *maisons paternels*, containing very limited numbers, twenty or thirty, in charge of a large staff. After twelve, and from that age to fourteen or fifteen, the "ungrateful age" as

the French call it, boys are sent to a reformatory or "preservative school," where they will be under stronger discipline. For the third class, from fifteen to sixteen or eighteen, stricter measures are necessary, so as to dispose of them in specially selected penal colonies, as has already been done at Eysses, where the discipline is severe, while embodying technical and industrial instruction.

Germany.—In most parts of the German Empire juvenile delinquents and neglected youths are treated in the same establishments. No child of less than twelve years of age can be proceeded against in a court of law, although in some German states destitute or abandoned children have been taken at the ages of six, five and even three years. Youths between twelve and eighteen may be convicted, but their offences are passed over if they are proved to have acted without discretion. There are many kinds of correctional institutions and a number of schools not of a correctional character. These last are generally very small, the largest taking barely a hundred, but are very numerous. Many private persons have devoted themselves to the work. Count A. von der Recke-Volmerstein (1791–1878) about 1821 founded a refuge for neglected children in Düsselthal, between Düsseldorf and Elberstadt. Pastor T. F. Fliedner (1800–1864) built up a fine establishment at Kaiserswerth from 1833, in which was an infant school, a penitentiary and an orphan asylum. Another famous name is that of W. von Türk (1774–1846), who studied under Pestalozzi in Switzerland.

A school which has largely influenced public opinion in Great Britain, as in Germany, is the Rauhe Haus, near Hamburg, founded by Dr Wickern in 1833. This began with a single cottage but had grown in twenty years to a hamlet of twenty houses, with from twelve to sixteen inmates in each. The establishment is a Lutheran one; both boys and girls are admitted, in separate houses, and a marked feature of the place is the number of "brothers," young men of good character qualifying for rescue work as superintendents of homes, prison officers and schoolmasters. They take part in the work and are in constant touch with the boys whom they closely supervise, being bound to "keep them in sight day and night, eat with them, sleep in their dormitories, direct their labour, accompany them to chapel, join in their recreations and sports." These "brothers" are honourably known throughout the world and have performed a large work in distant lands as missionaries, prison officers and schoolmasters. The Rauhe Haus receives three classes of juveniles: first, the boys, mostly street arabs; second, girls of the same category; third, children taken as boarders from private families, who confess their inability to manage them. The instruction given is in trades, in farming operations, gardening and fruit-raising. The pupils are largely assisted on release, through the good offices of the citizens of Hamburg.

Holland.—In the Low Countries, refuges, called "Godshuis," were founded as early as the 14th century, intended for the care and shelter of neglected youth and indigent old age. In the 17th century people came from all parts of Europe to learn from the Dutch how orphans and unfortunate children could best be cared for. The Godshuis of Amsterdam was a vast establishment, into which as many as 4000 juveniles were sometimes crowded, with such disastrous effects that its name was changed to that of "pesthuis," and the government in the beginning of the present century ordered it to be emptied and closed. Other reformatory institutions in Holland are the Netherlands Mettray, the reform school of Zetten, near the Arnheim railway station, for Protestant girls; and that of Alkmaar for boys; the reformatory school of St Vincent de Paul at Amsterdam for both sexes; the Amsterdam reformatory for young vagabonds, male and female; the reform school of Smallepod at Amsterdam. The Netherlands Mettray, which is about five hours' journey from Amsterdam on a farm called Rissjelt, near Zutphen, is planned on the model of the French Mettray and was founded about 1855 by M. Suringar, a veteran Dutch philanthropist, long vice-president of the directors of prisons in Amsterdam.

Italy.—In Italy there is no distinction between the treatment of the offending and the neglected or deserted in youth. There are seventeen or more correctional establishments, eight of which are state institutions and the rest founded by private benevolence or by charitable associations or local communities. None of these is exclusively agricultural; ten are industrial, seven industrial and agricultural combined. In Italy the age of responsibility is nine, below which no child can be charged with an offence. The Italian schools are mostly planned on a large scale. That of Marchiondi Spagliardi accommodates 550, divided among three houses under one supreme head. The Turazza institution at Treviso holds 380, and there are eight others with from 200 to 300 inmates. The régime is very various; the larger number of schools are on the congregate system, with daily labour in association and isolation by night. The "family" method is also practised with small groups, divisions or companies, into which the children are formed according to age or conduct.

Sweden.—All children below the age of sixteen may be sent to a correctional establishment or boarded out in respectable families:—

1. If they have committed acts punishable by law which indicate moral perversity and it is deemed advisable to correct them.
2. If they are neglected, ill-used, or if their moral deterioration is feared from the vicious life and character of parents or friends.
3. If their conduct at school or at home is such that a more severe correctional treatment is necessary for their rescue.

Under this law the state is also to provide special schools to take all above ten who have shown peculiar depravity; all who have reached eighteen and who are not yet thought fit for freedom; all who have relapsed after provisional release. Sweden is rich in institutions devoted to the care of destitute and deserted children, all due to the efforts of the charitable. The largest correctional establishment is that founded at Hall, near the town of Sodertelge on the shores of the Baltic. This admirable agricultural colony, modelled on that of Mettray, owes its existence to the "Oscar-Josephine society," founded by Queen Josephine, widow of Oscar I.

United States.—In the words of a report made in 1878 by F. B. Sanborn, secretary of the American Social Science Society, "America can justly plume herself upon the work accomplished by her juvenile reformatories since their inauguration down to the present time." The first in point of date and still the most considerable of the reformatories in the United States is that founded in 1825, thanks to the unwearied efforts of the great American publicist and philanthropist Edward Livingston, which now has its home on Randall's Island in New York City. In the following year a reformatory of the same class was founded in Boston, and another in the year after in Philadelphia. All were intended to receive criminal youth. There are state reformatories now in almost all the states of the Union, and those for juvenile adults in New York and Massachusetts have attracted world-wide attention, aiming so high and with such an elaboration of means that they deserve particular description.

The great state reformatory establishment of Elmira, New York, called into existence in 1889 with the avowed aim of compassing the reformation of the criminal by new processes, partakes of the system involved in the treatment of juvenile offenders. It was based upon the principle that crime ought to be attacked in its beginnings by other than ordinary punitive and prison methods. Under this view, the right of society to defend itself by punishment was denied, and it was held that a youthful offender was more sinned against than sinning. It was urged that his crime, due largely to inherited defects, mental or physical and vicious surroundings, was not his own fault, and he had a paramount claim to be treated differently by the state when in custody. The state was not justified in using powers of repression to imprison him in the usual mechanical hard and fast fashion and then return him to society, no better, possibly worse, than before; it was bound to regenerate him, to change his nature, improve his physique, and give him a new mental equipment, so that when again at large he might be fitted to take his place amongst honest citizens, to earn his living by reputable means and escape all temptation to drift back into crime. This

is the plausible explanation given for the state reformatory movement, which led to the creation on such costly and extensive lines of Elmira, and of Concord in Massachusetts, a cognate establishment. There is very little penal about the treatment, which is that of a boarding school; the education, thorough and carried far, includes languages, music, science and industrial art; diet is plentiful, even luxurious; amusements and varied recreation are permitted; well stocked libraries are provided with entertaining books; a prison newspaper is issued (edited by an inmate). Physical development is sedulously cultivated both by gymnastics and military exercises, and the whole course is well adapted to change entirely the character of the individual subjected to it. The trouble taken in the hope of transforming erring youth into useful members of society goes still further. The original sentence has been indefinite, and release on parole will be granted to inmates who pass through the various courses with credit and are supposed to have satisfied the authorities of their desire to amend. The limit of detention need not exceed twelve months, after which parole is possible, although the average period passed before it is granted is twenty-two months. The hope of permanent amendment is further sought by the fact that a situation, generally with good wages and congenial work, provided by the authorities, awaits every inmate at the time of his discharge. The inmates, selected from a very large class, are first offenders, but guilty generally of criminal offences, which include manslaughter, burglary, forgery, fraud, robbery and receiving. The exact measure of reformation achieved can never be exactly known, from the absence of authentic statistics and the difficulty of following up the surveillance of individuals when released on parole. Reports issued by the manager of Elmira claim that 81% of those paroled have done well, but these results are not definitely authenticated. They are based upon the ascertained good conduct during the term of surveillance, six or twelve months only, during which time these subjects have not yet spent the gratuities earned and have probably still kept the situations found for them on discharge. No doubt the material treated at Elmira and Concord is of a kind to encourage hope of reformation, as they are first offenders and presumably not of the criminal classes. Although the processes are open to criticism, the discipline enforced in these state reformatories does not err in excessive leniency. They are not "hotels," as has been sometimes said in ridicule, where prisoners go to enjoy themselves, have a good time, study Plato and conic sections, and pass out to an assured future. There is plenty of hard work, mental and physical, and the "inmates" rather envy their fellows in state prisons. A point to which great attention is paid is that physical degeneracy lies at the bottom of the criminal character, and great attention is paid to the development of nervous energy and strengthening by every means the normal and healthful functions of the body. A leading feature in the treatment is the frequency and perfection with which bathing is carried out. A series of Turkish baths forms a part of the course of instruction; the baths being fitted elaborately with all the adjuncts of shower bath, cold douche, ending with gymnastic exercises.

A remarkable and unique institution is the state reformatory for women at Sherborn, Massachusetts, for women with sentences of more than a year, who in the opinion of the court are fit subjects for reformatory treatment. The majority of the inmates were convicted of drunkenness, an offence which the law of Massachusetts visits with severity—a sentence of two years being very common. This at once differentiates the class of women from that in ordinary penal establishments. At the same time we find that other women guilty of serious crime are sent by the courts to this prison with a view to their reform. Thus of 352 inmates, while no fewer than 200 were convicted of drunkenness, there were also 63 cases of offences against chastity and 30 of larceny. The average age was thirty-one and the average duration of sentence just over a year. In appearance and in character it more resembles a hospital or home for inebriates than a state convict prison. A system of grades or divisions is relied upon as a stimulus to reform. The difference in grades is denoted by small and scarcely perceptible variations of the little details of everyday life, such as are supposed in a peculiar degree to affect the appreciation of women, *e.g.* in the lowest division the women have their meals off old and chipped china; in the next the china is less chipped; in the highest there is no chipped china; in the next prettily set out with tumblers, cruet-stands and a pepper pot to each prisoner. The superintendent relies greatly also on the moralizing influence of animals and birds. Well-behaved convicts are allowed to tend sheep, calves, pigs, chickens, canaries and parrots. This privilege is highly esteemed and productive, it is said, of the most softening influences.

The "George Junior Republic" (*q.v.*) is a remarkable institution established in 1895 at Freeville, near the centre of New York State, by Mr. William Reuben George. The original features of the institution are that the motto "Nothing without labour" is rigidly enforced, and that self-government is carried to a point that, with mere children, would appear whimsical were it not a proved success. The place is, as the name implies, a miniature "republic" with laws, legislature, courts and administration of its own, all made and carried on by the "citizens" themselves. The tone and spirit of the place appeared to be excellent and there is much evidence that in many cases strong and independent character is developed in children whose antecedents have been almost hopeless.

Borstal Scheme in England.—The American system of state reformatories as above described has been sharply criticized, but the principle that underlies it is recognized as, in a measure, sound, and it has been adopted by the English authorities. Some time back the experiment of establishing a penal reformatory for offenders above the age hitherto committed to reformatory schools was resolved upon. This led to the foundation of the Borstal scheme, which was first formally started in October 1902. The arguments which had led to it may be briefly stated here. It had been conclusively shown that quite half the whole number of professional criminals had been first convicted when under twenty-one years of age, when still at a malleable period of development, when in short the criminal habit had not yet been definitely formed. Moreover these adolescents escaped special reformatory treatment, for sixteen is in Great Britain the age of criminal majority, after which no youthful offenders can be committed to the state reformatory schools. But there was always a formidable contingent of juvenile adults between sixteen and twenty-one, sent to penal servitude, and their numbers although diminishing rose to an average total of 15,000. It was accordingly decided to create a penal establishment under state control, which should be a half-way house between the prison and the reformatory school. A selection was made of juvenile adults, sentenced to not less than six months and sent to Borstal in 1902 to be treated under rules approved by the home secretary. They were to be divided on arrival into three separate classes, penal, ordinary and special, with promotion by industry and good conduct from the lowest to the highest, in which they enjoyed distinctive privileges. The general system, educational and disciplinary, was intelligent and governed by common sense. Instruction, both manual and educational, was well suited to the recipients; the first embraced field work, market gardening, and a knowledge of useful handicrafts; the second was elementary but sound, aided by well-chosen libraries and brightened by the privilege of evening association to play harmless but interesting games. Physical development was also guaranteed by gymnastics and regular exercises. The results were distinctly encouraging. They arrived at Borstal "rough, untrained cubs," but rapidly improved in demeanour and inward character, gaining self-reliance and self-respect, and left the prison on the high road to regeneration. It was wisely remembered that to secure lasting amendment it is not enough to chasten the erring subject, to train his hands, to strengthen his moral sense while still in durance; it is essential to assist him on discharge by helping him to find work, and encourage him by timely advice to keep him in the straight path. Too much praise cannot be accorded to the agencies and associations

which labour strenuously and unceasingly to this excellent end. Especial good work has been done by the Borstal association, founded under the patronage of the best known and most distinguished persons in English public life—archbishops, judges, cabinet ministers and privy councillors—which receives the juvenile adults on their release and helps them to employment. Their labours, backed by generous voluntary contributions, have produced very gratifying results. Although the offenders originally selected to undergo the Borstal treatment were those committed for a period of six months, it was recognized that this limit was experimental, and that thoroughly satisfactory results could only be obtained with sentences of at least a year's duration, so as to give the reforming agencies ample time to operate. In the second year's working of the system it was formally applied to young convicts sentenced to penal servitude between the ages of sixteen and twenty-one. In the next year it was adopted for all offenders between the ages of sixteen and twenty-one committed to prison, as far as the length of sentence would permit. The commissioners of prisons, in their *Report* for the year 1908 (Cd. 4300) thus expressed themselves on the working of the experiment:—

"Experience soon began to point to the probable success of this general application of the principle, in spite of the fact that the prevailing shortness of sentences operated against full benefit being derived from reformatory effort. The success was most marked in those localities where magistrates, or other benevolent persons, personally co-operated in making the scheme a success. Local Borstal committees were established at all prisons, and it was arranged that those members of the local committees should become *ex officio* honorary members of the Central Borstal Association, which it was intended should become, what it now is, the parent society directing the general aid on discharge of this category of young prisoners."

In spite of the general adoption of the Borstal system, there was a large class of young criminals who were outside its effects, those who were sentenced to terms of ten days and under for trifling offences. These juvenile adults, once having had the fear of prison taken away by actual experience, were found to come back again and again. To remedy this state of affairs, a bill was introduced in 1907 to give effect to the principle of a long period of detention for all those showing a tendency to embark on a criminal career. The bill was, however, dropped, but a somewhat similar bill was introduced the next year and became law under the title of The Prevention of Crime Act 1908. This measure introduces a new departure in the treatment of professional crime by initiating a system of detention for habitual criminals (see RECIDIVISM). The act attempts the reformation of young offenders by giving the court power to pass sentence of detention in a Borstal institution for a term of not less than one year nor more than three on those between the ages of sixteen and twenty-one who by reason of criminal habits or tendencies or association with persons of bad character require such instruction and discipline as appear most conducive to their reformation. The power of detention applies also to reformatory school offences, while such persons as are already undergoing penal servitude or imprisonment may be transferred to a Borstal institution if detention would conduce to their advantage. The establishment of other Borstal institutions is authorized by the act, while a very useful provision is the power to release on licence if there is a reasonable probability that the offender will abstain from crime and lead a useful and industrious life. The licence is issued on condition that he is placed under the supervision or authority of some society or person willing to take charge of him. Supervision is introduced after the expiration of the term of sentence, and power is given to transfer to prison incorrigibles or those exercising a bad influence on the other inmates of a Borstal institution. The act marks a noteworthy advance in the endeavour to arrest the growing habit of crime.

(A. G.; T. A. I.)

JUVENTAS (Latin for "youth": later *Juventus*), in Roman mythology, the tutelar goddess of young men. She was worshipped at Rome from very early times. In the front court of the temple of Minerva on the Capitol there was a chapel of Juventas, in which a coin had to be deposited by each youth on his assumption of the *toga virilis*, and sacrifices were offered on behalf of the rising manhood of the state. In connexion with this chapel it is related that, when the temple was in course of erection, Terminus, the god of boundaries, and Juventas refused to quit the sites they had already appropriated as sacred to themselves, which accordingly became part of the new sanctuary. This was interpreted as a sign of the immovable boundaries and eternal youth of the Roman state. It should be observed that in the oldest accounts there is no mention of Juventas, whose name (with that of Mars) was added in support of the augural prediction. After the Second Punic War Greek elements were introduced into her cult. In 218 B.C., by order of the Sibylline books, a *lectisternium* was prepared for Juventas and a public thanksgiving to Hercules, an association which shows the influence of the Greek Hebe, the wife of Heracles. In 207 Marcus Livius Salinator, after the defeat of Hasdrubal at the battle of Sena, vowed another temple to Juventas in the Circus Maximus, which was dedicated in 191 by C. (or M.) Licinius Lucullus; it was destroyed by fire in 16 B.C. and rebuilt by Augustus. In imperial times, Juventas personified, not the youth of the Roman state, but of the future emperor.

See Dion. Halic., iii. 69, iv. 15; Livy v. 54, xxi. 62, xxxvi. 36.

JUXON, WILLIAM (1582–1663), English prelate, was the son of Robert Juxon and was born probably at Chichester, being educated at Merchant Taylors' School, London, and at St John's College, Oxford, where he was elected to a scholarship in 1598. He studied law at Oxford, but afterwards he took holy orders, and in 1609 became vicar of St Giles, Oxford, a living which he retained until he became rector of Somerton, Oxfordshire, in 1615. In December 1621 he succeeded his friend, William Laud, as president of St John's College, and in 1626 and 1627 he was vice-chancellor of the university. Juxon soon obtained other important positions, including that of chaplain-in-ordinary to Charles I. In 1627 he was made dean of Worcester and in 1632 he was nominated to the bishopric of Hereford, an event which led him to resign the presidency of St John's in January 1633. However, he never took up his episcopal duties at Hereford, as in October 1633 he was consecrated bishop of London in succession to Laud. He appears to have been an excellent bishop, and in March 1636 Charles I. entrusted him with important secular duties by making him lord high treasurer of England; thus for the next five years he was dealing with the many financial and other difficulties which beset the king and his advisers. He resigned the treasurership in May 1641. During the Civil War the bishop, against whom no charges were brought in parliament, lived undisturbed at Fulham Palace, and his advice was often sought by the king, who had a very high opinion of him, and who at his execution selected him to be with him on the scaffold and to administer to him the last consolations of religion. Juxon was deprived of his bishopric in 1649 and retired to Little Compton in Gloucestershire, where he had bought an estate, and here he became famous as the owner of a pack of hounds. At the restoration of Charles II. he became archbishop of Canterbury and in his official capacity he took part in the coronation of this king, but his health soon began to fail and he died at Lambeth on the 4th of June 1663. By his will the archbishop was a benefactor to St John's College, where he was buried; he also aided the work of restoring St Paul's Cathedral and rebuilt the great hall at Lambeth Palace.

See W. H. Marah, *Memoirs of Archbishop Juxon and his Times* (1869); the best authority for the archbishop's life is the article by W. H. Hutton in the *Dict. Nat. Biog.* (1892).

K The eleventh letter in the Phoenician alphabet and in its descendant Greek, the tenth in Latin owing to the omission of Teth (see I), and once more the eleventh in the alphabets of Western Europe owing to the insertion of J. In its long history the shape of K has changed very little. It is on the inscription of the Moabite Stone (early 9th cent. B.C.) in the form (written from right to left) of 𐤊 and 𐤟. Similar forms are also found in early Aramaic, but another form 𐡊 or 𐡋, which is found in the Phoenician of Cyprus in the 9th or 10th century B.C. has had more effect upon the later development of the Semitic forms. The length of the two back strokes and the manner in which they join the upright are the only variations in Greek. In various places the back strokes, treated as an angle <, become more rounded (, so that the letter appears as K , a form which in Latin probably affected the development of C (*q.v.*). In Crete it is elaborated into Ꞥ and Ꝑ. In Latin K, which is found in the earliest inscriptions, was soon replaced by C, and survived only in the abbreviations for *Kalendae* and the proper name *Kaeso*. The original name Kaph became in Greek *Kappa*. The sound of K throughout has been that of the unvoiced guttural, varying to some extent in its pronunciation according to the nature of the vowel sound which followed it. In Anglo-Saxon C replaced K through Latin influence, writing being almost entirely in the hands of ecclesiastics. As the sound-changes have been discussed under C it is necessary here only to refer to the palatalization of K followed earlier by a final *e* as in *watch* (Middle English *wacche*, Anglo-Saxon *wæcce*) by the side of *wake* (M.E. *waken*, A.-S. *wacan*); batch, bake, &c. Sometimes an older form of the substantive survives, as in the Elizabethan and Northern *make*=*mate* alongside *match*. (P. Gi.)

K2, or Mt Godwin-Austen, the second highest mountain in the world, ranking after Mt Everest. It is a peak of the Karakoram extension of the Muztagh range dividing Kashmir from Chinese Turkestan. The height of K_2 as at present determined by triangulation is 28,250 ft., but it is possible that an ultimate revision of the values of refraction at high altitudes may have the effect of lowering the height of K_2, while it would elevate those of Everest and Kinchinjunga. The latter mountain would then rank second, and K_2 third, in the scale of altitude, Everest always maintaining its ascendancy. K_2 was ascended for the first time by the duke of the Abruzzi in June 1909, being the highest elevation on the earth's surface ever reached by man.

KA'BA, KAABA, or Kaabeh, the sacred shrine of Mahommedanism, containing the "black stone," in the middle of the great mosque at Mecca (*q.v.*).

KABARDIA, a territory of S. Russia, now part of the province of Terek. It is divided into Great and Little Kabardia by the upper river Terek, and covers 3780 sq. m. on the northern slopes of the Caucasus range (from Mount Elbruz to Pasis-mta, or Edena), including the Black Mountains (Kara-dagh) and the high plains on their northern slope. Before the Russian conquest it extended as far as the Sea of Azov. Its population is now about 70,000. One-fourth of the territory is owned by the aristocracy and the remainder is divided among the *auls* or villages. A great portion is under permanent pasture, part under forests, and some under perpetual snow. Excellent breeds of horses are reared, and the peasants own many cattle. The land is well cultivated in the lower parts, the chief crops being millet, maize, wheat and oats. Bee-keeping is extensively practised, and Kabardian honey is in repute. Wood-cutting and the manufacture of wooden wares, the making of *búrkas* (felt and fur cloaks), and saddlery are very general. Nalchik is the chief town.

The Kabardians are a branch of the Adyghè (Circassians). The policy of Russia was always to be friendly with the Kabardian aristocracy, who were possessed of feudal rights over the Ossetes, the Ingushes, the Abkhasians and the mountain Tatars, and had command of the roads leading into Transcaucasia. Ivan the Terrible took Kabardia under his protection in the 16th century. Later, Russian influence was counterbalanced by that of the Crimean khans, but the Kabardian nobles nevertheless supported Peter the Great during his Caucasian campaign in 1722–23. In 1739 Kabardia was recognized as being under the double protectorate of Russia and Turkey, but thirty-five years later it was definitively annexed to Russia, and risings of the population in 1804 and 1822 were cruelly suppressed. Kabardia is considered as a school of good manners in Caucasia; the Kabardian dress sets the fashion to all the mountaineers. Kabardians constitute the best detachment of the personal Imperial Guards at St Petersburg.

A short grammar of the Kabardian language and a Russian-Kabardian dictionary, by Lopatinsky, were published in *Sbornik Materialov dla Opisaniya Kavkaza* (vol. xii., Tiflis, 1891). Fragments of the poem "Sosyruko," some Persian tales, and the tenets of the Mussulman religion were printed in Kabardian in 1864, by Kazi Atazhukin and Shardanov. The common law of the Kabardians has been studied by Maxim Kovalevsky and Vsevolod Miller.

KABBA, a province of the British protectorate of Northern Nigeria, situated chiefly on the right bank of the Niger, between 7° 5′ and 8° 45′ N. and 5° 30′ and 7° E. It has an area of 7800 sq. m. and an estimated population of about 70,000. The province consists of relatively healthy uplands interspersed with fertile valleys. It formed part at one time of the Nupe emirate, and under Fula rule the armies of Bida regularly raided for slaves and laid waste the country. Amongst the native inhabitants the Igbira are very industrious, and crops of tobacco, indigo, all the African grains, and a good quantity of cotton are already grown. The sylvan products are valuable and include palm oil, kolas, shea and rubber. Lokoja, a town which up to 1902 was the principal British station in the protectorate, is situated in this province. The site of Lokoja, with a surrounding tract of country at the junction of the Benue and the Niger, was ceded to the British government in 1841 by the *attah* of Idah, whose dominions at that time extended to the right bank of the river. The first British settlement was a failure. In 1854 MacGregor Laird, who had taken an active part in promoting the exploration of the river, sent thither Dr W. B. Baikie, who was successful in dealing with the natives and in 1857 became the first British consul in the interior. The town of Lokoja was founded by him in 1860. In 1868 the consulate was abolished and the settlement was left wholly to commercial interests. In 1879 Sir George Goldie formed the Royal Niger Company, which bought out its foreign rivals and acquired a charter from the British government. In 1886 the company made Lokoja its military centre, and on the transfer of the company's territories to the Crown it remained for a time the capital of Northern Nigeria. In 1902 the political capital of the protectorate was shifted to Zungeru in the province of Zaria, but Lokoja remains the commercial centre. The distance of Lokoja from the sea at the Niger mouth is about 250 m.

In the absence of any central native authority the province is entirely dependent for administration upon British initiative. It has been divided into four administrative divisions. British and native courts of justice have been established. A British station has been established at Kabba town, which is an admirable site some 50 m. W. by N. of Lokoja, about 1300 ft. above the sea, and a good road has been made from Kabba to Lokoja. Roads have been opened through the province. (See Nigeria.)

KABBABISH ("goatherds": James Bruce derives the name from *Hebsh*, sheep), a tribe of African nomads of Semitic origin. It is perhaps the largest "Arab" tribe in the Anglo-Egyptian Sudan, and its many clans are scattered over the country extending S.W. from the province of Dongola to the confines of Darfur. The Kabbabish speak Arabic, but their pronunciation differs much from that of the true Arabs. The Kabbabish have a tradition that they came from Tunisia and are of Mogrebin or western descent; but while the chiefs look like Arabs, the tribesmen resemble the Beja family. They themselves declare that

one of their clans, Kawahla, is not of Kabbabish blood, but was affiliated to them long ago. Kawahla is a name of Arab formation, and J. L. Burckhardt spoke of the clan as a distinct one living about Abu Haraz and on the Atbara. The Kabbabish probably received Arab rulers, as did the Abābda. They are chiefly employed in cattle, camel and sheep breeding, and before the Sudan wars of 1883–99 they had a monopoly of all transport from the Nile, north of Abu Gussi, to Kordofan. They also cultivate the lowlands which border the Nile, where they have permanent villages. They are of fine physique, dark with black wiry hair, carefully arranged in tightly rolled curls which cling to the head, with regular features and rather thick aquiline noses. Some of the tribes wear large hats like those of the Kabyles of Algeria and Tunisia.

See James Bruce, *Travels to Discover the Source of the Nile* (1790); A. H. Keane, *Ethnology of Egyptian Sudan* (1884); *Anglo-Egyptian Sudan* (edited by Count Gleichen, 1905).

KABBALAH (late Hebrew *ḳabbālah*, *qabbālah*), the technical name for the system of Jewish theosophy which played an important part in the Christian Church in the middle ages. The term primarily denotes "reception" and then "doctrines received by tradition." In the older Jewish literature the name is applied to the whole body of received religious doctrine with the exception of the Pentateuch, thus including the Prophets and Hagiographa as well as the oral traditions ultimately embodied in the Mishnah.[1] It is only since the 11th or 12th century that Kabbalah has become the exclusive appellation for the renowned system of theosophy which claims to have been transmitted uninterruptedly by the mouths of the patriarchs and prophets ever since the creation of the first man.

The cardinal doctrines of the Kabbalah embrace the nature of the Deity, the Divine emanations or *Sĕphīrōth*, the cosmogony, the creation of angels and man, their destiny, and the import of the revealed law. According to this esoteric doctrine, God, who is boundless and above everything, even above being and thinking, is called *Ēn Sōph* (ἄπειρος); He is the space of the universe containing τὸ πᾶν, but the universe is not his space. In this boundlessness He could not be comprehended by the intellect or described in words, and as such the Ēn Sōph was in a certain sense *Ăyĕn*, non-existent (*Zōhar*, iii. 283).[2] To make his existence known and comprehensible, the Ēn Sōph had to become active and creative. As creation involves intention, desire, thought and work, and as these are properties which imply limit and belong to a finite being, and moreover as the imperfect and circumscribed nature of this creation precludes the idea of its being the direct work of the infinite and perfect, the Ēn Sōph had to become creative, through the medium of ten Sephiroth or intelligences, which emanated from him like rays proceeding from a luminary.

Doctrine of the Sephiroth.

Now the wish to become manifest and known, and hence the idea of creation, is co-eternal with the inscrutable Deity, and the first manifestation of this primordial will is called the first *Sephirah* or emanation. This first Sephirah, this spiritual substance which existed in the Ēn Sōph from all eternity, contained nine other intelligences or *Sephiroth*. These again emanated, one from the other, the second from the first, the third from the second, and so on up to ten.

The ten Sephiroth, which form among themselves and with the Ēn Sōph a strict unity, and which simply represent different aspects of one and the same being, are respectively denominated (1) the Crown, (2) Wisdom, (3) Intelligence, (4) Love, (5) Justice, (6) Beauty, (7) Firmness, (8) Splendour, (9) Foundation, and (10) Kingdom. Their evolution was as follows: "When the Holy Aged, the concealed of all concealed, assumed a form, he produced everything in the form of male and female, as things could not continue in any other form. Hence Wisdom, the second Sephirah, and the beginning of development, when it proceeded from the Holy Aged (another name of the first Sephirah) emanated in male and female, for Wisdom expanded, and Intelligence, the third Sephirah, proceeded from it, and thus were obtained male and female, viz. Wisdom the father and Intelligence the mother, from whose union the other pairs of Sephiroth successively emanated" (*Zohar*, iii. 290). These two opposite potencies, viz. the masculine Wisdom or Sephirah No. 2 and the feminine Intelligence or Sephirah No. 3 are joined together by the first potency, the Crown or Sephirah No. 1; they yield the first triad of the Sephiric decade, and constitute the divine head of the archetypal man.

From the junction of Sephiroth Nos. 2 and 3 emanated the masculine potency Love or Mercy (4) and the feminine potency Justice (5), and from the junction of the latter two emanated again the uniting potency Beauty (6). Beauty, the sixth Sephirah, constitutes the chest in the archetypal man, and unites Love (4) and Justice (5), which constitute the divine arms, thus yielding the second triad of the Sephiric decade. From this second conjunction emanated again the masculine potency Firmness (7) and the feminine potency Splendour (8), which constitute the divine legs of the archetypal man; and these sent forth Foundation (9), which is the genital organ and medium of union between them, thus yielding the third triad in the Sephiric decade. Kingdom (10), which emanated from the ninth Sephirah, encircles all the other nine, inasmuch as it is the Shechinah, the divine halo, which encompasses the whole by its all-glorious presence.

In their totality and unity the ten Sephiroth are not only denominated the World of Sephiroth, or the World of Emanations, but, owing to the above representation, are called the primordial or archetypal man (=πρωτόγονος) and the heavenly man. It is this form which, as we are assured, the prophet Ezekiel saw in the mysterious chariot (Ezek. i. 1–28), and of which the earthly man is a faint copy.

As the three triads respectively represent intellectual, moral and physical qualities, the first is called the Intellectual, the second the Moral or Sensuous, and the third the Material World. According to this theory of the archetypal man the three Sephiroth on the right-hand side are masculine and represent the principle of rigour, the three on the left are feminine and represent the principle of mercy, and the four central or uniting Sephiroth represent the principle of mildness. Hence the right is called "the Pillar of Judgment," the left "the Pillar of Mercy," and the centre "the Middle Pillar." The middle Sephiroth are synecdochically used to represent the worlds or triads of which they are the uniting potencies. Hence the Crown, the first Sephirah, which unites Wisdom and Intelligence to constitute the first triad, is by itself denominated the Intellectual World. So Beauty is by itself described as the Sensuous World, and in this capacity is called the Sacred King or simply the King, whilst Kingdom, the tenth Sephirah, which unites all the nine Sephiroth, is used to denote the Material World, and as such is denominated the Queen or the Matron. Thus a trinity of units, viz. the Crown, Beauty and Kingdom, is obtained within the trinity of triads. But further, each Sephirah is as it were a trinity in itself. It (1) has its own absolute character, (2) receives from above, and (3) communicates to what is below. "Just as the Sacred Aged is represented by the number three, so are all the other lights (Sephiroth) of a threefold nature" (*Zohar*, iii. 288). In this all-important doctrine of the Sephiroth, the Kabbalah insists upon the fact that these potencies are not creations of the Ēn Sōph, which would be a diminution of strength; that they form among themselves and with the Ēn Sōph a strict unity, and simply represent different aspects of the same being, just as the different rays which proceed from the light, and which appear different things to the eye, are only different manifestations of one and the same light; that for this reason they all alike partake of the perfections of the Ēn Sōph; and that as emanations from the Infinite, the Sephiroth are infinite and perfect like the Ēn Sōph, and yet constitute the first finite things. They are infinite and perfect when the Ēn Sōph imparts his fullness to them, and finite and imperfect when that fullness is withdrawn from them.

The conjunction of the Sephiroth, or, according to the language of the Kabbalah, the union of the crowned King and Queen, produced the universe in their own image. Worlds came into existence before the Ēn Sōph manifested himself in the human form of emanations, but they could not continue, and necessarily perished because the conditions of development which obtained with the sexual opposites of the Sephiroth did not exist. These worlds which perished are compared to sparks which fly out from a red-hot iron beaten by a hammer, and which are extinguished according to the distance

The Universe.

[1] C. Taylor, *Sayings of the Jewish Fathers* (1897), pp. 106 sqq., 175 seq.; W. Bacher, *Jew. Quart. Rev.* xx. 572 sqq. (1908).

[2] On the *Zōhar*, "the Bible of the Kabbalists," see below.

they are removed from the burning mass. Creation is not *ex nihilo*; it is simply a further expansion or evolution of the Sephiroth.[1] The world reveals and makes visible the Boundless and the concealed of the concealed. And, though it exhibits the Deity in less splendour than its Sephiric parents exhibit the Ên Sōph, because it is farther removed from the primordial source of light than the Sephiroth, still, as it is God manifested, all the multifarious forms in the world point out the unity which they represent. Hence nothing in the whole universe can be annihilated. Everything, spirit as well as body, must return to the source whence it emanated (*Zohar*, ii. 218). The universe consists of four different worlds, each of which forms a separate Sephiric system of a decade of emanations.

They were evolved in the following order. (1) The World of Emanations, also called the Image and the Heavenly or Archetypal Man, is, as we have seen, a direct emanation from the Ên Sōph. Hence it is most intimately allied to the Deity, and is perfect and immutable. From the conjunction of the King and Queen (*i.e.* these ten Sephiroth) is produced (2) the World of Creation, or the Briatic world, also called "the Throne." Its ten Sephiroth, being farther removed from the Ên Sōph, are of a more limited and circumscribed potency, though the substances they comprise are of the purest nature and without any admixture of matter. The angel Metatron inhabits this world. He alone constitutes the world of pure spirit, and is the garment of Shaddai, *i.e.* the visible manifestation of the Deity. His name is numerically equivalent to that of the Lord (*Zohar*, iii. 231). He governs the visible world, preserves the harmony and guides the revolutions of all the spheres, and is the captain of all the myriads of angelic beings. This Briatic world again gave rise to (3) the World of Formation, or Yetziratic World. Its ten Sephiroth, being still farther removed from the Primordial Source, are of a less refined substance. Still they are yet without matter. It is the abode of the angels, who are wrapped in luminous garments, and who assume a sensuous form when they appear to men. The myriads of the angelic hosts who people this world are divided into ten ranks, answering to the ten Sephiroth, and each one of these numerous angels is set over a different part of the universe, and derives his name from the heavenly body or element which he guards (*Zohar*, i. 42). From this world finally emanated (4) the World of Action, also called the World of Matter. Its ten Sephiroth are made up of the grosser elements of the former three worlds; they consist of material substance limited by space and perceptible to the senses in a multiplicity of forms. This world is subject to constant changes and corruption, and is the dwelling of the evil spirits. These, the grossest and most deficient of all forms, are also divided into ten degrees, each lower than the other. The first two are nothing more than the absence of all visible form and organization; the third degree is the abode of darkness; whilst the remaining seven are "the seven infernal halls," occupied by the demons, who are the incarnation of all human vices. These seven hells are subdivided into innumerable compartments corresponding to every species of sin, where the demons torture the poor deluded human beings who have suffered themselves to be led astray whilst on earth. The prince of this region of darkness is Sāmāel, the evil spirit, the serpent who seduced Eve. His wife is the Harlot or the Woman of Whoredom. The two are treated as one person, and are called "the Beast" (*Zohar*, ii. 255–259, with i. 35).

The whole universe, however, was incomplete, and did not receive its finishing stroke till man was formed, who is the acme of the creation and the microcosm. "The heavenly Adam (*i.e.* the ten Sephiroth) who emanated from the highest primordial obscurity (*i.e.* the Ên Sōph) created the earthly Adam" (*Zohar*, ii. 70). "Man is both the import and the highest degree of creation, for which reason he was formed on the sixth day. As soon as man was created everything was complete, including the upper and nether worlds, for everything is comprised in man. He unites in himself all forms" (*Zohar*, iii. 48). Each member of his body corresponds to a part of the visible universe. "Just as we see in the firmament above, covering all things, different signs which are formed of the stars and the planets, and which contain secret things and profound mysteries studied by those who are wise and expert in these things; so there are in the skin, which is the cover of the body of the son of man, and which is like the sky that covers all things above, signs and features which are the stars and planets of the skin, indicating secret things and profound mysteries whereby the wise are attracted who understand the reading of the mysteries in the human face" (*Zohar*, ii. 76). The human form is shaped after the four letters which constitute the Jewish Tetragrammaton (*q.v.*; see also Jehovah). The head is in the shape of י, the arms and the shoulders are like ה, the breast like ו, and the two legs with the back again resemble ה (*Zohar*, ii. 72). The souls of the whole human race pre-exist in the World of Emanations, and are all destined to inhabit human bodies. Like the Sephiroth from which it emanates, every soul has ten potencies, consisting of a trinity of triads. (1) The Spirit (*nĕshāmah*), which is the highest degree of being, corresponds to and is operated upon by the Crown, which is the highest triad in the Sephiroth, and is called the Intellectual World; (2) the Soul (*rūăh*), which is the seat of the moral qualities, corresponds to and is operated upon by Beauty, which is the second triad in the Sephiroth, and is called the Moral World; and (3) the Cruder Soul (*nephesh*), which is immediately connected with the body, and is the cause of its lower instincts and the animal life, corresponds to and is operated upon by Foundation, the third triad in the Sephiroth, called the Material World. Each soul prior to its entering into this world consists of male and female united into one being. When it descends on this earth the two parts are separated and animate two different bodies. "At the time of marriage the Holy One, blessed be he, who knows all souls and spirits, unites them again as they were before; and they again constitute one body and one soul, forming as it were the right and the left of the individual. . . . This union, however, is influenced by the deeds of the man and by the ways in which he walks. If the man is pure and his conduct is pleasing in the sight of God, he is united with that female part of the soul which was his component part prior to his birth" (*Zohar*, i. 91). The soul's destiny upon earth is to develop those perfections the germs of which are eternally implanted in it, and it ultimately must return to the infinite source from which it emanated. Hence, if, after assuming a body and sojourning upon earth, it becomes polluted by sin and fails to acquire the experience for which it descends from heaven, it must three times reinhabit a body, till it is able to ascend in a purified state through repeated trials. If, after its third residence in a human body, it is still too weak to withstand the contamination of sin, it is united with another soul, in order that by their combined efforts it may resist the pollution which by itself it was unable to conquer. When the whole pleroma of preexistent souls in the world of the Sephiroth shall have descended and occupied human bodies and have passed their period of probation and have returned purified to the bosom of the infinite Source, then the soul of Messiah will descend from the region of souls; then the great Jubilee will commence. There shall be no more sin, no more temptation, no more suffering. Universal restoration will take place. Satan himself, "the venomous Beast," will be restored to his angelic nature. Life will be an everlasting feast, a Sabbath without end. All souls will be united with the Highest Soul, and will supplement each other in the Holy of Holies of the Seven Halls (*Zohar*, i. 45, 168; ii. 97).

Doctrine of Man.

According to the Kabbalah all these esoteric doctrines are contained in the Hebrew Scriptures. The uninitiated cannot perceive them; but they are plainly revealed to the spiritually minded, who discern the profound import of this theosophy beneath the surface of the letters and words of Holy Writ. "If the law simply consists of ordinary expressions and narratives, such as the words of Esau, Hagar, Laban, the ass of Balaam or Balaam himself, why should it be called the law of truth, the perfect law, the true witness of God? Each word contains a sublime source, each narrative points not only to the single instance in question, but also to generals" (*Zohar*, iii. 149, cf. 152).

Antiquity and Influence of Kabbalah.

To obtain these heavenly mysteries, which alone make the Torah superior to profane codes, definite hermeneutical rules are employed, of which the following are the most important. (1) The words of several verses in the Hebrew Scriptures which are regarded as containing a recondite sense are placed over each other, and the letters are formed into new words by reading them vertically. (2) The words of the text are ranged in squares in such a manner as to be read either vertically or boustrophedon. (3) The words are

[1] The view of a mediate creation, in the place of immediate creation out of nothing, and that the mediate beings were emanations, was much influenced by Solomon ibn Gabirol (1021–1070).

joined together and redivided. (4) The initials and final letters of several words are formed into separate words. (5) Every letter of a word is reduced to its numerical value, and the word is explained by another of the same quantity. (6) Every letter of a word is taken to be the initial or abbreviation of a word. (7) The twenty-two letters of the alphabet are divided into two halves; one half is placed above the other; and the two letters which thus become associated are interchanged. By this permutation, *Aleph*, the first letter of the alphabet, becomes *Lamed*, the twelfth letter; *Beth* becomes *Mem*, and so on. This cipher alphabet is called *Albam*, from the first interchangeable pairs. (8) The commutation of the twenty-two letters is effected by the last letter of the alphabet taking the place of the first, the last but one the place of the second, and so forth. This cipher is called *Atbash* These hermeneutical canons are much older than the Kabbalah. They obtained in the synagogue from time immemorial, and were used by the Christian fathers in the interpretation of Scripture.[1] Thus Canon V., according to which a word is reduced to its numerical value and interpreted by another word of the same value, is recognized in the New Testament (cf. Rev. xiii. 18). Canon VI. is adopted by Irenaeus, who tells us that, according to the learned among the Hebrews, the name Jesus contains two letters and a half, and signifies that Lord who contains heaven and earth [יהוה שמים וארץ = ישו] (*Against Heresies*, ii. xxiv., i. 205, ed. Clark). The cipher *Atbash* (Canon VIII.) is used in Jeremiah xxv. 26, li. 41, where Sheshach is written for Babel. In Jer. li. 1, לב קמי, *Leb-Kamai* ("the heart of them that rise up against me"), is written for כשדים, *Chaldea*, by the same rule.

Exegesis of this sort is not the characteristic of any single circle, people or century; unscientific methods of biblical interpretation have prevailed from Philo's treatment of the Pentateuch to modern apologetic interpretations of Genesis, ch. i.[2] The Kabbalah itself is but an extreme and remarkable development of certain forms of thought which had never been absent from Judaism; it is bound up with earlier tendencies to mysticism, with man's inherent striving to enter into communion with the Deity. To seek its sources would be futile. The Pythagorean theory of numbers, Neoplatonic ideas of emanation, the Logos, the personified Wisdom, Gnosticism—these and many other features combine to show the antiquity of tendencies which, clad in other shapes, are already found in the old pre-Christian Oriental religions.[3] In its more mature form the Kabbalah belongs to the period when medieval Christian mysticism was beginning to manifest itself (viz. in Eckhart, towards end of 13th century); it is an age which also produced the rationalism of Maimonides (*q.v.*). Although some of its foremost exponents were famous Talmudists, it was a protest against excessive intellectualism and Aristotelian scholasticism. It laid stress, not on external authority, as did the Jewish law, but on individual experience and inward meditation. "The mystics accorded the first place to prayer, which was considered as a mystical progress towards God, demanding a state of ecstasy."[4] As a result, some of the finest specimens of Jewish devotional literature and some of the best types of Jewish individual character have been Kabbalist.[5] On the other hand, the Kabbalah has been condemned, and nowhere more strongly than among the Jews themselves. Jewish orthodoxy found itself attacked by the more revolutionary aspects of mysticism and its tendencies to alter established customs. While the medieval scholasticism denied the possibility of knowing anything unattainable by reason, the spirit of the Kabbalah held that the Deity could be realized, and it sought to bridge the gulf. Thus it encouraged an unrestrained emotionalism, rank superstition, an unhealthy asceticism, and the employment of artificial means to induce the ecstatic state. That this brought moral laxity was a stronger reason for condemning the Kabbalah, and the evil effects of nervous degeneration find a more recent illustration in the mysticism of the Chasidim (*Ḥăsīdīm*, "saints"), a Jewish sect in eastern Europe which started from a movement in the 18th century against the exaggerated casuistry of contemporary rabbis, and combined much that was spiritual and beautiful with extreme emotionalism and degradation.[6] The appearance of the Kabbalah and of other forms of mysticism in Judaism may seem contrary to ordinary and narrow conceptions of orthodox Jewish legalism. Its interest lies, not in its doctrines, which have often been absurdly over-estimated (particularly among Christians), but in its contribution to the study of human thought. It supplied a want which has always been felt by certain types, and it became a movement which had mischievous effects upon ill-balanced minds. As usual, the excessive self-introspection was not checked by a rational criticism; the individual was guided by his own reason, the limitations of which he did not realize; and in becoming a law unto himself he ignored the accumulated experiences of civilized humanity.[7]

A feature of greater interest is the extraordinary part which this theosophy played in the Christian Church, especially at the time of the Renaissance. We have already seen that the Sephiric decade or the archetypal man, like Christ, is considered to be of a double nature, both infinite and finite, perfect and imperfect. More distinct, however, is the doctrine of the Trinity. In Deut. vi. 43, where Yahweh occurs first, then Ĕlōhēnū, and then again Yahweh, we are told "The voice though one, consists of three elements, fire (*i.e.* warmth), air (*i.e.* breath), and water (*i.e.* humidity), yet all three are one in the mystery of the voice and can only be one. Thus also Yahweh, Ĕlōhēnū, Yahweh, constitute one—three forms which are one" (*Zohar*, ii. 43; compare iii. 65). Discussing the thrice holy in Isaiah vi. 3, one codex of the *Zohar* had the following remark: "The first holy denotes the Holy Father, the second the Holy Son, and the third the Holy Ghost" (cf. Galatinus, *De arcanis cathol.* lib. ii. c. 3, p. 31; Wolf, *Bibliotheca hebraica*, i. 1136). Still more distinct is the doctrine of the atonement. "The Messiah invokes all the sufferings, pain, and afflictions of Israel to come upon Him. Now if He did not remove them thus and take them upon Himself, no man could endure the sufferings of Israel, due as their punishment for transgressing the law; as it is written (Isa. liii. 4), Surely He hath borne our griefs and carried our sorrows" (*Zohar*, ii. 12). These and similar statements favouring the doctrines of the New Testament made many Kabbalists of the highest position in the synagogue embrace the Christian faith and write elaborate books to win their Jewish brethren over to Christ. As early as 1450 a company of Jewish converts in Spain, at the head of which were Paul de Heredia, Vidal de Saragossa de Aragon, and Davila, published compilations of Kabbalistic treatises to prove from them the doctrines of Christianity. They were followed by Paul Rici, professor at Pavia, and physician to the emperor Maximilian I. Among the best-known non-Jewish exponents of the Kabbalah were the Italian count Pico di Mirandola (1463–1494), the renowned Johann Reuchlin (1455–1522), Heinrich Cornelius Agrippa of Nettesheim (1487–1535), Theophrastus Paracelsus (1493–1541), and, later, the Englishman Robert Fludd (1574–1637). Prominent among the "nine hundred theses" which Mirandola had placarded in Rome, and which he undertook to defend in the presence of all European scholars, whom he invited to the Eternal City, promising to defray their travelling expenses, was the following: "No science yields greater proof of the divinity of Christ than magic and the Kabbalah." Mirandola so convinced Pope Sixtus of the paramount importance of the Kabbalah as an auxiliary to Christianity that his holiness exerted himself to have Kabbalistic writings translated into Latin for the use of divinity students. With equal zeal did Reuchlin act as the

[1] See F. Weber, *Jüdische Theologie* (1897), pp. 118 sqq.

[2] See C. A. Briggs, *Study of Holy Scripture* (1899), pp. 427 sqq., 570.

[3] Even the "over-Soul" of the mystic Isaac Luria (1534–1572) is a conception known in the 3rd century A.D. (Rabbi Rēsh Lakish). For the early stages of Kabbalistic theories, see K. Kohler, *Jew. Ency.* iii. 457 seq., and L. Ginzberg, ibid. 459 seq.; and for examples of the relationship between old Oriental (especially Babylonian) and Jewish Kabbalistic teaching (early and late), see especially A. Jeremias, *Babylonisches in N. Test.* (Leipzig, 1905); E. Bischoff, *Bab. Astrales im Weltbilde des Thalmud u. Midrasch* (1907).

[4] L. Ginzberg, *Jew. Ency.* iii. 465.

[5] See, especially, on the mystics of Safed in Upper Galilee, S. Schechter, *Studies* (1908), pp. 202–285.

[6] See the instructive article by S. Schechter, *Studies in Judaism* (London, 1896), pp. 1–55.

[7] See the discriminating estimates by S. A. Hirsch, *Jew. Quart. Rev.* xx. 50–73; I. Abrahams, *Jew. Lit.* (1906), ch. xvii.; *Judaism* (1907), ch. vi.

apostle of the Kabbalah. His treatises exercised an almost magic influence upon the greatest thinkers of the time. Pope Leo X. and the early Reformers were alike captivated by the charms of the Kabbalah as propounded by Reuchlin, and not only divines, but statesmen and warriors, began to study the Oriental languages in order to be able to fathom the mysteries of Jewish theosophy. The *Zohar*, that farrago of absurdity and spiritual devotion, was the weapon with which these Christians defended Jewish literature against hostile ecclesiastic bodies (Abrahams, *Jew. Lit.* p. 106). Thus the Kabbalah linked the old scholasticism with the new and independent inquiries in learning and philosophy after the Renaissance, and although it had evolved a remarkably bizarre conception of the universe, it partly anticipated, in its own way, the scientific study of natural philosophy.[1] Jewish theosophy, then, with its good and evil tendencies, and with its varied results, may thus claim to have playcd no unimportant part in the history of European scholarship and thought.

Main Sources.

The main sources to be noticed are:—

1. The *Sēpher Yĕṣīrah*, or "book of creation," not the old *Hilkoth Y.* ("rules of creation"), which belongs to the Talmudic period (on which see Kohler, *Jew. Ency.* xii. 602 seq.), but a later treatise, a combination of medieval natural philosophy and mysticism. It has been variously ascribed to the patriarch Abraham and to the illustrious rabbi 'Aqiba; its essential elements, however, may be of the 3rd or 4th century A.D., and it is apparently earlier than the 9th (see L. Ginzberg, *op. cit.* 603 sqq.). It has "had a greater influence on the development of the Jewish mind than almost any other book after the completion of the Talmud" (ibid.).

2. The *Bāhīr* ("brilliant," Job. xxxvii. 21), though ascribed to Neḥunyah b. Haqqanah (1st century A.D.), is first quoted by Naḥmanides, and is now attributed to his teacher Ezra or Azriel (1160–1238). It shows the influence of the *Sēpher Yĕṣīrah*, is marked by the teaching of a celestial Trinity, is a rough outline of what the *Zohar* was destined to be, and gave the first opening to a thorough study of metaphysics among the Jews. (See further I. Broydé, *Jew. Ency.* ii. 442 seq.).

3. The *Zohar* ("shining," Dan. xii. 3) is a commentary on the Pentateuch, according to its division into fifty-two hebdomadal lessons. It begins with the exposition of Gen. i. 4 ("let there be light") and includes eleven dissertations: (1) "Additions and Supplements"; (2) "The Mansions and Abodes," describing the structure of paradise and hell; (3) "The Mysteries of the Pentateuch," describing the evolution of the Sephiroth, &c.; (4) "The Hidden Interpretation," deducing esoteric doctrine from the narratives in the Pentateuch; (5) "The Faithful Shepherd," recording discussions between Moses the faithful shepherd, the prophet Elijah and R. Simon b. Yoḥai, the reputed compiler of the *Zohar*; (6) "The Secret of Secrets," a treatise on physiognomy and psychology; (7) "The Aged," *i.e.* the prophet Elijah, discoursing with R. Simon on the doctrine of transmigration as evolved from Exod. xxi. 1–xxiv. 18; (8) "The Book of Secrets," discourses on cosmogony and demonology; (9) "The Great Assembly," discourses of R. Simon to his numerous assembly of disciples on the form of the Deity and on pneumatology; (10) "The Young Man," discourses by young men of superhuman origin on the mysteries of ablutions; and (11) "The Small Assembly," containing the discourses on the Sephiroth which R. Simon delivered to the small congregation of six surviving disciples. The *Zohar* pretends to be a compilation made by Simon b. Yoḥai (the second century A.D.) of doctrines which God communicated to Adam in Paradise, and which have been received uninterruptedly from the mouths of the patriarchs and prophets. It was discovered, so the story went, in a cavern in Galilee where it had been hidden for a thousand years. Amongst the many facts, however, established by modern criticism which prove the *Zohar* to be a compilation of the 13th century, are the following: (1) the *Zohar* itself praises most fulsomely R. Simon, its reputed author, and exalts him above Moses; (2) it mystically explains the Hebrew vowel points, which did not obtain till 570; (3) the compiler borrows two verses from the celebrated hymn called "The Royal Diadem," written by Ibn Gabirol, who was born about 1021; (4) it mentions the capture of Jerusalem by the crusaders and the re-taking of the Holy City by the Saracens; (5) it speaks of the comet which appeared at Rome, 15th July 1264, under the pontificate of Urban IV.; (6) by a slip the *Zohar* assigns a reason why its contents were not revealed before 5060–5066 A.M., *i.e.* 1300–1306 A.D., (7) the doctrine of the Ên Sōph and the Sephiroth was not known before the 13th century; and (8) the very existence of the *Zohar* itself was not known prior to the 13th century. Hence it is now believed that Moses de Leon (d. 1305), who first circulated and sold the *Zohar* as the production of R. Simon, was himself the author or compiler. That eminent scholars both in the synagogue and in the church should have been induced to believe in its antiquity is owing to the fact that the *Zohar* embodies many older opinions and doctrines, and the undoubted antiquity of some of them has served as a lever in the minds of these scholars to raise the late speculations about the Ên Sōph, the Sephiroth, &c., to the same age.

[1] See, *e.g.*, G. Margoliouth, "The Doctrine of Ether in the Kabbalah," *Jew. Quart. Rev.* xx. 828 sqq. On the influence of the Kabbalah on the Reformation, see Stöckl, *Gesch. d. Philosophie des Mittelalters*, ii. 232–251.

LITERATURE.—The study of the whole subject being wrapped up with Gnosticism and Oriental theosophy, the related literature is immense. Among the more important works may be mentioned, Baron von Rosenroth's *Kabbala Denudata* (Sulzbach, 1677–1678; Frankfort, 1684); A. Franck, *La Kabbale* (Paris, 2nd ed., 1889; German by Jellinek, Leipzig, 1844); C. D. Ginsburg, *The Kabbalah, its Doctrines, Development and Literature* (London, 1865); I. Meyer, *Qabbalah* (Philadelphia, 1888); Rubin, *Kabbala und Agada* (Vienna, 1895), *Heidentum und Kabbalah* (1893); Karppe, *Ét. sur les origines du Zohar* (Paris, 1891); A. E. Waite, *Doctrine and Literature of the Kabbalah* (London, 1902); Flügel, *Philosophy, Kabbala, &c.* (Baltimore, 1902); D. Neumark, *Gesch. d. Jüd. Philosophie d. Mittelalters* (Berlin, 1907); also S. A. Binion, in C. D. Warner's *World's Best Literature*, 8425 sqq. See further the very full articles in the *Jewish Ency.* by K. Kohler and L. Ginzberg ("Cabbala"), I. Broydé ("Bahir," "Zohar"), with the references. (C. D. G.; S. A. C.)

KABINDA, a Portuguese possession on the west coast of Africa north of the mouth of the Congo. Westwards it borders the Atlantic, N. and N.E. French Congo, S. and S.E. Belgian Congo. It has a coast-line of 93 m., extends inland, at its greatest breadth, 70 m., and has an area of about 3000 sq. m. In its physical features, flora, fauna and inhabitants, it resembles the coast region of French Congo (*q.v.*). The only considerable river is the Chiloango, which in part forms the boundary between Portuguese and Belgian territory, and in its lower course divides Kabinda into two fairly even portions. The mouth of the river is in 5° 12′ S., 12° 5′ E. The chief town, named Kabinda, is a seaport on the right bank of the small river Bele, in 5° 33′ S., 12° 10′ E.; pop. about 10,000. From the beauty of its situation, and the fertility of the adjacent country, it has been called the paradise of the coast. The harbour is sheltered and commodious, with anchorage in four fathoms. Kabinda was formerly a noted slave mart. Farther north are the ports of Landana and Massabi. Between Kabinda and Landana is Molembo at the head of a small bay of the same name. There is a considerable trade in palm oil, ground nuts and other jungle produce, largely in the hands of British and German firms.

The possession of the enclave of Kabinda by Portugal is a result of the efforts made by that nation during the last quarter of the 19th century to obtain sovereignty over both banks of the lower Congo. Whilst Portugal succeeded in obtaining the southern bank of the river to the limit of navigability from the sea, the northern bank became part of the Congo Free State (see AFRICA, § 5). Portuguese claims to the north of the river were, however, to some extent met by the recognition of her right to Kabinda. The southernmost part of Kabinda is 25 m. (following the coast-line) north of the mouth of the Congo. This district as far north as the Chiloango river (and including the adjacent territory of Belgian Congo) is sometimes spoken of as Kacongo. The name Loango (*q.v.*) was also applied to this region as well as to the coast-lands immediately to the north. Administratively Kabinda forms a division of the Congo district of the province of Angola (*q.v.*). The inhabitants are Bantu negroes who are called Kabindas. They are an intelligent, energetic and enterprising people, daring sailors and active traders.

KABĪR, the most notable of the Vaishnava reformers of religion in northern India, who flourished during the first half of the 15th century. He is counted as one of the twelve disciples of Rāmānand, the great preacher in the north (about A.D. 1400) of the doctrine of *bhakti* addressed to Rāma, which originated with Rāmānuja (12th century) in southern India. He himself also mentions among his spiritual forerunners Jaidēo and Nāmdēo (or Nāmā) the earliest Marāthī poet (both about 1250). Legend relates that Kabīr was the son of a Brāhman widow, by whom he was exposed, and was found on a lotus in Lahar Talāo, a pond near Benares, by a Musalmān weaver named 'Alī (or

Nūrī), who with his wife Nīmā adopted him and brought him up in their craft as a Musalmān. He lived most of his life at Benares, and afterwards removed to Maghar (or Magahar), in the present district of Bastī, where he is said to have died in 1449. There appears to be no reason to doubt that he was originally a Musalmān and a weaver; his own name and that of his son Kamāl are Mahommedan, not Hindu. His adhesion to the doctrine of Rāmānand is not a solitary instance of the religious syncretism which prevailed at this time in northern India. The religion of the earlier Sikh *Gurus*, which was largely based upon his teaching, also aimed at the fusion of Hinduism and Islam; and the example of Malik Muhammad,[1] the author of the Padmāwat, who lived a century later than Kabīr, shows that the relations between the two creeds were in some cases extremely intimate. It is related that at Kabīr's death the Hindūs and Musalmāns each claimed him as an adherent of their faith, and that when his funeral issued forth from his house at Maghar the contention was only assuaged by the appearance of Kabīr himself, who bade them look under the cloth which covered the corpse, and immediately vanished. On raising the cloth they found nothing but a heap of flowers. This was divided between the rival faiths, half being buried by the Musalmāns and the other half burned by the Hindus.[2]

Kabīr's fame as a preacher of *bhakti*, or enthusiastic devotion to a personal God, whom he preferred to call by the Hindu names of Rāma and Hari, is greater than that of any other of the Vaishnava spiritual leaders. His fervent conviction of the truth and power of his doctrine, and the homely and searching expression given to it in his utterances, in the tongue of the people and not in a learned language remote from their understanding, won for him multitudes of adherents; and his sect, the *Kabīrpanthīs*, is still one of the most numerous in northern India, its numbers exceeding a million. Its headquarters are the *Kabīr Chaurā* at Benares, where are preserved the works attributed to Kabīr (called the *Granth*), the greater part of which, however, were written by his immediate disciples and their followers in his name.

Those works which seem to have the best claim to be considered his own compositions are the *Sākhīs*, or stanzas, some 5000 in number, which have a very wide currency even among those who do not formally belong to the sect, and the *Shabdāwalī*, consisting of a thousand "words" (*shabd*), or short doctrinal expositions. Perhaps some of the *Rēkhtas*, or odes (100 in number), and of the *Ramainīs*—brief mystical poems in very obscure language—may also be from his hand. Of these different forms specimens will be found translated in Professor H. H. Wilson's *Sketch of the Religious Sects of the Hindus*, i. 79–90. Besides the followers who call themselves by Kabīr's name, there may be reckoned to him many other religious sects which bear that of some intermediate *guru* or master, but substantially concur with Kabīr in doctrine and practice. Such, for instance, are the *Nānakshāhīs* in the United Provinces, the Central Provinces, and Bombay, and the *Dādū-panthīs*, numerous in Rajpūtānā (Wilson, *loc. cit.* pp. 103 sqq.); the Sikhs, numbering two and a half millions in the Panjāb, are also his spiritual descendants, and their *Granth* or Scripture is largely stocked with texts drawn from his works.

Kabīr taught the life of *bhakti* (faith, or personal love and devotion), the object of which is a *personal* God, and not a philosophical abstraction or an impersonal quality-less, all-pervading spiritual substance (as in the Vēdānta of Śankarāchārya). His utterances do not, like those of Tulsī Dās, dwell upon the incidents of the human life of Rāma, whom he takes as his type of the Supreme; nevertheless, it is the essence of his creed that God became incarnate to bring salvation to His children, mankind, and that the human mind of this incarnation still subsists in the Divine Person. He proclaims the unity of the Godhead, the vanity of idols, the powerlessness of *brāhmans* or *mullās* to guide or help, and the divine origin of the human soul, *divinae particula aurae*. All evil in the world is ascribed to *Māyā*, illusion or falsehood, and truth in thought, word and deed is enjoined as the chief duty of man: "No act of devotion can equal truth; no crime is so heinous as falsehood; in the heart where truth abides there is My abode."[3] The distinctions of creeds are declared to be of no importance in the presence of God: "The city of *Hara*[4] is to the east, that of *'Alī*[5] is to the west; but explore your own heart, for there are both *Rāma* and *Karīm*;"[6] "Behold but One in all things: it is the second that leads you astray. Every man and woman that has ever been born is of the same nature as yourself. *He*, whose is the world, and whose are the children of *'Alī* and *Rāma*, He is my *Guru*, He is my *Pīr*." He proclaims the universal brotherhood of man, and the duty of kindness to all living creatures. Life is the gift of God, and must not be violated; the shedding of blood, whether of man or animals, is a heinous crime. The followers of Kabīr do not observe celibacy, and live quiet unostentatious lives; Wilson (p. 97) compares them to Quakers for their hatred of violence and unobtrusive piety.

The resemblance of many of Kabīr's utterances to those of Christ, and especially to the ideas set forth in St John's gospel, is very striking; still more so is the existence in the ritual of the sect of a sacramental meal, involving the eating of a consecrated wafer and the drinking of water administered by the *Mahant* or spiritual superior, which bears a remarkable likeness to the Eucharist. Yet, though the deities of Hinduism and the prophet of Islam are frequently mentioned in his sayings, the name of Jesus has nowhere been found in them. It is conjectured that the doctrine of Rāmānand, which came from southern India, has been influenced by the Christian settlements in that region, which go back to very early times. It is also possible that Sūfīism, the pietistic (as distinguished from the theosophic) form of which seems to owe much to eastern Christianity, has contributed some echo of the Gospel to Kabīr's teaching. A third (but scarcely probable) hypothesis is that the sect has borrowed both maxims and ritual, long after Kabīr's own time, from the teaching of the Roman Catholic missionaries, who were established at Agra from the reign of Akbar (1556–1605) onwards.

No critical edition of the writings current under the name of Kabīr has yet been published, though collections of his sayings (chiefly the *Sākhīs*) are constantly appearing from Indian presses. The reader is referred, for a summary account of his life and doctrine, to H. H. Wilson's *Sketch of the Religious Sects of the Hindus* (Works, i. 68 sqq.). Dr E. Trumpp's edition of the *Ādi Granth* (Introduction, pp. xcvii. sqq.) may also be consulted. Recent publications dealing with the subject are the Rev. G. H. Westcott's *Kabīr and the Kabīr Panth* (Cawnpore, 1908), and Mr. M. A. Macauliffe's *The Sikh Religion* (Oxford, 1909), vi. 122–316. (C. J. L.).

KABUL, the capital of Afghanistan, standing at an elevation of 6900 ft. above the sea in 34° 32′ N. and 69° 14′ E. Estimated pop. (1901), 140,000. Lying at the foot of the bare and rocky mountains forming the western boundary of the Kabul valley, just below the gorge made by the Kabul River, the city extends a mile and a half east to west and one mile north to south. Hemmed in by the mountains, there is no way of extending it, except in a northerly direction towards the Sherpur cantonment. As the key of northern India, Kabul has been a city of vast importance for countless ages. It commands all the passes which here debouch from the north through the Hindu Kush, and from the west through Kandahar; and through it passed successive invasions of India by Alexander the Great, Mahmud of Ghazni, Jenghiz Khan, Baber, Nadir Shah and Ahmad Shah. Indeed from the time of Baber to that of Nadir Shah (1526–1738) Kabul was part of the empire of Delhi. It is now some 160 m. from the British frontier post of Jamrud near Peshawar.

Kabul was formerly walled; the old wall had seven gates, of which two alone remain, the Lahori and the Sirdar. The city itself is a huddle of narrow and dirty streets, with the Bala Hissar or fort forming the south-east angle, and rising about 150 ft. above the plain. The Amir's palace is situated outside the town about midway between it and the Sherpur cantonment which lies about a mile to the north-east. Formerly the greatest

[1] See article HINDOSTANI LITERATURE.

[2] An exactly similar tale is told of Nānak, the first *Guru* of the Sikhs, who died in 1538.

[3] This and the following passages in quotation marks are from Professor Wilson's translation of 100 *Sākhīs*, pp. 83–90.

[4] Benares; Hara, a name of Śiva.

[5] *I.e.* Mecca.

[6] "The Bountiful," one of the Korānic names of God (Allah).

ornament of the city was the arcaded and roofed bazaar called *Chihâr Châtâ*, ascribed to Ali Mardan Khan, a noble of the 17th century, who has left behind him many monuments of his munificent public spirit both in Kabul and in Hindustan. Its four arms had an aggregate length of about 600 ft., with a breadth of 30. The display of goods was remarkable, and in the evening it was illuminated. This edifice was destroyed by Sir G. Pollock on evacuating Kabul in 1842 as a record of the treachery of the city.

The tomb of the Sultan Baber stands on a slope about a mile to the west of the city in a charming spot. The grave is marked by two erect slabs of white marble. Near him lie several of his wives and children; the garden was formerly enclosed by a marble wall; a clear stream waters the flower-beds. From the hill that rises behind the tomb there is a noble prospect of his beloved city, and of the all-fruitful plain stretching to the north of it.

After the accession of Abdur Rahman in 1880 the city underwent great changes. The Bala Hissar was destroyed and has never since been entirely rebuilt, and a fortified cantonment at Sherpur (one side of which was represented by the historic Bemaru ridge) had taken the place of the old earthworks of the British occupation of 1842 which were constructed on nearly the same site. The city streets were as narrow and evil-smelling, the surrounding gardens as picturesque and attractive, and the wealth of fruit was as great, as they had been fifty years previously. The amir, however, effected many improvements. Kabul is now connected by well-planned and metalled roads with Afghan Turkestan on the west, with the Oxus and Bokhara on the north, and with India on the east. The road to India was first made by British and is now maintained by Afghan engineers. The road southwards to Ghazni and Kandahar was always naturally excellent and has probably needed little engineering, but the general principle of road-making in support of a military advance has always been consistently maintained, and the expeditions of Kabul troops to Kafiristan have been supported by a very well graded and substantially constructed road up the Kunar valley from Jalalabad to Asmar, and onwards to the Bashgol valley of Kafiristan. The city ways have been improved until it has become possible for wheeled vehicles to pass, and the various roads connecting the suburbs and the city are efficiently maintained. A purely local railway has also been introduced, to assist in transporting building material. The buildings erected by Abdur Rahman were pretentious, but unmarked by any originality in design and hardly worthy representation of the beauty and dignity of Mahommedan architecture. They included a new palace and a durbar hall, a bridge across the river and embankment, a pavilion and garden laid out around the site of Baber's tomb overlooking the Chardeh valley; and many other buildings of public utility connected with stud arrangements, the manufacture of small arms and ammunition, and the requirements of what may be termed a wholesale shop under European direction, besides hospitals, dispensaries, bazaars, &c. The new palace is within an entrenchment just outside the city. It is enclosed in a fine garden, well planted with trees, where the harem serai (or ladies' apartments) occupies a considerable space. The public portion of the buildings comprise an ornamental and lofty pavilion with entrances on each side, and a high-domed octagonal room in the centre, beautifully fitted and appointed, where public receptions take place. The durbar hall, which is a separate building, is 60 yards long by 20 broad, with a painted roof supported by two rows of pillars. But the arrangement of terraced gardens and the lightly constructed pavilion which graces the western slopes of the hills overlooking Chardeh are the most attractive of these innovations. Here, on a summer's day, with the scent of roses pervading the heated air, the cool refreshment of the passing breezes and of splashing fountains may be enjoyed by the officials of the Kabul court, whilst they look across the beauty of the thickly planted plains of Chardeh to the rugged outlines of Paghman and the snows of the Hindu Kush. The artistic taste of the landscape gardening is excellent, and the mountain scenery is not unworthy of Kashmir. It is pleasant to record that the graveyard of those officers who fell in the Kabul campaign of 1879–1880, which lies at the northern end of the Bemaru ridge, is not uncared for.

Kabul is believed to be the *Ortospanum* or *Ortospana* of the geographies of Alexander's march, a name conjectured to be a corruption of *Urddhasthâna*, "high place." This is the meaning of the name Bala Hissar. But the actual name is perhaps also found as that of a people in this position (Ptolemy's *Kabolitae*), if not in the name of a city apparently identical with Ortospana, *Carura*, in some copies read *Cabura*. It was invaded by the Arabs as early as the thirty-fifth year of the Hegira, but it was long before the Mahommedans effected any lasting settlement. In the early Mahommedan histories and geographies we find (according to a favourite Arabic love of jingle) *Kâbul* and *Zâbul* constantly associated. Zâbul appears to have been the country about Ghazni. Kabul first became a capital when Baber made himself master of it in 1504, and here he reigned for fifteen years before his invasion of Hindustan. In modern times it became a capital again, under Timur Shah (see AFGHANISTAN), and so has continued both to the end of the Durani dynasty, and under the Barakzais, who now reign. It was occupied by Sir John Keane in 1839, General Pollock in 1842, and again by Sir Frederick, afterwards Lord Roberts, in 1879.

Kabul is also the name of the province including the city so called. It may be considered to embrace the whole of the plains called Koh Daman and Beghram, &c., to the Hindu Kush northward, with the Kohistan or hill country adjoining. Eastward it extends to the border of Jalalabad at Jagdalak; southward it includes the Logar district, and extends to the border of Ghazni; north-westward it includes the Paghman hills, and the valley of the upper Kabul river, and so to the Koh-i-Baba. Roughly it embraces a territory of about 100 m. square, chiefly mountainous. Wheat and barley are the staple products of the arable tracts. Artificial grasses are also much cultivated, and fruits largely, especially in the Koh Daman. A considerable part of the population spends the summer in tents. The villages are not enclosed by fortifications, but contain small private castles or fortalices.

See C. Yate, *Northern Afghanistan* (1888); J. A. Gray, *At the Court of the Amir* (1895); Sir T. H. H. Holdich, *The Indian Borderland* (1901). (T. H. H.*)

KABUL RIVER, a river of Afghanistan, 300 m. in length. The Kabul (ancient *Kophes*), which is the most important (although not the largest) river in Afghanistan, rises at the foot of the Unai pass leading over the Sanglakh range, an offshoot of the Hindu Kush towards Bamian and Afghan Turkestan. Its basin forms the province of Kabul, which includes all northern Afghanistan between the Hindu Kush and the Safed Koh ranges. From its source to the city of Kabul the course of the river is only 45 m., and this part of it is often exhausted in summer for purposes of irrigation. Half a mile east of Kabul it is joined by the Logar, a much larger river, which rises beyond Ghazni among the slopes of the Gul Koh (14,200 ft.), and drains the rich and picturesque valleys of Logar and Wardak. Below the confluence the Kabul becomes a rapid stream with a great volume of water and gradually absorbs the whole drainage of the Hindu Kush. About 40 m. below Kabul the Panjshir river joins it; 15 m. farther the Tagao; 20 m. from the Tagao junction the united streams of Alingar and Alishang (rivers of Kafiristan); and 20 m. below that, at Balabagh, the Surkhab from the Safed Koh. Two or three miles below Jalalabad it is joined by the Kunar, the river of Chitral. Thenceforward it passes by deep gorges through the Mohmand hills, curving northward until it emerges into the Peshawar plain at Michni. Soon afterwards it receives the Swat river from the north and the Bara river from the south, and after a further course of 40 m. falls into the Indus at Attock. From Jalalabad downwards the river is navigable by boats or rafts of inflated skins, and is considerably used for purposes of commerce.

KABYLES, or KABAIL, a confederation of tribes in Algeria, Tunisia, and a few oases of the Sahara, who form a branch of the great Berber race. Their name is the Arabic *gabîlat* (pl.: *gabâil*), and was at first indiscriminately applied by the Arabs to all Berber peoples. The part of Algeria which they inhabit is usually regarded as consisting of two divisions—Great Kabylia and Lesser Kabylia, the former being also known as the Kabylia of the Jurjura (also called Adrar Budfel, "Mountain of Snow"). Physically many Kabyles do not present much contrast to the Arabs of Algeria. Both Kabyle and Arab are white at birth, but rapidly grow brown through exposure to air and sunshine. Both have in general brown eyes and wavy hair

of coarse quality, varying from dark brown to jet black. In stature there is perhaps a little difference in favour of the Kabyle, and he appears also to be of heavier build and more muscular. Both are clearly long-headed. Some, however, of the purer type of Kabyles in Kabylia proper have fair skins, ruddy complexions and blue or grey eyes. In fact there are two distinct types of Kabyles: those which by much admixture have approximated to Arab and negroid types, and those which preserve Libyan features. Active, energetic and enterprising, the Kabyle is to be found far from home—as a soldier in the French army, as a workman in the towns, as a field labourer, or as a pedlar or trader earning the means of purchasing his bit of ground in his native village. The Kabyles are Mahommedans of the Sunnite branch and the Malikite rite, looking to Morocco as the nearer centre of their religion. Some of the Kabyles retain their vernacular speech, while others have more or less completely adopted Arabic. The best known of the Kabyle dialects is the Zouave[1] or Igaouaouen, those speaking it having been settled on the northern side of the Jurjura at least from the time of Ibn Khaldun; it is the principal basis of Hanoteau's *Essai de grammaire kabyle* (Paris, 1858). Unlike their southern brethren, the Kabyles have no alphabet, and their literature is still in the stage of oral transmission, for the most part by professional reciters. Hanoteau's *Poésies populaires de la Kabylie du Jurjura* (Paris, 1867) gives the text and translation of a considerable number of historical pieces, proverbial couplets and quatrains, dancing songs, &c.

Consult General L. L. C. Faidherbe and Dr Paul Topinard, *Instructions sur l'anthropologie de l'Algérie* (Paris, 1874); Melchior Joseph Eugène Daumas, *Le Sahara algérien* (Paris, 1845) and *Mœurs et coutumes de l'Algérie* (1857); De Slane's translation of Ibn Khaldun's *Hist. des Berbères* (Algiers, 1852); Aucapitaine, *Les Kabyles et la colonie de l'Algérie* (Paris, 1864) and *Les Beni M'zab* (1868); L. J. A. C. Hanoteau and A. Letourneux, *La Kabylie et les coutumes kabyles* (Paris, 1893); Charmetant, in *Jahrbücher der Verbreitung des Glaubens* (1874); Masqueray, *Formation des cités . . de l'Algérie* (1886); Dugas, *La Kabylie et le peuple kabyle* (Paris, 1878); Récoux, *La Démographie de l'Algérie* (Paris, 1880); J. Liorel, *Races berbères: les Kabyles* (Paris, 1893); MacIver and Wilkin, *Libyan Notes* (1901).

KACH GANDAVA, or KACHHI (Kach, Kej, Kiz), a low-lying flat region in Baluchistan separating the Bugti hills from those of Kalat. It is driven, like a wedge, into the frontier mountain system and extends for 150 m. from Jacobabad to Sibi, with nearly as great a breadth at its base on the Sind frontier. Area, 5310 sq. m.; pop. (1901), 82,909. The Mula pass, which connects it with the Kalat highlands, was once (when the ancient city of Kandabel was the capital of Gandava) a much trodden trade highway, and is still a practicable route though no longer a popular one. The soil is fertile wherever it can be irrigated by the floods brought down from the surrounding hills; but much of the central portion is sandy waste. It is traversed by the North-Western railway. The climate is unhealthy in summer, when pestilential hot winds are sometimes destructive to life. The annual rainfall averages only 3 in. Kachhi, though subject to the khan of Kalat, is administered under the tribal system. There are no schools, dispensaries or gaols.

See *Baluchistan District Gazetteer*, vol. vi. (Bombay, 1907).

KACHIN HILLS, a mountainous tract in Upper Burma, inhabited by the Kachin or Chingpaw, who are known on the Assam frontier as Singphos. Owing to the great number of tribes, sub-tribes and clans of the Kachins, the part of the Kachin hills which has been taken under administration in the Myitkyina and Bhamo districts was divided into 40 Kachin hill tracts (recently reduced to five). Beyond these tracts there are many Kachins in Katha, Möng Mit and the northern Shan States. The country within the Kachin hill tracts is roughly estimated at 19,177 sq. m., and consists of a series of ranges, for the most part running north and south, and intersected by valleys, all leading towards the Irrawaddy, which drains the country. There were 64,405 Kachins enumerated at the census of 1901. Philological investigations show that it is probable that the progenitors of the Kachins or Chingpaw were the Indo-Chinese race who, before the beginnings of history, but after the Môn-Annam wave had covered Indo-China, forsook their home in western China to pour over the region where Tibet, Assam, Burma and China converge, and that the Chingpaw are the residue left round the headquarters of the Irrawaddy and the Chindwin after those branches, destined to become the Tibetans, the Nagas, the Burmans and the Kuki Chins, had gone westwards and southwards. In the middle of the 19th century the southern limit of the Kachins was 200 m. farther north than it is now. Since then the race has been drifting steadily southward and eastward, a vast aggregate of small independent clans united by no common government, but all obeying a common impulse to move outwards from their original seats along the line of least resistance. Now the Kachins are on both sides of the border of Upper Burma, and are a force to be reckoned with by frontier administrators. According to the Kachin Hill Tribes Regulation of 1895, administrative responsibility is accepted by the British government on the left bank of the Irrawaddy for the country south of the Nmaikha, and on the right bank for the country south of a line drawn from the confluence of the Malikha and Nmaikha through the northern limit of the Laban district and including the jade mines. The tribes north of this line were told that if they abstained from raiding to the south of it they would not be interfered with. South of that line peace was to be enforced and a small tribute exacted, with a minimum of interference in their private affairs. On the British side of the border the chief objects have been the disarmament of the tribes and the construction of frontier and internal roads. A light tribute is exacted.

The Kachins have been the object of many police operations and two regular expeditions: (1) Expedition of 1892–93. Bhamo was occupied by the British on the 28th of December 1885, and almost immediately trouble began. Constant punitive measures were carried on by the military police; but in December 1892 a police column proceeding to establish a post at Sima was heavily attacked, and simultaneously the town of Myitkyina was raided by Kachins. A force of 1200 troops was sent to put down the rising. The enemy received their final blow at Palap, but not before three officers were killed, three wounded, and 102 sepoys and followers killed and wounded. (2) Expedition of 1895–96. The continued misconduct of the Sana Kachins from beyond the administrative border rendered punitive measures necessary. They had remained unpunished since the attack on Myitkyina in December 1892. Two columns were sent up, one of 250 rifles from Myitkyina, the other of 200 rifles from Mogaung, marching in December 1895. The resistance was insignificant, and the operations were completely successful. A strong force of military police is stationed at Myitkyina, with several outposts in the Kachin hills, and the country is never wholly free from crimes of violence committed by the Kachins.

KADUR, a district of Mysore state, in southern India, with an area of 2813 sq. m. Pop. (1901), 362,752, showing an increase of 9% in the decade. The larger portion of the district consists of the Malnad or hill country, which contains some of the wildest mountain scenery in southern India. The western frontier is formed by the chain of the Ghats, of which the highest peaks are the Kudremukh (6215 ft.) and the Meruti Gudda (5451 ft.). The centre is occupied by the horse-shoe range of the Baba Budans, containing the loftiest mountain in Mysore, Mulaingiri (6317 ft.). The Maidan or plain country lying beneath the amphitheatre formed by the Baba Budan hills is a most fertile region, well watered, and with the famous "black cotton soil." The principal rivers are the Tunga and Bhadra, which rise near each other in the Ghats, and unite to form the Tungabhadra, a tributary of the Kistna. The eastern region is watered by the Vedavati. At the point where this river leaves the Baba Budan hills it is embanked to form two extensive tanks which irrigate the lower valley. From all the rivers water is drawn off into irrigation channels by means of anicuts or weirs. The chief natural wealth of Kadur is in its forests, which contain inexhaustible supplies of the finest timber, especially teak, and also furnish shelter for the coffee plantations. Iron is found and smelted at the foot of the hills, and corundum exists in certain localities. Wild beasts and game are numerous, and fish are abundant.

[1] From the enlistment of Kabyles speaking the Zouave dialect the Zouave regiments of the French army came to be so called.

The largest town is Tarikere (pop. 10,164); the headquarters are at Chikmagalur (9515). The staple crop is rice, chiefly grown on the hill slopes, where the natural rainfall is sufficient, or in the river valley, where the fields can be irrigated. Coffee cultivation is said to have been introduced by a Mahommedan saint, Baba Budan, more than two centuries ago; but it first attracted European capital in 1840. The district is served by the Southern Mahratta railway.

KAEMPFER, ENGELBRECHT (1651–1716), German traveller and physician, was born on the 16th of November 1651 at Lemgo in Lippe-Detmold, Westphalia, where his father was a pastor. He studied at Hameln, Lüneburg, Hamburg, Lübeck and Danzig, and after graduating Ph.D. at Cracow, spent four years at Königsberg in Prussia, studying medicine and natural science. In 1681 he visited Upsala in Sweden, where he was offered inducements to settle; but his desire for foreign travel led him to become secretary to the embassy which Charles XI. sent through Russia to Persia in 1683. He reached Persia by way of Moscow, Kazan and Astrakhan, landing at Nizabad in Daghestan after a voyage in the Caspian; from Shemakha in Shirvan he made an expedition to the Baku peninsula, being perhaps the first modern scientist to visit these fields of "eternal fire." In 1684 he arrived in Isfahan, then the Persian capital. When after a stay of more than a year the Swedish embassy prepared to return, Kaempfer joined the fleet of the Dutch East India Company in the Persian Gulf as chief surgeon, and in spite of fever caught at Bander Abbasi he found opportunity to see something of Arabia and of many of the western coast-lands of India. In September 1689 he reached Batavia; spent the following winter in studying Javanese natural history; and in May 1690 set out for Japan as physician to the embassy sent yearly to that country by the Dutch. The ship in which he sailed touched at Siam, whose capital he visited; and in September 1690 he arrived at Nagasaki, the only Japanese port then open to foreigners. Kaempfer stayed two years in Japan, during which he twice visited Tōkyō. His adroitness, insinuating manners and medical skill overcame the habitual jealousy and reticence of the natives, and enabled him to elicit much valuable information. In November 1692 he left Japan for Java and Europe, and in October 1693 he landed at Amsterdam. Receiving the degree of M.D. at Leiden, he settled down in his native city, becoming also physician to the count of Lippe. He died at Lemgo on the 2nd of November 1716.

The only work Kaempfer lived to publish was *Amoenitatum exoticarum politico-physico-medicarum fasciculi* V. (Lemgo, 1712), a selection from his papers giving results of his invaluable observations in Georgia, Persia and Japan. At his death the unpublished manuscripts were purchased by Sir Hans Sloane, and conveyed to England. Among them was a *History of Japan*, translated from the manuscript into English by J. G. Scheuchzer and published at London, in 2 vols., in 1727. The original German has never been published, the extant German version being taken from the English. Besides Japanese history, this book contains a description of the political, social and physical state of the country in the 17th century. For upwards of a hundred years it remained the chief source of information for the general reader, and is still not wholly obsolete. A life of the author is prefixed to the *History*.

KAFFA, a country of N.E. Africa, part of the Abyssinian empire. Kaffa proper (formerly known also as Gomara) has an area of little more than 5000 sq. m., but the name is used in a general sense to include the neighbouring territories of Gimirra, Jimma, Ennarea, &c. In this larger acceptation Kaffa extends roughly from 6° to 9° N. and from 35° to 37½° E. It forms the S.W. part of the great Abyssinian plateau and consists of broken table-land deeply scored by mountain torrents and densely wooded. The general elevation is about 8000 ft., while several peaks are over 10,000 ft. From the western slopes of the plateau descend headstreams of the Sobat. The principal river however is the Omo, the chief feeder of Lake Rudolf. Kaffa proper is believed to be the native home of the coffee plant (whence the name), which grows in profusion on the mountain sides. The principal town was Bonga, 7½° N., 36° 12′ E., a great trading centre, but the Abyssinian headquarters are at Anderacha, about 12 m. S.S.W. of Bonga. Jiren, the capital of Jimma, 60 m. N.E. of Bonga, is a still more important town, its weekly market being attended by some 20,000 persons.

A great variety of races inhabit these countries of southern Ethiopia. The Kaficho (people of Kaffa proper) are said to be of the same stock as the northern Abyssinians and to have been separated from the rest of the country by the Mahommedan invasion of the 16th century. Thus Jimma, immediately north of Kaffa proper, is peopled by Mahommedan Gallas. The Kaficho, though much mixed with Galla blood, retained their Christianity and a knowledge of Geez, the ecclesiastical tongue of Abyssinia. The ordinary language of the Kaficho has no outward resemblance to modern Abyssinian. Their speech was, however, stated by Dr C. T. Beke (*c.* 1850) to be cognate with the Gonga tongue, spoken in a portion of Damot, on the northern side of the Abai. Kaffa, after having been ruled by independent sovereigns, who were also suzerains of the neighbouring states, was about 1895 conquered by the Abyssinians. The first European explorer of Kaffa was Antoine de'Abbadie, who visited it in 1843. Not until the early years of the 20th century was the country accurately mapped.

KAFFIR BREAD, in botany, the popular name for a species of *Encephalartos* (*E. caffra*), one of the cycads, a native of South Africa, so called from the farinaceous food-stuff which is found at the apex of the stem (Gr. ἐν, in, κεφαλή, head, and ἄρτος, bread). It is a tree reaching nearly 20 ft. in height, with very stiff, spreading pinnate leaves 3 to 4 ft. long and recurving at the tip. The species of *Encephalartos*, which are natives of tropical and South Africa, form handsome greenhouse and conservatory plants; some species are effectively used in subtropical gardening in the summer months.

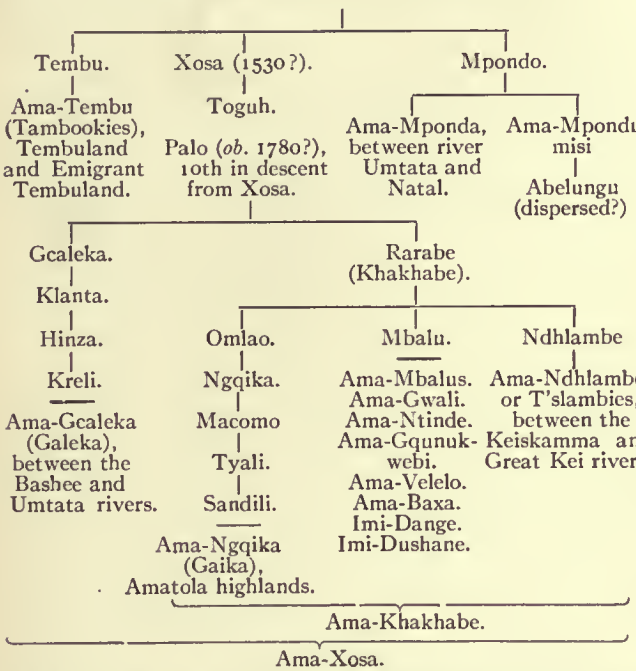
KAFFIRS (Arabic *Kafir*, an unbeliever), a name given by the Arabs to the native races of the east coast of Africa. The term was current along the east coast at the arrival of the Portuguese, and passed from them to the Dutch and English, and to the natives themselves under the form of *Kafula*. There are no general or collective national names for these peoples, and the various tribal divisions are mostly designated by historical or legendary chiefs, founders of dynasties or hereditary chieftaincies. The term has no real ethnological value, for the Kaffirs have no national unity. To-day it is used to describe that large family of Bantu negroes inhabiting the greater part of the Cape, the whole of Natal and Zululand, and the Portuguese dominions on the east coast south of the Zambezi. The name is also loosely applied to any negro inhabitant of South Africa. For example, the Bechuana of the Transvaal and Orange Free State are usually called Kaffirs.

The Kaffirs are divisible into two great branches: the Ama-Zulu with the Ama-Swazi and Ama-Tonga and the Kaffirs proper, represented by the Ama-Xosa, the Tembu (*q.v.*) and the Pondo (*q.v.*). Hence the compound term Zulu-Kaffir applied in a collective sense to all the Kaffir peoples. Intermediate between these two branches were several broken tribes now collectively known as Ama-Fengu, *i.e.* "wanderers" or "needy" people, from *fenguza*, to seek service[1] (see FINGO).

The ramifications of the Kaffirs proper cannot be understood without reference to the national genealogies, most of the tribal names, as already stated, being those of real or reputed founders of dynasties. Thus the term Ama-Xosa means simply the "people of Xosa," a somewhat mythical chief supposed to have flourished about the year 1530. Ninth in descent from his son Toguh was Palo, who died about 1780, leaving two sons, Gcaleka and Rarabe (pronounced Kha-Kha-bē), from whom came the Ama-Gcaleka, Ama-Dhlambe (T'slambies) and the Ama-Ngquika (Gaika or Sandili's people). The Pondo do not descend from Xosa, but probably from an elder brother, while the Tembu, though apparently representing a younger branch, are regarded by all the Kaffir tribes as the royal race. Hence the Gcaleka chief, who is the head of all

[1] The Ama-Fengu are regarded both by the Zulu and Ama-Xosa as slaves or out-castes, without any right to the privileges of true-born Kaffirs. Any tribes which become broken and mixed would probably be regarded as Ama-Fengu by the other Kaffirs. Hence the multiplicity of clans, such as the Ama-Bele, Aba-Sembotweni Ama-Zizi. Ama-Kuze, Aba-Sekunene, Ama-Ntokaze, Ama-Tetyeni Aba-Shwawa, &c., all of whom are collectively grouped as Ama-Fengu.

the Ama-Xosa tribes, always takes his first or "great wife" from the Tembu royal family, and her issue alone have any claim to the succession. The subjoined genealogical tree will place Kaffir relations in a clearer light:—



It will be seen that, as representing the elder branch, the Gcaleka stand apart from the rest of Xosa's descendants, whom they group collectively as Ama-Rarabe (Ama-Khakhabe), and whose genealogies, except in the case of the Gaikas and T'slambies, are very confused. The Ama-Xosa country lies mainly between the Keiskama and Umtata rivers.

The Zulu call themselves Abantu ba-Kwa-Zulu, *i.e.* "people of Zulu's land," or briefly Bakwa-Zulu, from a legendary chief Zulu, founder of the royal dynasty. They were originally an obscure tribe occupying the basin of the Umfolosi river, but rose suddenly to power under Chaka,[1] who had been brought up among the neighbouring and powerful Umtetwas, and who succeeded the chiefs of that tribe and of his own in the beginning of the 19th century. But the true mother tribe seems to have been the extinct Ama-Ntombela, whence the Ama-Tefulu, the U'ndwande, U'mlelas, U'mtetwas and many others, all absorbed or claiming to be true Zulus. But they are only so by political subjection, and the gradual adoption of the Zulu dress, usages and speech. Hence in most cases the term Zulu implies political rather than blood relationship. This remark applies also to the followers of Mosilikatze (properly Umsilikazi), who, after a fierce struggle with the Bechuana, founded about 1820 a second Zulu state about the head waters of the Orange river. In 1837 most of them were driven northwards by the Boers and are now known as Matabele.

The origin of the Zulu-Kaffir race has given rise to much controversy. It is obvious that they are not the aborigines of their present domain, whence in comparatively recent times—since the beginning of the 16th century—they have displaced the Hottentots and Bushmen of fundamentally distinct stock. They themselves are conscious of their foreign origin. Yet they are closely allied in speech (see BANTU LANGUAGES) and physique to the surrounding Basuto, Bechuana and other members of the great South African Negroid family. Hence their appearance in the south-east corner of the continent is sufficiently explained by the gradual onward movement of the populations pressing southward on the Hottentot and Bushman domain. The specific differences in speech and appearance by which they are distinguished from the other branches of the family must in the same way be explained by the altered conditions of their new habitat. Hence it is that the farther they have penetrated southwards the farther have they become differentiated from the pure Negro type. Thus the light and clear brown complexion prevalent amongst the southern Tembu becomes gradually darker as we proceed northwards, passing at last to the blue-black and sepia of the Ama-Swazi and Tekeza. Even many of the mixed Fingo tribes are of a polished ebony colour, like that of the Jolofs and other Senegambian negroes. The Kaffir hair is uniformly of a woolly texture. The head is dolichocephalic, but it is also high or long vertically,[2] and it is in this feature of hypsistenocephaly (height and length combined) that the Kaffir presents the most striking contrast with the pure Negro. But, the nose being generally rather broad[3] and the lips thick, the Kaffir face, though somewhat oval, is never regular in the European sense, the deviations being normally in the direction of the Negro, with which race the peculiar odour of the skin again connects the Kaffirs. In stature they rank next to the Patagonians, Polynesians and West Africans, averaging from 5 ft. 9 in. to 5 ft. 11 in., and even 6 ft.[4] They are slim, well-proportioned and muscular. Owing to the hard life they lead, the women are generally inferior in appearance to the men, except amongst the Zulu, and especially the Tembu. Hence in the matrimonial market, while the Ama-Xosa girl realizes no more than ten or twelve head of cattle, the Tembu belle fetches as many as forty, and if especially fine even eighty.

The more warlike tribes were usually arrayed in leopard or ox skins, of late years generally replaced by European blankets, with feather head-dresses, coral and metal ornaments, bead armlets and necklaces. The Makua and a few others practise tattooing, and the Ama-Xosa are fond of painting or smearing their bodies with red ochre. Their arms consist chiefly of ox-hide shields 4 to 6 ft. long, the kerrie or club, and the assegai, of which there are two kinds, one long, with 9-in. narrow blade, for throwing, the other short, with broad blade 12 to 18 in. long, for stabbing. The dwellings are simple conical huts grouped in kraals or villages. Although cattle form their chief wealth, and hunting and stock-breeding their main pursuits, many have turned to husbandry. The Zulu raise regular crops of "mealies" (maize), and the Pondo cultivate a species of millet, tobacco, water melons, yams and other vegetables. Milk (never taken fresh), millet and maize form the staples of food, and meat is seldom eaten except in time of war.

A young Kaffir attains man's estate socially, not at puberty, but upon his marriage. Polygyny is the rule and each wife is regarded as adding dignity to the household. Marriage is by purchase, the price being paid in cattle. Upon the husband's death family life is continued under the headship of the eldest son of the house, the widows by virtue of levirate becoming the property of the uncle or nearest males, not sons. A son inherits and honourably liquidates, if he can, his father's debts.

Mentally the Kaffirs are superior to the Negro. In their social and political relations they display great tact and intelligence; they are remarkably brave, warlike and hospitable, and were honest and truthful until through contact with the whites they became suspicious, revengeful and thievish, besides acquiring most European vices. Of religion as ordinarily understood they have very little, and have certainly never developed any mythologies or dogmatic systems. It is more than doubtful whether they had originally formed any notion of a Supreme Being. Some conception, however, of a future state is implied by a strongly developed worship of ancestry, and by a belief in spirits and ghosts to whom sacrifices are made. There are no idols or priests, but belief in witchcraft formerly gave the "witch-doctor" or medicine-man overwhelming power.[5] Circumcision and polygyny are universal; the former is sometimes attributed to Mahommedan influences, but has really prevailed almost everywhere in East Africa from the remotest time.

Dearer than anything else to the Kaffir are his cattle; and many ceremonial observances in connexion with them were once the rule. Formerly ox-racing was a common sport, the oxen running, riderless, over a ten-mile course. The owner of a champion racing ox was a popular hero, and these racers were valued at hundreds of head of cattle. Cattle are the currency of the Kaffirs in their wild state. Ten to twenty head are the price of a wife. When a girl marries,

[1] Seventh in descent from Zulu, through Kumede, Makeba, Punga, Ndaba, Yama and Tezengakona or Senzangakona (Bleek, *Zulu Legends*).

[2] P. Topinard, *Anthropology* (1878), p. 274.

[3] This feature varies considerably, "in the T'slambie tribes being broader and more of the Negro shape than in the Gaika or Gcaleka, while among the Ama-Tembu and Ama-Mpondo it assumes more of the European character. In many of them the perfect Grecian and Roman noses are discernible" (Fleming's *Kaffraria*, p. 92).

[4] Gustav Fritsch gives the mean of the Ama-Xosa as 1·718 metres, less than that of the Guinea Negro (1·724), but more than the English (1·708) and Scotch (1·710).

[5] Since the early years of the 19th century Protestant and Roman Catholic missions have gained hundreds of thousands of converts among the Kaffirs. Purely native Christian churches have also been organized.

her father (if well off) presents her with a cow from his herd. This animal is called *ubulungu* or "doer of good" and is regarded as sacred. It must never be killed nor may its descendants, as long as *it* lives. A hair of its tail is tied round the neck of each child immediately after birth. In large kraals there is the "dancing-ox," usually of red colour. Its horns are trained to peculiar shapes by early mutilations. It figures in many ceremonies when it is paid a kind of knee-worship.

The Kaffirs have three, not four, seasons: "Green Heads," "Kindness" and "Cutting"; the first and last referring to the crops, the second to the "warm weather." Women and children only eat after the men are satisfied. A light beer made from sorghum is the national drink.

Of the few industries the chief are copper and iron smelting, practised by the Tembu, Zulu and Swazi, who manufacture weapons, spoons and agricultural implements both for their own use and for trade. The Swazi display some taste in wood-carving, and others prepare a peculiar water-tight vessel of grass. Characteristic of this race is their neglect of the art of navigation. Not the smallest boats are ever made for crossing the rivers, much less for venturing on the sea, except by the Makazana of Delagoa Bay and by the Zambezi people, who have canoes and flat-bottomed boats made of planks.

The Kaffir race had a distinct and apparently very old political system, which may be described as a patriarchal monarchy limited by a powerful aristocracy. Under British rule the tribal independence of the Kaffirs has disappeared. Varying degrees of autonomy have been granted, but the supreme powers of the chiefs have gone, the Swazi being in 1904 the last to be brought to order. In the Transkeian Territories tribal organization exists, but it is modified by special legislation and the natives are under the control of special magistrates. To a considerable extent in Natal and throughout Zululand the Kaffirs are placed in reserves, where tribal organization is kept up under European supervision. In Basutoland the tribal organization is very strong, and the power of chiefs is upheld by the imperial government, which exercises general supervision.

See Gustav Fritsch, *Die Eingeborenen Südafrikas*, with atlas, 30 plates and 120 typical heads (Breslau, 1872); W. H. I. Bleek, *Comparative Grammar of the South African Languages* (London and Cape Town, pt. i., 1862; pt. ii., 1869); Theo. Hahn, *Grundzüge einer Grammatik des Herero* (Berlin, 1857); Dr Colenso, *Grammar of the Zulu-Kafir Language* (1855); Girard de Rialle, *Les Peuples de l'Afrique et de l'Amérique* (Paris, 1880); G. W. Stow, *The Native Races of South Africa* (London, 1905); G. McC. Theal, *History and Ethnography of South Africa, 1505 to 1795* (3 vols., London, 1907–1910) and *History of South Africa since 1795* (5 vols., London, 1908), specially valuable for the political history of the Kaffirs; Caesar C. Henkel, *The Native or Transkeian Territories* (Hamburg, 1903); *The Natives of South Africa* (1901), and its sequel, *The South African Natives* (1908); Dudley Kidd, *The Essential Kafir* (1904) and *Kafir Socialism*. The last four books deal with the many social and economic questions raised by the contact of the Kaffir races with Europeans.

KAFFRARIA, the descriptive name given to the S.E. part of the Cape province, South Africa. Kaffraria, *i.e.* the land of the Kaffirs (*q.v.*), is no longer an official designation. It used to comprise the districts now known as King William's Town and East London, which formed British Kaffraria, annexed to Cape Colony in 1865, and the territory beyond the Kei River south of the Drakensberg Mountains as far as the Natal frontier, known as Kaffraria proper. As a geographical term it is still used to indicate the Transkeian territories of the Cape provinces comprising the four administrative divisions of Transkei, Pondoland, Tembuland and Griqualand East, incorporated into Cape Colony at various periods between 1879 and 1894. They have a total area of 18,310 sq. m., and a population (1904) of 834,644, of whom 16,777 were whites. Excluding Pondoland—not counted previously to 1904—the population had increased from 487,364 in 1891 to 631,887 in 1904.

Physical Features.—The physical characteristics of Kaffraria bear a general resemblance to those of the Cape province proper. The country rises from sea-level in a series of terraces to the rugged range of the Drakensberg. Between that range and the coast-lands are many subsidiary ranges with fertile valleys through which a large number of rivers make their way to the Indian Ocean. These rivers have very rapid falls in comparison to their length and when less than 40 m. from the coast are still 2000 ft. above sea-level. The chief, beginning at the south, are the Kei, the Bashee, the Umtata, the St John's or Umzimvubu, and the Umtamvuna, which separates Kaffraria from Natal. The St John's River rises in the Drakensberg near the Basuto-Natal frontier. The river valley has a length of 140 m., the river with its many twists being double that length. It receives numerous tributaries, one, the Tsitza, possessing a magnificent waterfall, the river leaping over an almost vertical precipice of 375 ft. The St John's reaches the sea between precipitous cliffs some 1200 ft. high and covered with verdure. The mouth is obstructed by a sand bar over which there is 14 ft. of water. None of the rivers of Kaffraria except the St John's is navigable.

Kaffraria is one of the most fertile regions in South Africa. The mountain gorges abound in fine trees, thick forest and bush cover the river banks, grass grows luxuriantly in the lower regions, and the lowlands and valleys are favourable to almost any kind of fruit, field and garden cultivation. The coast districts are very hot in summer, the temperature from October to April on an average varying from 70° to 90° F., while in winter the day temperature is seldom below 50°, though the nights are very cold. But the variation in altitude places climates of all grades within easy reach, from the burning coast to the often snow-clad mountain. Thunderstorms are frequent in summer; the winters are generally dry. On the whole the climate is extremely healthy. At St John's are sulphur springs.

A considerable area is devoted to the raising of wheat and other cereals, especially in the northern district (Griqualand East), where in the higher valleys are many farms owned by Europeans. Large quantities of stock are raised. Most of the land is held by the natives under tribal tenure, and the ease with which their wants are supplied is detrimental to the full cultivation of the land. Kaffraria is, however, one of the chief recruiting grounds for labour throughout South Africa. Most of the white inhabitants are engaged in trade.

Towns and Communication.—The chief town is Kokstad (*q.v.*), pop. (1904), 2903, the capital of Griqualand East. Umtata (2100 ft. above the sea, pop. 2342) on the river of the same name, capital of Tembuland, is the residence of an assistant chief magistrate, headquarters of a division of the Cape Mounted Rifles, and seat of the Anglican bishopric of Kaffraria. The principal buildings are the cathedral, a Gothic structure, built 1901–1906, and the town-hall, a fine building in Renaissance style, erected 1907–1908. Port St John is the chief town in Pondoland, and the only harbour of the country. Butterworth is the chief town in Transkei. Cala (pop. about 1000), in the N.W. part of Tembuland, is the educational centre of Kaffraria. A railway, 107 m. long, the first link in the direct Cape-Natal line, runs from Indwe, 65 m. from Sterkstroom Junction on the main line from East London to the Transvaal, to Maclear, an agricultural centre in Griqualand East. Another railway parallel but south of that described also traverses Kaffraria. Starting from Amabele, a station on the main line from East London to the north, it goes via Butterworth (132 m. from East London) to Umtata (234 m.).

Administration and Justice.—The Cape administrative and judicial system is in force, save as modified by special enactments of the Cape parliament. A "Native Territories Penal Code" which came into operation on the 1st of January 1887 governs the relations of the natives, who are under the jurisdiction of a chief magistrate (resident at Cape Town) with subordinate magistrates in the Territories. In civil affairs the tribal organization and native laws are maintained. No chief, however, exercises criminal jurisdiction. Since 1898 certain provisions of the Glen Grey Act have been applied to Kaffraria (see GLEN GREY). The revenue is included in the ordinary budget of the Cape province. The expenditure on Kaffraria considerably exceeds the revenue derived from it. The franchise laws are the same as in the Cape proper. Though the Kaffirs outnumber the whites by fifty to one, white men form the bulk of the electorate, which in 1904 numbered 4778.

Religion.—Numbers of Protestant missionary societies have churches and educational establishments in Kaffraria, but, except in Fingoland, the bulk of the Kaffirs are heathen. The Griquas profess Christianity and have their own churches and ministers. The Anglican diocese of St John's, Kaffraria, was founded in 1873.

Annexation to the Cape.—The story of the conflicts between the Kaffir tribes and the Cape colonists is told under CAPE COLONY. As early as 1819 Kaffirland, or Kaffraria, was held not to extend west beyond the Keiskamma River. The region east of that river as far as the Kei River became in 1847 the Crown colony of British Kaffraria, and was annexed to Cape Colony in 1865. The Transkeian territories remained in nominal independence until 1875, when the Tembu sought British protection. An inter-tribal war in 1877 between Fingo and Gcaleka resulted in the territory of the Gcaleka chief Kreli being occupied by the British. It was not, however, till 1879 that Fingoland and the Idutywa Reserve, together with the district then commonly called Noman's-land, were proclaimed an integral part of the Cape. About this time most of the rest of Kaffraria came under British control, but it was 1885 before Gcalekaland, the coast region of Transkei, and the various districts comprising Tembuland—Bomvanaland on the coast, Tembuland Proper and Emigrant Tembuland—were annexed to the colony. By the annexation, the frontier of the colony was

carried to the Umtata River, so that by 1885 only Pondoland, fronting on the Indian Ocean, separated the Cape from Natal. In Pondoland, Port St John, proclaimed British territory in 1881, was, along with the lower reaches of the St John's River, incorporated with Cape Colony in 1884; in 1886 the Xesibe country (Mount Ayliff) was annexed to the Cape and added to Griqualand East; and in the following year Rhode Valley was included within the boundary line. The rest of Pondoland, chiefly in virtue of a British protectorate established over all the coast region in 1885, was already more or less under British control, and in 1894 it was annexed to the Cape in its entirety. Thus the whole of Kaffraria was incorporated in Cape Colony, with the exception of some 1550 sq. m., then part of Noman's-land, annexed by Natal in 1866 and named Alfred county. To the wise administration of Major Sir Henry G. Elliot, who served in Kaffraria in various official capacities from 1877 to 1903, the country owes much of its prosperity.

Particulars concerning each of the four divisions of Kaffraria follow.

Griqualand East (area, 7594 sq. m.), so called to distinguish it from Griqualand West, a district north of the Orange River, lies between Basutoland (N.W.), Natal (N.E.), Tembuland (S.W.) and Pondoland (S.E.). It occupies the southern slopes of the Drakensberg or the fertile valleys at their feet. It includes most of the region formerly called Noman's-land, and afterwards named Adam Kok's Land from the Griqua chief who occupied it in 1862 with the consent of the British authorities, and governed the country till his death in 1876, establishing a *volksraad* on the Dutch model. The Griquas are still ruled by an officially appointed headman. The majority of the inhabitants are Basutos and Kaffirs (Pondomisi, Ama-Baka and other tribes). The Griquas number about 6000. Since its annexation to Cape Colony Griqualand East has made fairly rapid progress. The population rose from 121,000 in 1881 to 222,685 in 1904, of whom 5901 were whites. Stock-breeding on the uplands, tillage on the lower slopes of the Drakensberg, are the chief industries. On these slopes and uplands the climate is delightful and well suited to Europeans. There is considerable trade with Basutoland in grain and stock, and through Kokstad with Port St John and Port Shepstone, Natal. Much of the best agricultural land is owned by Europeans.

Tembuland (area, 4122 sq. m.), which lies S.W. of Griqualand East and comprises the districts of Tembuland Proper, Emigrant Tembuland and Bomvanaland, takes its name from the Tembu nation, called sometimes Tambookies, one of the most powerful of the Kaffir groups. In the national genealogies the Tembu hold an honourable position, being traditionally descended from Tembu, elder brother of Xosa, from whom most of the other Kaffirs claim descent. The inhabitants increased from about 160,000 in 1881 to 231,472 in 1904, of whom 8056 were whites. The chief town is Umtata.

Transkei (area, 2552 sq. m.) comprises the districts of Fingoland, the Idutywa Reserve and Gcalekaland, this last being named from the Gcaleka nation, who claim to be the senior branch of the Xosa family, the principal royal line of the Kaffir tribes. They still form the chief element of the population, which rose from 136,000 in 1881 to 177,730 in 1904 (1707 whites). Here are some prosperous missionary stations, where the natives are taught agriculture, mechanical industries and a knowledge of letters. The heroic deeds of Hinza, Kreli and other chiefs famous in the wars are still remembered; but witchcraft, rain-making and other pagan practices seem to have died out. Even more advanced in all social respects are the Fingo, who give their name to the district of Fingoland, and also form the bulk of the population in the Idutywa Reserve. They wear European clothes, support their schools by voluntary contributions, edit newspapers, translate English poetry, set their national songs to correct music, and the majority profess Christianity. The industrial institution of Blythswood, about 20 m. N.W. of Butterworth, is a branch of Lovedale (*q.v.*), and is largely supported by the Fingo.

Pondoland (area, 4040 sq. m.; pop. (1904), 202,757 (including 1113 whites), an estimated increase of 36,000 since 1891) is bounded E. by the sea, N. by Natal, W. by Griqualand East, by S. and Tembuland. In Pondoland the primitive organization of the natives has been little altered and the influence of the chiefs is very great. Land is held almost wholly in tribal tenure, though a number of whites possess farms acquired before the annexation of the country. The Pondo have shown some appreciation of the benefits of education.

See G. McCall Theal's *History of South Africa* and other works cited under CAPE COLONY; also *The Native or Transkeian Territories*, by C. C. Henkel (Hamburg, 1903), a useful handbook by an ex-official in the Transkeian Territories.

KAFIRISTAN, a province of Afghanistan. Very little of this country was known with accuracy and nothing at first hand until General Sir W. (then Colonel) Lockhart headed a mission to examine the passes of the Hindu Kush range in 1885–1886. He penetrated into the upper part of the Bashgal valley, but after a few days he found himself compelled to return to Chitral. Previously Major Tanner, R.A., had sought to enter Kafiristan from Jalalabad, but sudden severe illness cut short his enterprise. M'Nair, the famous explorer of the Indian Survey department, believed that he had actually visited this little-known land during an adventurous journey which he made from India and through Chitral in disguise; but the internal evidence of his reports shows that he mistook the Kalash district of Chitral, with its debased and idolatrous population, for the true Kafiristan of his hopes. In 1889 Mr G. S. Robertson (afterwards Sir George Robertson, K.C.S.I.) was sent on a mission to Kafiristan. He only remained a few days, but a year later he revisited the country, staying amongst the Kafirs for nearly a year. Although his movements were hampered, his presence in the country being regarded with suspicion, he was able to study the people, and, in spite of intertribal jealousy, to meet members of many of the tribes. The facts observed and the information collected by him during his sojourn in eastern Kafiristan, and during short expeditions to the inner valleys, are the most trustworthy foundations of our knowledge of this interesting country.

Kafiristan, which literally means "the land of the infidel," is the name given to a tract of country enclosed between Chitral and Afghan territory. It was formerly peopled by pagan mountaineers, who maintained a wild independence until 1895, when they were finally subdued by Abdur Rahman, the amir of Kabul, who also compelled them to accept the religion of Islam. The territory thus ill named is included between 34° 30′ and 36° N., and from about 70° to 71° 30′ E. As the western and northern boundaries are imperfectly known, its size cannot be estimated with any certainty. Its greatest extent is from east to west at 35° 10′ N.; its greatest breadth is probably about 71° E. The total area approximates to 5000 sq. m. Along the N. the boundary is the province of Badakshan, on the N.E. the Lutkho valley of Chitral. Chitral and lower Chitral enclose it to the E., and the Kunar valley on the S.E. Afghanistan proper supplies the S. limit. The ranges above the Nijrao and Pansher valleys of Afghanistan wall it in upon the W. The northern frontier is split by the narrow Minjan valley of Badakshan, which seems to rise in the very heart of Kafiristan.

Speaking generally, the country consists of an irregular series of main valleys, for the most part deep, narrow and tortuous, into which a varying number of still deeper, narrower and more twisted valleys, ravines and glens pour their torrent water. The mountain ranges of Metamorphic rock, which separate the main drainage valleys, are all of considerable altitude, rugged and difficult, with the outline of a choppy sea petrified. During the winter months, when the snow lies deep, Kafiristan becomes a number of isolated communities, with few if any means of intercommunication. In the whole land there is probably nothing in the shape of a plain. Much of the silent, gigantic country warms the heart as well as captivates the eye with its grandeur and varied beauty; much of it is the bare skeleton of the world wasted by countless centuries of storms and frost, and profoundly melancholy in its sempiternal ruin. Every variety of mountain scenery can be found: silent peaks and hard, naked ridges, snowfields and glaciers; mighty pine forests, wooded slopes and grazing grounds; or wild vine and pomegranate thickets bordering sparkling streams. At low elevations the hill-sides are covered with the wild olive and evergreen oaks. Many kinds of fruit trees—walnuts, mulberries, apricots and apples—grow near the villages or by the wayside, as well as splendid horse-chestnuts and other shade trees. Higher in elevation, and from 4000 to 8000 ft., are the dense pine and cedar forests. Above this altitude the slopes become dreary, the juniper, cedar and wild rhubarb gradually giving place to scanty willow patches, tamarisk and stunted birches. Over 13,000 ft. there are merely mosses and rough grass. Familiar wildflowers blossom at different heights. The rivers teem with fish. Immense numbers of red-legged partridges live in the lower valleys, as well as pigeons and doves. Gorgeously plumaged pheasants are plentiful. Of wild animals the chief are the *markhor* (a goat) and the *oorial* (a sheep). In the winter the former are recklessly slaughtered by hunters, being either brought to bay by trained hounds, or trapped in pits, or caught floundering in the snow-drifts; but in the summer immense herds move on the higher slopes. The *ibex* is very rare. Bears and leopards are fairly common, as well as the smaller hill creatures.

All the northern passes leading into Badakshan or into the Minjan valley of Badakshan seem to be over 15,000 ft. in altitude. Of these the chief are the Mandal, the Kamah (these two alone have been explored by a European traveller), the Kti, the Kulam and the Ramgal passes. Those to the east, the Chitral passes, are somewhat lower, ranging from 12,000 to 14,000 ft., *e.g.* the Zidig, the Shui, the Shawal and the Parpit, while the Patkun, which crosses one of the dwindled spurs near the Kunar river, is only 8400 ft. high. Between neighbouring valleys the very numerous communicating footways must rarely be lower than 10,000, while they sometimes exceed 14,000 ft. The western passes are unknown. All these toilsome paths are so faintly indicated, even when free from snow, that to adventure them without a local guide is usually unsafe. Yet the light-framed cattle of these jagged mountains can be forced over many of the worst passes. Ordinarily the herding tracks, near the crest of the ridges and high above the white torrents, are scarcely discoverable to untutored eyes. They wind and waver, rise, drop and twist about the irregular semi-precipitous slopes with baffling eccentricity and abruptness. Nevertheless the cattle nose their way along blunderingly, but without hurt. Of no less importance in the open months, and the sole trade routes during winter, are the lower paths by the river. An unguided traveller is continually at fault upon these main lines of intercourse and traffic. ***Passes and Roads.***

All the rivers find their tumultuous way into the Kabul, either directly, as the Alingar at Laghman, or after commingling with the Kunar at Arundu and at Chigar-Serai. The Bashgal, draining the eastern portion of the country, empties itself into the Kunar at Arundu. It draws its highest waters from three main sources at the head of the Bashgal valley. It glides gently through a lake close to this origin, and then through a smaller tarn. The first affluent of importance is the Skorigal, which joins it above the village of Pshui. Next comes the noisier Manangal water, from the Shawal pass, which enters the main stream at Lutdeh or Bragamatal, the chief settlement of the Bashgal branch of the Katir tribe. By-and-by the main stream becomes, at the hamlet of Sunra, a raging, shrieking torrent in a dark narrow valley, its run obstructed by giant boulders and great tree-trunks. Racing past Bagalgrom, the chief village of the Madugal Kafirs, the river clamours round the great spur which, 1800 ft. higher up, gives space for the terraces and houses of Kamdesh, the headquarters of the Kam people. The next important affluent is the river which drains the Pittigal valley, its passes and branches. Also on the left bank, and still lower down, is the joining-place of the Gourdesh valley waters. Finally it ends in the Kunar just above Arundu and Birkot. The middle part of Kafiristan, including the valleys occupied by the Presun, Kti, Ashkun and Wai tribes, is drained by a river variously called the Pech, the Kamah, and the Presun or Viron River. It has been only partially explored. Fed by the fountains and snows of the upper Presun valley, it is joined at the village of Shtevgrom by the torrent from the Kamah pass. Thence it moves quietly past meadowland, formerly set apart as holy ground, watering on its way all the Presun villages. Below the last of them, with an abrupt bend, it hurries into the unexplored and rockbound Tsaru country, where it absorbs on the right hand the Kti and the Ashkun and on the left the Wai rivers, finally losing itself in the Kunar, close to Chigar-Serai. Concerning the Alingar or Kao, which carries the drainage of western Kafiristan into the Kabul at Laghman, there are no trustworthy details. It is formed from the waters of all the valleys inhabited by the Ramgal Kafirs, and by that small branch of the Katirs known as the Kalam tribe. ***Rivers.***

The climate varies with the altitude, but in the summer-time it is hot at all elevations. In the higher valleys the winter is rigorous. Snow falls heavily everywhere over 4000 ft. above the sea-level. During the winter of 1890–1891 at Kamdesh (elevation 6100 ft.) the thermometer never fell below 17° F. In many of the valleys the absence of wind is remarkable. Consequently a great deal of cold can be borne without discomfort. The Kunar valley, which is wet and windy in winter, but where snow, if it falls, melts quickly, gives a much greater sensation of cold than the still Kafiristan valleys of much lower actual temperature. A deficiency of rain necessitates the employment of a somewhat elaborate system of irrigation, which in its turn is dependent upon the snowfall. ***Climate.***

The present inhabitants are probably mainly descended from the broken tribes of eastern Afghanistan, who, refusing to accept Islam (in the 10th century), were driven away by the fervid swordsmen of Mahomet. Descending upon the feeble inhabitants of the trackless slopes and perilous valleys of modern Kafiristan, themselves, most likely, refugees of an earlier date, they subjugated and enslaved them and partially amalgamated with them. These ancient peoples seem to be represented by the Presun tribe, by the slaves and by fragments of lost peoples, now known as the Jazhis and the Aroms. The old division of the tribes into the Siah-Posh, or the black-robed Kafirs, and the Safed-Posh, or the white-robed, was neither scientific nor convenient, for while the Siah-Posh have much in common in dress, language, customs and appearance, the Safed-Posh divisions were not more dissimilar from the Siah-Posh than they were from one another. Perhaps the best division at present possible is into (1) Siah-Posh, (2) Waigulis, and (3) Presungalis or Viron folk. ***The Kafirs.***

The black-robed Kafirs consist of one very large, widely spread tribe, the Katirs, and four much smaller communities, the Kam, the Madugalis, the Kashtan or Kashtoz, and the Gourdesh. Numerically, it is probable that the Katirs are more important than all the remaining tribes put together. They inhabit several valleys, each community being independent of the others, but all acknowledging the same origin and a general relationship. The Katirs fall readily into the following groups: (*a*) Those of the Bashgal valley, also called Kamoz and Lutdehchis, who occupy eleven villages between Badawan and Sunra, the border hamlet of the Madugal country, namely, Ptsigrom, Pshui or Pshowar, Apsai, Shidgal, Bragamatal (Lutdeh), Bajindra, Badamuk, Oulagal, Chabu, Baprok and Purstam; (*b*) the Kti or Katwar Kafirs, who live in two settlements in the Kti valley; (*c*) the Kulam people, who have four villages in the valley of the same name; (*d*) the Ramgalis, or Gabariks, who are the most numerous, and possess the western part on the Afghan border. Of the remaining tribes of the Siah-Posh, the chief is the Kam or Kamtoz, who inhabit the Bashgal valley, from the Madugal boundary to the Kunar valley, and its lateral branches in seven chief settlements, namely, Urmir, Kambrom or Kamdesh, Mergrom, Kamu, Sarat, Pittigal and Bazgal. The next Siah-Posh tribe in importance is the Muman or Madugal Kafirs, who have three villages in the short tract between the Katirs and the Kam in the Bashgal valley. The last Siah-Posh tribe is the Kashtan or Kashtoz, who in 1891 were all located in one greatly overcrowded village, their outlying settlement having been plundered by the Afghan tribes of the Kunar valley. One colony of Siah-Posh Kafirs lives in the Gourdesh valley; but they differ from all the other tribes, and are believed to be descended, in great part, from the ancient people called the Aroms. ***The Siah-Posh.***

Our exact knowledge of the Waigulis is scanty. They seem to be related in language and origin with a people fierce, shy and isolated, called the Ashkun, who are quite unknown. The Wai speak a tongue altogether different from that spoken by the Siah-Posh and by the Presungalis. The names of their ten chief villages are Runchi, Nishi, Jamma, Amzhi, Chimion, Kegili, Akun or Akum, Mildesh, Bargal and Prainta. Of these Amzhi and Nishi are the best known. ***The Waiguls.***

The Presungalis, also called Viron, live in a high valley. In all respects they differ from other Kafirs, in none more than in their unwarlike disposition. Simple, timid, stolid-featured and rather clumsy, they are remarkable for their industry and powers of endurance. They probably represent some of the earliest immigrants. Six large well-built villages are occupied by them—Shtevgrom, Pontzgrom, Diogrom, Kstigigrom, Satsumgrom and Paskigrom. ***The Presungalis.***

The slaves are fairly numerous. Their origin is probably partly from the very ancient inhabitants and partly from war prisoners. Coarse in feature and dark in tint, they cannot be distinguished from the lowest class of freemen, while their dress is indistinctive. They are of two classes—household slaves, who are treated not unkindly; and artisan slaves, who are the skilled handicraftsmen—carvers, blacksmiths, bootmakers and so forth; many of the musicians are also slaves. They live in a particular portion of a village, and were considered to a certain extent unclean, and might not approach closely to certain sacred spots. All slaves seem to wear the Siah-Posh dress, even when they own as masters the feeble Presungal folk. ***The Slaves.***

Little respect is shown to women, except in particular cases to a few of advanced years. Usually they are mistresses and slaves, saleable chattels and field-workers. Degraded, immoral, overworked and carelessly fed, they are also, as a rule, unpleasant to the sight. Little girls are sometimes quite beautiful, but rough usage and exposure to all weathers soon make their complexions coarse and dark. They are invariably dirty and uncombed. In comparison with the men they are somewhat short. Physically they are capable of enormous labour, and are very enduring. All the field-work falls to them, as well as all kinds of inferior occupations, such as load-carrying. They have no rights as against their husbands or, failing them, their male relations. They cannot inherit or possess property. ***Women.***

There are certainly three tongues spoken, besides many dialects, that used by the Siah-Posh being of course the most common; and although it has many dialects, the employers of one seem to understand all the others. It is a Prakritic language. Of the remaining two, the Wai and the Presun have no similarity; they are also unlike the Siah-Posh. Kafirs themselves maintain that very young children from any valley can acquire the Wai speech, but that only those born in the Presungal can ever converse in that language, even roughly. To European ears it is disconcertingly difficult, and it is perhaps impossible to learn. ***Language.***

Before their conquest by Abdur Rahman all the Kafirs were idolaters of a rather low type. There were lingering traces of ancestor-worship, and perhaps of fire-worship also. The gods were numerous; tribal, family, household deities had to be propitiated, and mischievous spirits and fairies haunted forests, rivers, vales and great stones. Imra was the Creator, and all the other supernatural powers were subordinate to him. Of the inferior gods, Moni seemed to be the most ancient; but Gísh, the war-god, was by far the most popular. It was his worship, doubtless, which kept the Kafirs so long independent. In life as a hero, and after death as a god, he symbolized hatred to the religion of Mahomet. Every village revered his shrine; some possessed two. Imra, Gísh and Moni were honoured with separate little temples, as was usually Dizáni goddess; but three or four of the others would share one between them, each looking out of a small separate square window. The worshipped object was either a large fragment of stone or an image of wood conventionally carved, with round white stones for eyes. Different animals were sacrificed at different shrines: cows to Imra, male goats and bulls to Gísh, sheep to the god of wealth; but goats were generally acceptable, and were also slain ceremonially to discover a complaisant god, to solemnize a vow, to end a quarrel, to ratify brotherhood. The ministers of religion were a hereditary priest, a well-born chanter of praise, and a buffoon of low station, who was supposed to become inspired at each sacrifice, and to have the power of seeing fairies and other spirits whenever they were near, also of understanding their wishes. The blood of the offering, together with flour, wine and butter, was cast on the shrine after the animal and the other gifts had been sanctified with water sprinkled by the officiating priests, while he cried "Súch, súch!" ("Be pure!"). Dense clouds of smoke from burning juniper-cedar, which crackled and gave forth pungent incense, added to the spectacle, which was dignified by the bearing of the officials and solemnized by the devout responses of the congregation. There was no human sacrifice except when a prisoner of war, after a solemn service at a shrine, was taken away and stabbed before the wooden tomb of some unavenged headman. Kafirs believed in a kind of Hell where wicked people burned; but the Hereafter was an underground region entered by a guarded aperture, and inhabited by the shapes which men see in dreams. Suicide was as unknown as fear of dying. Melancholy afflicted only the sick and the bereaved. Religious traditions, miracles and anecdotes were puerile, and pointed no social lesson or any religious law. Music, dancing and songs of praise were acceptable to the gods, and every village (*grom*) had its dancing platform and dancing house (*grom ma*), furnished with a simple altar. No prayers were offered, only invocations, exhortative or remonstrant.

Religion.

The great majority of the tribes were made up of clans. A person's importance was derived chiefly from the wealth of his family and the number of male adults which it contained. The power of a family, as shown by the number and quality of its fighting men as well as by the strength of its followers, was the index of that family's influence. Weak clans and detached families, or poor but free households, carried their independence modestly. The lowest clan above the slaves sought service with their wealthier tribesmen as henchmen and armed shepherds. By intricate ceremonial, associated with complicated duties, social and religious, which extended over two years, punctuated at intervals by prodigious compulsory banquets, rich men could become elders or *jast*. Still further outlay and ostentation enabled the few who could sustain the cost to rank still higher as chief or *Mír*. Theoretically, all the important and outside affairs of the tribe were managed by the *jast* in council; actually they were controlled by two or three of the most respected of that class. Very serious questions which inflamed the minds of the people would be debated in informal parliaments of the whole tribe. Kafirs have a remarkable fondness for discussing in conclave. Orators, consequently, are influential. The internal business of a tribe was managed by an elected magistrate with twelve assistants. It was their duty to see that the customs of the people were respected; that the proper seasons for gathering fruit were rigidly observed. They regulated the irrigation of the fields, moderating the incessant quarrels which originated in the competition for the water; and they kept the channels in good repair. Their chief, helped by contributions in kind from all householders, entertained tribal guests. He also saw that the weekly Kafir Sabbath, from the sowing to the carrying of the crops, was carefully observed, the fires kept burning, and the dancers collected and encouraged. Opposition to these annual magistrates or infraction of tribal laws was punished by fines, which were the perquisites and the payment of those officials. Serious offences against the whole people were judged by the community itself; the sentences ranged as high as expulsion from the settlement, accompanied with the burning of the culprit's house and the spoliation of his goods. In such cases, the family and the clan refusing to intervene, the offender at once became cowed into submission.

Tribal Organization.

Habitations are generally strong, and built largely of wood. They are frequently two or more storeys high, often with an open gallery at the top. Wealthy owners were fond of elaborate carving in simple designs and devices. A room is square; with a smoke-hole when possible; small windows, with shutters and bolts, and heavy doors fastened by a sliding wooden pin, are common. The nature of the ground, its defensible character, the necessity of not encroaching upon the scanty arable land, and such considerations, determine the design of the villages. Specimens of many varieties may be discovered. There is the shockingly overcrowded oblong kind, fort-shaped, three storeys high, and on a river's bank, which is pierced by an underground way leading to the water. Here all rooms look on to the large central courtyard; outwards are few or no windows. There is also the tiny hamlet of a few piled-up hovels perched on the flattish top of some huge rock, inaccessible when the ladder connecting it with the neighbouring hill-side or leading to the ground is withdrawn. Some villages on mounds are defended at the base by a circular wall strengthened with an entanglement of branches. Others cling to the knife-edged back of some difficult spur. Many are hidden away up side ravines. A few boldly rely upon the numbers of their fighting men, and are unprotected save by watch-towers. While frequently very picturesque at a distance, all are dirty and grimed with smoke; bones and horns of slaughtered animals litter the ground. The ground floor of a house is usually a winter stable for cows and the latrine, as well as the manure store for the household; the middle part contains the family treasures; on the top is the living-place. In cold valleys, such as the Presungal, the houses are often clustered upon a hillock, and penetrate into the soil to the depth of two or more apartments. Notched poles are the universal ladders and stairways.

Houses and Villages.

In height Kafirs average about 5 ft. 6 in. They are lean; always in hard condition; active jumpers, untiring walkers, expert mountaineers; exceptionally they are tall and heavy. With chests fairly deep, and muscular, springy legs, there is some lightness and want of power about the shoulder muscles, the arms and the hand-grasp. In complexion they are purely Eastern. Some tribes, notably the Wai, are fairer than others, but the average colour is that of the natives of the Punjab. Albinos, or red-haired people, number less than ½% of the population. As a rule, the features are well-shaped, especially the nose. The glance is wild and bold, with the wide-lidded, restless gaze of the hawk; or the exact converse—a shifty, furtive peer under lowered brows. This look is rather common amongst the wealthier families and the most famous tribesmen. The shape of a man's head not uncommonly indicates his social rank. Several have the brows of thinkers and men of affairs. The degraded forms are the bird-of-prey type—low, hairy foreheads, hooked noses with receding chin, or the thickened, coarse features of the darker slave class. Intellectually they are of good average power. Their moral characteristics are passionate covetousness, and jealousy so intense that it smothers prudence. Before finally destroying, it constantly endangered their wildly cherished independence. Revenge, especially on neighbouring Kafirs, is obtained at any price. Kafirs are subtle, crafty, quick in danger and resolute, as might be expected of people who have been plunderers and assassins for centuries, whose lives were the forfeit of a fault in unflinchingness or of a moment's vacillation. Stealthy daring, born of wary and healthy nerves and the training of generations, almost transformed into an instinct, is the national characteristic. Ghastly shadows, they flitted in the precincts of hostile villages far distant from their own valleys, living upon the poorest food carried in a fetid goatskin bag; ever ready to stab in the darkness or to wriggle through apertures, to slay as they slept men, women and babies. Then, with clothing for prize, and human ears as a trophy, they sped, watchful as hares, for their far-away hills, avenger Pathans racing furiously in their track. Kafirs, most faithful to one another, never abandoned a comrade. If he were killed, they sought to carry away his head for funeral observances. As traders, though cunning enough, they are no match for the Afghan. They were more successful as brigands and blackmailers than as skilled thieves. In night robbery and in pilfering they showed little ingenuity. Truth was considered innately dangerous; but a Kafir is far more trustworthy than his Mahommedan neighbours. Although hospitality is generally viewed as a hopeful investment, it can be calculated on, and is unstinted. Kafirs are capable of strong friendship. They are not cruel, being kind to children and to animals, and protective to the weak and the old. Family ties and the claim of blood even triumph over jealousy and covetousness.

Characteristics.

The national attire of the men is a badly-cured goatskin, confined at the waist by a leather belt studded with nails, supporting the I-hilted dagger, strong but clumsy, of slave manufacture, sheathed in wood covered with iron or brass, and often prettily ornamented. Women are dressed in a long, very dark tunic of wool, ample below the shoulders, and edged with red. This is fastened at the bosom by an iron pin, a thorn, or a fibula; it is gathered round the body by a woven band, an inch wide, knotted in front to dangle down in tassels. On this girdle is carried a fantastically handled knife in a leather covering. The woman's tunic is sometimes worn by men. As worn by women its shape is something between a long frock-coat and an Inverness cape. Its hue and the blackness of the hairy goatskin give the name of Siah-Posh, "black-robed," to the majority of the clans. The other tribes wear such articles of cotton attire as they can obtain by barter, by theft, or by killing beyond the border, for

Dress, Weapons, Utensils, &c.

only woollen cloth is made in the country. Of late years long robes from Chitral and Badakshan have been imported by the wealthy, as well as the material for loose cotton trousers and wide shirts. Clothing, always hard to obtain, is precious property. Formerly little girls, the children of slaves, or else poor relations, used to be sold in exchange for clothes and ammunition. Mahommedans eagerly bought the children, which enabled them in one transaction to acquire a female slave and to convert an infidel. Men go bare-headed, which wrinkles them prematurely, or they wear Chitral caps. Certain priests, and others of like degree, wind a strip of cotton cloth round their brows. Siah-Posh women wear curious horned caps or a small square white head-dress upon informal occasions. Females of other tribes bind their heads with turbans ornamented with shells and other finery. Excellent snow gaiters are made of goat's hair for both sexes, and of woollen material for women. Boots, strongly sewn, of soft red leather cannot be used in the snow or when it is wet, because they are imperfectly tanned. For the ceremonial dances all manner of gay-coloured articles of attire, made of cheap silk, cotton velvet, and sham cloth-of-gold, are displayed, and false jewelry and tawdry ornaments; but they are not manufactured in the country, but brought from Peshawar by pedlars. Woollen blankets and goat's-hair mats cover the bedsteads—four-legged wooden frames laced across with string or leather thongs. Low square stools, 18 in. broad, made upon the same principle as the bedsteads, are peculiar to the Kafirs and their half-breed neighbours of the border. Iron tripod tables, singularly Greek in design, are fashioned in Waigul. A warrior's weapons are a matchlock (rarely a flintlock), a bow and arrows, a spear and the dagger which he never puts aside day or night. The axes, often carried, are light and weak, and chiefly indicate rank. Clubs, carefully ornamented by carving, are of little use in a quarrel; their purpose is that of a walking-stick. As they are somewhat long, these walking-clubs have been often supposed to be leaping-poles. Swords are rarely seen, and shields, carried purely for ostentation, seldom. Soft stone is quarried to make large utensils, and great grim chests of wood become grain boxes or coffins indifferently. Prettily carved bowls with handles, or with dummy spouts, hold milk, butter, water or small quantities of flour. Wine, grain, everything else, is stored or carried in goatskin bags. Musical instruments are represented by reed flageolets, small drums, primitive fiddles, and a kind of harp.

Peculiar Customs.

Isolated and at the outskirts of every village is a house used by women when menstruating and for lying-in. Children are named as soon as born. The infant is given to the mother to suckle, while a wise woman rapidly recites the family ancestral names; the name pronounced at the instant the baby begins to feed is that by which it is thereafter known. Everybody has a double name, the father's being prefixed to that given at birth. Very often the two are the same. There is a special day for the first head-shaving. No hair is allowed on a male's scalp, except from a 4-in. circle at the back of the head, whence long locks hang down straight. Puberty is attained ceremoniously by boys. Girls simply change a fillet for a cotton cap when nature proclaims womanhood. Marriage is merely the purchase of a wife through intermediaries, accompanied by feasting. Divorce is often merely a sale or the sending away of a wife to slave for her parents in shame. Sexual morality is low. Public opinion applauds gallantry, and looks upon adultery as hospitality, provided it is not discovered by the husband. If found out, *in flagrante delicto*, there is a fiscal fine in cows. There is much collusion to get this penalty paid in poor households. Funeral rites are most elaborate, according to the rank and warrior fame of the deceased, if a male, and to the wealth and standing of the family, if a woman. Children are simply carried to the cemetery in a blanket, followed by a string of women lamenting. A really great man is mourned over for days with orations, dancing, wine-drinking and food distribution. Gun-firing gives notice of the procession. After two or three days the corpse is placed in the coffin at a secluded spot, and the observances are continued with a straw figure lashed upon a bed, to be danced about, lamented over, and harangued as before. During regular intervals for business and refreshment old women wail genealogies. A year later, with somewhat similar ritual, a wooden statue is inaugurated preliminary to erection on the roadside or in the village Valhalla. The dead are not buried, but deposited in great boxes collected in an assigned place. Finery is placed with the body, as well as vessels holding water and food. Several corpses may be heaped in one receptacle, which is, rarely, ornamented with flags; its lid is kept from warping by heavy stones. The wooden statues or effigies are at times sacrificed to when there is sickness, and at one of the many annual festivals food is set before them. Among the Presungal there are none of these images. Blood-feuds within a tribe do not exist. The slayer of his fellow, even by accident, has to pay a heavy compensation or else become an outcast. Several hamlets and at least one village are peopled by families who had thus been driven forth from the community. The stigma attaches itself to children and their marriage connexions. Its outward symbol is an inability to look in the face any of the dead person's family. This avoidance is ceremonial. In private and after dark all may be good friends after a decorous interval. The compensation is seldom paid, although payment carries with it much enhancement of family dignity. All the laws to punish theft, assault, adultery and other injury are based on a system of compensation whenever possible, and of enlisting the whole of the community in all acts of punishment. Kafirs have true conceptions of justice. There is no death penalty; a fighting male is too valuable a property of the whole tribe to be so wasted. War begins honourably with proper notice, as a rule, but the murder of an unsuspecting traveller may be the first intimation. Bullets or arrow-heads sent to a tribe or village is the correct announcement of hostilities. The slaying of a tribesman need not in all cases cause a war. Sometimes it may be avoided by the sinning tribe handing over a male to be killed by the injured relations. Ambush, early morning attacks by large numbers, and stealthy killing parties of two or three are the favourite tactics. Peace is made by the sacrifice of cows handed over by the weaker tribe to be offered up to a special god of the stronger. When both sides have shown equal force and address, the same number of animals are exchanged. Field-work falls exclusively to the women. It is poor. The ploughs are light and very shallow. A woman, who only looks as if she were yoked with the ox, keeps the beast in the furrows, while a second holds the handle. All the operations of agriculture are done primitively. Grazing and dairy-farming are the real trade of the Kafirs, the surplus produce being exchanged on the frontier or sold for Kabul rupees. Herders watch their charges fully armed against marauders.

History.—The history of Kafiristan has always been of the floating legendary sort. At the present day there are men living in Chitral and on other parts of the Kafiristan frontier who are prepared to testify as eye-witnesses to marvels observed, and also heard, by them, not only in the more remote valleys but even in the Afghan borderland itself. It is not surprising therefore that the earlier records are to a great extent fairy tales of a more or less imaginative kind and chiefly of value to those interested in folk-lore. Sir Henry Yule, a scientific soldier, a profound geographer and a careful student, as the result of his researches thought that the present Kafiristan was part of that pagan country stretching between Kashmir and Kabul which medieval Asiatics referred to vaguely as *Bilaur*, a name to be found in Marco Polo as *Bolor*. The first distinct mention of the Kafirs as a separate people appears in the history of Timur. On his march to the invasion of India the people at Andarab appealed to Timur for help against the Kator and the Siah-Posh Kafirs. He responded and entered the country of those tribes through the upper part of the Panjhir valley. It was in deep winter weather and Timur had to be let down the snows by *glissade* in a basket guided by ropes. A detachment of 10,000 horse which he speaks of as having been sent against the Siah-Posh to his left, presumably therefore to the north, met with disaster; but he himself claims to have been victorious. Nevertheless he seems quickly to have evacuated the impracticable mountain land, quitting the country at Khawak. He caused an inscription to be carved in the defiles of Kator to commemorate his invasion and to explain its route. Inside the Kafir country on the Najil or Alishang River there is a fort still called Timur's Castle, and in the Kalam fort there is said to be a stone engraved to record that as the farthest point of his advance. In the *Memoirs* of Baber there is mention of the Kafirs raiding into Panjhir and of their taste for drinking, every man having a leathern wine-bottle slung round his neck. The *Ain-i-Akbari* makes occasional mention of the Kafirs, probably on the authority of the famous *Memoirs*; it also contains a passage which may possibly have originated the widespread story that the Kafirs were descendants of the Greeks. Yule however believed that this passage did not refer to the Kafirs at all, but to the claims to descent from Alexander of the rulers in Swat before the time of the Yusufzai. Many of the princelings of the little Hindu-Kush states at the present day pride themselves on a similar origin, maintaining the founders of their race to be Alexander, "the two-horned," and a princess sent down miraculously from heaven to wed him.

Benedict Goes, travelling from Peshawar to Kabul in 1603, heard of a place called *Capperstam*, where no Mahommedan might enter on pain of death. Hindu traders were allowed to visit the country, but not the temples. Benedict Goes tasted the Kafir wine, and from all that he heard suspected that the Kafirs might be Christians. Nothing more is heard of the Kafirs until 1788, when Rennell's *Memoir of a Map of*

Hindostan was published. Twenty-six years later Elphinstone's *Caubal* was published. During the British occupation of Kabul in 1839–1840 a deputation of Kafirs journeyed there to invite a visit to their country from the Christians whom they assumed to be their kindred. But the Afghans grew furiously jealous, and the deputation was sent coldly away.

After Sir George Robertson's sojourn in the country and the visit of several Kafirs to India with him in 1892 an increasing intimacy continued, especially with the people of the eastern valleys, until 1895, when by the terms of an agreement entered into between the government of India and the ruler of Afghanistan the whole of the Kafir territory came nominally under the sway of Kabul. The amir Abdur Rahman at once set about enforcing his authority, and the curtain, partially lifted, fell again heavily and in darkness. Nothing but rumours reached the outside world, rumours of successful invasions, of the wholesale deportation of boys to Kabul for instruction in the religion of Islam, of rebellions, of terrible repressions. Finally even rumour ceased. A powerful Asiatic ruler has the means of ensuring a silence which is absolute, and nothing is ever known from Kabul except what the amir wishes to be known. Probably larger numbers of the growing boys and young men of Kafiristan are fanatical Mahommedans, fanatical with the zeal of the recent convert, while the older people and the majority of the population cherish their ancient customs in secret and their degraded religion in fear and trembling—waiting dumbly for a sign.

See Sir G. S. Robertson, *Kafirs of the Hindu-Kush* (London, 1896). (G. S. R.)

KAGERA, a river of east equatorial Africa, the most remote headstream of the Nile. The sources of its principal upper branch, the Nyavarongo, rise in the hill country immediately east of Lake Kivu. After a course of over 400 m. the Kagera enters Victoria Nyanza on its western shore in 0° 58′ S. It is navigable by steamers for 70 m. from its mouth, being obstructed by rapids above that point. The river was first heard of by J. H. Speke in 1858, and was first seen (by white men) by the same traveller (Jan. 16, 1862) on his journey to discover the Nile source. Speke was well aware that the Kagera was the chief river emptying into the Victoria Nyanza and in that sense *the* headstream of the Nile. By him the stream was called "Kitangülé," *kagera* being given as equivalent to "river." The exploration of the Kagera has been largely the work of German travellers.

See Nile; also Speke's *Discovery of the Source of the Nile* (Edinburgh, 1863); R. Kandt's *Caput Nili* (Berlin, 1904); and map by P. Sprigade and M. Moisel in *Grosser deutscher Kolonialatlas*, No. 16 (Berlin, 1906).

KAHLUR, or Bilaspur, a native state of India, within the Punjab. It is one of the hill states that came under British protection after the first Sikh war in 1846. The Gurkhas had overrun the country in the early part of the 19th century, and expelled the raja, who was, however, reinstated by the British in 1815. The state occupies part of the basin of the Sutlej amid the lower slopes of the Himalaya. Area, 448 sq. m. Pop. (1901), 90,873; estimated gross revenue, £10,000; tribute, £530. The chief, whose title is raja, is a Chandel Rajput. The town of Bilaspur is situated on the left bank of the Sutlej, 1465 ft. above sea-level; pop. (1901), 3192.

KAHN, GUSTAVE (1859–), French poet, was born at Metz on the 21st of December 1859. He was educated in Paris at the École des Chartes and the École des langues orientales, and began to contribute to obscure Parisian reviews. After four years spent in Africa he returned to Paris in 1885, and founded in 1886 a weekly review, *La Vogue*, in which many of his early poems appeared. In the autumn of the same year he founded, with Jean Moréas and Paul Adam, a short-lived periodical, *Le Symboliste*, in which they preached the nebulous poetic doctrine of Stéphane Mallarmé; and in 1888 he became one of the editors of the *Revue indépendante*. He contributed poetry and criticism to the French and Belgian reviews favourable to the extreme symbolists, and, with Catulle Mendès, he founded at the Odéon, the Théâtre Antoine and the Théâtre Sarah Bernhardt, matinées for the production of the plays of the younger poets. He claimed to be the earliest writer of the *vers libre*, and explained his methods and the history of the movement in a preface to his *Premiers poèmes* (1897). Later books are *Le Livre d'images* (1897); *Les Fleurs de la passion* (1900); some novels; and a valuable contribution to the history of modern French verse in *Symbolistes et décadents* (1902).

KAHNIS, KARL FRIEDRICH AUGUST (1814–1888), German Lutheran theologian, was born at Greiz on the 22nd of December 1814. He studied at Halle, and in 1850 was appointed professor ordinarius at Leipzig. Ten years later he was made canon of Meissen. He retired in 1886, and died on the 20th of June 1888 at Leipzig. Kahnis was at first a neo-Lutheran, blessed by E. W. Hengstenberg and his pietistic friends. He then attached himself to the Old Lutheran party, interpreting Lutheranism in a broad and liberal spirit and showing some appreciation of rationalism. His *Lutherische Dogmatik, historisch-genetisch dargestellt* (3 vols., 1861–1868; 2nd ed. in 2 vols., 1874–1875), by making concessions to modern criticism, by spiritualizing and adapting the old dogmas, by attacking the idea of an infallible canon of Scripture and the conventional theory of inspiration, by laying stress on the human side of Scripture and insisting on the progressive character of revelation, brought him into conflict with his former friends. A. W. Diekhoff, Franz Delitzsch (*Für und wider Kahnis*, 1863) and Hengstenberg (*Evangelische Kirchenzeitung*, 1862) protested loudly against the heresy, and Kahnis replied to Hengstenberg in a vigorous pamphlet, *Zeugniss für die Grundwahrheiten des Protestantismus gegen Dr Hengstenberg* (1862).

Other works by Kahnis are *Lehre vom Abendmahl* (1851), *Der innere Gang des deutschen Protestantismus seit Mitte des vorigen Jahrhunderts* (1854; 3rd ed. in 2 vols., 1874; Eng. trans., 1856); *Christentum und Luthertum* (1871); *Geschichte der deutschen Reformation*, vol. i. (1872); *Der Gang der Kirche in Lebensbildern* (1881, &c.); and *Über das Verhältnis der alten Philosophie zum Christentum* (1884).

K'AI-FÊNG FU, the capital of the province of Honan, China. It is situated in 34° 52′ N., 114° 33′ E., on a branch line of the Peking-Hankow railway, and forms also the district city of Siang-fu. A city on the present site was first built by Duke Chwang (774–700 B.C.) to mark off (*k'ai*) the boundary of his fief (*fêng*); hence its name. It has, however, passed under several *aliases* in Chinese history. During the Chow, Suy and T'ang dynasties (557–907) it was known as P'ien-chow. During the Wu-tai, or five dynasties (907–960), it was the Tung-king, or eastern capital. Under the Sung and Kin dynasties (960–1260) it was called P'ien-king. By the Yuan or Mongol dynasty (1260–1368) its name was again changed to P'ien-liang, and on the return of the Chinese to power with the establishment of the Ming dynasty (1368–1644), its original name was restored. The city is situated at the point where the last spur of the Kuen-lun mountain system merges in the eastern plain, and a few miles south of the Hwang-ho. Its position, therefore, lays it open to the destructive influences of this river. In 1642 it was totally destroyed by a flood caused by the dikes bursting, and on several prior and subsequent occasions it has suffered injury from the same cause. The city is large and imposing, with broad streets and handsome buildings, the most notable of which are a twelve-storeyed pagoda 600 ft. high, and a watch tower from which, at a height of 200 ft., the inhabitants are able to observe the approach of the yellow waters of the river in times of flood. The city wall forms a substantial protection and is pierced by five gates. The whole neighbourhood, which is the site of one of the earliest settlements of the Chinese in China, is full of historical associations, and it was in this city that the Jews who entered China in A.D. 1163 first established a colony. For many centuries these people held themselves aloof from the natives, and practised the rites of their religion in a temple built and supported by themselves. At last, however, they fell upon evil times, and in 1851, out of the seventy families which constituted the original colony, only seven remained. For fifty years no rabbi

had ministered to the wants of this remnant. In 1853 the city was attacked by the T'ai-p'ing rebels, and, though at the first assault its defenders successfully resisted the enemy, it was subsequently taken. The captors looted and partially destroyed the town. It has now little commerce, but contains several schools on Western lines—including a government college opened in 1902, and a military school near the railway station. A mint was established in 1905, and there is a district branch of the imperial post. The population—largely Mahommedan—was estimated (1908) at 200,000. Jews numbered about 400.

KAILAS, a mountain in Tibet. It is the highest peak of the range of mountains lying to the north of Lake Manasorawar, with an altitude of over 22,000 ft. It is famous in Sanskrit literature as Siva's paradise, and is a favourite place of pilgrimage with Hindus, who regard it as the most sacred spot on earth. A track encircles the base of the mountain, and it takes the pilgrim three weeks to complete the round, prostrating himself all the way.

KAIN, the name of a sub-province and of a town of Khorasan, Persia. The sub-province extends about 300 m. N. to S., from Khāf to Seīstān, and about 150 m. W. to E., from the hills of Tūn to the Afghan frontier, comprising the whole of south-western Khorasan. It is very hilly, but contains many wide plains and fertile villages at a mean elevation of 4000 ft. It has a population of about 150,000, rears great numbers of camels and produces much grain, saffron, wool, silk and opium. The chief manufactures are felts and other woollen fabrics, principally carpets, which have a world-wide reputation. The best Kaini carpets are made at Darakhsh, a village in the Zīrkūh district and 50 m. N.E. of Birjend. It is divided into eleven administrative divisions:—Shāhābād (with the capital Birjend), Naharjān, Alghur, Tabas sunnī Khaneh, Zīrkūh Shakhan, Kain, Nīmbulūk, Nehbandān, Khūsf, Arab Khāneh or Momenabad.

The town of Kain, the capital of the sub-province until 1740, when it was supplanted by Birjend, is situated 65 m. N. of Birjend on the eastern side of a broad valley, stretching from N. to S., at the base of the mountain Abuzar, in 33° 42′ N. and 59° 8′ E., and at an elevation of 4500 ft. Its population is barely 5000. It is surrounded by a mud wall and bastions, and near it, on a hill rising 500 ft. above the plain, are the ruins of an ancient castle which, together with the old town, was destroyed either by Shah Rukh (1404–1447), a son, or by Baysunkur (d. 1433), a grandson of Timur (Tamerlane), who afterwards built a new town. After a time the Uzbegs took possession and held the town until Shah Abbas I. (1587–1629) expelled them. In the 18th century it fell under the sway of the Afghans and remained a dependency of Herat until 1851. A large number of windmills are at work outside the town. The great mosque, now in a ruinous state, was built A.H. 796 (A.D. 1394) by Kāren b. Jamshid and repaired by Yūsof Dowlatyār.

KAIRA, or KHEDA, a town and district of British India, in the northern division of Bombay. The town is 20 m. S.W. of Ahmedabad and 7 m. from Mehmadabad railway station. Pop. (1901), 10,392. Its antiquity is proved by the evidence of copperplate grants to have been known as early as the 5th century. Early in the 18th century it passed to the Babi family, with whom it remained till 1763, when it was taken by the Mahrattas; it was finally handed over to the British in 1803. It was a large military station till 1830, when the cantonment was removed to Deesa.

The DISTRICT OF KAIRA has an area of 1595 sq. m.; pop. (1901), 716,332, showing a decrease of 18% in the decade, due to the results of famine. Except a small corner of hilly ground near its northern boundary and in the south-east and south, where the land along the Mahi is furrowed into deep ravines, the district forms one unbroken plain, sloping gently towards the south-west. The north and north-east portions are dotted with patches of rich rice-land, broken by untilled tracts of low brushwood. The centre of the district is very fertile and highly cultivated; the luxuriant fields are surrounded by high hedges, and the whole country is clothed with clusters of shapely trees. To the west this belt of rich vegetation passes into a bare though well-cultivated tract of rice-land, growing more barren and open till it reaches the maritime belt, whitened by a salt-like crust, along the Gulf of Cambay. The chief rivers are the Mahi on the south-east and south, and the Sabarmati on the western boundary. The Mahi, owing to its deeply cut bed and sandbanks, is impracticable for either navigation or irrigation; but the waters of the Sabarmati are largely utilized for the latter purpose. A smaller stream, the Khari, also waters a considerable area by means of canals and sluices. The principal crops are cotton, millets, rice and pulse; the industries are calico-printing, dyeing, and the manufacture of soap and glass. The chief centre of trade is Nadiad, on the railway, with a cotton-mill. A special article of export is *ghi*, or clarified butter. The Bombay & Baroda railway runs through the district. The famine of 1899–1900 was felt more severely here than in any other part of the province, the loss of cattle being specially heavy.

KAIRAWAN (KEROUAN), the "sacred" city of Tunisia, 36 m. S. by W. by rail from Susa, and about 80 m. due S. from the capital. Kairawān is built in an open plain a little west of a stream which flows south to the Sidi-el-Hani lake. Of the luxuriant gardens and olive groves mentioned in the early Arabic accounts of the place hardly a remnant is left. Kairawān, in shape an irregular oblong, is surrounded by a crenellated brick wall with towers and bastions and five gates. The city, however, spreads beyond the walls, chiefly to the south and west. Some of the finest treasures of Saracenic art in Tunisia are in Kairawān; but the city suffered greatly from the vulgarization which followed the Turkish conquest, and also from the blundering attempts of the French to restore buildings falling into ruin. The streets have been paved and planted with trees, but the town retains much of its Oriental aspect. The houses are built round a central courtyard, and present nothing but bare walls to the street. The chief buildings are the mosques, which are open to Christians, Kairawān being the only town in Tunisia where this privilege is granted.

In the northern quarter stands the great mosque founded by Sidi Okba ibn Nafi, and containing his shrine and the tombs of many rulers of Tunisia. To the outside it presents a heavy buttressed wall, with little of either grandeur or grace. It consists of three parts: a cloistered court, from which rises the massive and stately minaret, the maksura or mosque proper, and the vestibule. The maksura is a rectangular domed chamber divided by 296 marble and porphyry columns into 17 aisles, each aisle having 8 arches. The central aisle is wider than the others, the columns being arranged by threes. All the columns are Roman or Byzantine, and are the spoil of many ancient cities. Access to the central aisle is gained through a door of sculptured wood known as the Beautiful Gate. It has an inscription with the record of its construction. The walls are of painted plaster-work; the mimbar or pulpit is of carved wood, each panel bearing a different design. The court is surrounded by a double arcade with coupled columns. In all the mosque contains 439 columns, including two of alabaster given by one of the Byzantine emperors. To the Mahommedan mind the crowning distinction of the building is that through divine inspiration the founder was enabled to set it absolutely true to Mecca. The mosque of Sidi Okba is the prototype of many other notable mosques (see MOSQUE). Of greater external beauty than that of Sidi Okba is the mosque of the Three Gates. Cufic inscriptions on the façade record its erection in the 9th and its restoration in the 15th century A.D. Internally the mosque is a single chamber supported by sixteen Roman columns. One of the finest specimens of Moorish architecture in Kairawān is the *zawia* of Sidi Abid-el-Ghariani (d. *c.* A.D. 1400), one of the Almoravides, in whose family is the hereditary governorship of the city. The entrance, a door in a false arcade of black and white marble, leads into a court whose arches support an upper colonnade. The town contains many other notable buildings, but none of such importance as the mosque of the Companion (*i.e.* of the Prophet), outside the walls to the N.W. This mosque is specially sacred as possessing what are said to be three hairs of the Prophet's beard, buried with the saint, who

was one of the companions of Mahomet. (This legend gave rise to the report that the tomb contained the remains of Mahomet's barber.) The mosque consists of several courts and chambers, and contains some beautiful stained glass. The court which forms the entrance to the shrine of the saint is richly adorned with tiles and plaster-work, and is surrounded by an arcade of white marble columns, supporting a painted wooden roof. The minaret is faced with tiles and is surmounted by a gilded crescent. The 19th-century mosque of Sidi Amar Abada, also outside the wall, is in the form of a cross and is crowned with seven cupolas. In the suburbs are huge cisterns, attributed to the 9th century, which still supply the city with water. The cemetery covers a large area and has thousands of Cufic and Arabic inscriptions.

Formerly famous for its carpets and its oil of roses, Kairawān is now known in northern Africa rather for copper vessels, articles in morocco leather, potash and saltpetre. The town has a population of about 20,000, including a few hundred Europeans.

Arab historians relate the foundation of Kairawān by Okba with miraculous circumstances (Ṭabari ii. 63; Yāqūt iv. 213). The date is variously given (see Weil, *Gesch. d. Chalifen*, i. 283 seq.); according to Ṭabari it must have been before 670. The legend says that Okba determined to found a city which should be a rallying-point for the followers of Mahomet in Africa. He led his companions into the desert, and having exhorted the serpents and wild beasts, in the name of the Prophet, to retire, he struck his spear into the ground exclaiming "Here is your Kairawān" (resting-place), so naming the city.[1] In the 8th century Kairawān was the capital of the province of Ifrikia governed by amirs appointed by the caliphs. Later it became the capital of the Aghlabite princes, thereafter following the fortunes of the successive rulers of the country (see TUNISIA: *History*). After Mecca and Medina Kairawān is the most sacred city in the eyes of the Mahommedans of Africa, and constant pilgrimages are made to its shrines. Until the time of the French occupation no Christian was allowed to pass through the gates without a special permit from the bey, whilst Jews were altogether forbidden to approach the holy city. Contrary to expectation no opposition was offered by the citizens to the occupation of the place by the French troops in 1881. On that occasion the native troops hastened to the mosques to perform their devotions; they were followed by European soldiers, and the mosques having thus been "violated" have remained open ever since to non-Mahommedans.

See Murray's *Handbook to Algeria and Tunis*, by Sir R. L. Playfair (1895); A. M. Broadley, *The Last Punic War: Tunis Past and Present* (1882) and H. Saladin, *Tunis et Kairouan* (1908).

KAISERSLAUTERN, a town in the Bavarian palatinate, on the Waldlauter, in the hilly district of Westrich, 41 m. by rail W. of Mannheim. Pop. (1905), 52,306. Among its educational institutions are a gymnasium, a Protestant normal school, a commercial school and an industrial museum. The house of correction occupies the site of Frederick Barbarossa's castle, which was demolished by the French in 1713. Kaiserslautern is one of the most important industrial towns in the palatinate. Its industries include cotton and wool spinning and weaving, iron-founding, and the manufacture of beer, tobacco, gloves, boots, furniture, &c. There is some trade in fruit and in timber.

Kaiserslautern takes its name from the emperor (Kaiser) Frederick I., who built a castle here about 1152, although it appears to have been a royal residence in Carolingian times. It became an imperial city, a dignity which it retained until 1357, when it passed to the palatinate. In 1621 it was taken by the Spanish, in 1631 by the Swedish, in 1635 by the imperial and in 1713 by the French troops. During 1793 and 1794 it was the scene of fighting; and in the Franco-Prussian War of 1870 it was the base of operations of the second German army, under Prince Frederick Charles. It was one of the early stations of the Reformation, and in 1849 was the centre of the revolutionary spirit in the palatinate.

See Lehmann, *Urkundliche Geschichte von Kaiserslautern* (Kaiserslautern, 1853), and E. Jost, *Geschichte der Stadt Kaiserslautern* (Kaiserslautern, 1886).

KAISERSWERTH, a town in the Prussian Rhine province, on the right bank of the Rhine, 6 m. below Düsseldorf. Pop. (1905), 2462. It possesses a Protestant and a large old Romanesque Roman Catholic church of the 12th or 13th century, with a valuable shrine, said to contain the bones of St Suitbert, and has several benevolent institutions, of which the chief is the *Diakonissen Anstalt*, or training-school for Protestant sisters of charity. This institution, founded by Pastor Theodor Fliedner (1800–1864) in 1836, has more than 100 branches, some being in Asia and America; the head establishment at Kaiserswerth includes an orphanage, a lunatic asylum and a Magdalen institution. The Roman Catholic hospital occupies the former Franciscan convent. The population is engaged in silk-weaving and other small industries.

In 710 Pippin of Heristal presented the site of the town to Bishop Suitbert, who built the Benedictine monastery round which the town gradually formed. Until 1214 Kaiserswerth lay on an island, but in that year Count Adolph V. of Berg, who was besieging it, dammed up effectually one arm of the Rhine. About the beginning of the 14th century Kaiserswerth, then an imperial city, came to the archbishopric of Cologne, and afterwards to the duchy of Juliers, whence, after some vicissitudes, it finally passed into the possession of the princes of the palatinate, whose rights, long disputed by the elector of Cologne, were legally settled in 1772. In 1702 the fortress was captured by the Austrians and Prussians, and the Kaiserpfalz, whence the young emperor Henry IV. was abducted by Archbishop Anno of Cologne in 1062, was blown up.

See J. Disselhoff, *Das Diaconissenmutterhaus zu Kaiserswerth* (new ed., 1903; Eng. trans., 1883).

KAITHAL, or KYTHAL, an ancient town of British India in Karnal district, Punjab. Pop. (1901), 14,408. It is said to have been founded by the mythical hero Yudisthira, and is connected by tradition with the monkey-god Hanuman. In 1767 it fell into the hands of the Sikh chieftain, Bhai Desu Singh, whose descendants, the bhais of Kaithal, ranked among the most powerful Cis-Sutlej chiefs. Their territories lapsed to the British in 1843. There remain the fort of the bhais, and several Mahommedan tombs of the 13th century and later. There is some trade in grain, sal-ammoniac, live stock and blankets; and cotton, saltpetre, lac ornaments and toys are manufactured.

KAKAPO, the Maori name, signifying "night parrot," and frequently adopted by English writers, of a bird, commonly called by the British in New Zealand the "ground-parrot" or "owl-parrot." The existence of this singular form was first made known in 1843 by Ernst Dieffenbach (*Travels in N. Zealand*, ii. 194), from some of its tail-feathers obtained by him, and he suggested that it was one of the *Cuculidae*, possibly belonging to the genus *Centropus*, but he added that it was becoming scarce, and that no example had been seen for many years. G. R. Gray, noticing it in June 1845 (*Zool. Voy. "Erebus" and "Terror,"* pt. ix. p. 9), was able to say little more of it, but very soon afterwards a skin was received at the British Museum, of which, in the following September, he published a figure (*Gen. Birds*, pt. xvii.), naming it *Strigops*[2] *habroptilus*, and rightly placing it among the parrots, but he did not describe it technically for another eighteen months (*Proc. Zool. Society*, 1847, p. 61). Many specimens have now been received in Europe, so that it is represented in most museums, and several examples have reached England alive.

In habits the kakapo is almost wholly nocturnal,[3] hiding in holes (which in some instances it seems to make for itself) under the roots of trees or rocks during the day time, and only issuing forth about sunset to seek its food, which is solely vegetable in kind, and consists of the twigs, leaves, seeds and fruits of trees, grass and fern roots—some observers say mosses also. It sometimes climbs trees, but generally remains on the ground, only using its comparatively short wings to balance itself in running or to break its fall when it drops from a tree—though not always then—being apparently incapable of real flight. It thus becomes an easy prey to the marauding creatures—cats, rats and so forth—which European colonists have, by accident or design, let loose in New Zealand. Sir G. Grey says it had been, within the memory of old people, abundant in every part of that country,

[1] Though Okba founded his city in a desert place, excavations undertaken in 1908 revealed the existence of Roman ruins, including a temple of Saturn, in the neighbourhood.

[2] This generic term was subsequently altered by Van der Hoeven, rather pedantically, to *Stringops*, a spelling now generally adopted.

[3] It has, however, been occasionally observed abroad by day; and, in captivity, one example at least is said to have been as active by day as by night.

but (writing in 1854) was then found only in the unsettled districts.

The kakapo is about the size of a raven, of a green or brownish-green colour, thickly freckled and irregularly barred with dark brown, and dashed here and there with longitudinal stripes of light yellow. Examples are subject to much variation in colour and shade, and in some the lower parts are deeply tinged with yellow. Externally the most striking feature of the bird is its head, armed with a powerful beak that it well knows how to use, and its face clothed with hairs and elongated feathers that sufficiently resemble the physiognomy of an owl to justify the generic name bestowed upon it. Of its internal structure little has been described, and that not always correctly. Its furcula has been said (*Proc. Zool. Society*, 1874, p. 594) to be "lost," whereas the clavicles, which in most birds unite to form that bone, are present, though they do not meet, while in like manner the bird has been declared (*op. cit.*, 1867, p. 624, note) to furnish among the *Carinatae* "the only apparent exception to the presence of a keel" to the sternum. The keel, however, is undoubtedly there, as remarked by Blanchard (*Ann. Nat. Sc., Zoologie*, 4th series, vol. xi. p. 83) and A. Milne Edwards (*Ois. Foss. de la France*, ii. 516), and, though much reduced in size, is nearly as much developed as in the Dodo and the Ocydrome. The aborted condition of this process can hardly be regarded but in connexion with the incapacity of the bird for flight, and may very likely be the result of disuse. There can be scarcely any doubt as to the propriety of considering this genus the type of a separate family of *Psittaci*; but whether it stands alone or some other forms (*Pezoporus* or *Geopsittacus*, for example, which in coloration and habits present some curious analogies) should be placed with it, must await future determination. In captivity the kakapo is said to show much intelligence, as well as an affectionate and playful disposition. Unfortunately it does not seem to share the longevity characteristic of most parrots, and none that has been held in confinement appears to have long survived, while many succumb speedily.

For further details see Gould's *Birds of Australia* (ii. 247), and *Handbook* (ii. 539); Dr Finsch's *Die Papageien* (i. 241), and Sir Walter Buller's *Birds of New Zealand* especially. (A. N.)

KAKAR, a Pathan tribe on the Zhob valley frontier of Baluchistan. The Kakars inhabit the back of the Suliman mountains between Quetta and the Gomal river; they are a very ancient race, and it is probable that they were in possession of these slopes long before the advent of Afghan or Arab. They are divided into many distinct tribes who have no connexion beyond the common name of Kakar. Not only is there no chief of the Kakars, or general *jirgah* (or council) of the whole tribe, but in most cases there are no recognized heads of the different clans. In 1901 they numbered 105,444. During the second Afghan War the Kakars caused some annoyance on the British line of communications; and the Kakars inhabiting the Zhob valley were punished by the Zhob valley expedition of 1884.

KALA-AZAR, or Dum-Dum fever, a tropical disease, characterized by remittent fever, anaemia and enlargement of the spleen (splenomegaly) and often of the liver. It is due to a protozoon parasite (see PARASITIC DISEASES), discovered in 1900 by Leishman in the spleen, and is of a malarial type. The treatment is similar to that for malaria. In Assam good results have been obtained by segregation.

KALABAGH, a town of British India in the Mianwali district of the Punjab. Pop. (1901), 5824. It is picturesquely situated at the foot of the Salt range, on the right bank of the Indus, opposite the railway station of Mari. The houses nestle against the side of a precipitous hill of solid rock-salt, piled in successive tiers, the roof of each tier forming the street which passes in front of the row immediately above, and a cliff, also of pure rock-salt, towers above the town. The supply of salt, which is worked from open quarries, is practically inexhaustible. Alum also occurs in the neighbouring hills, and forms a considerable item of local trade. Iron implements are manufactured.

KALACH, also known as DONSKAYA, a village of S.E. Russia, in the territory of the Don Cossacks, and a river port on the Don, 31 m. N.E. of Nizhne-Chirskaya, in 43° 30′ E. and 48° 43′ N. Its permanent population, only about 1200, increases greatly in summer. It is the terminus of the railway (45 m.) which connects the Don with Tsaritsyn on the Volga, and all the goods (especially fish, petroleum, cereals and timber) brought from the Caspian Sea up the Volga and destined for middle Russia, or for export through the Sea of Azov, are unloaded at Tsaritsyn and sent over to Kalach on the Don.

KALAHANDI (formerly KAROND), a feudatory state of India, which was transferred from the Central Provinces to the Orissa division of Bengal in 1905. A range of the Eastern Ghats runs from N.E. to S.W. through the state, with open undulating country to the north. Area 3745 sq. m.; pop. (1901), 350,529; estimated revenue, £8000; tribute, £800. The inhabitants mostly belong to the aboriginal race of Khonds. A murderous outbreak against Hindu settlers called for armed intervention in 1882. The chief, Raghu Kishor Deo, was murdered by a servant in 1897, and during the minority of his son, Brij Mohan Deo, the state was placed in charge of a British political agent. The capital is Bhawani Patna.

KALAHARI DESERT, a region of South Africa, lying mainly between 20° and 28° S. and 19° and 24° E., and covering fully 120,000 sq. m. The greater part of this territory forms the western portion of the (British) Bechuanaland protectorate, but it extends south into that part of Bechuanaland annexed to the Cape and west into German South-West Africa. The Orange river marks its southern limit; westward it reaches to the foot of the Nama and Damara hills, eastward to the cultivable parts of Bechuanaland, northward and north-westward to the valley of the Okavango and the bed of Lake Ngami. The Kalahari, part of the immense inner table-land of South Africa, has an average elevation of over 3000 ft. with a general slope from east to west and a dip northward to Ngami. Described by Robert Moffat as "the southern Sahara," the Kalahari resembles the great desert of North Africa in being generally arid and in being scored by the beds of dried-up rivers. It presents however many points of difference from the Sahara. The surface soil is mainly red sand, but in places limestone overlies shale and conglomerates. The ground is undulating and its appearance is comparable with that of the ocean at times of heavy swell. The crests of the waves are represented by sand dunes, rising from 30 to 100 ft.; the troughs between the dunes vary greatly in breadth. On the eastern border long tongues of sand project into the veld, while the veld in places penetrates far into the desert. There are also, and especially along the river beds, extensive mud flats. After heavy rain these become pans or lakes, and water is then also found in mud-bottomed pools along the beds of the rivers. The water in the pans is often brackish, and in some cases thickly encrusted with salt. Pans also occur in crater-like depressions where rock rises above the desert sands. A tough, sun-bleached grass, growing knee-high in tufts at intervals of about 15 in., covers the dunes and gives the general colour of the landscape. Considerable parts of the Kalahari, chiefly in the west and north, are however covered with dense scrub and there are occasional patches of forest. Next to the lack of water the chief characteristics of the desert are the tuberous and herbaceous plants and the large numbers of big game found in it. Of the plants the most remarkable is the water-melon, of which both the bitter and sweet variety are found, and which supplies both man and beast with water. The game includes the lion, leopard, hippopotamus, rhinoceros, buffalo, zebra, quagga, many kinds of antelope (among them the kudu and gnu), baboon and ostrich. The elephant, giraffe and eland are also found. The hunting of these three last-named animals is prohibited, and for all game there is a close time from the beginning of September to the end of February.

The climate is hot, dry and healthy, save in the neighbourhood of the large marshes in the north, where malarial fever is prevalent. In this region the drainage is N.E. to the great Makarikari marsh and the Botletle, the river connecting the marsh with the Ngami system. In the south the drainage is towards the Orange. The Molopo and the Kuruman, which in their upper course in

eastern Bechuanaland are perennial streams, lose their water by evaporation and percolation on their way westward through the Kalahari. The Molopo, a very imposing river on the map, is dry in its lower stretches. The annual rainfall does not exceed 10 in. It occurs in the summer months, September to March, and chiefly in thunderstorms. The country is suffering from progressive desiccation, but there is good evidence of an abundant supply of water not far beneath the surface. In the water-melon season a few white farmers living on the edge of the desert send their herds thither to graze. Such few spots as have been under cultivation by artificial irrigation yield excellent returns to the farmer; but the chief commercial products of the desert are the skins of animals.

The Kalahari is the home of wandering Bushmen (*q.v.*), who live entirely by the chase, killing their prey with poisoned arrows, of Ba-Kalahari, and along the western border of Hottentots, who are both hunters and cattle-rearers. The Ba-Kalahari (men of the Kalahari), who constitute the majority of the inhabitants, appear to belong to the Batau tribe of the Bechuanas, now no longer having separate tribal existence, and traditionally reported to be the oldest of the Bechuana tribes. Their features are markedly negroid, though their skin is less black than that of many negro peoples. They have thin legs and arms. The Ba-Kalahari are said to have possessed enormous herds of large horned cattle until deprived of them and driven into the desert by a fresh migration of more powerful Bechuana tribes. Unlike the Bushmen, and in spite of desert life, the Ba-Kalahari have a true passion for agriculture and cattle-breeding. They carefully cultivate their gardens, though in many cases all they can grow is a scanty supply of melons and pumpkins, and they rear small herds of goats. They are also clever hunters, and from the neighbouring Bechuana chiefs obtain spears, knives, tobacco and dogs in exchange for the skins of the animals they kill. In disposition they are peaceful to timidity, grave and almost morose. Livingstone states that he never saw Ba-Kalahari children at play. An ingenious method is employed to obtain water where there is no open well or running stream. To one end of a reed about 2 ft. long a bunch of grass is tied, and this end of the reed is inserted in a hole dug at a spot where water is known to exist underground, the wet sand being rammed down firmly round it. An ostrich egg-shell, the usual water vessel, is placed on the ground alongside the reed. The water-drawer, generally a woman, then sucks up the water through the reed, dexterously squirting it into the adjacent egg-shell. To aid her aim she places between her lips a straw, the other end of which is inserted in the shell. The shells, when filled, are buried, the object of the Ba-Kalahari being to preserve their supplies from any sudden raid by Bushmen or other foe. Early travellers stated that no amount of bullying or hunting in a Ba-Kalahari village would result in a find of water; but that on friendly relations being established the natives would bring a supply, however arid the district. The British government has since sunk wells in one or two districts. Though the Ba Kalahari have no religion in the strict sense of the word, they show traces of totemism, and as Batau, *i.e.* " men of the lion," revere rather than fear that beast.

The Kalahari was first crossed to Lake Ngami by David Livingstone, accompanied by William C. Oswell, in 1849. In 1878–1879 a party of Boers, with about three hundred wagons, trekked from the Transvaal across the Kalahari to Ngami and thence to the hinterland of Angola. Many of the party, men, women and children, perished of thirst during the journey. Survivors stated that in all some 250 people and 9000 cattle died.

See BECHUANALAND. *Die Kalahari*, by Dr Siegfried Passarge (Berlin, 1904), is a valuable treatise on the geology, topography, hydrography, climate and flora of the desert, with maps and bibliography. The author spent two years (1896–1898) in the Kalahari. See also *Missionary Travels and Researches in South Africa*, &c., by David Livingstone (London, 1857).

KALAMATA (officially Καλάμαι, from an ancient town near the site), chief town of the modern Greek nomarchy of Messenia in the Morea, situated on the left bank of the Nedon, about 1 m. from the sea. Pop. (1907), 13,123. There is a suburb on the right bank of the stream. On a hill behind the town are the ruins of a medieval castle, but no ancient Greek remains have been discovered, although some travellers have identified the site with that of the classical Pharae or Pherae. It is the seat of a court of justice and of an archbishop. During the middle ages it was for a time a fief of the Villehardouins. In 1685 Kalamata was captured by the Venetians; in 1770, and again in 1821, it was the revolutionary headquarters in the Morea. In 1825 it was sacked by Ibrahim Pasha. Kalamata is situated in a very fruitful district, of which it is the emporium. The harbour, though recently improved, offers little shelter to shipping. Vessels load and discharge by means of lighters, the outer harbour having a depth at entrance of 24 ft. and inside of 14 ft. The inner harbour has a depth of 15 ft. and is sheltered by a breakwater 1640 ft. in length; in the winter months the fishing craft take shelter in the haven of Armyro. The silk industry, formerly important, still employs about 300 women and girls in four spinning establishments. Olive oil and silk are the chief exports.

KALAMAZOO, a city and the county-seat of Kalamazoo county, Michigan, U.S.A., on the W. bank of the Kalamazoo River, about 49 m. S. of Grand Rapids and 144 m. W. of Detroit. Pop. (1900) 24,404, of whom 4710 were foreign-born; (1910 census) 39,437. It is served by the Michigan Central, the Lake Shore & Michigan Southern, the Grand Rapids & Indiana, the Kalamazoo, Lake Shore & Chicago, and the Chicago, Kalamazoo & Saginaw railways, and by interurban electric lines. The city has a public library, and is the seat of Kalamazoo college (Baptist), which grew out of the Kalamazoo literary institute (1833) and was chartered under its present name in 1855; the Michigan female seminary (Presbyterian), established in 1866; the Western State normal school (1904); Nazareth Academy (1897), for girls; Barbour Hall (1899), a school for boys; two private schools for the feeble-minded; and the Michigan asylum for the insane, opened in 1859. The surrounding country is famous for its celery, and the city is an important manufacturing centre, ranking third among the cities of the state in the value of its factory products in 1904. The value of the factory product in 1904 was $13,141,767, an increase of 82·9% since 1900. The waterworks and electric-lighting plant are owned and operated by the municipality. Kalamazoo was settled in 1829, was known as Bronson (in honour of Titus Bronson, an early settler) until 1836, was incorporated as the village of Kalamazoo in 1838, and in 1884 became a city under a charter granted in the preceding year.

KALAPUYA, or CALLAPOOYA, a tribe and stock of North-American Indians, whose former range was the valley of the Willamette River, Oregon. They now number little more than a hundred, on a reservation on Grande Ronde reservation, Oregon.

KALAT, the capital of Baluchistan, situated in 29° 2′ N. and 66° 35′ E., about 6780 ft. above sea-level, 88 m. from Quetta. The town gives its name also to a native state with an area, including Makran and Kharan, of 71,593 m. and a population (1901) of 470,336. The word Kalat is derived from *kala*—a fortress; and Kalat is the most picturesque fortress in the Baluch highlands. It crowns a low hill, round the base of which clusters the closely built mass of flat-roofed mud houses which form the insignificant town. A *miri* or citadel, having an imposing appearance, dominates the town, and contains within its walls the palace of the khan. It was in an upper room of this residence that Mehrab Khan, ruler of Baluchistan, was killed during the storming of the town and citadel by the British troops at the close of the first Afghan War in 1839. In 1901 it had a population of only 2000. The valleys immediately surrounding the fortress are well cultivated and thickly inhabited, in spite of their elevation and the extremes of temperature to which they are exposed. Recent surveys of Baluchistan have determined the position of Hozdar or Khozdar (27° 48′ N., 66° 38′ E.) to be about 50 m. S. of Kalat. Khozdar was the former capital of Baluchistan, and is as directly connected with the southern branches of the Mulla Pass as Kalat is with the northern, the Mulla being the ancient trade route to Gandava (Kandabe) and Sind. In spite of the rugged and barren nature of the mountain districts of the Kalat highlands, the main routes through them (concentrating on Khozdar rather than on Kalat) are comparatively easy. The old " Pathan vat," the trade highway between Kalat and Karachi by the Hab valley, passes through Khozdar. From Khozdar another route strikes a little west of south to Wad, and then passes easily into Las Bela. This is the " Kohan vat." A third route runs to Nal, and leads to the head of the Kolwa valley (meeting with no great physical obstruction), and then strikes into the open high road to Persia. Some of the

valleys about Kalat (Mastang, for instance) are wide and fertile, full of thriving villages and strikingly picturesque; and in spite of the great preponderance of mountain wilderness (a wilderness which is, however, in many parts well adapted for the pasturage of sheep) existing in the Sarawan lowlands almost equally with the Jalawan highlands, it is not difficult to understand the importance which the province of Kalat, anciently called Turan (or Tubaran), maintained in the eyes of medieval Arab geographers (see BALUCHISTAN). New light has been thrown on the history of Kalat by the translation of an unpublished manuscript obtained at Tatta by Mr Tate, of the Indian Survey Department, who has added thereto notes from the Tufhat-ul-Kiram, for the use of which he was indebted to Khan Sahib Rasul Baksh, mukhtiardar of Tatta. According to these authorities, the family of the khans of Kalat is of Arabic origin, and not, as is usually stated, of Brahuic extraction. They belong to the Ahmadzai branch of the Mirwari clan, which originally emigrated from Oman to the Kolwa valley of Mekran. The khan of Kalat, Mir Mahmud Khan, who succeeded his father in 1893, is the leading chieftain in the Baluch Confederacy. The revenue of the khan is estimated at nearly £60,000, including subsidies from the British government; and an accrued surplus of £240,000 has been invested in Indian securities.

See G. P. Tate, *Kalat* (Calcutta, 1896); *Baluchistan District Gazetteer*, vol. vi. (Bombay, 1907). (T. H. H.*)

KALAT-I-GHILZAI, a fort in Afghanistan. It is situated on an isolated rocky eminence 5543 ft. above sea-level and 200 ft. above the plain, on the right bank of the river Tarnak, on the road between Kabul and Kandahar, 87 m. from Kandahar and 229 m. from Kabul. It is celebrated for its gallant defence by Captain Craigie and a sepoy garrison against the Afghans in the first Afghan War of 1842. In memory of this feat of arms, the 12th Pioneers still bear the name of "The Kalat-i-Ghilzai Regiment," and carry a special colour with the motto "Invicta."

KALB, JOHANN ("BARON DE KALB") (1721–1780), German soldier in the American War of Independence, was born in Hüttendorf, near Bayreuth, on the 29th of June 1721. He was of peasant parentage, and left home when he was sixteen to become a butler; in 1743 he was a lieutenant in a German regiment in the French service, calling himself at this time Jean de Kalb. He served with the French in the War of the Austrian Succession, becoming captain in 1747 and major in 1756; in the Seven Years' War he was in the corps of the comte de Broglie, rendering great assistance to the French after Rossbach (November 1757) and showing great bravery at Bergen (April 1759); and in 1763 he resigned his commission. As secret agent, appointed by Choiseul, he visited America in 1768–1769 to inquire into the feeling of the colonists toward Great Britain. From his retirement at Milon la Chapelle, Kalb went to Metz for garrison duty under de Broglie in 1775. Soon afterwards he received permission to volunteer in the army of the American colonies, in which the rank of major-general was promised to him by Silas Deane. After many delays he sailed with eleven other officers on the ship fitted out by Lafayette and arrived at Philadelphia in July 1777. His commission from Deane was disallowed, but the Continental Congress granted him the rank of major-general (dating from the 15th of September 1777), and in October he joined the army, where his growing admiration for Washington soon led him to view with disfavour de Broglie's scheme for putting a European officer in chief command. Early in 1778, as second in command to Lafayette for the proposed expedition against Canada, he accompanied Lafayette to Albany; but no adequate preparations had been made, and the expedition was abandoned. In April 1780, he was sent from Morristown, New Jersey, with his division of Maryland men, his Delaware regiment and the 1st artillery, to relieve Charleston, but on arriving at Petersburg, Virginia, he learned that Charleston had already fallen. In his camp at Buffalo Ford and Deep River, General Horatio Gates joined him on the 25th of July; and next day Gates led the army by the short and desolate road directly towards Camden. On the 11th–13th of August, when Kalb advised an immediate attack on Rawdon, Gates hesitated and then marched to a position on the Salisbury–Charlotte road which he had previously refused to take. On the 14th Cornwallis had occupied Camden, and a battle took place there on the 16th when, the other American troops having broken and fled, Kalb, unhorsed and fighting fiercely at the head of his right wing, was wounded eleven times. He was taken prisoner and died on the 19th of August 1780 in Camden. Here in 1825 Lafayette laid the corner-stone of a monument to him. In 1887 a statue of him by Ephraim Keyser was dedicated in Annapolis, Maryland.

See Friedrich Kapp, *Leben des amerikanischen Generals Johann Kalb* (Stuttgart, 1862; English version, privately printed, New York, 1870), which is summarized in George W. Greene's *The German Element in the War of American Independence* (New York, 1876).

KALCKREUTH (or KALKREUTH), **FRIEDRICH ADOLF,** COUNT VON (1737–1818), Prussian soldier, entered the regiment of Gardes du Corps in 1752, and in 1758 was adjutant or aide de camp to Frederick the Great's brother, Prince Henry, with whom he served throughout the later stages of the Seven Years' War. He won special distinction at the battle of Freiberg (Sept. 29, 1762), for which Frederick promoted him major. Personal differences with Prince Henry severed their connexion in 1766, and for many years Kalckreuth lived in comparative retirement. But he made the campaign of the War of the Bavarian Succession as a colonel, and on the accession of Frederick William II. was restored to favour. He greatly distinguished himself as a major-general in the invasion of Holland in 1787, and by 1792 had become count and lieutenant-general. Under Brunswick he took a conspicuous part in the campaign of Valmy in 1792, the siege and capture of Mainz in 1793, and the battle of Kaiserslautern in 1794. In the campaigns against Napoleon in 1806 he played a marked part for good or evil, both at Auerstädt and in the miserable retreat of the beaten Prussians. In 1807 he defended Danzig for 78 days against the French under Marshal Lefebvre, with far greater skill and energy than he had shown in the previous year. He was promoted field marshal soon afterwards, and conducted many of the negotiations at Tilsit. He died as governor of Berlin in 1818.

The *Dictées du Feldmaréchal Kalckreuth* were published by his son (Paris, 1844).

KALCKREUTH, LEOPOLD, COUNT VON (1855–), German painter, a direct descendant of the famous field-marshal (see above), was born at Düsseldorf, received his first training at Weimar from his father, the landscape painter Count Stanislaus von Kalckreuth (1820–1894), and subsequently studied at the academies of Weimar and Munich. Although he painted some portraits remarkable for their power of expression, he devoted himself principally to depicting with relentless realism the monotonous life of the fishing folk on the sea-coast, and of the peasants in the fields. His palette is joyless, and almost melancholy, and in his technique he is strongly influenced by the impressionists. He was one of the founders of the secessionist movement. From 1885 to 1890 Count von Kalckreuth was professor at the Weimar art school. In 1890 he resigned his professorship and retired to his estate of Höckricht in Silesia, where he occupied himself in painting subjects drawn from the life of the country-folk. In 1895 he became a professor at the art school at Karlsruhe. The Munich Pinakothek has his "Rainbow" and the Dresden Gallery his "Old Age." Among his chief works are the "Funeral at Dachau," "Homewards," "Wedding Procession in the Carpathian Mountains," "The Gleaners," "Old Age," "Before the Fish Auction," "Summer," and "Going to School."

See A. Ph. W. v. Kalckreuth, *Gesch. der Herren, Freiherren und Grafen von Kalckreuth* (Potsdam, 1904).

KALEIDOSCOPE (from Gr. *καλός*, beautiful, *εἶδος*, form, and *σκοπεῖν*, to view). The article REFLECTION explains the symmetrical arrangement of images formed by two mirrors inclined at an angle which is a sub-multiple of four right angles. This is the principle of the kaleidoscope, an optical toy which received its present form at the hands of Sir David Brewster about the

year 1815, and which at once became exceedingly popular owing to the beauty and variety of the images and the sudden and unexpected changes from one graceful form to another. A hundred years earlier R. Bradley had employed a similar arrangement which seems to have passed into oblivion (*New Improvements of Planting and Gardening*, 1710). The instrument has been extensively used by designers. In its simplest form it consists of a tube about twelve inches long containing two glass plates, extending along its whole length and inclined at an angle of 60°. The eye-end of the tube is closed by a metal plate having a small hole at its centre near the intersection of the glass plates. The other end is closed by a plate of muffed glass at the distance of distinct vision, and parallel to this is fixed a plate of clear glass. In the intervening space (the *object-box*) are contained a number of fragments of brilliantly coloured glass, and as the tube is turned round its axis these fragments alter their positions and give rise to the various patterns. A third reflecting plate is sometimes employed, the cross-section of the three forming an equilateral triangle. Sir David Brewster modified his apparatus by moving the object-box and closing the end of the tube by a lens of short focus which forms images of distant objects at the distance of distinct vision. These images take the place of the coloured fragments of glass, and they are symmetrically multiplied by the mirrors. In the *polyangular kaleidoscope* the angle between the mirrors can be altered at pleasure. Such instruments are occasionally found in old collections of philosophical apparatus and they have been used in order to explain to students the formation of multiple images. (C. J. J.)

KALERGIS, DIMITRI (Demetrios) (1803–1867), Greek statesman, was a Cretan by birth, studied medicine at Paris and on the outbreak of the War of Greek Independence went to the Morea and joined the insurgents. He fought under Karaiskakis, was taken prisoner by the Turks before Athens and mulcted of an ear; later he acted as aide de camp to the French philhellene Colonel Fabvier and to Count Capo d'Istria, president of Greece. In 1832 he was promoted lieutenant-colonel. In 1843, as commander of a cavalry division, he was the prime mover in the insurrection which forced King Otto to dismiss his Bavarian ministers. He was appointed military commandant of Athens and aide de camp to the king, but after the fall of the Mavrocordato ministry in 1845 was forced to go into exile, and spent several years in London, where he became an intimate of Prince Louis Napoleon. In 1848 he made an abortive descent on the Greek coast, in the hope of revolutionizing the kingdom. He was captured, but soon released and, after a stay in the island of Zante, went to Paris (1853). At the instance of the Western Powers he was recalled on the outbreak of the Crimean War and appointed minister of war in the reconstituted Mavrocordato cabinet (1854). He was, however, disliked by King Otto and his consort, and in October 1855 was forced to resign. In 1861 he was appointed minister plenipotentiary in Paris, in which capacity he took an important part in the negotiations which followed the fall of the Bavarian dynasty and led to the accession of Prince George of Denmark to the Greek throne.

KALEWALA, or Kalevala, the name of the Finnish national epos. It takes its name from the three sons of Kalewa (or Finland), viz. the ancient Wäinämöinen, the inventor of the sacred harp Kantele; the cunning art-smith, Ilmarinen; and the gallant Lemminkäinen, who is a sort of Arctic Don Juan. The adventures of these three heroes are wound about a plot for securing in marriage the hand of the daughter of Louhi, a hero from Pohjola, a land of the cold north. Ilmarinen is set to construct a magic mill, the Sanpo, which grinds out meal, salt and gold, and as this has fallen into the hands of the folk of Pohjola, it is needful to recover it. The poem actually opens, however, with a very poetical theory of the origin of the world. The virgin daughter of the atmosphere, Luonnotar, wanders for seven hundred years in space, until she bethinks her to invoke Ukko, the northern Zeus, who sends his eagle to her; this bird makes its nest on the knees of Luonnotar and lays in it seven eggs. Out of the substance of these eggs the visible world is made. But it is empty and sterile until Wäinämöinen descends upon it and woos the exquisite Aino. She disappears into space, and it is to recover from his loss and to find another bride that Wäinämöinen makes his series of epical adventures in the dismal country of Pohjola. Various episodes of great strangeness and beauty accompany the lengthy recital of the struggle to acquire the magical Sanpo, which gives prosperity to whoever possesses it. In the midst of a battle the Sanpo is broken and falls into the sea, but one fragment floats on the waves, and, being stranded on the shores of Finland, secures eternal felicity for that country. At the very close of the poem a virgin, Mariatta, brings forth a king who drives Wäinämöinen out of the country, and this is understood to refer to the ultimate conquest of Paganism by Christianity.

The *Kalewala* was probably composed at various times and by various bards, but always in sympathy with the latent traditions of the Finnish race, and with a mixture of symbolism and realism exactly accordant with the instincts of that race. While in the other antique epics of the world bloodshed takes a predominant place, the *Kalewala* is characteristically gentle, lyrical and even domestic, dwelling at great length on situations of moral beauty and romantic pathos. It is entirely concerned with the folk-lore and the traditions of the primeval Finnish race. The poem is written in eight-syllabled trochaic verse, and an idea of its style may be obtained from Longfellow's *Hiawatha*, which is a pretty true imitation of the Finnish epic.

Until the 19th century the *Kalewala* existed only in fragments in the memories and on the lips of the peasants. A collection of a few of these scattered songs was published in 1822 by Dr Zacharius Topelius, but it was not until 1835 that anything like a complete and systematically arranged collection was given to the world by Dr Elias Lönnrot. For years Dr Lönnrot wandered from place to place in the most remote districts, living with the peasantry, and taking down from their lips all that they knew of their popular songs. Some of the most valuable were discovered in the governments of Archangel and Olonetz. After unwearied diligence Lönnrot was successful in collecting 12,000 lines. These he arranged as methodically as he could into thirty-two runes or cantos, which he published exactly as he heard them sung or chanted. Continuing his researches, Dr Lönnrot published in 1849 a new edition of 22,793 verses in fifty runes. A still more complete text was published by A. V. Forsman in 1887. The importance of this indigenous epic was at once recognized in Europe, and translations were made into Swedish, German and French. Several translations into English exist, the fullest being that by J. M. Crawford in 1888. The best foreign editions are those of Castren in Swedish (1844), Leouzon le Duc in French (1845 and 1868), Schiefner in German (1852). (E. G.)

KALGAN (Chiang-Chia K'ow), a city of China, in the province of Chih-li, with a population estimated at from 70,000 to 100,000. It lies in the line of the Great Wall, 122 m. by rail N.W. of Peking, commanding an important pass between China and Mongolia. Its position is stated as in 40° 50′ N. and 114° 54′ E., and its height above the sea as 2810 ft. The valley amid the mountains in which it is situated is under excellent cultivation, and thickly studded with villages. Kalgan consists of a walled town or fortress and suburbs 3 m. long. The streets are wide, and excellent shops are abundant; but the ordinary houses have an unusual appearance, from the fact that they are mostly roofed with earth and become covered with green-sward. Large quantities of soda are manufactured; and the town is the seat of a very extensive transit trade. In October 1909 it was connected by railway with Peking. In early autumn long lines of camels come in from all quarters for the conveyance of the tea-chests from Kalgan to Kiakhta; and each caravan usually makes three journeys in the winter. Some Russian merchants have permanent residences and warehouses just outside the gate. On the way to Peking the road passes over a beautiful bridge of seven arches, ornamented with marble figures of animals. The name Kalgan is Mongolian, and means a barrier or "gate-beam."

KALGOORLIE, a mining town of Western Australia, 24 m. by rail E.N.E. of Coolgardie. Pop. (1901), 6652. It is a thriving town with an electric tramway service, and is the junction of four lines of railway. The gold-field, discovered in 1893, is very rich, supporting about 15,000 miners. The town is supplied with water, like Coolgardie, from a source near Perth 360 m. distant.

KALI (black), or *Kali Ma* (the Black Mother), in Hindu mythology, the goddess of destruction and death, the wife of Siva. According to one theory, Calcutta owes its name to her, being originally Kalighat, "Kali's landing-place." Siva's consort has many names (*e.g.* Durga, Bhawani, Parvati, &c.). Her idol is black, with four arms, and red palms to the hands. Her eyes are red, and her face and breasts are besmeared with blood. Her hair is matted, and she has projecting fang-like teeth, between which protrudes a tongue dripping with blood. She wears a necklace of skulls, her earrings are dead bodies, and she is girded with serpents. She stands on the body of Siva, to account for which attitude there is an elaborate legend. She is more worshipped in Gondwana and the forest tracts to the east and south of it than in any other part of India. Formerly human sacrifice was the essential of her ritual. The victim, always a male, was taken to her temple after sunset and imprisoned there. When morning came he was dead: the priests told the people that Kali had sucked his blood in the night. At Dantewara in Bastar there is a famous shrine of Kali under the name of Danteswari. Here many a human head has been presented on her altar. About 1830 it is said that upwards of twenty-five full-grown men were immolated at once by the raja. Cutting their flesh and burning portions of their body were among the acts of devotion of her worshippers. Kali is goddess of small-pox and cholera. The Thugs murdered their victims in her honour, and to her the sacred pickaxe, wherewith their graves were dug, was consecrated.

The *Hook-swinging Festival* (*Churruk* or *Churuck Puja*), one of the most notable celebrations in honour of the goddess Kali, has now been prohibited in British territory. Those who had vowed themselves to self-torture submitted to be swung in the air supported only by hooks passed through the muscles over the blade-bones. These hooks were hung from a long crossbeam, which see-sawed upon a huge upright pole. Hoisted into the air by men pulling down the other end of the see-saw beam, the victim was then whirled round in a circle. The torture usually lasted fifteen or twenty minutes.

See A. A. Macdonell, *Vedic Mythology* (Strassburg, 1897).

KĀLIDĀSA, the most illustrious name among the writers of the second epoch of Sanskrit literature, which, as contrasted with the age of the Vedic hymns, may be characterized as the period of artificial poetry. Owing to the absence of the historical sense in the Hindu race, it is impossible to fix with chronological exactness the lifetime of either Kālidāsa or any other Sanskrit author. Native tradition places him in the 1st century B.C.; but the evidence on which this belief rests is worthless. The works of the poet contain no allusions by which their date can be directly determined; yet the extremely corrupt form of the Prākrit or popular dialects spoken by the women and the subordinate characters in his plays, as compared with the Prākrit in inscriptions of ascertained age, led such authorities as Weber and Lassen to agree in fixing on the 3rd century A.D. as the approximate period to which the writings of Kālidāsa should be referred.

He was one of the "nine gems" at the court of King Vikramaditya or Vikrama, at Ujjain, and the tendency is now to regard the latter as having flourished about A.D. 375; others, however, place him as late as the 6th century. The richness of his creative fancy, his delicacy of sentiment, and his keen appreciation of the beauties of nature, combined with remarkable powers of description, place Kālidāsa in the first rank of Oriental poets. The effect, however, of his productions as a whole is greatly marred by extreme artificiality of diction, which, though to a less extent than in other Hindu poets, not unfrequently takes the form of puerile conceits and plays on words. In this respect his writings contrast very unfavourably with the more genuine poetry of the Vedas. Though a true poet, he is wanting in that artistic sense of proportion so characteristic of the Greek mind, which exactly adjusts the parts to the whole, and combines form and matter into an inseparable poetic unity. Kālidāsa's fame rests chiefly on his dramas, but he is also distinguished as an epic and a lyric poet.

He wrote three plays, the plots of which all bear a general resemblance, inasmuch as they consist of love intrigues, which, after numerous and seemingly insurmountable impediments of a similar nature, are ultimately brought to a successful conclusion.

Of these, *Sakuntalā* is that which has always justly enjoyed the greatest fame and popularity. The unqualified praise bestowed upon it by Goethe sufficiently guarantees its poetic merit. There are two recensions of the text in India, the Bengalī and the Devanāgarī, the latter being generally considered older and purer. *Sakuntalā* was first translated into English by Sir William Jones (Calcutta, 1789), who used the Bengalī recension. It was soon after translated into German by G. Forster (1791; new ed. Leipzig, 1879). An edition of the Sanskrit original, with French translation, was published by A. L. Chézy at Paris in 1830. This formed the basis of a translation by B. Hirzel (Zürich, 1830); later trans. by L. Fritze (Chemnitz, 1876). Other editions of the Bengalī recension were published by Prema Chandra (Calcutta, 1860) for the use of European students and by R. Pischel (2nd ed., Kiel, 1886). The Devanāgarī recension was first edited by O. Böhtlingk (Bonn, 1842), with a German translation. On this were based the successive German translations of E. Meier (Tübingen, 1851) and E. Lobedanz (8th ed., Leipzig, 1892). The same recension has been edited by Dr C. Burkhard with a Sanskrit-Latin vocabulary and short Prākrit grammar (Breslau, 1872), and by Professor Monier Williams (Oxford, 2nd ed. 1876), who also translated the drama (5th ed., 1887). There is another translation by P. N. Patankar (Poona, 1888–). There are also a South Indian and a Cashmir recension.

The *Vikramorvasī*, or *Urvasī won by Valour*, abounds with fine lyrical passages, and is of all Indian dramas second only to *Sakuntalā* in poetic beauty. It was edited by R. Lenz (Berlin, 1833) and translated into German by C. G. A. Höfer (Berlin, 1837), by B. Hirzel (1838), by E. Lobedanz (Leipzig, 1861) and F. Bollensen (Petersburg, 1845). There is also an English edition by Monier Williams, a metrical and prose version by Professor H. H. Wilson, and a literal prose translation by Professor E. B. Cowell (1851). The latest editions are by S. P. Pandit (Bombay, 1879) and K. B. Paranjpe (ibid. 1898).

The third play, entitled *Mālavikāgnimitra*, has considerable poetical and dramatic merit, but is confessedly inferior to the other two. It possesses the advantage, however, that its hero Agnimitra and its heroine Mālavikā are more ordinary and human characters than those of the other plays. It is edited by O. F. Tullberg (Bonn, 1840), by Shankar P. Pandit, with English notes (1869), and S. S. Ayyar (Poona, 1896); translated into German by A. Weber (1856), and into English by C. H. Tawney (2nd ed., Calcutta, 1898).

Two epic poems are also attributed to Kālidāsa. The longer of these is entitled *Raghuvamsa*, the subject of which is the same as that of the *Rāmāyana*, viz. the history of Rāma, but beginning with a long account of his ancestors, the ancient rulers of Ayodhya (ed. by A. F. Stenzler, London, 1832; and with Eng. trans. and notes by Gopal Raghunath Nandargĭkar, Poona, 1897; verse trans. by P. de Lacy Johnstone, 1902). The other epic is the *Kumārasambhava*, the theme of which is the birth of Kumāra, otherwise called Kārttikeya or Skanda, god of war (ed. by Stenzler, London, 1838; K. M. Banerjea, 3rd ed. Calcutta, 1872; Parvanikara and Parab, Bombay, 1893; and M. R. Kale and S. R. Dharadhara, ibid. 1907; Eng. trans. by R. T. Griffith, 1879). Though containing many fine passages, it is tame as a whole.

His lyrical poems are the *Meghadūta* and the *Ritusamhāra*. The *Meghadūta*, or the Cloud-Messenger, describes the complaint of an exiled lover, and the message he sends to his wife by a cloud. It is full of deep feeling, and abounds with fine descriptions of the beauties of nature. It was edited with free English translation by H. H. Wilson (Calcutta, 1813), and by J. Gildemeister (Bonn, 1841); a German adaptation by M. Müller appeared at Königsberg (1847), and one by C. Schütz at Bielefeld (1859). It was edited by F. Johnson, with vocabulary and Wilson's metrical translation (London, 1867); later editions by K. P. Parab (Bombay, 1891) and K. B. Pathak (Poona, 1894). The *Ritusamhāra*, or Collection of the Seasons, is a short poem, of less importance, on the six seasons of the year. There is an edition by P. von Bohlen, with prose Latin and metrical German translation (Leipzig, 1840); Eng. trans. by C. S. Sitaram Ayyar (Bombay, 1897).

Another poem, entitled the *Nalodaya*, or Rise of Nala, edited by F. Benary (Berlin, 1830), W. Yates (Calcutta, 1844) and Vidyasagara (Calcutta, 1873), is a treatment of the story of Nala and Damayanti, but describes especially the restoration of Nala to prosperity and power. It has been ascribed to the celebrated Kālidāsa, but was probably written by another poet of the same name. It is full of most absurd verbal conceits and metrical extravagances.

So many poems, partly of a very different stamp, are attributed to Kālidāsa that it is scarcely possible to avoid the necessity of assuming the existence of more authors than one of that name. It is by no means improbable that there were three poets thus named; indeed modern native astronomers are so convinced of the existence of a triad of authors of this name that they apply the term Kālidāsa to designate the number three.

On Kālidāsa generally, see A. A. Macdonell's *History of Sanskrit Literature* (1900), and on his date G. Huth, *Die Zeit des K.* (Berlin, 1890). (A. A. M.)

KALIMPONG, a village of British India, in the Darjeeling district of Bengal, 4000 ft. above sea-level; pop. (1901), 1069. It is a frontier market for the purchase of wool and mules from Tibet, and an important agricultural fair is held in November. In 1900 Kalimpong was chosen by the Church of Scotland as the site of cottage homes, known as St Andrew's Colonial Homes, for the education and training of poor European and Eurasian children.

KALINGA, or CALINGA, one of the nine kingdoms of southern India in ancient times. Its exact limits varied, but included the eastern Madras coast from Pulicat to Chicacole, running inland from the Bay of Bengal to the Eastern Ghats. The name at one time had a wider and vaguer meaning, comprehending Orissa, and possibly extending to the Ganges valley. The Kalinga of Pliny certainly included Orissa, but latterly it seems to have been confined to the Telugu-speaking country; and in the time of Hsüan Tsang (630 A.D.) it was distinguished on the south and west from Andhra, and on the north from Odra or Orissa. Taranatha, the Tibetan historian, speaks of Kalinga as one division of the country of Telinga. Hsüan Tsang speaks of Kalinga (" Kie-ling-kia ") having its capital at what has been identified with the site either of Rajahmundry or Coringa. Both these towns, as well as Singapur, Calingapatam and Chicacole, share the honour of having been the chief cities of Kalinga at different periods; but inscriptions recently deciphered seem to prove that the capital of the Ganga dynasty of Kalinga was at Mukhalingam in the Ganjam district.

KALINJAR, a town and hill fort of British India in the Banda district of the United Provinces. Pop. (1901), 3015. The fort stands on an isolated rock, the termination of the Vindhya range, at an elevation of 1203 ft., overlooking the plains of Bundelkhand. Kalinjar is the most characteristic specimen of the hill-fortresses, originally hill-shrines, of central India. Its antiquity is proved by its mention in the *Mahābhārata*. It was besieged by Mahmud of Ghazni in 1023, and here the Afghan emperor Sher Shah met his death in 1545, and Kalinjar played a prominent part in history down to the time of the Mutiny in 1857, when it was held by a small British garrison. Both the fort and the town, which stands at the foot of the hill, are of interest to the antiquary on account of their remains of temples, sculptures, inscriptions and caves.

KALIR [QALIR], ELEAZER, Hebrew liturgical poet, whose hymns (*piyyutim*) are found in profusion in the festival prayers of the German synagogal rite. The age in which he lived is unknown. Some (basing the view on Saadiah's *Sefer ha-galuy*) place him as early as the 6th century, others regard him as belonging to the 10th century. Kalir's style is powerful but involved; he may be described as a Hebrew Browning.

Some beautiful renderings of Kalir's poems may be found in the volumes of Davis & Adler's edition of the German Festival Prayers entitled *Service of the Synagogue.*

KALISCH, ISIDOR (1816–1886), Jewish divine, was born at Krotoschin in Prussia on the 15th of November 1816, and was educated at Berlin, Breslau and Prague. In 1848 he came to London, but passed on in 1849 to America, where he ministered as rabbi in Cleveland, Cincinnati, Milwaukee, Detroit and Newark, New Jersey. At Newark from 1875 he gave himself entirely to literary work, and exercised a strong influence as leader of the radical and reforming Jewish party.

Among his works are *Wegweisen für rationelle Forschungen in den biblischen Schriften* (1853); and translations of *Nathan der Weise* (1869); *Sepher Jezirah* (1877); and Munz's *History of Philosophy among the Jews* (1881). He also wrote a good deal of German and Hebrew verse.

KALISCH, MARCUS (or MAURICE) (1828–1885), Jewish scholar, was born in Pomerania in 1828, and died in England 1885. He was one of the pioneers of the critical study of the Old Testament in England. At one time he was secretary to the Chief Rabbi; in 1853 he became tutor in the Rothschild family and enjoyed leisure to produce his commentaries and other works. The first instalment of his commentary on the Pentateuch was *Exodus* (1855); this was followed by *Genesis* (1858) and *Leviticus* in two parts (1867–1872). Kalisch wrote before the publication of Wellhausen's works, and anticipated him in some important points. Besides these works, Kalisch published in 1877–1878 two volumes of Bible studies (on *Balaam* and *Jonah*). He was also author of a once popular Hebrew grammar in two volumes (1862–1863). In 1880 he published *Path and Goal*, a brilliant discussion of human destiny. His commentaries are of permanent value, not only because of the author's originality, but also because of his erudition. No other works in English contain such full citations of earlier literature. (I. A.)

KALISPEL, or PEND D'OREILLE, a tribe of North-American Indians of Salishan stock. They formerly ranged the country around Pend d'Oreille Lake, Washington. They number some 600, and are settled on a reservation in Montana.

KALISZ, a government of Russian Poland, having Prussia on the W., and the governments of Warsaw and Piotrków on the E. Its area is 4390 sq. m. Its surface is a lowland, sloping towards the west, and is drained by the Prosna and the Warta and their tributaries, and also by the Bzura. It was formerly covered with countless small lakes and thick forests; the latter are now mostly destroyed, but many lakes and marshes exist still. Pop. (1897), 844,358 of whom 427,978 were women, and 113,609 lived in towns; estimated pop. (1906), 983,200. They are chiefly Poles. Roman Catholics number 83%; Jews and Protestants each amount to 7%. Agriculture is carried to perfection on a number of estates, as also livestock breeding. The crops principally raised are rye, wheat, oats, barley and potatoes. Various domestic trades, including the weaving of linen and wool, are carried on in the villages. There are some factories, producing chiefly cloth and cottons. The government is divided into eight districts, the chief towns of which, with their populations in 1897, are: Kalisz (21,680), Kolo (9400), Konin (8530), Leczyca (8863), Slupec (3758), Sieradz (7019), Turek (8141) and Wielun (7442).

KALISZ, the chief town of the above government, situated in 51° 46′ N. and 18° E., 147 m. by rail W.S.W. of Warsaw, on the banks of the Prosna, which there forms the boundary of Prussia. Pop. (1871), 18,088; (1897), 21,680, of whom 37% were Jews. It is one of the oldest and finest cities of Poland, is the seat of a Roman Catholic bishop, and possesses a castle, a teachers' institute and a large public park. The industrial establishments comprise a brewery, and factories for ribbons, cloth and sugar, and tanneries.

Kalisz is identified with the *Calisia* of Ptolemy, and its antiquity is indicated by the abundance of coins and other objects of ancient art which have been discovered on the site, as well as by the numerous burial mounds existing in the vicinity. It was the scene of the decisive victory of Augustus the Strong of Poland over the Swedes on the 29th of October 1706, of several minor conflicts in 1813, and of the friendly meeting of the Russian and Prussian troops in 1835, in memory of which an iron obelisk was erected in the town by Nicholas I. in 1841. The treaty of 1813 between Russia and Prussia was signed here.

KALK, a town in the Prussian Rhine province, on the right bank of the Rhine, 2 m. E. of Cologne. Pop. (1905), 25,478. Kalk is an important junction of railway lines connecting Cologne with places on the right bank of the river. It has various iron and chemical industries, brickworks and breweries, and an electric tramway joins it with Cologne.

KALKAS, or KHALKAS, a Mongoloid people mainly concentrated in the northern steppes of Mongolia near their kinsmen, the Buriats. According to Sir H. Howorth they derive their name from the river Kalka, which runs into the Buir lake. Of all Mongolians they physically differ most from the true Mongol type (see MONGOLS). Their colour is a brown rather than a yellow, and their eyes are open and not oblique. They have, however, the broad flat face, high cheekbones and lank black hair of their race. They number some 250,000, and their territory is divided into the four khanates of Tushetu (Tushiyetu), Tsetien (Setzen), Sai'noi'm (Sain Noyan) and Jesaktu (Jassaktu).

KALKBRENNER, FRIEDRICH WILHELM (1784–1849), German pianist and composer, son of Christian Kalkbrenner (1755–1806), a Jewish musician of Cassel, was educated at the

Paris Conservatoire, and soon began to play in public. From 1814 to 1823 he was well known as a brilliant performer and a successful teacher in London, and then settled in Paris, dying at Enghien, near there, in 1849. He became a member of the Paris piano-manufacturing firm of Pleyel & Co., and made a fortune by his business and his art combined. His numerous compositions are less remembered now than his instruction-book, with "studies," which have had considerable vogue among pianists.

KÁLLAY, BENJAMIN VON (1839–1903), Austro-Hungarian statesman, was born at Budapest on the 22nd of December 1839. His family derived their name from their estates at Nágy Kallo, in Szabolcs, and claimed descent from the Balogh Semjen tribe, which colonized the counties of Borsod, Szabolcs, and Szatmár, at the close of the 9th century, when the Magyars conquered Hungary. They played a prominent part in Hungarian history as early as the reign of Koloman (1095–1114); and from King Matthias Corvinus (1458–1490) they received their estates at Mezö Tur, near Kecskemét, granted to Michael Kállay for his heroic defence of Jajce in Bosnia, and still held by his descendants. The father of Benjamin von Kállay, a superior official of the Hungarian Government, died in 1845, and his widow, who survived until 1903, devoted herself to the education of her son. At an early age Kállay manifested a deep interest in politics, and especially in the Eastern Question. He travelled in Russia, European Turkey and Asia Minor, gaining a thorough knowledge of Greek, Turkish and several Slavonic languages. He became as proficient in Servian as in his native tongue. In 1867 he entered the Hungarian Diet as Conservative deputy for Mühlbach (Szásy-Szebes); in 1869 he was appointed consul-general at Belgrade; and in 1872 he visited Bosnia for the first time. His views on Balkan questions strongly influenced Count Andrássy, the Austro-Hungarian minister for foreign affairs. Leaving Belgrade in 1875, he resumed his seat in the Diet, and shortly afterwards founded the journal *Kélet Nepe*, or *Eastern Folk*, in which he defended the vigorous policy of Andrássy. After the Russo-Turkish War of 1878 he went to Philippopolis as Austro-Hungarian envoy extraordinary on the International Eastern Rumelian Commission. In 1879 he became second, and soon afterwards first, departmental chief at the foreign office in Vienna. On the 4th of June 1882 he was appointed Imperial minister of finance and administrator of Bosnia and Herzegovina, and the distinction with which he filled this office, for a period of 21 years, is his chief title of fame (see BOSNIA AND HERZEGOVINA). Kállay was an honorary member of the Budapest and Vienna academies of science, and attained some eminence as a writer. He translated J. S. Mill's *Liberty* into Hungarian, adding an introductory critique; while his version of *Galatea*, a play by the Greek dramatist S. N. Basiliades (1843–1874), proved successful on the Hungarian stage. His monographs on Servian history (*Geschichte der Serben*) and on the Oriental ambition of Russia (*Die Orientpolitik Russlands*) were translated into German by J. H. Schwicker, and published at Leipzig in 1878. But, in his own opinion, his masterpiece was an academic oration on the political and geographical position of Hungary as a link between East and West. In 1873 Kállay married the countess Vilma Bethlen, who bore him two daughters and a son. His popularity in Bosnia was partly due to the tact and personal charm of his wife. He died on the 13th of July 1903.

KALMAR (CALMAR), a seaport of Sweden on the Baltic coast, chief town of the district (*län*) of Kalmar, 250 m. S.S.W. of Stockholm by rail. Pop. (1900), 12,715. It lies opposite the island of Öland, mainly on two small islands, but partly on the mainland, where there is a pleasant park. The streets are regular, and most of the houses are of wood. The principal public edifices, however, are constructed of limestone from Öland, including the cathedral, built by Nicodemus Tessin and his son Nicodemus in the second half of the 17th century. Kalmar, a town of great antiquity, was formerly strongly fortified, and there remains the island-fortress of Kalmarnahus, dating partly from the 12th century, but mainly from the 16th and 17th. It contains the beautiful chamber of King Eric XIV. (d. 1577), an historical museum, and in the courtyard a fine ornate well-cover. This stronghold stood several sieges in the 14th, 15th and 16th centuries, and the town gives name to the treaty (Kalmar Union) by which Sweden, Norway and Denmark were united into one kingdom in 1397. Kalmar has an artificial harbour admitting vessels drawing 19 ft. There are a school of navigation, and tobacco and match factories, the produce of which, together with timber and oats, is exported. Shipbuilding is carried on.

KALMUCK, or KALMYK STEPPE, a territory or reservation belonging to the Kalmuck or Kalmyk Tatars, in the Russian government of Astrakhan, bounded by the Volga on the N.E., the Manych on the S.W., the Caspian Sea on the E., and the territory of the Don Cossacks on the N.W. Its area is 36,900 sq. m., to which has to be added a second reservation of 3045 sq. m. on the left bank of the lower Volga. According to I. V. Mushketov, the Kalmuck Steppe must be divided into two parts, western and eastern. The former, occupied by the Ergeni hills, is deeply trenched by ravines and rises 300 and occasionally 630 ft. above the sea. It is built up of Tertiary deposits, belonging to the Sarmatian division of the Miocene period and covered with loess and black earth, and its escarpments represent the old shore-line of the Caspian. No Caspian deposits are found on or within the Ergeni hills. These hills exhibit the usual black earth flora, and they have a settled population. The eastern part of the steppe is a plain, lying for the most part 30 to 40 ft. below the level of the sea, and sloping gently towards the Volga. Post-Pliocene "Aral-Caspian deposits," containing the usual fossils (*Hydrobia*, *Neritina*, eight species of *Cardium*, two of *Dreissena*, three of *Adacna* and *Lithoglyphus caspius*), attain thicknesses varying from 105 ft. to 7 or 10 ft., and disappear in places. Lacustrine and fluviatile deposits occur intermingled with the above. Large areas of moving sands exist near Enotayevsk, where high dunes or *barkhans* have been formed. A narrow tract of land along the coast of the Caspian, known as the "hillocks of Baer," is covered with hillocks elongated from west to east, perpendicularly to the coast-line, the spaces between them being filled with water or overgrown with thickets of reed, *Salix*, *Ulmus campestris*, almond trees, &c. An archipelago of little islands is thus formed close to the shore by these mounds, which are backed on the N. and N.W. by strings of salt lakes, partly desiccated. Small streams originate in the Ergenis, but are lost as soon as they reach the lowlands, where water can only be obtained from wells. The scanty vegetation is a mixture of the flora of south-east Russia and that of the deserts of central Asia. The steppe has an estimated population of 130,000 persons, living in over 27,700 *kibitkas*, or felt tents. There are over 60 Buddhist monasteries. Part of the Kalmucks are settled (chiefly in the hilly parts), the remainder being nomads. They breed horses, cattle and sheep, but suffer heavy losses from murrain. Some attempts at agriculture and tree-planting are being made. The breeding of livestock, fishing, and some domestic trades, chiefly carried on by the women, are the principal sources of maintenance.

See I. V. Mushketov, *Geol. Researches in the Kalmyk Steppe in 1884–1885* (St Petersburg, 1894, in Russian); Kostenkov's works (1868–1870); and other works quoted in Semenov's *Geogr. Dict.* and *Russ. Encycl. Dict.* (P. A. K.; J. T. BE.)

KALNÓKY, GUSTAV SIEGMUND, COUNT (1832–1898), Austro-Hungarian statesman, was born at Lettowitz, in Moravia, on the 29th of December 1832, of an old Transylvanian family which had held countly rank in Hungary from the 17th century. After spending some years in a hussar regiment, in 1854 he entered the diplomatic service without giving up his connexion with the army, in which he reached the rank of general in 1879. He was for the ten years 1860 to 1870 secretary of embassy at London, and then, after serving at Rome and Copenhagen, was in 1880 appointed ambassador at St Petersburg. His success in Russia procured for him, on the death of Baron v. Haymerle in 1881, the appointment of minister of foreign affairs for Austria-Hungary, a post which he held for fourteen years. Essentially a diplomatist,

he took little or no part in the vexed internal affairs of the Dual Monarchy, and he came little before the public except at the annual statement on foreign affairs before the Delegations. His management of the affairs of his department was, however, very successful; he confirmed and maintained the alliance with Germany, which had been formed by his predecessors, and co-operated with Bismarck in the arrangements by which Italy joined the alliance. Kalnóky's special influence was seen in the improvement of Austrian relations with Russia, following on the meeting of the three emperors in September 1884 at Skiernevice, at which he was present. His Russophile policy caused some adverse criticism in Hungary. His friendliness for Russia did not, however, prevent him from strengthening the position of Austria as against Russia in the Balkan Peninsula by the establishment of a closer political and commercial understanding with Servia and Rumania. In 1885 he interfered after the battle of Slivnitza to arrest the advance of the Bulgarians on Belgrade, but he lost influence in Servia after the abdication of King Milan. Though he kept aloof from the Clerical party, Kalnóky was a strong Catholic; and his sympathy for the difficulties of the Church caused adverse comment in Italy, when, in 1891, he stated in a speech before the Delegations that the question of the position of the pope was still unsettled. He subsequently explained that by this he did not refer to the Roman question, which was permanently settled, but to the possibility of the pope leaving Rome. The jealousy felt in Hungary against the Ultramontanes led to his fall. In 1895 a case of clerical interference in the internal affairs of Hungary by the nuncio Agliardi aroused a strong protest in the Hungarian parliament, and consequent differences between Bánffy, the Hungarian minister, and the minister for foreign affairs led to Kalnóky's resignation. He died on the 13th of February 1898 at Prödlitz in Moravia.

KALOCSA, a town of Hungary, in the county of Pest-Pilis-Solt-Kis-Kun, 88 m. S. of Budapest by rail. Pop. (1900), 11,372. It is situated in a marshy but highly productive district, near the left bank of the Danube, and was once of far greater importance than at present. Kalocsa is the see of one of the four Roman Catholic archbishops in Hungary. Amongst its buildings are a fine cathedral, the archiepiscopal palace, an astronomical observatory, a seminary for priests, and colleges for training of male and female teachers. The inhabitants of Kalocsa and its wide-spreading communal lands are chiefly employed in the cultivation of the vine, fruit, flax, hemp and cereals, in the capture of water-fowl and in fishing. Kalocsa is one of the oldest towns in Hungary. The present archbishopric, founded about 1135, is a development of a bishopric said to have been founded in the year 1000 by King Stephen the Saint. It suffered much during the 16th century from the hordes of Ottomans who then ravaged the country. A large part of the town was destroyed by a fire in 1875.

KALPI, or CALPEE, a town of British India, in the Jalaun district of the United Provinces, on the right bank of the Jumna, 45 m. S.W. of Cawnpore. Pop. (1901), 10,139. It was founded, according to tradition, by Vasudeva, at the end of the 4th century A.D. In 1196 it fell to Kutab-ud-din, the viceroy of Mahommed Ghori, and during the subsequent Mahommedan period it played a large part in the annals of this part of India. About the middle of the 18th century it passed into the hands of the Mahrattas. It was captured by the British in 1803, and since 1806 has remained in British possession. In May 1858 Sir Hugh Rose (Lord Strathnairn) defeated here a force of about 10,000 rebels under the rani of Jhansi. Kalpi had a mint for copper coinage in the reign of Akbar; and the East India Company made it one of their principal stations for providing the "commercial investment." The old town, which is beside the river, has ruins of a fort, and several temples of interest, while in the neighbourhood are many ancient tombs. There is a lofty modern tower ornamented with representations of the battles of the *Ramayana*. The new town lies away from the river to the south-east. Kalpi is still a centre of local trade (principally in grain, *ghi* and cotton), with a station on the Indian Midland railway from Jhansi to Cawnpore, which here crosses the Jumna. There are manufactures of sugar and paper.

KALUGA, a government of middle Russia, surrounded by those of Moscow, Smolensk, Orel and Tula, with an area of 11,942 sq. m. Its surface is an undulating plain, reaching 800 to 900 ft. in its highest parts, which lie in the S.W., and deeply trenched by watercourses, especially in the N.E. The Oka, a main tributary of the Volga, and its confluents (the Zhizdra and Ugra) drain all but a strip of country in the west, which is traversed by the Bolva, an affluent of the Dnieper. The government is built up mainly of carboniferous deposits (coal-bearing), with patches of the soft Jurassic clays and limestones which formerly covered them. Cretaceous deposits occur in the S.W., and Devonian limestones and shales crop out in the S.E. The government is covered with a thick layer of boulder clay in the north, with vast ridges and fields of boulders brought during the Glacial Period from Finland and the government of Olonets; large areas in the middle are strewn with flint boulders and patches of loess are seen farther south. The mean annual temperature is 41° F. Iron ores are the chief mineral wealth, nearly 40,000 persons being engaged in mining. Beds of coal occur in several places, and some of them are worked. Fireclay, china-clay, chalk, grindstone, pure quartz sand, phosphorite and copper are also extracted. Forests cover 20% of the surface, and occur chiefly in the south. The soil is not very suitable for agriculture, and owing to a rather dense population, considerable numbers of the inhabitants find occupation in industry, or as carriers and carpenters for one-half of the year at the Black Sea ports.

The population (1,025,705 in 1860) was 1,176,353 in 1897, nearly all Great Russians. There were 116 women to 100 men, and out of the total population 94,853 lived in towns. The estimated population in 1906 was 1,287,300. Of the total area over 4,000,000 acres are owned by the peasant communities, nearly 3,000,000 acres by private owners and some 250,000 by the Crown. The principal crops are rye, oats, barley, buckwheat, and potatoes. Hemp is grown for local use and export. Bees are kept. The chief non-agricultural industries are distilleries, iron-works, factories for cloth, cottons, paper, matches, leather and china, flour-mills and oil works. Large quantities of wooden wares are fabricated in the villages of the south. A considerable trade is carried on in hemp, hempseed and hempseed oil, corn and hides; and iron, machinery, leather, glass, chemicals and linen are exported. The government is divided into 11 districts, the chief towns of which, with their populations in 1897, are: Kaluga (49,728), Borovsk (8407), Kozelsk (5908), Likhvin (1776), Maloyaroslavets (2500), Medyñ (4392), Meshchovsk (3667), Mosalsk (2652), Peremyshl (3956), Tarusa (1989) and Zhizdra (5996). (P. A. K.; J. T. Be.)

KALUGA, the chief town of the above government, situated on the left bank of the Oka, 117 m. S.W. of Moscow by rail, in 54° 31′ N. and 36° 6′ E. Pop. (1870), 36,880; (1897) 49,728. It is the see of a Greek Orthodox bishop. The public buildings include the cathedral of the Trinity (rebuilt in the 19th century in place of an older edifice dating from 1687), two monastic establishments, an ecclesiastical seminary, and a lunatic asylum. The principal articles of industrial production are leather, oil, bast mats, wax candles, starch and Kaluga cakes. The first historical mention of Kaluga occurs in 1389; its incorporation with the principality of Moscow took place in 1518. In 1607 it was held by the second false Demetrius and vainly besieged for four months by the forces of Shuisky, who had ascended the Russian throne as Basil IV. on the death of the first false Demetrius. In 1619 Kaluga fell into the hands of the hetman or chief of the Zaporozhian Cossacks. Later two-thirds of its inhabitants were carried off by a plague; and in 1622 the whole place was laid waste by a conflagration. It recovered, however, in spite of several other conflagrations (especially in 1742 and 1754). On several occasions Kaluga was the residence of political prisoners; among others Shamyl, the Lesghian chief, spent his exile there (1859–1870).

KALYAN, a town of British India, in the Thana district of Bombay, situated 33 m. N.E. of Bombay city, where the two

main lines of the Great Indian Peninsula railway diverge. Pop. (1901), 10,749. There is a considerable industry of rice-husking. Kalyan is known to have been the capital of a kingdom and a centre of sea-borne commerce in the early centuries of the Christian era. The oldest remains now existing are of Mahommedan times.

KAMA, or KAMADEVA, in Hindu mythology, the god of love. He is variously stated to have been the child of Brahma or Dharma (virtue). In the *Rig Veda*, Kama (desire) is described as the first movement that arose in the One after it had come into life through the power of fervour or abstraction. In the Atharva-Veda Kama does not mean sexual desire, but rather the yearning after the good of all created things. Later Kama is simply the Hindu Cupid. While attempting to lure Siva to sin, he was destroyed by a fiery glance of the goddess' third eye. Thus in Hindu poetry Kama is known as Ananga, the "bodiless god." Kama's wife Rati (voluptuousness) mourned him so greatly that Siva relented, and he was reborn as the child of Krishna and Rukmini. The babe was called Pradyumna (Cupid). He is represented armed with a bow of sugar-cane; it is strung with bees, and its five arrows are tipped with flowers which overcome the five senses. A fish adorns his flag, and he rides a parrot or sparrow, emblematic of lubricity.

KĀMALĀ, a red powder formerly used in medicine as an anthelmintic and employed in India as a yellow dye. It is obtained from *Mallotus philippinensis*, Müll., a small euphorbiaceous tree from 20 to 45 ft. in height, distributed from southern Arabia in the west to north Australia and the Philippines in the east. In India kāmalā has several ancient Sanskrit names, one of which, kapila, signifies dusky or tawny red. Under the name of wars, kanbil, or qinbil, kāmalā appears to have been known to the Arabian physicians as a remedy for tapeworm and skin diseases as early as the 10th century, and indeed is mentioned by Paulus Ægineta still earlier. The drug was formerly in the British Pharmacopoeia, but is inferior to many other anthelmintics and is not now employed.

KAMCHATKA, a peninsula of N.-E. Siberia, stretching from the land of the Chukchis S.S.W. for 750 m., with a width of from 80 to 300 m. (51° to 62° N., and 156° to 163° E.), between the Sea of Okhotsk and Bering Sea. It forms part of the Russian Maritime Province. Area, 104,260 sq. m.

The isthmus which connects the peninsula with the mainland is a flat *tundra*, sloping gently both ways. The mountain chain, which Ditmar calls central, seems to be interrupted under 57° N. by a deep indentation corresponding to the valley of the Tighil. There too the hydrographical network, as well as the south-west to north-east strike of the clay-slates and metamorphic schists on Ditmar's map, seem to indicate the existence of two chains running south-west to north-east, parallel to the volcanic chain of S.-E. Kamchatka. Glaciers were not known till the year 1899, when they were discovered on the Byelaya and Ushkinskaya (15,400 ft.) mountains. Thick Tertiary deposits, probably Miocene, overlie the middle portions of the west coast. The southern parts of the central range are composed of granites, syenites, porphyries and crystalline slates, while in the north of Ichinskaya volcano, which is the highest summit of the peninsula (16,920 ft.), the mountains consist chiefly of Tertiary sandstones and old volcanic rocks. Coal-bearing clays containing fresh-water molluscs and dicotyledonous plants, as also conglomerates, alternate with the sandstones in these Tertiary deposits. Amber is found in them. Very extensive layers of melaphyre and andesite, as also of conglomerates and volcanic tuffs, cover the middle portions of the peninsula. The south-eastern portion is occupied by a chain of volcanoes, running along the indented coast, from Cape Lopatka to Cape Kronotskiy (54° 25′ N.), and separated from the rest of the peninsula by the valleys of the Bystraya (an affluent of the Bolstraya, on the west coast) and Kamchatka rivers. Another chain of volcanoes runs from Ichinskaya (which burst into activity several times in the 18th and 19th centuries) to Shiveluch, seemingly parallel to the above but farther north. The two chains contain twelve active and twenty-six extinct volcanoes, from 7000 to more than 15,000 ft. high. The highest volcanoes are grouped under 56° N., and the highest of them, Kluchevskaya (16,990 ft.), is in a state of almost incessant activity (notable outbreaks in 1729, 1737, 1841, 1853–1854, and 1896–1897), a flow of its lava having reached to Kamchatka river in 1853. The active Shiveluch (9900 ft.) is the last volcano of this chain. Several lakes and probably Avacha Bay are old craters. Copper, mercury, and iron ores, as also pure copper, ochre and sulphur, are found in the peninsula. The principal river is the Kamchatka (325 m. long), which flows first north-eastwards in a fertile longitudinal valley, and then, bending suddenly to the east, pierces the above-mentioned volcanic chain. The other rivers are the Tighil (135 m.) and the Bolstraya (120 m.), both flowing into the Sea of Okhotsk; and the Avacha, flowing into the Pacific.

The floating ice which accumulates in the northern parts of the Sea of Okhotsk and the cold current which flows along the east coast of the peninsula render its summers chilly, but the winter is relatively warm, and temperatures below −40° F. are experienced only in the highlands of the interior and on the Okhotsk littoral. The average temperatures at Petropavlovsk (53° N.) are: year 37° F., January 17°, July 58°; while in the valley of the Kamchatka the average temperature of the winter is 16°, and of the summer as high as 58° and 64°. Rain and snow are copious, and dense fogs enshroud the coast in summer; consequently the mountains are well clothed with timber and the meadows with grass, except in the *tundras* of the north. The natives eat extensively the bulbs of the Martagon lily, and weave cloth out of the fibres of the Kamchatka nettle. *Delphinopterus leucus*, the sea-lion (*Otaria Stelleri*), and walrus abound off the coasts. The sea-otter (*Enhydris marina*) has been destroyed.

The population (5846 in 1870) was 7270 in 1900. The southern part of the peninsula is occupied by Kamchadales, who exhibit many attributes of the Mongolian race, but are more similar to the aborigines of N.E. Asia and N.W. America. Fishing (quantities of salmon enter the rivers) and hunting are their chief occupations. Dog-sledges are principally used as means of communication. The efforts of the government to introduce cattle-breeding have failed. The Kamchadale language cannot be assigned to any known group; its vocabulary is extremely poor. The purity of the tongue is best preserved by the people of the Penzhinsk district on the W. coast. North of 57° N. the peninsula is peopled with Koryaks, settled and nomad, and Lamuts (Tunguses), who came from the W. coast of the Sea of Okhotsk. The principal Russian settlements are: Petropavlovsk, on the E. coast, on Avacha Bay, with an excellent roadstead; Verkhne-Kamchatsk and Nizhne-Kamchatsk in the valley of the Kamchatka river; Bolsheryetsk, on the Bolshaya; and Tighil, on the W. coast.

The Russians made their first settlements in Kamchatka in the end of the 17th century; in 1696 Atlasov founded Verkhne-Kamchatsk, and in 1704 Robelev founded Bolsheryetsk. In 1720 a survey of the peninsula was undertaken; in 1725–1730 it was visited by Bering's expedition; and in 1733–1745 it was the scene of the labours of the Krasheninnikov and Steller expedition.

See G. A. Erman, *Reise um die Erde* iii., (Berlin, 1848); C. von Ditmar, *Reisen und Aufenthalt in Kamchatka in den Jahren 1851–1855* (1890–1900); G. Kennan, *Tent Life in Siberia* (1870), and paper in *Jour. of American Geog. Soc.* (1876); K. Diener, in *Petermann's Mitteilungen* (1891, vol. xxxvii.); V. A. Obruchev, in *Izvestia* of the East Siberian Geographical Society (xxiii. 4, 5; 1892); F. H. H. Guillemard, *Cruise of the "Marchesa"* (2nd ed., London, 1889); and G. E. H. Barrett-Hamilton in *Scott. Geog. Mag.* (May, 1899), with bibliography. (P. A. K.; J. T. Be.)

KAME (a form of Scandinavian *comb*, hill), in physical geography, a short ridge or bunched mound of gravel or sand, "tumultuously stratified," occurring in connexion with glacial deposits, having been formed at the mouths of tunnels under the ice. When the ice-sheet melts, these features, formerly concealed by the glacier, are revealed. They are common in the glaciated portions of the lower Scottish valleys. By some authorities the term "kame," or specifically "serpentine

kame," is taken as synonymous with " esker," which however is preferably to be applied to the long mound deposited within the ice-tunnel, not to the bunched mound at its mouth.

KAMENETS PODOLSKIY, or Podolian Kamenets (Polish *Kamieniec*), a town of S.-W. Russia, chief town of the government of Podolia. It stands in 48° 40′ N. and 26° 30′ E., on a high, rocky bluff of the river Smotrich, a left-hand tributary of the Dniester, and near the Austrian frontier. Pop. (1863), 20,699; (1900) 39,113, of whom 50% were Jews and 30% Poles. Round the town lies a cluster of suburban villages, Polish Folwark, Russian Folwark, Zinkovtsui, Karvasarui, &c.; and on the opposite side of the river, accessible by a wooden bridge, stands the castle which long frowned defiance across the Dniester to Khotin in Bessarabia. Kamenets is the see of a Roman Catholic and a Greek Orthodox bishop. The Roman Catholic cathedral of St Peter and St Paul, built in 1361, is distinguished by a minaret, recalling the time when it was used as a mosque by the Turks (1672–1699). The Greek cathedral of John the Baptist dates from the 16th century, but up to 1798 belonged to the Basilian monastery. Other buildings are the Orthodox Greek monastery of the Trinity, and the Catholic Armenian church (founded in 1398), possessing a 14th-century missal and an image of the Virgin Mary that saw the Mongol invasion of 1239–1242. The town contains Orthodox Greek and Roman Catholic seminaries, Jewish colleges, and an archaeological museum for church antiquities, founded in 1890. Kamenets was laid waste by the Mongol leader Batu in 1240. In 1434 it was made the chief town of the province of Podolia. In the 15th and 16th centuries it suffered frequently from the invasions of Tatars, Moldavians and Turks; and in 1672 the hetman of the Cossacks, Doroshenko, assisted by Sultan Mahommed IV. of Turkey, made himself master of the place. Restored to Poland by the peace of Karlowitz (1699), it passed with Podolia to Russia in 1795. Here the Turks were defeated by the Poles in 1633, and here twenty years later peace was concluded between the same antagonists. The fortifications were demolished in 1813.

KAMENZ, a town in the kingdom of Saxony, on the Black Elster, 21 m. N.E. of Dresden, on a branch line of railway from Bischofswerda. Pop. (1900), 9726. It has four Evangelical churches, among them a Wendish one, and a handsome new town-hall with a library. The hospital is dedicated to the memory of Lessing, who was born here. A colossal bust of the poet was placed opposite the Wendish church in 1863, and a monument was raised to him on a neighbouring hill in 1864. The industries of Kamenz include wool-spinning, and the manufacture of cloth, glass, crockery and stoneware. Built about 1200, Kamenz, was known by the name Dreikretcham until the 16th century. In 1318 it passed to the mark of Brandenburg; in 1319 to Bohemia; and in 1635, after suffering much in the Hussite and Thirty Years' wars, it came into the possession of Saxony. In 1706 and 1842 it was almost entirely consumed by fire.

Kamenz is also the name of a village in Prussia, not far from Breslau; pop. 900. This is famous on account of its Cistercian monastery, founded in 1094. Of the house, which was closed in 1810, only a few buildings remain.

KAMES, HENRY HOME, Lord (1696–1782), Scottish lawyer and philosopher, son of George Home of Kames, in Berwickshire, where he was born in 1696. After receiving a somewhat imperfect education from a private tutor, he was in 1712 indentured to a writer to the signet in Edinburgh, but an accidental introduction to Sir Hew Dalrymple, then president of the court of session, determined him to aspire to the position of advocate. He accordingly set himself to studying various branches of literature, specially metaphysics and moral philosophy. He was called to the bar in January 1724, and, as he lacked those brilliant qualities which sometimes command immediate success, he employed his leisure in the compilation of *Remarkable Decisions in the Court of Session from 1716 to 1728* (1728). This work having attracted attention, his power of ingenious reasoning and mastery of law gradually gained him a leading position at the bar. In 1752 he was appointed a judge in the court of session under the title of Lord Kames, and in 1763 he was made one of the lords of justiciary. In 1741 he married Agatha Drummond, through whom in 1761 he succeeded to the estate of Blair Drummond, Perthshire. He continued to discharge his judicial duties till within a few days of his death at Edinburgh on the 27th of December 1782.

Lord Kames took a special interest in agricultural and commercial affairs. In 1755 he was appointed a member of the board of trustees for encouragement of the fisheries, arts and manufactures of Scotland, and about the same time he was named one of the commissioners for the management of the forfeited estates annexed to the Crown. On the subject of agriculture he wrote *The Gentleman Farmer* (1776). In 1765 he published a small pamphlet *On the Flax Husbandry of Scotland*; and, besides availing himself of his extensive acquaintance with the proprietors of Scotland to recommend the introduction of manufactures, he took a prominent part in furthering the project of the Forth and Clyde Canal. He was also one of the founders of the Physical and Literary Society, afterwards the Royal Society of Edinburgh. It is, however, as a writer on philosophy that Lord Kames is best known. In 1751 he published his *Essays on the Principles of Morality and Natural Religion* (Ger. trans., Leipzig, 1772), in which he endeavoured to maintain the doctrine of innate ideas, but conceded to man an apparent but only apparent freedom of the will. His statement of the latter doctrine so aroused the alarm of certain clergymen of the Church of Scotland that he found it necessary to withdraw what was regarded as a serious error, and to attribute man's delusive sense of freedom, not to an innate conviction implanted by God, but to the influence of the passions. His other philosophical works are *An Introduction to the Art of Thinking* (1761), *Elements of Criticism* (1762), *Sketches of the History of Man* (1774).

See *Life of Lord Kames*, by A. F. Tytler, Lord Woodhouselee (2 vols., 1807).

KAMMIN, or Cammin, a town in the Prussian province of Pomerania, 2½ m. from the Baltic, on the Kamminsche Bodden, a lake connected with the sea by the Dievenow. Pop. (1905), 5923. Among its four Evangelical churches, the cathedral and the church of St Mary are noteworthy. Iron-founding and brewing are carried on in the town, which has also some fishing and shipping. There is steamer communication with Stettin, about 40 m. S.S.W. Kammin is of Wendish origin, and obtained municipal privileges in 1274. From about 1200 till 1628 it was the seat of a bishopric, which at the latter date became a secular principality, being in 1648 incorporated with Brandenburg.

See Küchen, *Geschichte der Stadt Kammin* (Kammin, 1885).

KAMPEN, a town in the province of Overysel, Holland, on the left bank of the Ysel, 3½ m. above its mouth, and a terminal railway station 8 m. N.W. of Zwolle. It has regular steamboat communication with Zwolle, Deventer, Amsterdam, and Enkhuizen. Pop. (1900), 19,664. Kampen is surrounded by beautiful gardens and promenades in the place of the old city walls, and has a fine river front. The four turreted gateways furnish excellent examples of 16th and 17th century architecture. Of the churches the Bovenkerk (" upper church "), or church of St Nicholas, ranks with the cathedral of Utrecht and the Janskerk at 's Hertogenbosch as one of the three great medieval churches in Holland. It was begun in 1369, and has double aisles, ambulatory and radiating chapels, and contains some finely carved woodwork. The Roman Catholic Buitenkerk (" outer church ") is also a fine building of the 14th century, with good modern panelling. There are many other, though slighter, remains of the ancient churches and monasteries of Kampen; but the most remarkable building is the old town-hall, which is unsurpassed in Holland. It dates from the 14th century, but was partly restored after a fire in 1543. The exterior is adorned with niched statues and beautiful iron trellis work round the windows. The old council-chamber is wainscoted in black oak, and contains a remarkable sculptured chimney-piece (1545) and fine wood carving. The town-hall contains the municipal library, collections of tapestry, portraits and antiquities, and valuable archives relating to the town and province. Kampen is the seat of a Christian Reformed theological school, a gymnasium, a higher burgher school, a municipal school of design, and a large orphanage. There are few or no local taxes, the municipal chest being filled by the revenues derived from the fertile delta-land, the Kampenciland, which is always being built up at the mouth of

the Ysel. There is a considerable trade in dairy produce; and there are shipyards, rope-walks, a tool factory, cigar factories, paper mills, &c.

KAMPTEE, or KAMTHI, a town of British India, in the Nagpur district of the Central Provinces, just below the confluence of the Kanhan with the rivers Pench and Kolar; 10 m. N.E. of Nagpur by rail. Pop. (1901), 38,888, showing a continuous decrease since 1881. Kamptee was founded in 1821, as a military cantonment in the neighbourhood of the native capital of Nagpur, and became an important centre of trade. Since the opening of the railway, trade has largely been diverted to Nagpur, and the garrison has recently been reduced. The town is well laid out with wide roads, gardens and tanks.

KAMRUP, a district of British India, in the Brahmaputra valley division of Eastern Bengal and Assam. The headquarters are at Gauhati. Area, 3858 sq. m.; pop. (1901), 589,187, showing a decrease of 7% in the decade. In the immediate neighbourhood of the Brahmaputra the land is low, and exposed to annual inundation. In this marshy tract reeds and canes flourish luxuriantly, and the only cultivation is that of rice. At a comparatively short distance from the river banks the ground begins to rise in undulating knolls towards the mountains of Bhutan on the north, and towards the Khasi hills on the south. The hills south of the Brahmaputra in some parts reach the height of 800 ft. The Brahmaputra, which divides the district into two nearly equal portions, is navigable by river steamers throughout the year, and receives several tributaries navigable by large native boats in the rainy season. The chief of these are the Manas, Chaul Khoya and Barnadi on the north, and the Kulsi and Dibru on the south bank. There is a government forest preserve in the district and also a plantation where seedlings of teak, *sâl*, *sissu*, *sûm*, and *nahor* are reared, and experiments are being made with the caoutchouc tree. The population is entirely rural, the only town with upwards of 5000 inhabitants being Gauhati (11,661). The temples of Hajo and Kamākhya attract many pilgrims from all quarters. The staple crop of the district is rice, of which there are three crops. The indigenous manufactures are confined to the weaving of silk and cotton cloths for home use, and to the making of brass cups and plates. The cultivation and manufacture of tea by European capital is not very prosperous. The chief exports are rice, oil-seeds, timber and cotton; the imports are fine rice, salt, piece goods, sugar, betel-nuts, coco-nuts and hardware. A section of the Assam-Bengal railway starts from Gauhati, and a branch of the Eastern Bengal railway has recently been opened to the opposite bank of the river. A metalled road runs due south from Gauhati to Shillong.

KAMYSHIN, a town of Russia, in the government of Saratov, 145 m. by river S.S.W. of the city of Saratov, on the right bank of the Volga. Pop. (1861), 8644; (1897), 15,934. Being the terminus of the railway to Tambov, Moscow and the Baltic ports, it is an important port for the export of cereals and salt from the Volga, and it imports timber and wooden wares. It is famous for its water-melons. Peter the Great built here a fort, which was known at first as Dmitrievsk, but acquired its present name in 1780.

KANAKA, a Polynesian word meaning "man," used by Polynesians to describe themselves. Its ethnical value, never great, has been entirely destroyed by its indiscriminate use by the French to describe all South Sea islanders, whether black or brown. The corrupt French form *canaque* has been used by some English writers. The term came into prominence in 1884–1885 in connexion with the scandals arising over the kidnapping of South Sea islanders for enforced labour on the sugar plantations of north Queensland.

KANARA, or CANARA, the name of two adjoining districts of British India: North Kanara in the presidency of Bombay, South Kanara in that of Madras. Both are on the western coast.

NORTH KANARA DISTRICT forms part of the southern division of Bombay. The administrative headquarters are at Karwar, which is also the chief seaport. Area, 3945 sq. m.; pop. (1901), 454,490, showing an increase of 2% in the decade. The trade of the interior, which used to pass down to the seaports, has been largely diverted by the opening of the Southern Mahratta railway. Along the coast rice is the chief crop, and coco-nut palms are also important. In the upland there are valuable gardens of areca palms, cardamoms and pepper. Rice and timber are exported, and sandalwood-carving and salt manufacture are carried on. The main feature in the physical geography of the district is the range of the Western Ghats, which, running from north to south, divides it into two parts, a lowland or coast strip (Payanghat), and an upland plateau (Balaghat). The coast-line is only broken by the Karwar headland in the north, and by the estuaries of four rivers and the mouths of many smaller streams, through which the salt water finds an entrance into numerous lagoons winding several miles inland. The breadth of the lowlands varies from 5 to 15 miles. From this narrow belt rise a few smooth, flat-topped hills, from 200 to 300 ft. high; and at places it is crossed by lofty, rugged, densely wooded spurs, which, starting from the main range, maintain almost to the coast a height of not less than 1000 ft. Among these hills lie well-tilled valleys of garden and rice land. The plateau of the Balaghat is irregular, varying from 1500 to 2000 ft. in height. In some parts the country rises into well-wooded knolls, in others it is studded by small, isolated, steep hills. Except on the banks of streams and in the more open glades, the whole is one broad waste of woodland and forest. The open spaces are dotted with hamlets or parcelled out into rice clearings. Of the rivers flowing eastward from the watershed of the Sahyadri hills the only one of importance is the Wardha or Varada, a tributary of the Tungabhadra. Of those that flow westwards, the four principal ones, proceeding from north to south, are the Kali, Gungawali, Tadri and Sharavati. The last of these forms the famous Gersoppa Falls. Extensive forests clothe the hills, and are conserved under the rules of the forest department.

SOUTH KANARA DISTRICT has its headquarters at Mangalore. Area, 4021 sq. m. Pop. (1901), 1,134,713, showing an increase of 7% in the decade. The district is intersected by rivers, none of which exceeds 100 miles in length. They all take their rise in the Western Ghats, and many are navigable during the fair weather for from 15 to 25 miles from the coast. The chief of these streams are the Netravati, Gurpur and Chendragiri. Numerous groves of coco-nut palms extend along the coast, and green rice-fields are seen in every valley. The Western Ghats, rising to a height of 3000 to 6000 ft., fringe the eastern boundary. Forest land of great extent and value exists, but most of it is private property. Jungle products (besides timber) consist of bamboo, cardamoms, wild arrowroot, gall-nuts, gamboge, catechu, fibrous bark, cinnamon, gums, resin, dyes, honey and beeswax. The forests formerly abounded in game, which, however, is rapidly decreasing under incessant shooting. The staple crop is rice. The chief articles of import are piece goods, cotton yarn, oils and salt. Tiles are manufactured in several places out of a fine potter's clay. The Azhikal-Mangalore line of the Madras railway serves the district.

See *South Canara District Manual* (2 vols., Madras, 1894–1895).

KANARESE, a language of the Dravidian family, spoken by about ten millions of people in southern India, chiefly in Mysore, Hyderabad, and the adjoining districts of Madras and Bombay. It has an ancient literature, written in an alphabet closely resembling that employed for Telugu. Since the 12th century the Kanarese-speaking people have largely adopted the Lingayat form of faith, which may be described as an anti-Brahmanical sect of Siva worshippers (see HINDUISM). Most of them are agriculturists, but they also engage actively in trade.

KANARIS (or CANARIS), **CONSTANTINE** (1790–1877), Greek patriot, belonged to the class of coasting sailors who produced if not the most honest, at least the bravest, and the most successful of the combatants in the cause of Greek independence. He belonged by birth to the little island of Psara, to the north-west of Chio. He first became prominent as the effective leader of the signal vengeance taken by the Greeks for the massacre at

Chio in April 1822 by the Turkish Capitan Pasha. The commander of the force of fifty small vessels and eight fireships sent to assail the Turkish fleet was the navarch Miaoulis, but it was Kanaris who executed the attack with the fireships on the flagship of the Capitan Pasha on the night of the 18th of June 1822. The Turks were celebrating the feast of Bahram at the end of the Ramadān fast. Kanaris had two small brigs fitted as fireships, and thirty-six men. He was allowed to come close to the Turkish flagship, and succeeded in attaching his fireships to her, setting them on fire, and escaping with his party. The fire reached the powder and the flagship blew up, sending the Capitan Pasha and 2000 Turks into the air. Kanaris was undoubtedly aided by the almost incredible sloth and folly of his opponents, but he chose his time well, and the service of the fireships was always considered peculiarly dangerous. That Kanaris could carry out the venture with a volunteer party not belonging to a regularly disciplined service, not only proved him to be a clever partisan fighter, but showed that he was a leader of men. He repeated the feat at Tenedos in November of 1822, and was then considered to have disposed of nearly 4000 Turks in the two ventures. When his native island, Psara, was occupied by the Turks he continued to serve under the command of Miaoulis. He was no less distinguished in other attacks with fireships at Samos and Mytilene in 1824, which finally established an utter panic in the Turkish navy. His efforts to destroy the ships of Mehemet Ali at Alexandria in 1825 were defeated by contrary winds. When the Greeks tried to organize a regular navy he was appointed captain of the frigate "Hellas" in 1826. In politics he was a follower of Capo d'Istria. He helped to upset the government of King Otho and to establish his successor, was prime minister in 1864–1865, came back from retirement to preside over the ministry formed during the crisis of the Russo-Turkish war, and died in office on the 15th of September 1877. Kanaris is described as of small stature, simple in appearance, somewhat shy and melancholy. He is justly remembered as the most blameless of the popular heroes of the War of Independence. He was almost the only one among them whom Dundonald, with whom he served in a successful attack on an Egyptian war-ship near Alexandria, exempts from the sweeping charges of cowardice he brings against the Greeks. (D. H.)

KANAUJ, an ancient city of British India, in Farukhabad district, United Provinces, near the left bank of the Ganges. Pop. (1901), 18,552. Kanauj in early times formed the capital of a great Hindu kingdom. Its prosperity dates from a prehistoric period, and seems to have culminated about the 6th century under Harsha. In 1019 it fell before Mahmud of Ghazni, and again in 1194 before Mahommed Ghori. The existing ruins extend over the lands of five villages, occupying a semicircle fully 4 m. in diameter. No Hindu buildings remain intact; but the great mosque, constructed by Ibrahim Shah of Jaunpur in 1406 out of Hindu temples, is still called by Hindus "Sita's Kitchen." Kanauj, which is traditionally said to be derived from *Kanyakubja* (=the crooked maiden), has given its name to an important division of Brahmans in northern India. Hinduism in Lower Bengal also dates its origin from a Brahman migration southwards from this city, about 800 or 900. Kanauj is now noted for the distilling of scents.

KANDAHAR, the largest city in Afghanistan, situated in 31° 37′ N. lat. and 65° 43′ E. long., 3400 ft. above the sea. It is 370 m. distant from Herat on the N.W., by Girishk and Farah—Girishk being 75 m., and Farah 225 m. from Kandahar. From Kabul, on the N.E., it is distant 315 m., by Kalat-i-Ghilzai and Ghazni—Kalat-i-Ghilzai being 85 m., and Ghazni 225 m. from Kandahar. To the Peshin valley the distance is about 110 m., and from Peshin to India the three principal routes measure approximately as follows: by the Zhob valley to Dera Ismail Khan, 300 m.; by the Bori valley to Dera Ghazi Khan, 275 m.; by Quetta and the Bolan to Dadar, 125 m.; and by Chappar and Nari to Sibi, 120 m. The Indian railway system extends to New Chaman, within some 80 m. of Kandahar. Immediately round the city is a plain, highly cultivated and well populated to the south and west; but on the north-west barren, and bounded by a double line of hills, rising to about 1000 ft. above its general level, and breaking its dull monotony with irregular lines of scarped precipices, crowned with fantastic pinnacles and peaks. To the north-west these hills form the watershed between the valleys of the Arghandab and the Tarnak, until they are lost in the mountain masses of the Hazarajat—a wild region inhabited by tribes of Tatar origin, which effectually shuts off Kandahar from communication with the north. On the south-west they lose themselves in the sandy desert of Registan, which wraps itself round the plain of Kandahar, and forms another impassable barrier. But there is a break in these hills—a gate, as it were, to the great high road between Herat and India; and it is this gate which the fortress of Kandahar so effectually guards, and to which it owes its strategic importance. Other routes there are, open to trade, between Herat and northern India, either following the banks of the Hari Rud, or, more circuitously, through the valley of the Helmund to Kabul; or the line of hills between the Arghandab and the Tarnak may be crossed close to Kalat-i-Ghilzai; but of the two former it may be said that they are not ways open to the passage of Afghan armies owing to the hereditary hostility existing between the Aeimak and Hazara tribes and the Afghans generally, while the latter is not beyond striking distance from Kandahar. The one great high road from Herat and the Persian frontier to India is that which passes by Farah and crosses the Helmund at Girishk. Between Kandahar and India the road is comparatively open, and would be available for railway communication but for the jealous exclusiveness of the Afghans.

To the north-west, and parallel to the long ridges of the Tarnak watershed, stretches the great road to Kabul, traversed by Nott in 1842, and by Stewart and subsequently by Roberts in 1880. Between this and the direct route to Peshin is a road which leads through Maruf to the Kundar river and the Guleri pass into the plains of Hindustan at Dera Ismail Khan. This is the most direct route to northern India, but it involves the passage of some rough country, across the great watershed between the basins of the Helmund and the Indus. But the best known road from Kandahar to India is that which stretches across the series of open stony plains interspersed with rocky hills of irregular formation leading to the foot of the Kwaja Amran (Khojak) range, on the far side of which from Kandahar lies the valley of Peshin. The passage of the Kwaja Amran involves a rise and fall of some 2300 ft., but the range has been tunnelled and a railway now connects the frontier post of New Chaman with Quetta. Two lines of railway now connect Quetta with Sind, the one known as the Harnai loop, the other as the Bolan or Mashkaf line. They meet at Sibi (see BALUCHISTAN). Several roads to India have been developed through Baluchistan, but they are all dominated from Kandahar. Thus Kandahar becomes a sort of focus of all the direct routes converging from the wide-stretching western frontier of India towards Herat and Persia, and the fortress of Kandahar gives protection on the one hand to trade between Hindustan and Herat, and on the other it lends to Kabul security from invasion by way of Herat.

Kandahar is approximately a square-built city, surrounded by a wall of about $3\frac{3}{4}$ m. circuit, and from 25 to 30 ft. high, with an average breadth of 15 ft. Outside the wall is a ditch 10 ft. deep. The city and its defences are entirely mud-built. There are four main streets crossing each other nearly at right angles, the central "chouk" being covered with a dome. These streets are wide and bordered with trees, and are flanked by shops with open fronts and verandas. There are no buildings of any great pretension in Kandahar, a few of the more wealthy Hindus occupying the best houses. The tomb of Ahmad Shah is the only attempt at monumental architecture. This, with its rather handsome cupola, and the twelve minor tombs of Ahmad Shah's children grouped around, contains a few good specimens of fretwork and of inlaid inscriptions. The four streets of the city divide it into convenient quarters for the accommodation of its mixed population of Duranis, Ghilzais, Parsiwans and Kakars, numbering in all some 30,000 souls. Of these the greater proportion are the Parsiwans (chiefly Kizilbashes).

It is reckoned that there are 1600 shops and 182 mosques in the city. The mullahs of these mosques are generally men of considerable power. The walls of the city are pierced by the four principal gates of "Kabul," "Shikarpur," "Herat" and the "Idgah," opposite the four main streets, with two minor gates, called the Top Khana and the Bardurani respectively, in the western half of the city. The Idgah gate passes through the citadel, which is a square-built enclosure with sides of about 260 yds. in length. The flank defences of the main wall are insufficient; indeed there is no pretence at scientific structure about any part of the defences; but the site of the city is well chosen for defence, and the water supply (drawn by canals from the Arghandab or derived from wells) is good.

About 4 m. west of the present city, stretched along the slopes of a rocky ridge, and extending into the plains at its foot, are the ruins of the old city of Kandahar sacked and plundered by Nadir Shah in 1738. From the top of the ridge a small citadel overlooks the half-buried ruins. On the north-east face of the hill forty steps, cut out of solid limestone, lead upward to a small, dome-roofed recess, which contains some interesting Persian inscriptions cut in relief on the rock, recording particulars of the history of Kandahar, and defining the vast extent of the kingdom of the emperor Baber. Popular belief ascribes the foundation of the old city to Alexander the Great.

Although Kandahar has long ceased to be the seat of government, it is nevertheless by far the most important trade centre in Afghanistan, and the revenues of the Kandahar province assist largely in supporting the chief power at Kabul. There are no manufactures or industries of any importance peculiar to Kandahar, but the long lines of bazaars display goods from England, Russia, Hindustan, Persia and Turkestan, embracing a trade area as large probably as that of any city in Asia. The customs and town dues together amount to a sum equal to the land revenue of the Kandahar province, which is of considerable extent, stretching to Pul-i-Sangin, 10 m. south of Kalat-i-Ghilzai on the Kabul side, to the Helmund on the west, and to the Hazara country on the north. Although Farah has been governed from Kandahar since 1863, its revenues are not reckoned as a part of those of the province. The land revenue proper is assessed in grain, the salaries of government officials, pay of soldiers, &c., being disbursed by "barats" or orders for grain at rates fixed by government, usually about 20 % above the city market prices. The greater part of the English goods sold at Herat are imported by Karachi and Kandahar—a fact which testifies to the great insecurity of trade between Meshed and Herat. Some of the items included as town dues are curious. For instance, the tariff on animals exposed for sale includes a charge of 5 % *ad valorem* on slave girls, besides a charge of 1 rupee per head. The kidney fat of all sheep and the skins of all goats slaughtered in the public yard are perquisites of government, the former being used for the manufacture of soap, which, with snuff, is a government monopoly. The imports consist chiefly of English goods, indigo, cloth, boots, leather, sugar, salt, iron and copper, from Hindustan, and of shawls, carpets, "barak" (native woollen cloth), postins (coats made of skins), shoes, silks, opium and carpets from Meshed, Herat and Turkestan. The exports are wool, cotton, madder, cummin seed, asafoetida, fruit, silk and horses. The system of coinage is also curious: 105 English rupees are melted down, and the alloy extracted, leaving 100 rupees' worth of silver; 295 more English rupees are then melted, and the molten metal mixed with the 100 rupees silver; and out of this 808 Kandahari rupees are coined. As the Kandahari rupee is worth about 8 annas (half an English rupee) the government thus realizes a profit of 1 %. Government accounts are kept in "Kham" rupees, the "Kham" being worth about five-sixths of a Kandahari rupee; in other words, it about equals the franc, or the Persian "kran."

Immediately to the south and west of Kandahar is a stretch of well-irrigated and highly cultivated country, but the valley of the Arghandab is the most fertile in the district, and, from the luxuriant abundance of its orchards and vineyards, offers the most striking scenes of landscape beauty. The pomegranate fields form a striking feature in the valley—the pomegranates of Kandahar, with its "sirdar" melons and grapes, being unequalled in quality by any in the East. The vines are grown on artificial banks, probably for want of the necessary wood to trellis them—the grapes being largely exported in a semi-dried state. Fruit, indeed, besides being largely exported, forms the chief staple of the food supply of the inhabitants throughout Afghanistan. The art of irrigation is so well understood that the water supply is at times exhausted, no river water being allowed to run to waste. The plains about Kandahar are chiefly watered by canals drawn from the Arghandab near Baba-wali, and conducted through the same gap in the hills which admits the Herat road. The amount of irrigation and the number of water channels form a considerable impediment to the movements of troops, not only immediately about Kandahar, but in all districts where the main rivers and streams are bordered by green bands of cultivation. Irrigation by "karez" is also largely resorted to. The karez is a system of underground channelling which usually taps a sub-surface water supply at the foot of some of the many rugged and apparently waterless hills which cover the face of the country. The water is not brought to the surface, but is carried over long distances by an underground channel or drain, which is constructed by sinking shafts at intervals along the required course and connecting the shafts by tunnelling. The general agricultural products of the country are wheat, barley, pulse, fruit, madder, asafoetida, lucerne, clover and tobacco.

Of the mineral resources of the Kandahar district not much is known, but an abandoned gold mine exists about 2 m. north of the town. Some general idea of the resources of the Kandahar district may be gathered from the fact that it supplied the British troops with everything except luxuries during the entire period of occupation in 1879–81; and that, in spite of the great strain thrown on those resources by the presence of the two armies of Ayub Khan and of General Roberts, and after the total failure of the autumn crops and only a partial harvest the previous spring, the army was fed without great difficulty until the final evacuation, at one-third of the prices paid in Quetta for supplies drawn from India.

History.—Kandahar has a stormy history. Sultan Mahmud of Ghazni took it in the 11th century from the Afghans who then held it. In the beginning of the 13th century it was taken by Jenghiz Khan, and in the 14th by Timur. In 1507 it was captured by the emperor Baber, but shortly afterwards it fell again into Afghan hands, to be retaken by Baber in 1521. Baber's son, Humayun, agreed to cede Kandahar to Persia, but failed to keep his word, and the Persians besieged the place unsuccessfully. Thus it remained in the possession of the Moguls till 1625, when it was taken by Shah Abbas. Aurangzeb tried to take it in 1649 with 5000 men, but failed. Another attempt in 1652 was equally unsuccessful. It remained in Persian possession till 1709, when it was taken by the Afghans, but was retaken after a two years' siege by Nadir Shah. Nadir Shah was assassinated in 1749, and immediately on hearing the news of his death Ahmad Shah (Abdali) seized Nadir Shah's treasure at Kandahar, and proclaimed himself king, with the consent, not only of the Afghans, but, strange to say, of the Hazaras and Baluchis as well. He at once changed the site of the city to its present position, and thus founded the Afghan kingdom, with modern Kandahar as its capital. Ahmad Shah died in 1773, and was succeeded by his son Timur, who died in 1793, and left the throne to his son Zaman Shah. This prince was deposed by his half-brother Mahmud, who was in his turn deposed by Shah Shuja, the full brother of Zaman Shah. After a short reign Shah Shuja was compelled to abdicate from his inability to repress the rising power of Fateh Khan, a Barakzai chief, and he took refuge first with Ranjit Singh, who then ruled the Punjab, and finally secured the protection of British power. Afghanistan was now practically dismembered. Mahmud was reinstated by Fateh Khan, whom he appointed his vizier, and whose nephews, Dost Mahommed Khan and Kohn dil Khan, he placed respectively in the governments of Kabul and Kandahar. Fateh Khan was barbarously murdered by Kamran (Mahmud's son) near Ghazni in 1818; and in retaliation Mahmud himself was driven from power, and the Barakzai clan secured the sovereignty of Afghanistan. While Dost Mahommed held Kabul, Kandahar became temporarily a sort of independent chiefship under two or three of his brothers. In 1839 the cause of Shah Shuja was actively supported by the British. Kandahar was occupied, and Shah Shuja reinstated on the throne of his ancestors. Dost Mahommed was defeated near Kabul, and after surrender to the British force, was deported into Hindustan. The British army of occupation in southern Afghanistan continued to occupy Kandahar from 1839 till the autumn of 1842, when General Nott marched on Kabul to meet Pollock's advance from Jalalabad. The cantonments near the city, built by Nott's division, were repaired and again occupied by the British army in 1879, when Shere Ali was driven from power by the invasion of Afghanistan, nor were they finally evacuated till the spring of 1881. Trade statistics of late years show a gradual increase of exports to India from Kandahar and the countries adjacent thereto, but a curious falling-off in imports. The short-sighted policy of the amir Abdur Rahman in discouraging imports doubtless affected the balance, nor did his affectation of ignoring the railway between New Chaman and Kila Abdulla (on the Peshin side of the Khojak) conduce to the improvement of trade.

(T. H. H.*)

KANDI, a town of British India, in Murshidabad district, Bengal. Pop. (1901), 12,037. It is the residence of the rajas of Paikpara, a wealthy and devout Hindu family. The founder of this family was Ganga Govind Singh, the banyan or agent of Warren Hastings, who was born at Kandi, and retired hither in his old age with an immense fortune. His name has acquired celebrity for the most magnificent *sraddha*, or funeral obsequies, ever performed in Bengal, celebrated in honour of his mother, at a cost, it is said, of £200,000.

KANDY, a town near the centre of Ceylon, 75 m. from Colombo by rail, formerly the capital of a kingdom of the same name,

situated towards the heart of the island, 1718 ft. above the sea. It lies round the margin of an artificial lake constructed by the last king of Kandy in 1806, and is beautifully surrounded by hills. The most striking objects are the temples (of which twelve are Buddhist and four Brahman), the tombs of the Kandian kings, and the various buildings of the royal residence, partly allowed to fall into disrepair, partly utilized by the government. Of the temples the Dalada Malagawa is worthy of particular mention; it claims, as the name indicates, to be in possession of a Buddha tooth.

Kandy was occupied by the Portuguese in the 16th century and by the Dutch in 1763; but in both instances the native kings succeeded in shaking off the foreign yoke. The British got possession of the place in 1803, but the garrison afterwards capitulated and were massacred, and it was not till 1814–15 that the king was defeated and dethroned. The British authority was formally established by the convention of March 2, 1815. In 1848, owing to an attempt at rebellion, the town was for a time under martial law. It has been greatly improved of recent years. Sir William Gregory when governor did much to restore the ancient Kandy decorations, while the Victoria Jubilee Commemoration Building, including "Ferguson Memorial Hall," and two fine hotels, add to the improvements. The Royal Botanic Gardens are situated at Peradeniya, 3 m. distant. Kandy is a uniquely beautiful, highland, tropical town, full of interesting historical and Buddhistic associations. A water supply and electric lighting have been introduced. Roman Catholic missions are active in the work of education, for which a large block of buildings has been erected. Church of England, Wesleyan and Baptist missions are also at work. The population of the town in 1900 was 26,386; of the district, 377,591. Average annual rainfall, 81½ in.; average temperature, 75·3. There is a branch railway from Kandy, north to Matale, 17 m.

KANE, ELISHA KENT (1820–1857), American scientist and explorer, was born in Philadelphia on the 20th of February 1820, the son of the jurist John Kintzing Kane (1795–1858), a friend and supporter of Andrew Jackson, attorney-general of Pennsylvania in 1845–1846, U.S. judge of the Eastern District of Pennsylvania after 1846, and president of the American Philosophical Society in 1856–1858. Young Kane entered the university of Virginia and obtained the degree of M.D. in 1842, and in the following year entered the U.S. navy as surgeon. He had already acquired a considerable reputation in physiological research. The ship to which he was appointed was ordered to China, and he found opportunities during the voyage for indulging his passion for exploration, making a journey from Rio de Janeiro to the base of the Andes, and another from Bombay through India to Ceylon. On the arrival of the ship at its destination he provided a substitute for his post and crossed over to the island of Luzon, which he explored. In 1844 he left China, and, returning by India, Persia, Syria, Egypt, Greece, Austria, Germany and Switzerland, reached America in 1846. In that year he was ordered to the west coast of Africa, where he visited Dahomey, and contracted fever, which told severely on his constitution. On his return in 1847, he exchanged the naval for the military service, and was sent to join the U.S. army in Mexico, where he had some extraordinary adventures, and where he was again stricken with fever.

On the fitting out of the first Grinnell expedition, in 1850, to search for Sir John Franklin, Kane was appointed surgeon and naturalist under Lieut. de Haven, who commanded the ships "Advance" and "Rescue." The expedition, after an absence of sixteen months, during nine of which the ships were ice-bound, returned without having found any trace of the missing vessels. Kane was in feeble health, but worked on at his narrative of the expedition, which was published in 1854, under the title of *The U.S. Grinnell Expedition in Search of Sir John Franklin*. He was determined not to give up the search for Franklin, and in spite of ill-health travelled through the States lecturing to obtain funds, and gave up his pay for twenty months. At length Henry Grinnell fitted out an expedition, in the little brig "Advance," of which Kane was given the command. She sailed in June 1853, and passing up Smith Sound at the head of Baffin Bay advanced into the enclosed sea which now bears the name of Kane Basin, thus establishing the Polar route of many future Arctic expeditions. Here, off the coast of Greenland, the expedition passed two winters, accomplishing much useful geographical, as well as scientific, work, including the attainment of what was to remain for sixteen years the highest northern latitude, 80° 35′ N. (June 1854). From this point a large area of open water was seen which was believed to be an "open Polar Sea," a chimera which played an important and delusive rôle in subsequent explorations. After enduring the greatest hardships it was resolved to abandon the ship, Upernivik being reached on the 5th of August 1855, whence a relief expedition brought the explorers home. Medals were authorized by Congress, and in the following year Dr Kane received the founder's medal of the Royal Geographical Society, and, two years later, a gold medal from the Paris Geographical Society. He published *The Second Grinnell Expedition* in 1856. Dr Kane died at Havana on the 16th of February 1857, at the age of thirty-seven. Between his first and second arctic voyages he made the acquaintance of the Fox family, the spiritualists. With one of the daughters, Margaret, he carried on a long correspondence, which was afterwards published by the lady, who declared that they were privately married.

See *Biography of E. K. Kane*, by William Elder (1858); *Life of E. K. Kane and other American Explorers*, by S. M. Smucker (1858); *The Love-Life of Dr Kane, containing the Correspondence and a History of the Engagement and Secret Marriage between E. K. Kane and Margaret Fox* (New York, 1866); "Discoveries of Dr Kane," in *Jour. of the Roy. Geog. Soc.*, vol. xxviii. (reprinted in *R. G. S. Arctic Papers* of 1875).

KANE, a borough of McKean county, Pennsylvania, U.S.A., about 90 m. E.S.E. of Erie. Pop. (1890), 2944; (1900), 5296, (971 foreign-born); (1910) 6626. It is served by the Pennsylvania, the Baltimore & Ohio, the Kane & Elk, and the Big Level & Kinzua railways. It is situated about 2015 ft. above the sea in a region producing natural gas, oil, lumber and silica, and has some reputation as a summer resort. The borough has manufactories of window glass, plate glass and bottles, and repair shops of the Pennsylvania railroad. Kane was settled in 1859, and was incorporated as a borough in 1887. It was named in honour of John Kintzing Kane, father of Elisha Kent Kane, the Arctic explorer.

KANGAROO, the universally accepted, though not apparently the native, designation of the more typical representatives of the marsupial family *Macropodidae* (see MARSUPIALIA). Although intimately connected with the cuscuses and phalangers by means of the musk-kangaroo, the kangaroos and wallabies, together with the rat-kangaroos, are easily distinguishable from other diprotodont marsupials by their general conformation, and by peculiarities in the structure of their limbs, teeth and other organs. They vary in size from that of a sheep to a small rabbit. The head, especially in the larger species, is small, compared with the rest of the body, and tapers forward to the muzzle. The shoulders and fore-limbs are feebly developed, and the hind-limbs of disproportionate strength and magnitude, which give the animals a peculiarly awkward appearance when moving about on all-fours, as they occasionally do when feeding. Rapid progression is, however, performed only by the powerful hind-limbs, the animals covering the ground by a series of immense bounds, during which the fore part of the body is inclined forwards, and balanced by the long, strong and tapering tail, which is carried horizontally backwards. When not moving, they often assume a perfectly upright position, the tail aiding the two hind-legs to form a tripod, and the front-limbs dangling by the side of the chest. This position gives full scope for the senses of sight, hearing and smell to warn of the approach of enemies. The fore-paws have five digits, each armed with a strong, curved claw. The hind-foot is extremely long, narrow and (except in the musk-kangaroo) without the first toe. It consists mainly of one very large and strong toe, corresponding to the fourth of the human foot, ending in a strong curved and pointed claw

(fig. 2). Close to the outer side of this lies a smaller fifth digit, and to the inner side two excessively slender toes (the second and third), bound together almost to the extremity in a common

FIG. 1.—The Great Grey Kangaroo (*Macropus giganteus*).

integument. The two little claws of these toes, projecting together from the skin, may be of use in scratching and cleaning the fur of the animal, but the toes must have quite lost all connexion with the functions of support or progression. This type of foot-structure is termed syndactylous.

FIG. 2.—Skeleton of right hind-foot of Kangaroo.

The dental formula, when completely developed, is *incisors* $\frac{3}{1}$, *canines* $\frac{1}{0}$, *premolars* $\frac{3}{3}$, *molars* $\frac{4}{4}$ on each side, giving a total of 34 teeth. The three incisors of the upper jaw are arranged in a continuous arched series, and have crowns with broad cutting edges; the first or middle incisor is often larger than the others. Corresponding to these in the lower jaw is but one tooth on each side, which is of great size, directed horizontally forwards, narrow, lanceolate and pointed with sharp edges. Owing to the slight union of the two halves of the lower jaw in front in many species the two lower incisors work together like the blades of a pair of scissors. The canines are absent or rudimentary in the lower, and often deciduous at an early age in the upper jaw. The first two premolars are compressed, with cutting longitudinal edges, the anterior one is deciduous, being lost about the time the second one replaces the milk-molar, so that three premolars are never found in place and use in the same individual. The last premolar and the molars have quadrate crowns, provided with two strong transverse ridges, or with four obtuse cusps. In *Macropus giganteus* and its immediate allies, the premolars and sometimes the first molar are shed, so that in old examples only the two posterior molars and the incisors are found in place. The milk-dentition, as in other marsupials, is confined to a single tooth on each side of each jaw, the other molars and incisors being never changed. The dentition of the kangaroos, functionally considered, thus consists of sharp-edged incisors, most developed near the median line of the mouth, for the purpose of cropping herbage, and ridged or tuberculated molars for crushing.

The number of vertebrae is—in the cervical region 7, dorsal 13, lumbar 6, sacral 2, caudal varying according to the length of the tail, but generally from 21 to 25. In the fore-limb the clavicle and the radius and ulna are well developed, allowing of considerable freedom of motion of the fore-paw. The pelvis has large epipubic or "marsupial" bones. The femur is short, and the tibia and fibula of great length, as is the foot, the whole of which is applied to the ground when the animal is at rest in the upright position.

The stomach is large and very complex, its walls being puckered by longitudinal muscular bands into a number of folds. The alimentary canal is long, and the caecum well developed. The young (which, as in other marsupials, leave the uterus in an extremely small and imperfect condition) are placed in the pouch as soon as they are born; and to this they resort temporarily for shelter for some time after they are able to run, jump and feed upon the herbage which forms the nourishment of the parent. During the early period of their sojourn in the pouch, the blind, naked, helpless young creatures (which in the great kangaroo scarcely exceed an inch in length) are attached by their mouths to the nipple of the mother, and are fed by milk injected into their stomach by the contraction of the muscle covering the mammary gland. In this stage of existence the elongated upper part of the larynx projects into the posterior nares, and so maintains a free communication between the lungs and the external surface, independently of the mouth and gullet, thus averting danger of suffocation while the milk is passing down the gullet.

Kangaroos are vegetable-feeders, browsing on grass and various kinds of herbage, but the smaller species also eat

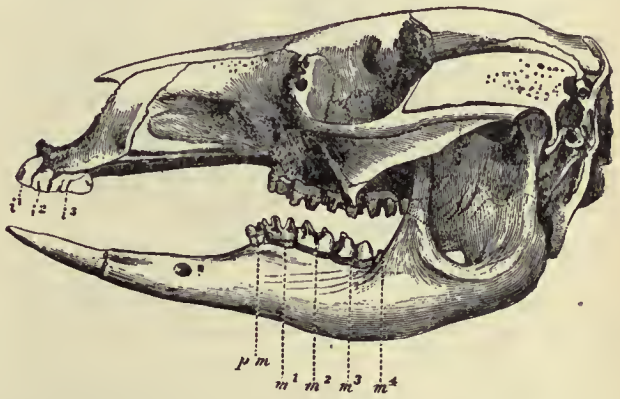


FIG. 3.—Skull and teeth of Bennett's Wallaby (*Macropus ruficollis bennettii*): i^1, i^2, i^3, first, second and third upper incisors; *pm*, second premolar (the first having been already shed); m^1, m^2, m^3, m^4, last premolar and three molars. The last, not fully developed, is nearly concealed by the ascending part of the lower jaw.

roots. They are naturally timid and inoffensive, but the larger kinds when hard pressed will turn and defend themselves, sometimes killing a dog by grasping it in their fore-paws, and inflicting terrible wounds with the sharp claws of their powerful hind-legs, supporting themselves meanwhile upon the tail. The majority are inhabitants of Australia and Tasmania, forming one of the most prominent and characteristic features of the fauna of these lands, and performing the part of the deer and antelopes of other parts of the world. They were important sources of food-supply to the natives, and are hunted by the colonists, both for sport and on account of the damage they do in consuming grass required for cattle and sheep. A few species are found in New Guinea, and the adjacent islands, which belong, in the zoological sense, to the Australian province, beyond the bounds of which none occurs.

The more typical representatives of the group constitute the subfamily *Macropodinae*, in which the cutting-edges of the upper incisors are nearly level, or the first pair but slightly longer than the others (fig. 3). The canines are rudimentary and often wanting. The molars are usually not longer (from before backwards) than the anterior premolars, and less compressed than in the next section. The crowns of the molars have two prominent transverse ridges. The fore-limbs are small with subequal toes, armed with strong, moderately long, curved claws. Hind-limbs very long and strongly made. Head small, with more or less elongated muzzle. Ears generally rather long and ovate.

The typical genus *Macropus*, in which the muzzle is generally naked, the ears large, the fur on the nape of the neck usually directed backwards, the claw of the fourth hind-toe very large, and the tail stout and tapering, includes a large number of species. Among these, the great grey kangaroo (*M. giganteus*, fig. 1) deserves special mention on account of having been discovered during Captain Cook's first voyage in 1770. The great red kangaroo (*M. rufus*) is about the same size, while other large species are *M. antilopinus* and *M. robustus*. The larger wallabies, or brush-kangaroos, such as the red-necked wallaby (*M. ruficollis*) constitute a group of smaller-sized species; while the smaller wallabies, such as the filander (*q.v.*) (*M. muelleri*) and *M. thetidis*, constitute yet another section. The genus ranges from the eastern Austro-Malay islands to New Guinea.

Nearly allied are the rock-wallabies of Australia and Tasmania, constituting the genus *Petrogale*, chiefly distinguished by the thinner tail being more densely haired and terminating in a tuff. Well-known species are *P. penicillata*, *P. xanthopus* and *P. lateralis*. The few species of nail-tailed wallabies, *Onychogale*, which are confined to the Australian mainland, take their name from the presence of a horny spur at the end of the tail, and are further distinguished by the hairy muzzle. *O. unguifer*, *O. fraenatus* and *O. lunatus* represent the group. The hare-wallabies, such as *Lagorchestes leporoides*, *L. hirsutus* and *L. consepicillatus*, constitute a genus with the same distribution as the last, and likewise with a hairy muzzle, but with a rather short, evenly furred tail, devoid of a spur. They are great leapers and swift runners, mostly frequenting open stony plains.

More distinct is the Papuan genus *Dorcopsis*, as typified by *D. muelleri*, although it is to some extent connected with *Macropus* by *D. macleyi*. The muzzle is naked, the fur on the nape of the neck directed more or less completely forward, and the hind-limbs are less disproportionately elongated. Perhaps, however, the most

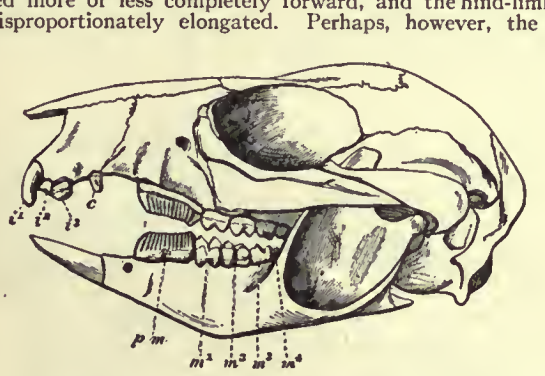


Fig. 4.–Skull and teeth of Lesueuir's Rat-Kangaroo (*Bettongia lesueuiri*). *c*, upper canine. Other letters as in fig. 3. The anterior premolar has been shed.

distinctive feature of the genus is the great fore-and-aft length of the penultimate premolar in both jaws. Other species are *D. rufolateralis* and *D. aurantiacus*. In the tree-kangaroos, which include the Papuan *Dendrolagus inustus*, *D. ursinus*, *D. dorianus*, *D. benetianus* and *D. maximus*, and the North Queensland *D. lumholtzi*, the reduction in the length of the hind-limbs is carried to a still further degree, so that the proportions of the fore and hind limbs are almost normal. The genus agrees with *Dorcopsis* in the direction of the hair on the neck, but the muzzle is only partially hairy, and the elongation of the penultimate premolar is less. These kangaroos are largely arboreal in their habits, but they descend to the ground to feed. Lastly, we have the banded wallaby, *Lagostrophus fasciatus*, of Western Australia, a small species characterized by its naked muzzle, the presence of long bristles on the hind-feet which conceal the claws, and also of dark transverse bands on the lower part of the back. The skull has a remarkably narrow and pointed muzzle and much inflated auditory bullae; while the two halves of the lower jaw are firmly welded together at their junction, thus effectually preventing the scissor-like action of the lower incisors distinctive of *Macropus* and its immediate allies. As regards the teeth, canines are wanting, and the penultimate upper premolar is short, from before backwards, with a distinct ledge on the inner side.

In the rat-kangaroos, or kangaroo-rats, as they are called in Australia, constituting the sub-family *Potoroinae*, the first upper incisor is narrow, curved, and much exceeds the others in length; the upper canines are persistent, flattened, blunt and slightly curved, and the first two premolars of both jaws have large, simple, compressed crowns, with a nearly straight or slightly concave free cutting-edge, and both outer and inner surfaces usually marked by a series of parallel, vertical grooves and ridges. Molars with quadrate crowns and a blunt conical cusp at each corner, the last notably smaller than the rest, sometimes rudimentary or absent. Fore-feet narrow; the three middle toes considerably exceeding the first and fifth in length and their claws long, compressed and but slightly curved. Hind-feet as in *Macropus*. Tail long, and sometimes partially prehensile when it is used for carrying bundles of grass with which these animals build their nests. The group is confined to Australia and Tasmania, and all the species are relatively small.

In the members of the typical genus *Potorous* (formerly known as *Hypsiprymnus*) the head is long and slender, with the auditory bullae somewhat swollen; while the ridges on the first two premolars are few and perpendicular, and there are large vacuities on the palate. The tarsus is short and the muzzle naked. The genus includes *P. tridactylus*, *P. gilberti* and *P. platyops*. In *Bettongia*, on the other hand, the head is shorter and wider, with smaller and more rounded ears, and more swollen auditory bullae. The ridges on the first two premolars are also more numerous and somewhat oblique (fig. 4); the tarsus is long and the tail is prehensile. The species include *B. lesueuiri*, *B. gaimardi* and *B. cuniculus*. The South Australian *Caloprymnus campestris* represents a genus near akin to the last, but with the edge of the hairy border of the bare muzzle less emarginate in the middle line, still more swollen auditory bullae, very large and posterially expanded nasals and longer vacuities on the palate. The list is completed by *Aepyprymnus rufescens*, which differs from all the others by the hairy muzzle, and the absence of inflation in the auditory bullae and of vacuities in the palate.

Perhaps, however, the most interesting member of the whole group is the tiny musk-kangaroo (*Hypsiprymnodon moschatus*) of north-east Australia, which alone represents the sub-family *Hypsiprymnodontinae*, characterized by the presence of an opposable first toe on the hind-foot and the outward inclination of the penultimate upper premolar, as well by the small and feeble claws. In all these features the musk-kangaroo connects the *Macropodidae* with the *Phalangeridae*. The other teeth are like those of the rat-kangaroos. (W. H. F.; R. L.*)

KANGAROO-RAT, a name applied in different parts of the world to two widely different groups of mammals. In Australia it is used to denote the small kangaroo-like marsupials technically known as *Potoroinae*, which zoologists prefer to call rat-kangaroos (see MARSUPIALIA and KANGAROO). In North America it is employed for certain small jumping rat-like rodents nearly allied to the pocket-gophers and belonging to the family *Geomyidae*. Kangaroo-rats in this latter series are represented by three North American genera, of which *Dipodomys phillipsi*, *Cricelodipus agilis* and *Microdipodops megacephalus* may respectively be taken as examples. Resembling pocket-gophers in the possession of cheek-pouches, kangaroo-rats, together with pocket-mice, are distinguished by their elongated hind-limbs and tails, large eyes, well-developed ears and general jerboa-like appearance and habits. The upper incisor teeth are also relatively narrower, and there are important differences in the skull. The cheek-teeth are rootless in kangaroo-rats, but they develop roots in the pocket-mice. The former inhabit open, sandy districts, where they burrow beneath rocks or stones, and hop about like jerboas; their food consisting of grasses and other plants.

KANGAVAR, a small district of Persia, situated between Hamadan and Kermanshah, and, being held in fief by the family of a deceased court official, forming a separate government. The district is very fertile and contains 30 villages. Its revenues amount to about £500 per annum, and its chief place is the large village of Kangavar, which has a population of about 2500 and is 47 m. from Hamadan on the high road to Kermanshah.

KANGRA, a town and district of British India, in the Jullundur division of the Punjab. The town, sometimes called Nagarkot, is situated 2409 ft. above the sea. Pop. (1901), 4746. The Katoch rajas had a stronghold here, with a fort and rich temples. Mahmud of Ghazni took the fort in 1009 and from one of the temples carried off a vast treasure. In 1360 Kangra was again plundered, by Feroz Shah. The temple of Devi Bajreshri was one of the oldest and wealthiest in northern India. It was destroyed, together with the fort and the town, by an earthquake on the 4th of April 1905, when 1339 lives were lost in this place alone, and about 20,000 elsewhere. In 1855 the headquarters of the district were removed to the sanitarium of Dharmsala.

The district of Kangra extends from the Jullundur Doab far into the southern ranges of the Himalaya. Besides some Rajput states, annexed after the Sikh wars, it includes Lahul, Spiti and Kulu, which are essentially Tibetan. The Beas is the only important river. Area, 9978 sq. m., of which Kangra proper has only 2725. Pop. (1901), 768,124; average density 77 persons per sq. m., but with only one person per sq. m. in Spiti. Tea

cultivation was introduced into Kangra about 1850. The Palampur fair, established by government with a view to fostering commerce with central Asia, attracts a small concourse of Yarkandi merchants. The Lahulis carry on an enterprising trade with Ladakh and countries beyond the frontier, by means of pack sheep and goats. Rice, tea, potatoes, opium, spices, wool and honey are the chief exports.

See *Kangra District Gazetteer* (Lahore, 1906).

KANISHKA, king of Kabul, Kashmir, and north-western India in the 2nd century A.D., was a Tatar of the Kushan tribe, one of the five into which the Yue-chi Tatars were divided. His dominions extended as far down into India as Madurā, and probably as far to the north-west as Bokhāra. Private inscriptions found in the Punjab and Sind, in the Yusufzai district and at Madurā, and referred by European scholars to his reign, are dated in the years five to twenty-eight of an unknown era. It is the references by Chinese historians to the Yue-chi tribes before their incursion into India, together with conclusions drawn from the history of art and literature in his reign, that render the date given the most probable. Kanishka's predecessors on the throne were Pagans; but shortly after his accession he professed himself, probably from political reasons, a Buddhist. He spent vast sums in the construction of Buddhist monuments; and under his auspices the fourth Buddhist council, the council of Jālandhara (Jullunder) was convened under the presidency of Vasumitra. At this council three treatises, commentaries on the Canon, one on each of the three baskets into which it is divided, were composed. King Kanishka had these treatises, when completed and revised by Aśvaghosha, written out on copper plates, and enclosed the latter in stone boxes, which he placed in a memorial mound. For some centuries afterwards these works survived in India; but they exist now only in Chinese translations or adaptations. We are not told in what language they were written. It was probably Sanskrit (not Pali, the language of the Canon)—just as in Europe we have works of exegetical commentary composed, in Latin, on the basis of the Testament and Septuagint in Greek. This change of the language used as a medium of literary intercourse was partly the cause, partly the effect, of a complete revulsion in the intellectual life of India. The reign of Kanishka was certainly the turning-point in this remarkable change. It has been suggested with great plausibility, that the wide extent of his domains facilitated the incursion into India of Western modes of thought; and thus led in the first place to the corruption and gradual decline of Buddhism, and secondly to the gradual rise of Hinduism. Only the publication of the books written at the time will enable us to say whether this hypothesis—for at present it is nothing more—is really a sufficient explanation of the very important results of his reign. In any case it was a migration of nomad hordes in Central Asia that led, in Europe, to the downfall of the Roman civilization; and then, through the conversion of the invaders, to medieval conditions of life and thought. It was the very same migration of nomad hordes that led, in India, to the downfall of the Buddhist civilization; and subsequently, after the conversion of the Saka and Tatar invaders, to medieval Hinduism. As India was nearer to the starting-point of the migration, its results were felt there somewhat sooner.

AUTHORITIES.—Vincent A. Smith, *The Early History of India* (Oxford, 1908); "The Kushan Period of Indian History," in *J.R.A.S.* (1903); M. Boyer, "L'Époque de Kaniska," in *Journal Asiatique* (1900); T. Watters, *On Yuan Chwang* (London, 1904, 1905); J. Takakusu, "The Sarvāstivādin Abhidharma Books," in *Jour. of the Pali Text Soc.* (1905), esp. pp. 118–130; Rhys Davids, *Buddhist India* (London, 1903), ch. xvi., "Kanishka." (T. W. R. D.)

KANKAKEE, a city and the county-seat of Kankakee county, Illinois, U.S.A., in the N.E. part of the state, on the Kankakee river, 56 m S. of Chicago. Pop. (1900), 13,595, of whom 3346 were foreign-born; (1910 census), 13,986. Kankakee is served by the Cleveland, Cincinnati, Chicago & St Louis, the Illinois Central, and the Chicago, Indiana & Southern (controlled by the New York Central) railways. It is the seat of the Eastern Hospital for the Insane (1879) a state institution; St Joseph's Seminary (Roman Catholic) and a Conservatory of Music. At Bourbonnais Grove, 3 m. N. of Kankakee is St Viateur's College (founded 1868), a well-known Roman Catholic divinity school, and Notre Dame Academy, another Catholic institution. The city has a public library and four large parks; in Court House Square there is a monument erected by popular subscription in honour of the soldiers from Kankakee county who died in the Civil War. There are rock quarries here, and the city manufactures sewing machines, musical instruments, especially pianos, foundry and machine shop products, agricultural implements and furniture. The total value of the factory product in 1905 was $2,089,143, an increase of 222 % since 1900. Kankakee is also a shipping point for agricultural products. It was first settled in 1832; was platted as the town of Bourbonnais in 1853, when Kankakee county was first organized; was chartered as the city of Kankakee in 1855, and was re-chartered in 1892.

KANKER, a feudatory state of India, within the Central Provinces; area, 1429 sq. m.; pop. (1901), 103,536; estimated revenue, £10,000. It is a hilly tract, containing the headwaters of the Mahanadi. The extensive forests have recently been made profitable by the opening of a branch railway. The residence of the raja, who is of an old Rajput family though ruling over Gonds, is at Kanker (pop. 3906).

KANO, one of the most important provinces of the British protectorate of Northern Nigeria. It includes the ancient emirates of Kano, Katsena, Daura and Kazaure, and covers an area of about 31,000 sq. m. The sub-province of Katagum was incorporated with Kano in 1905, and is included within this area. The population of the double province is estimated at about 2,250,000.

Kano was one of the original seven Hausa states. Written annals carry the record of its kings back to about A.D. 900. Legendary history goes back much further. It was conquered by the Songhoi (Songhay) in the early part of the 16th century, and more than once appears to have made at least partial submission to Bornu. Mahommedanism was introduced at a period which, according to the system adopted for the dating of the annals, must be placed either in the 12th or the 14th century. The Hausa system of government and taxation was adopted by the Fula when in the early part of the 19th century that Mahommedan people overran the Hausa states. It has been erroneously stated that the Fula imposed Mahommedanism on the Hausa states. The fact that they adopted the existing system of government and taxation, which are based upon Koranic law, would in itself be sufficient proof that this was not the case. But the annals of Kano distinctly record the introduction and describe the development of Mahommedanism at an early period of local history.

The capital is the city of KANO, situated in 12° N. and 8° 32′ E., 220 m. S.S.E. of Sokoto and 500 N.E. of Lagos. It is built on an open plain, and is encompassed by a wall 11 m. in perimeter and pierced by thirteen gates. The wall is from 30 to 50 ft. high and about 40 ft. thick at the base. Round the wall is a deep double ditch, a dwarf wall running along its centre. The gates are simply cow-hide, but are set in massive entrance towers. Only about a third of the area (7¼ sq. m.) enclosed by the walls is inhabited nor was the whole space ever occupied by buildings, the intention of the founders of the city being to wall in ground sufficient to grow food for the inhabitants during a siege. The arable land within the city is mainly on the west and north; only to the south-east do the houses come right to the walls. Within the walls are two steep hills, one, Dala, about 120 ft. high being the most ancient quarter of the town. Dala lies north-west. To its east is a great pond, the Jakara, 1½ m. long, and by its north-east shore is the market of the Arab merchants. Here also was the slave market. The palace of the emir, in front of which is a large open space, is in the Fula quarter in the south-east of the city. The palace consists of a number of buildings covering 33 acres and surrounded by a wall 20 to 30 ft. high. The architecture of the city is not without merit. The houses are built of clay with (generally) flat roofs impervious to fire. Traces of Moorish influence are evident and the horseshoe arch is common. The

audience hall of the emir's palace—25 ft. sq. and 18 ft. high—is decorated with designs in black, white, green and yellow, the yellow designs (formed of micaceous sand) glistening like gold. The dome-shaped roof is supported by twenty arches.

The city is divided into fourteen quarters, each presided over by a headman, and inhabited by separate sections of the community. It is probably the greatest commercial city in the central Sudan. Other towns, like Zaria, may do as much trade, but Kano is pre-eminent as a manufacturing centre. The chief industry is the weaving of cloth from native grown cotton. Leather goods of all kinds are also manufactured, and from Kano come most of the "morocco leather" goods on the European markets. Dyeing is another large trade, as is the preparation of indigo. Of traders there are four distinct classes. They are: (1) Arabs from Tripoli, who export ostrich feathers, skins and ivory, and bring in burnouses, scents, sweets, tea, sugar, &c.; (2) Salaga merchants who import kola nuts from the hinterland of the Guinea Coast, taking in exchange cloth and live stock and leather and other goods; (3) the Asbenawa traders, who come from the oases of Asben or Air with camels laden with salt and "potash" (*i.e.* sodium carbonates), and with herds of cattle and sheep, receiving in return cotton and hardware and kolas; (4) the Hausa merchants. This last class trades with the other three and despatches caravans to Illorin and other places, where the Kano goods, the "potash" and other merchandise are exchanged for kolas and European goods. The "potash" finds a ready sale among the Yorubas, being largely used for cooking purposes. In Kano itself is a great market for livestock: camels, horses, oxen, asses and goats being on sale.

Besides Hausa, who represent the indigenous population, there are large colonies of Kanuri (from Bornu) and Nupians in Kano. The Fula form the aristocratic class. The population is said to amount to 100,000. About a mile and a half east of Kano is Nassarawa, formerly the emir's suburban residence, but since 1902 the British Residency and barracks.

The city of Kano appears on the map of the Arab geographer, Idrisi, A.D. 1145, and the hill of Dala is mentioned in the earliest records as the original site of Kano. Barth, however, concluded that the present town does not date earlier than the second half of the 16th century, and that before the rise of the Fula power (*c.* 1800) scarcely any great Arab merchant ever visited Kano. The present town may be the successor of an older town occupying a position of similar pre-eminence. Kano submitted to the Fula without much resistance, and under them in the first half of the 19th century flourished greatly. It was visited by Hugh Clapperton, an English officer, in 1824, and in it Barth lived some time in 1851 and again in 1854. Barth's descriptions of the wealth and importance of the city attracted great attention in Europe, and Kano was subsequently visited by several travellers, missionaries, and students of Hausa, but none was permitted to live permanently in the city. In the closing years of the century, Kano became the centre of resistance to British influence, and the emir, Alieu, was the most inveterate of Fula slave raiders. In February 1903 the city was captured by a British force under Colonel T. L. N. Morland, and a new emir, Abbas, a brother of Alieu, installed.

After the occupation by the British in 1903 the province was organized for administration on the same system as that adopted throughout northern Nigeria. The emir on his installation takes an oath of allegiance to the British Crown, and accepts the position of a chief of the first class under British rule. A resident is placed at his court, and assistant residents have their headquarters in the administrative districts of the province. British courts of justice are established side by side with the native courts throughout the province. Taxation is assessed under British supervision and paid into the native treasury. A fixed portion is paid by the emir to the British government. The emir is not allowed to maintain a standing army, and the city of Kano is the headquarters of the British garrison. The conditions of appointment of the emirs are fully laid down in the terms accepted at Sokoto on the close of the Sokoto-Kano campaign of 1903. Since the introduction of British rule there has been no serious trouble in the province. The emir Abbas worked loyally with the British and proved himself a ruler of remarkable ability and intelligence. He was indefatigable in dispensing justice, and himself presided over a native court in which he disposed of from fifty to a hundred cases a month. He also took an active interest in the reform and reorganization of the system of taxation, and in the opening of the country to trade. He further showed himself helpful in arranging difficulties which at times arose in connexion with the lesser chiefs of his province.

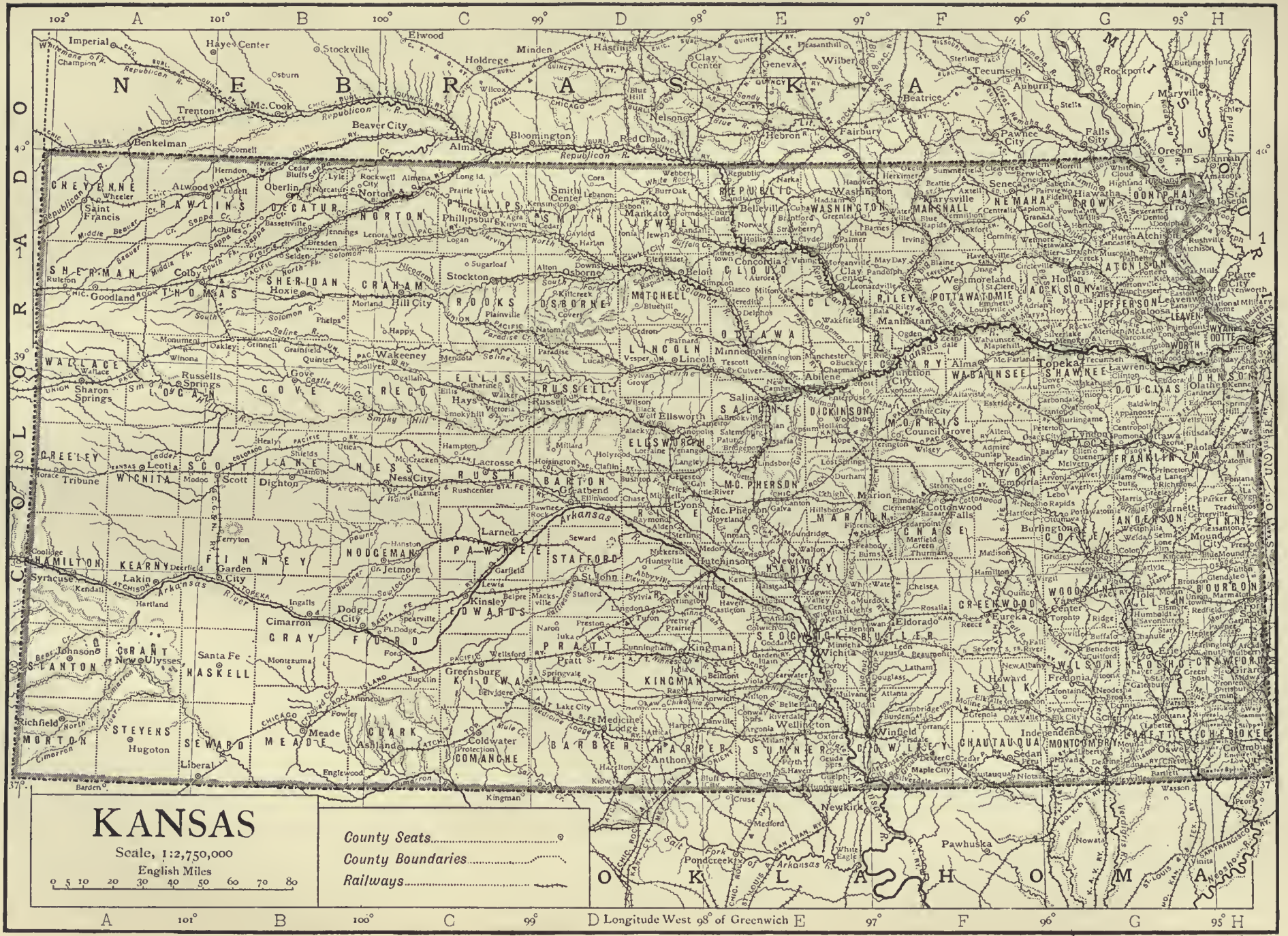
The province of Kano is generally fertile. For a radius of 30 m. round the capital the country is closely cultivated and densely populated, with some 40 walled towns and with villages and hamlets hardly half a mile apart. Kano district proper contains 170 walled towns and about 450 villages. There are many streams, but water is chiefly obtained from wells 15 to 40 ft. deep. The principal crops are African grains, wheat, onions, cotton, tobacco, indigo, with sugar-cane, cassava, &c. The population is chiefly agricultural, but also commercial and industrial. The chief industries are weaving, leather-making, dyeing and working in iron and pottery. Cattle are abundant. (See NIGERIA: *History*; and SOKOTO.)

Consult the *Travels* of Heinrich Barth (new ed., London, 1890); *Hausaland*, by C. H. Robinson (London, 1896); Northern Nigeria, by Sir F. D. Lugard, in vol. xxii. *Geographical Journal* (London, 1904); *A Tropical Dependency*, by Lady Lugard (London, 1905); the Colonial Office *Reports* on Northern Nigeria from 1902 onward, and other works cited under NIGERIA. (F. L. L.)

KANSAS (known as the "Sunflower State"), the central commonwealth of the United States of America, lying between 37° and 40° N. lat. and between 94° 38′ and 102° 1′ 34″ W. long. (*i.e.* 25° W. long. from Washington). It is bounded on the N. by Nebraska, on the E. by Missouri, on the S. by Oklahoma, and on the W. by Colorado. The state is nearly rectangular in shape, with a breadth of about 210 m. from N. to S. and a length of about 410 m. from E. to W. It contains an area of 82,158 sq. m. (including 384 sq. m. of water surface).

Physiography.—Three physiographic regions may be distinguished within the state—the first, a small portion of the Ozark uplift in the extreme south-east corner; the second, the Prairie Plains, covering approximately the east third of the state; the third, the Great Plains, covering the remaining area. Between the latter two there is only the most gradual transition. The entire state is indeed practically an undulating plain, gently sloping from west to east at an average of about 7 ft. per mile. There is also an inclination in the eastern half from north to south, as indicated by the course of the rivers, most of which flow south-easterly (the Kansas, with its general easterly course, is the principal exception), the north-west corner being the highest portion of the state. The lowest point in the state in its south-east part, in Montgomery county, is 725 ft. above sea level. The average elevation of the east boundary is about 850 ft., while contour lines of 3500–3900 ft. run near the west border. Somewhat more than half the total area is below 2000 ft. The gently rolling prairie surface is diversified by an endless succession of broad plains, isolated hills and ridges, and moderate valleys. In places there are terraced uplands, and in others the undulating plain is cut by erosion into low escarpments. The bluffs on the Missouri are in places 200 ft. high, and the valley of the Cimarron, in the south-west, has deep cuts, almost gorges. The west central portion has considerable irregularities of contour, and the north-west is distinctively hilly. In the south-west, below the Arkansas river, is an area of sandhills, and the Ozark Plateau region, as above stated, extends into the south-east corner, though not there much elevated. The great central valley is traversed by the Kansas (or Kaw) river, which, inclusive of the Smoky Hill Branch, extends the entire length of the state, with lateral valleys on the north. Another broad valley is formed in the south half of the state by the Arkansas river, with lateral valleys on the north and south. The south-east portion contains the important Neosho and smaller valleys. In the extreme south-west is the valley of the Cimarron, and along the south boundary is a network of the south tributaries of the Arkansas. Numerous small affluents of the Missouri enrich and diversify the north-east quarter. The streams of Kansas are usually fed by perennial springs, and, as a rule, the east and middle portions of the state are well watered. Most of the streams maintain a good flow of water in the driest seasons, and in case of heavy rains many of them "underflow" the adjacent bottom lands, saturating the permeable substratum of the country with the surplus water, which in time drains out and feeds the subsiding streams. This feature is particularly true of the Saline, Solomon and Smoky Hill rivers. The west part is more elevated and water is less abundant.

Climate.—The climate of Kansas is exceptionally salubrious. Extremes of heat and cold occur, but as a rule the winters are dry and mild, while the summer heats are tempered by the perpetual prairie breezes, and the summer nights are usually cool and refreshing. The average annual temperature of the state for seventeen years preceding 1903 was 54·3° F., the warmest mean being 56·0°, the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OKLAHOMA
Emery Walker sc.

coldest 52·6°. The extreme variation of yearly means throughout the east, west and middle sections during the same period was very slight, 51·6° to 56·6°, and the greatest variation for any one section was 3·7°. The absolute extremes were 116° and −34°. The dryness of the air tempers exceedingly to the senses the cold of winter and the heat of summer. The temperature over the state is much more uniform than is the precipitation, which diminishes somewhat regularly westward. In the above period of seventeen years the yearly means in the west section varied from 11·93 to 29·21 in. (av. 19·21), in the middle from 18·58 to 34·30 (av. 26·68), in the east from 26·00 to 45·71 (av. 34·78); the mean for the state ranging from 20·12 to 35·50 (av. 27·12).[1] The precipitation in the west is not sufficient for confident agriculture in any series of years, since agriculture is practically dependent upon the mean fall; a fact that has been and is of profound importance in the history of the state. The line of 20 in. fall (about the limit of certain agriculture) approximately bisects the state in dry years. The precipitation is very largely in the growing season—at Dodge the fall between April and October is 78 % of that for the year. Freshets and droughts at times work havoc. The former made notable 1844 and 1858; and the latter 1860, 1874 and 1894. Tornadoes are also a not infrequent infliction, least common in the west. The years 1871, 1879, 1881 and 1892 were made memorable by particularly severe storms. There are 150 to 175 "growing days" for crops between the frosts of spring and autumn, and eight in ten days are bright with sunshine—half of them without a cloud. Winds are prevailingly from the south (in the winter often from the north-west).

Fauna and Flora.—The fauna and flora of the state are those which are characteristic of the plain region generally of which Kansas is a part. The state lies partly in the humid, or Carolinian, and partly in the arid, or Upper Sonoran, area of the Upper Austral life-zone; 100° W. long. is approximately the dividing line between these areas. The bison and elk have disappeared. A very great variety of birds is found within the state, either as residents or as visitants from the adjoining avifaunal regions—mountain, plain, northern and southern. In 1886 Colonel N. S. Goss compiled a list of 335 species, of which 175 were known to breed in the state. The wild turkey, once abundant, was near extermination in 1886, and prairie chickens (pinnated grouse) have also greatly diminished in number. The jack-rabbit is characteristic of the prairie. Locusts ("grasshoppers" in local usage) have worked incalculable damage, notably in 1854, 1866, and above all in 1874–1875. In the last two cases their ravages extended over a great portion of the state.

Kansas has no forests. Along the streams there is commonly a fringe of timber, which in the east is fairly heavy. There is an increasing scarcity westward. With the advancing settlement of the state thin wind-break rows become a feature of the prairies. The lessened ravages of prairie fires have facilitated artificial afforesting, and many cities, in particular, are abundantly and beautifully shaded. Oaks, elms, hickory, honey-locusts, white ash, sycamore and willows, the rapid growing but miserable box-elder and cotton-wood, are the most common trees. Black walnut was common in the river valleys in Territorial days. The planting of tree reserves by the United States government in the arid counties of this state promises great success. A National Forest of 302,387 acres in Finney, Kearney, Hamilton and Grant counties was set aside in May 1908. Buffalo and bunch, and other short native prairie grasses, very nutritious ranging food but unavailable as hay, once covered the plains and pastured immense herds of buffalo and other animals, but with increasing settlement they have given way generally to exotic bladed species, valuable alike for pasture and for hay, except in the western regions. The hardy and ubiquitous sunflower has been chosen as the state flower or floral emblem. Cactus and yucca occur in the west.

The soil of the upland prairies is generally a deep rich clay loam of a dark colour. The bottom lands near the streams are a black sandy loam; and the intermediate lands, or "second bottoms," show a rich and deep black loam, containing very little sand. These soils are all easily cultivated, free from stones, and exceedingly productive. There are exceptional spots on the upland prairies composed of stiff clay, not as easily cultivated, but very productive when properly managed and enriched. The south-west section is distinctively sandy.

Agriculture.—The United States Census of 1900 shows that of the farming area of the state in 1900 (41,662,970 acres, 79·6 % of the total area), 60·1 % was "improved." The value of all farm property was $864,100,286—of which land and improvements (including buildings), livestock and implements and machinery represented respectively 74·5, 22·1 and 3·4 %. Almost nine-tenths of all farms derived their principal income from livestock or hay and grain, these two sources being about equally important. Of the total value of farm products in 1899 ($209,895,542), crops represented 53·7, animal products 45·9 and forest products only 0·4 %. In 1899 the wheat crop was 38,778,450 bushels, being less than that of Minnesota, North Dakota, Ohio or South Dakota. According to the *Year Book* of the United States Department of Agriculture, the crop in 1906 was 81,830,611 bushels, almost one-ninth of the crop of the entire country for that year, and much more than the crop of any other state. In 1909 it was 87,203,000 bushels (less than the crops of either Minnesota or North Dakota). Winter wheat constitutes almost the entire output. The hard varieties rank in the flour market with the finest Minnesota wheat. The wheat belt crosses the state from north to south in its central third. Greater even than wheat in absolute output, though not relatively to the output of other states, is Indian corn. In 1906 the crop was 195,075,000 bushels, and in 1909 it was 154,225,000. The crop is very variable, according to seasons and prospective markets; ranging *e.g.* in the decade 1892–1901 from 42·6 (1901) to 225·1 (1899) million bushels. The Indian corn belt is mainly in the eastern third of the state. In the five years 1896–1900 the combined value of the crops of Indian corn and wheat exceeded the value of the same crops in any other state of the Union (Illinois being a close second). In the western third irrigation has been tried, in the earlier years unsuccessfully; in all Kansas, in 1899, there were 23,620 acres irrigated, of which 8939 were in Finney and 7071 in Kearney county. In this western third the rainfall is insufficient for Indian corn; but Kafir corn, an exceptional drought-resisting cereal, has made extraordinary progress in this region, and indeed generally over the state, since 1893, its acreage increasing 416·1 % in the decade 1895–1904. With the saccharine variety of sorghum, which increased greatly in the same period, this grain is replacing Indian corn. Oats are the third great cereal crop, the yield being 24,780,000 bushels in 1906 and 27,185,000 in 1909. Alfalfa showed an increased acreage in 1895–1904 of 310·8 %; it is valuable in the west for the same qualities as the Kafir corn. The hay crop in 1909 was 2,652,000 tons. Alfalfa, the Japanese soy bean and the wheat fields—which furnish the finest of pasture in the early spring and ordinarily well into the winter season—are the props of a prosperous dairy industry. In the early 'eighties the organization of creameries and cheese factories began in the county-seats; they depended upon gathered cream. About 1889 separators and the whole-milk system were introduced, and about the same time began the service of refrigerator cars on the railways; the hand separator became common about 1901. Western Kansas is the dairy country. Its great ranges, whose insufficient rainfall makes impossible the certain, and therefore the profitable, cultivation of cereals, or other settled agriculture, lend themselves with profit to stock and dairy farming. Dairy products increased 60·6 % in value from 1895 to 1904, amounting in the latter year to $16,420,095. This value was almost equalled by that of eggs and poultry ($14,050,727), which increased 79·7 % in the same decade. The livestock interest is stimulated by the enormous demand for beef-cattle at Kansas City.

Sugar-beet culture was tried in the years following 1890 with indifferent success until the introduction of bounties in 1901. It has extended along the Arkansas valley from the Colorado beet district and into the north-western counties. There is a large beet-sugar factory at Garden City, Finney county. Experiments have been made unsuccessfully in sugar cane (1885) and silk culture (1885 seq.). The bright climate and pure atmosphere are admirably adapted to the growth of the apple, pear, peach, plum, grape and cherry. The smaller fruits also, with scarce an exception, flourish finely. The fruit product of Kansas ($2,431,773 in 1899) is not, however, as yet particularly notable when compared with that of various other states.

According to the estimates of the state department of agriculture, of the total value of all agricultural products in the twenty years 1885–1904 ($3,078,999,855), Indian corn and wheat together represented more than two-fifths (821·3 and 518·1 million dollars respectively), and livestock products nearly one-third (1024·9 millions). The aggregate value of all agricultural products in 1903–1904 was $754,954,208.

Minerals.—In the east portion of the state are immense beds of bituminous coal, often at shallow depths or cropping out on the surface. In 1907 more than 95 % of the coal came from Crawford, Cherokee, Leavenworth and Osage counties, and about 91·5 % from the first two. The total value of the production of coal in 1905 (6,423,979 tons) was $9,350,542, and in 1908 (6,245,508 tons) $9,292,222. In the central portion, which belongs to the Triassic formation, magnesian limestone, ferruginous sandstone and gypsum are representative rocks. Gypsum (in beautiful crystalline form) is found in an almost continuous bed across the state running north-east and south-west with three principal areas, the northern in Marshall county, the central in Dickinson and Saline counties, and the southern (the heaviest, being 3 to 40 ft. thick) in Barber and Comanche counties. The product in 1908 was valued at $281,339. Magnesian limestone, or dolomite, is especially plentiful along the Blue, Republican and Neosho rivers and their tributaries. This beautiful stone, resembling white, grey and cream-coloured marble, is exceedingly useful for building purposes. It crops out in the bluffs in endless quantities, and is easily worked. The stone resources of the state are largely, but by no means exclusively, confined to the central part. There are marbles in Osage and other counties, shell marble in Montgomery county, white limestone in Chase county, a valuable bandera flagstone and hydraulic cement rock near Fort Scott, &c. The limestones produced in 1908 were valued at $403,176 and the sandstones at $67,950. In the central

[1] For the thirty years 1877–1906 the mean rainfall for ten-year periods was: at Dodge, 22·8 in., 18·4 in. and 22·7 in.; and at Lawrence, 35·1 in., 39·2 in. and 36·7 in. for the first, second and third periods respectively.

region salt is produced in immense quantities, within a great north to south belt about Hutchinson. The beds, which are exploited by the brine method at Hutchinson, at Ellsworth (Ellsworth county), at Anthony (Harper county) and at Sterling (Rice county), lie from 400 to 1200 ft. underground, and are in places as much as 350 ft. thick and 99% pure. At Kanopolis in Ellsworth county, at Lyons in Rice county and at Kingman, Kingman county, the salt is mined and sold as rock-salt. In the south-west salt is found in beds and dry incrustations, varying in thickness from a few inches to 2 ft. The total product from 1880–1899 was valued at $5,538,855; the product of 1908 (when Kansas ranked fourth among the states producing salt) was valued at $882,984. The development has been mainly since 1887 at Hutchinson and since about 1890 in the rock-salt mines. In the west portion of the state, which belongs to the Cretaceous formation, chalks and a species of native quicklime are very prominent in the river bluffs. The white and cream-coloured chalks are much used for building purposes, but the blue is usually too soft for exposure to the weather. The quicklime as quarried from the bluffs slakes perfectly, and with sand makes a fairly good mortar, without calcination or other previous preparation. The lignite found near the Colorado line makes a valuable domestic fuel.

Natural gas, oil, zinc and lead have been discovered in south-east Kansas and have given that section an extraordinary growth and prosperity. Indications of gas were found about the time of the Civil War, but only in the early 'seventies were they recognized as unmistakable, and they were not successfully developed until the 'eighties. Iola, in Allen county, is the centre of the field, and the gas yields heat, light, and a cheap fuel for smelters, cement-works and other manufacturing plants throughout a large region. The pools lie from 400 to 950 ft. below the surface; some wells have been drilled 1500 ft. deep. The value of the natural gas produced in the state was $15,873 in 1889, $2,261,836 in 1905 and $7,691,587 in 1908, when there were 1917 producing wells, and Kansas ranked fourth of the states of the United States in the value of the natural gas product, being surpassed by Pennsylvania, West Virginia and Ohio. Petroleum was discovered about 1865 in Miami and Bourbon counties, and about 1892 at Neodesha, Wilson county. There was only slight commercial exploitation before 1900. The production increased from 74,714 barrels in that year to 4,250,779 in 1904; in 1908 it was 1,801,781 barrels. Chanute has been the most active centre of production. The field was prospected here in the 'nineties, but developed only after 1900. In 1877 an immense deposit of lead was discovered on land now within the limits of Galena. Rich zinc blendes were at first thrown away among the by-products of the lead mines. After the discovery of their true nature there was a slow development, and at the end of the century a notable boom in the fields. From 1876 to 1897 the total value of the output of the Galena field was between $25,000,000 and $26,000,000; but at present Kansas is far more important as a smelter than as a miner of zinc and lead, and in 1906 58% of all spelter produced in the United States came from smelters in Kansas. In 1908 the mines' output was 2293 tons of lead valued at $192,612 and 8628 tons of zinc valued at $811,032. Pottery, fire, ochre and brick clays are abundant, the first two mainly in the eastern part of the state. Coffeyville has large vitrified brick interests. In 1908 the total value of all the mineral products (incompletely reported) of Kansas was $26,162,213.

Industry and Trade.—Manufactures are not characteristic of the state. The rank of the state in manufactures in 1900 was sixteenth and in farm products seventh in the Union. The value of the manufactured product in 1900, according to the Twelfth United States Census, was $172,129,398, an increase of 56·2% over the output of 1890; of this total value, the part representing establishments under the "factory system" was $154,008,544,[1] and in 1905 the value of the factory product was $198,244,992, an increase of 28·7%. Kansas City, Topeka, Wichita, Leavenworth and Atchison were the only cities which had manufactures whose gross product was valued in 1905 at more than $3,000,000 each; their joint product was valued at $126,515,804, and that of Kansas City alone was $96,473,050, almost half the output of the state. The most important manufacturing industry, both in 1900 and in 1905, was slaughtering and meat-packing—for which Kansas City is the second centre of the country—with a product for the state valued at $77,411,883 in 1900, and $96,375,639 in 1905; in both these years the value of the product of Kansas was exceeded only by that of Illinois. The flour and grist mill industry ranked next, with a product valued at $21,328,747 in 1900 and nearly twice that amount, $42,034,019, in 1905. In 1900 a quarter of the wheat crop was handled by the mills of the state. Lesser manufacturing interests are railway shop construction (value in 1905, $11,521,144); zinc smelting and refining (value in 1905, $10,999,468); the manufacture of cheese, butter and condensed milk (value in 1905, $3,946,349); and of foundry and machine shop products (value in 1905, $3,756,825).

[1] All subsequent figures in this paragraph for manufactures in 1900 are given for establishments under the "factory system" only, so as to be comparable with statistics for 1905, which do not include minor establishments.

Communications.—Kansas is excellently provided with railways, with an aggregate length in January 1909 of 8914·77 m. (in 1870, 1880, 1890 respectively, 1,501, 3,244 and 8,710 m.). The most important systems are the Atchison, Topeka & Santa Fé, the Missouri Pacific, the Chicago, Rock Island & Pacific, the Union Pacific, the Missouri, Kansas & Texas, the Chicago, Burlington & Quincy, and the St Louis & San Francisco systems. The first train entered Kansas on the Union Pacific in 1860. During the following decade the lines of the Missouri Pacific, the Missouri, Kansas & Texas and the Santa Fé were well under construction. These roads give excellent connexions with Chicago, the Gulf and the Pacific. Kansas has an eastern river front of 150 m. on the Missouri, which is navigable for steamboats of good size. The internal rivers of the state are not utilized for commercial purposes.

Population.—In population Kansas ranked in 1900 and 1910 (1,690,949) twenty-second in the Union. The decennial increases of population from 1860 to 1900 were 239·9, 173·4, 43·3 and 3·0%, the population in 1900 being 1,470,495, or 18 to the sq. m.[2] Of this number 22·5% lived in cities of 2500 or more inhabitants. Nine cities numbered more than 10,000 inhabitants: Kansas City (51,418), Topeka—the state capital (33,608), Wichita (24,671), Leavenworth (20,735), Atchison (15,722), Lawrence—the seat of the state university (10,862), Fort Scott (10,322), Galena (10,155) and Pittsburg (10,112). The life of all of these save the last two goes back to Territorial days; but the importance of Fort Scott, like that of Galena and Pittsburg, is due to the development of the mineral counties in the south-east. Other cities of above 5000 inhabitants were Hutchinson (9379), Emporia (8223), Parsons (7682), Ottawa (6934), Newton (6208), Arkansas City (6140), Salina (6074), Argentine (5878) and Iola (5791). The number of negroes (3·5%) is somewhat large for a northern and western state. This is largely owing to an exodus of coloured people from the South in 1878–1880, at a time when their condition was an unusually hard one: an exodus turned mainly toward Kansas. The population is very largely American-born (91·4% in 1900; 47·1% being natives of Kansas). Germans, British, Scandinavians and Russians constitute the bulk of the foreign-born. The west third of the state is comparatively scantily populated, owing to its aridity. In the 'seventies, after a succession of wet seasons, and again in the 'eighties, settlement was pushed far westward, beyond the limits of safe agriculture, but hundreds of settlers—and indeed many entire communities—were literally starved out by the recurrence of droughts. Irrigation has made a surer future for limited areas, however, and the introduction of drought-resisting crops and the substitution of dairy and livestock interests in the place of agriculture have brightened the outlook in the western counties, whose population increased rapidly after 1900. The early 'eighties were made notable by a tremendous "boom" in real estate, rural and urban, throughout the commonwealth. As regards the distribution of religious sects, in 1906 there were 458,190 communicants of all denominations, and of this number 121,208 were Methodists (108,097 being Methodist Episcopalians of the Northern Church), 93,195 were Roman Catholics, 46,299 were Baptists (34,975 being members of the Northern Baptist Convention and 10,011 of the National (Colored) Baptist Convention), 40,765 were Presbyterians (33,465 being members of the Northern Church) and 40,356 were Disciples of Christ. The German-Russian Mennonites, whose immigration became notable about 1874, furnished at first many examples of communal economy, but these were later abandoned. In 1906 the total number of Mennonites was 7445, of whom 3581 were members of the General Conference of Mennonites of North America, 1825 belonged to the Schellenberger Brüder-gemeinde, and the others were distributed among seven other sects.

[2] According to the state census Kansas had in 1905 a total population of 1,544,968; nearly 28% lived in cities of 2500 or more inhabitants; 13 cities had more than 10,000 inhabitants: Kansas City (67,614), Topeka (37,641), Wichita (31,110), Leavenworth (20,934), Atchison (18,159), Pittsburg (15,012), Coffeyville (13,196), Fort Scott (12,248), Parsons (11,720), Lawrence (11,708), Hutchinson (11,215), Independence (11,206), and Iola (10,287). Other cities of above 5000 inhabitants each were: Chanute (9704), Emporia (8974), Winfield (7845), Salina (7829), Ottawa (7727), Arkansas City (7634), Newton (6601), Galena (6449), Argentine (6053), Junction City (5264) and Cherryvale (5089).

Government.—The constitution is that adopted at Wyandotte on the 29th of July 1859 and ratified by the people on the 4th of October 1859; it came into operation on the 29th of January 1861, and was amended in 1861, 1864, 1867, 1873, 1875, 1876, 1880, 1888, 1900, 1902, 1904 and 1906. An amendment may be proposed by either branch of the legislature, and, if approved by two-thirds of the members elected to each house as well as by a majority of the electors voting on it at a general election, it is adopted. A constitutional convention to revise or amend the constitution may be called in the same manner. Universal manhood suffrage is the rule, but women may vote in school and municipal elections, Kansas being the first state to grant women municipal suffrage as well as the right to hold municipal offices (1887). General elections to state, county and township offices are biennial, in even-numbered years, and take place on the first Tuesday after the first Monday in November. The state executive officers are a governor, lieutenant-governor, secretary of state, auditor, treasurer, attorney-general and superintendent of public instruction, all elected for a term of two years. The governor appoints, with the approval of the Senate, a board of public works and some other administrative boards, and he may veto any bill from the legislature, which cannot thereafter become a law unless again approved by two-thirds of the members elected to each house.

The legislature, consisting of a Senate and a House of Representatives, meets in regular session at Topeka, the capital, on the second Tuesday of January in odd-numbered years. The membership of the senate is limited to 40, and that of the house of representatives to 125. Senators are elected for four years and representatives for two years. In regular sessions not exceeding fifty days and in special sessions not exceeding thirty days the members of both houses are paid three dollars a day besides an allowance for travelling expenses, but they receive no compensation for the extra time of longer sessions. In 1908 a direct primary law was passed applicable to all nominations except for presidential electors, school district officers and officers in cities of less than 5000 inhabitants; like public elections the primaries are made a public charge; nomination is by petition signed by a certain percentage (for state office, at least 1%; for district office, at least 2%; for sub-district or county office, at least 3%) of the party vote; the direct nominating system applies to the candidates for the United States Senate, the nominee chosen by the direct primaries of each party being the nominee of the party.

The judicial power is vested in one supreme court, thirty-eight district courts, one probate court for each county, and two or more justices of the peace for each township. All justices are elected: those of the supreme court, seven in number, for six years, two or three every two years; those of the district courts for four years; and those of the probate courts and the justices of the peace for two years. The more important affairs of each county are managed by a board of commissioners, who are elected by districts for four years, but each county elects also a clerk, a treasurer, a probate judge, a register of deeds, a sheriff, a coroner, an attorney, a clerk of the district court, and a surveyor, and the district court for the county appoints a county auditor. The township officers, all elected for two years, are a trustee, a clerk, a treasurer, two or more justices of the peace, two constables and one road overseer for each road district. Cities are governed under a general law, but by this law they are divided into three classes according to size, and the government is different for each class. Those having a population of more than 15,000 constitute the first class, those having a population of more than 2000 but not more than 15,000 constitute the second class, and those having a population not exceeding 2000 constitute the third class. Municipal elections are far removed from those of the state, being held in odd-numbered years in April. In cities of the first class the state law requires the election of a mayor, city clerk, city treasurer, police judge and councilmen; in those of the second class it requires the election of a mayor, police judge, city treasurer, councilmen, board of education, justices of the peace and constables; and in those of the third class it requires the election of a mayor, police judge and councilmen. Several other offices provided for in each class are filled by the appointment of the mayor.

The principal grounds for a divorce in Kansas are adultery, extreme cruelty, habitual drunkenness, abandonment for one year, gross neglect of duty, and imprisonment in the penitentiary as a felon subsequent to marriage, but the applicant for a divorce must have resided in the state the entire year preceding the presentment of the petition. A married woman has the same rights to her property after marriage as before marriage, except that she is not permitted to bequeath away from her husband more than one-half of it without his written consent, and no will made by the husband can affect the right of the wife, if she survive him, to one-half of the property of which he died seized. Whenever a husband dies intestate, leaving a farm or a house and lot in a town or city which was the residence of the family at his death, his widow, widow and children, or children alone if there be no widow, may hold the same as a homestead to the extent of 160 acres if it be a farm, or one acre if it be a town or city lot. A homestead of this size is exempt from levy for the debts of the intestate except in case of an incumbrance given by consent of both husband and wife, or of obligations for purchase money, or of liens for making improvements, and the homestead of a family cannot be alienated without the joint consent of husband and wife. The homestead status ceases, however, whenever the widow marries again or when all the children arrive at the age of majority. An eight-hour labour law was passed in 1891 and was upheld by the state supreme court. In 1909 a law was passed for state regulation of fire insurance rates (except in the case of farmers' mutuals insuring farm property only) and forbidding local discrimination of rates within the state. In the same year a law was passed requiring that any corporation acting as a common carrier in the state must receive the permission of the state board of railway commissioners for the issue of stocks, bonds or other evidences of indebtedness.

The manufacture and sale of intoxicating liquors except for medical, scientific and mechanical purposes were prohibited by a constitutional amendment adopted in 1880. The Murray liquor law of 1881, providing for the enforcement of the amendment, was declared constitutional by the state supreme court in 1883. At many sessions of the legislature its enemies vainly attempted its repeal. It was more seriously threatened in 1890 by the "Original Package Decision," of the United States Supreme Court, the decision, namely, that the state law could not apply to liquor introduced into Kansas from another state and sold from the original package, such inter-state commerce being within the exclusive jurisdiction of Congress. That body thereupon gave Kansas the power needed, and its action was upheld by the Federal Supreme Court. The enforcement of the law has varied, however, enormously according to the locality. In 1906–1907 a fresh crusade to enforce the law was begun by the attorney-general, who brought ouster suits against the mayors of Wichita, Junction City, Pittsburg and Leavenworth for not enforcing the law and for replacing it with the "fine" system, which was merely an irregular licence. In 1907 the attorney-general's office turned its attention to outside brewing companies doing business in the state and secured injunctions against such breweries doing business in the state and the appointment of receivers of their property. The provision of the law permitting the sale of whisky for medicinal, scientific or mechanical purposes was repealed by a law of 1909 prohibiting the sale, manufacture or barter of spirituous, malt, vinous or any other intoxicating liquors within the state. The severity of this law was ascribed to efforts of the liquor interests to render it objectionable.

The constitution forbids the contraction of a state debt exceeding $1,000,000. The actual debt on the 30th of June 1908 was $605,000, which was a permanent school fund. Taxation is on the general-property system. The entire system has been—as in other states where it prevails—extremely irregular and arbitrary as regards local assessments, and very imperfect; and the figures of total valuation (in 1880 $160,570,761, in 1890 $347,717,218, in 1906 $408,329,749, and in 1908, when it was supposed to be the actual valuation of all taxable property, $2,453,691,859), though significant of taxation methods, are not significant of the general condition or progress of the state.

Education.—Of higher educational institutions, the state supports the university of Kansas at Lawrence (1866), an agricultural college at Manhattan (1863; aided by the United States government); a normal school at Emporia (1865), a western branch of the same at Hays (1902); a manual training normal school (1903) at Pittsburg, western university (Quindaro) for negroes and the Topeka industrial and educational institute (1896, reorganized on the plan of Tuskegee institute in 1900) also for negroes. The university of Kansas was organized in 1864 and opened in 1866. Its engineering department was established in 1870, its normal department in 1876 (abolished 1885), its department of music in 1877, its department of law in 1878, and the department of pharmacy in 1885; in 1891 the preparatory department was abolished and the university was reorganized with "schools" in place of the former "departments." In 1899 a school of medicine was established, in connexion with which the Eleanor Taylor Bell memorial hospital was erected in 1905. In 1907–1908 the university had a faculty of 211, an enrolment of 2063 (1361 men and 702 women); the university library contained 60,000 volumes and 37,000 pamphlets. An efficient compulsory education law was passed in 1903. Kansas ranks very high among the states in its small percentage of illiteracy (inability to write)—in 1900 only 2·9% of persons at least ten years of age; the figures for native whites, foreign whites and negroes being respectively 1·3, 8·5, 22·3. In addition to the state schools, various flourishing private or denominational institutions are maintained. The largest

of these are the Kansas Wesleyan University (Methodist Episcopal, 1886) at Salina and Baker University (Methodist Episcopal, 1858) at Baldwin. Among the many smaller colleges are Washburn College (Congregational, 1869) at Topeka, the Southwest Kansas College (Methodist Episcopal, opened 1886) at Winfield, the College of Emporia (Presbyterian, 1883) at Emporia, Bethany College (Lutheran, 1881) at Lindsborg, Fairmount College (non-sectarian, 1895) at Wichita, St Mary's College (Roman Catholic, 1869) at St Mary's, and Ottawa University (Baptist, 1865) at Ottawa. At Topeka is the College of the Sisters of Bethany (Protestant Episcopal, 1861) for women. There are also various small professional schools and private normal schools. An industrial school for Indian children is maintained by the United States near Lawrence (Haskell Institute, 1884). Among the state charitable and reformatory institutions are state hospitals for the insane at Topeka and Osawatomie and a hospital for epileptics at Parsons; industrial reform schools for girls at Beloit, for boys at Topeka, and for criminals under twenty-five at Hutchinson; a penitentiary at Lansing; a soldiers' orphans' home at Atchison and a soldiers' home at Dodge City; and schools for feeble-minded youth at Winfield, for the deaf at Olathe, and for the blind at Kansas City. These institutions are under the supervision of a state board of control. The state contributes also to many institutions on a private basis. Most of the counties maintain poor farms and administer outdoor relief, and some care for insane patients at the cost of the state.

History.—The territory now included in Kansas was first visited by Europeans in 1541, when Francisco de Coronado led his Spaniards from New Mexico across the buffalo plains in search of the wealth of "Quivira," a region located by Bandelier and other authorities in Kansas north-east of the Great Bend of the Arkansas. Thereafter, save for a brief French occupation, 1719–1725, and possibly slight explorations equally inconsequential, Kansas remained in undisturbed possession of the Indians until in 1803 it passed to the United States (all save the part west of 100° long. and south of the Arkansas river) as part of the Louisiana Purchase. The explorations for the United States of Z. M. Pike (1807) and S. H. Long (1819) tended to confirm old ideas of sandy wastes west of the Mississippi. But with the establishment of prairie commerce to Santa Fé (New Mexico), the waves of emigration to the Mormon land and to California, the growth of traffic to Salt Lake, and the explorations for a transcontinental railway, Kansas became well known, and was taken out of that mythical "Great American Desert," in which, thanks especially to Pike and to Washington Irving, it had been supposed to lie. The trade with Santa Fé began about 1804, although regular caravans were begun only about 1825. This trade is one of the most picturesque chapters in border history, and picturesque in retrospect, too, is the army of emigrants crossing the continent in "prairie schooners" to California or Utah, of whom almost all went through Kansas.

But this movement of hunters, trappers, traders, Mormons, miners and homeseekers left nothing to show of settlement in Kansas, for which, therefore, the succession of Territorial governments organized for the northern portion of the Louisiana Purchase had no real significance. Before 1854 Kansas was an Indian land, although on its Indian reservations (created in its east part for eastern tribes removed thither after 1830) some few whites resided: missionaries, blacksmiths, agents, farmers supposed to teach the Indians agriculture, and land "squatters," —possibly 800 in all. Fort Leavenworth was established in 1827, Fort Scott in 1842, Fort Riley in 1853. There were Methodist (1829), Baptist, Quaker, Catholic and Presbyterian missions active by 1837. Importunities to Congress to institute a Territorial government began in 1852. This was realized by the Kansas-Nebraska Bill of 1854.

By that Act Kansas (which from 1854 to 1861 included a large part of Colorado) became, for almost a decade, the storm centre of national political passion, and her history of prime significance in the unfolding prologue of the Civil War. Despite the Missouri Compromise, which had prohibited slavery in the Louisiana Purchase N. of 36° 30′ N. lat. (except in Missouri), slaves were living at the missions and elsewhere, among Indians and whites, in 1854. The "popular sovereignty" principle of the Kansas-Nebraska Bill involved a sectional struggle for the new Territory. Time showed that the winning of Kansas was a question of the lightest-footed immigrant. Slaveholders were not footloose; they had all to lose if they should carry their blacks into Kansas and should nevertheless fail to make it a slave-state. Thus the South had to establish slavery by other than actual slaveholders, unless Missouri should act for her to establish it. But Missouri did not move her slaves; while her vicinity encouraged border partisans to seek such establishment even without residence—by intimidation, election frauds and outrage. This determined at once the nature of the Kansas struggle and its outcome; and after the South had played and lost in Kansas, "the war for the Union caught up and nationalized the verdict of the Territorial broil."

In the summer of 1854 Missouri "squatters" began to post claims to border lands and warn away intending anti-slavery settlers. The immigration of these from the North was fostered in every way, notably through the New England Emigrant Aid Company (see LAWRENCE, A. A.), whose example was widely imitated. Little organized effort was made in the South to settle the Territory; Lawrence (Wakarusa) and Topeka, free-state centres, and Leavenworth, Lecompton and Atchison, pro-slavery towns, were among those settled in 1854.

At the first election (Nov. 1854), held for a delegate to Congress, some 1700 armed Missourians invaded Kansas and stuffed the ballot boxes; and this intimidation and fraud was practised on a much larger scale in the election of a Territorial legislature in March 1855. The resultant legislature (at Pawnee, later at Shawnee Mission) adopted the laws of Missouri almost *en bloc*, made it a felony to utter a word against slavery, made extreme pro-slavery views a qualification for office, declared death the penalty for aiding a slave to escape, and in general repudiated liberty for its opponents. The radical free-state men thereupon began the importation of rifles. All criticism of this is inconsequent; "fighting gear" was notoriously the only effective asset of Missourians in Kansas, every Southern band in Kansas was militarily organized and armed, and the free-state men armed only under necessity. Furthermore, a free-state "government" was set up, the "bogus" legislature at Shawnee being "repudiated." Perfecting their organization in a series of popular conventions, they adopted (Dec. 1855) the Topeka Constitution —which declared the exclusion of negroes from Kansas—elected state officials, and sent a contestant delegate to Congress. The Topeka "government" was simply a craftily impressive organization, a standing protest. It met now and then, and directed sentiment, being twice dispersed by United States troops; but it passed no laws, and did nothing that conflicted with the Territorial government countenanced by Congress. On the other hand, the laws of the "bogus" legislature were generally ignored by the free-state partisans, except in cases (*e.g.* the service of a writ) where that was impossible without apparent actual rebellion against the authority of the legislature, and therefore of Congress.

Meanwhile the "border war" began. During the (almost bloodless) "Wakarusa War" Lawrence was threatened by an armed force from Missouri, but was saved by the intervention of Governor Shannon. Up to this time the initiative and the bulk of outrages lay assuredly heavily on the pro-slavery side; hereafter they became increasingly common and more evenly divided. In May 1856 another Missouri force entered Lawrence without resistance, destroyed its printing offices, wrecked buildings and pillaged generally. This was the day before the assault on Charles Sumner (*q.v.*) in the Senate of the United States. These two outrages fired Northern passion and determination. In Kansas they were a stimulus to the most radical elements. Immediately after the sack of Lawrence, John Brown and a small band murdered and mutilated five pro-slavery men, on Pottawatomie Creek; a horrible deed, showing a new spirit on the free-state side, and of ghastly consequence—for it contributed powerfully to widen further the licence of highway robbery, pillage and arson, the ruin of homes, the driving off of settlers, marauding expeditions, attacks on towns, outrages in short of every kind, that made the following months a welter of lawlessness and crime, until Governor Geary—by putting himself above all partisanship, repudiating Missouri, and using Federal troops—

put an end to them late in 1856. (In the isolated south-eastern counties they continued through 1856–1858, mainly to the advantage of the "jay-hawkers" of free-state Kansas and to the terror of Missouri.)

The struggle now passed into another phase, in which questions of state predominate. But something may be remarked in passing of the leaders in the period of turbulence. John Brown wished to deal a blow against slavery, but did nothing to aid any conservative political organization to that end. James H. Lane was another radical, and always favoured force. He was a political adventurer, an enthusiastic, energetic, ambitious, ill-balanced man, shrewd and magnetic. He assuredly did much for the free-state cause; meek politics were not alone sufficient in those years in Kansas. The leader of the conservative free-soilers was Charles Robinson (1818–1894). He was born in Massachusetts, studied medicine at the Berkshire Medical School, and had had political experience in California, whither he had gone in 1849, and where in 1850–1852 he was a member of the legislature and a successful anti-slavery leader. In 1854 he had come to Kansas as an agent of the Emigrant Aid Company. He was the author of the Topeka government idea, or at least was its moving spirit, serving throughout as the "governor" under it; though averse to force, he would use it if necessary, and was first in command in the "Wakarusa War." His partisans say that he saved Kansas, and regard Lane as a fomenter of trouble who accomplished nothing. Andrew H. Reeder (1807–1864), who showed himself a pro-slavery sympathizer as first Territorial governor, was removed from office for favouring the free-state party; he became a leader in the free-state cause. Every governor who followed him was forced by the logic of events and truth tacitly to acknowledge that right lay with the free-state party. Reeder and Shannon fled the Territory in fear of assassination by the pro-slavery party, with which at first they had had most sympathy. Among the pro-slavery leaders David Rice Atchison (1807–1886), United States Senator in 1843–1855, accompanied both expeditions against Lawrence; but he urged moderation, as always, at the end of what was a legitimate result of his radical agitation.

In June 1857 delegates were elected to a constitutional convention. The election Act did not provide for any popular vote upon the constitution they should form, and was passed over Governor John W. Geary's veto. A census, miserably deficient (largely owing to free-state abstention and obstruction), was the basis of apportionment of delegates. The free-state party demanded a popular vote on the constitution. On the justice of this Governor Robert J. Walker and President Buchanan were at first unequivocally agreed, and the governor promised fairplay. Nevertheless only pro-slavery men voted, and the convention was thus pro-slavery. The document it framed is known as the Lecompton Constitution. Before the convention met, the free-state party, abandoning its policy of political inaction, captured the Territorial legislature. On the constitutional convention rested, then, all hope of saving Kansas for slavery; and that would be impossible if they should submit their handiwork to the people. The convention declared slave property to be "before and higher than any constitutional sanction" and forbade amendments affecting it; but it provided for a popular vote on the alternatives, the "constitution with slavery" or the "constitution with no slavery." If the latter should be adopted, slavery should cease "except" that the right to property in slaves in the Territory should not be interfered with. The free-state men regarded this as including the right to property in offspring of slaves, and therefore as pure fraud. Governor Walker stood firmly against this iniquitous scheme; he saw that slavery was, otherwise, doomed, but he thought Kansas could be saved to the Democratic party though lost to slavery. But President Buchanan, under Southern influence, repudiated his former assurances. There is reason to believe that the whole scheme was originated at Washington, and though Buchanan was not privy to it before the event, yet he adopted it. He abandoned Walker, who left Kansas; and he dismissed Acting-Governor Frederick P. Stanton for convoking the (now free-state) legislature. This body promptly ordered a vote on the third alternative, "Against the Constitution."

The free-state men ignored the alternatives set by the Lecompton Convention; but they participated nevertheless in the provisional election for officers under the Lecompton government, capturing all offices, and then, the same day, voted overwhelmingly against the constitution (Jan. 4, 1858).

Nevertheless, Buchanan, against the urgent counsel of Governor Denver, urged on Congress (Feb. 2) the admission of Kansas under the Lecompton Constitution. He was opposed by Senator Stephen A. Douglas, the leader of the Northern Democracy. The Senate upheld the President; the House of Representatives voted down his policy; and finally both houses accepted the English Bill, by which Kansas was virtually offered some millions of acres of public lands if she should accept the Lecompton Constitution.[1] On the 21st of August 1858, by a vote of 11,300 to 1788, Kansas resisted this temptation. The plan of the Administration thus effectually miscarried, and its final result was a profound split in the Democratic party.

The free-state men framed an excellent anti-slavery constitution at Leavenworth in March–April 1858, but the origins of the convention were illegal and their work was still-born. On the 29th of July 1859 still another constitution was therefore framed at Wyandotte, and on the 4th of October it was ratified by the people. Meanwhile the Topeka "government" disappeared, and also, with its single purpose equally served, the free-state party, most of it (once largely Democratic) passing into the Republican party, now first organized in the Territory. On the 29th of January 1861 Kansas was admitted to the Union under the Wyandotte Constitution. The United States Census of 1860 gave her a population of 107,204 inhabitants. The struggle in Kansas, the first physical national struggle over slavery, was of paramount importance in the breaking up of the Whig party, the firm establishment of an uncompromisingly anti-slavery party, the sectionalization of the Democracy, and the general preparation of the country for the Civil War.

Drought and famine came in 1860, and then upon the impoverished state came the strain of the Civil War. Nevertheless Kansas furnished proportionally a very large quota of men to the Union armies. Military operations within her own borders were largely confined to a guerrilla warfare, carrying on the bitter neighbourhood strife between Kansas and Missouri. The Confederate officers began by repressing predatory plundering from Missouri; but after James H. Lane, with an undisciplined brigade, had crossed the border, sacking, burning and killing in his progress, Missouri "bushrangers" retaliated in kind. Freebooters trained in Territorial licence had a free hand on both sides. Kansas bands were long the more successful. But William C. Quantrell, after sacking various small Kansas towns along the Missouri river (1862–63), in August 1863 took Lawrence (*q.v.*) and put it mercilessly to fire and sword—the most ghastly episode in border history. In the autumn of 1864 the Confederate general, Sterling Price, aiming to enter Kansas from Missouri but defeated by General Pleasanton's cavalry, retreated southward, zigzagging on both sides of the Missouri-Kansas line. This ended for Kansas the border raids and the war. Lane was probably the first United States officer to enlist negroes as soldiers. Many of them (and Indians too) fought bravely for the state. Indian raids and wars troubled the state from 1864 to 1878. The tribes domiciled in Kansas were rapidly moved to Indian Territory after 1868.

[1] The English Bill was not a bribe to the degree that it has usually been considered to be, inasmuch as it "reduced the grant of land demanded by the Lecompton Ordinance from 23,500,000 acres to 3,500,000 acres, and offered only the normal cession to new states." But this grant of 3,500,000 acres was conditioned on the acceptance of the Lecompton Constitution, and Congress made no promise of any grant if that Constitution were not adopted. The bill was introduced by William Hayden English (1822–1896), a Democratic representative in Congress in 1853–1861 (see Frank H. Hodder, "Some Aspects of the English Bill for the Admission of Kansas," in *Annual Report of the American Historical Association* for the Year 1906, i. 201–210).

After the Civil War the Republicans held uninterrupted supremacy in national elections, and almost as complete control in the state government, until 1892. From about 1870 onward, however, elements of reform and of discontent were embodied in a succession of radical parties of protest. Prohibition arose thus, was accepted by the Republicans, and passed into the constitution. Woman suffrage became a vital political issue. Much legislation has been passed to control the railways. General control of the media of commerce, economic co-operation, tax reform, banking reforms, legislation against monopolies, disposal of state lands, legislation in aid of the farmer and labourer, have been issues of one party or another. The movement of the Patrons of Industry (1874), growing into the Grange, Farmers' Alliance, and finally into the People's (Populist) party (see FARMERS' MOVEMENT), was perhaps of greatest importance. In conjunction with the Democrats the Populists controlled the state government in 1892–1894 and 1896–1898. These two parties decidedly outnumbered the Republicans at the polls from 1890–1898, but they could win only by fusion. In 1892–1893, when the Populists elected the governor and the Senate, and the Republicans (as the courts eventually determined) the House of Representatives, political passion was so high as to threaten armed conflicts in the capital. The Australian ballot was introduced in 1893. In the decade following 1880, struggles in the western counties for the location of county seats (the bitterest local political fights known in western states) repeatedly led to bloodshed and the interference of state militia.

TERRITORIAL GOVERNORS [1]

Andrew H. Reeder	July 7, 1854–Aug. 16, '55
Wilson Shannon	Sept. 7, 1855–Aug. 18, '56
John W. Geary	Sept. 9, 1856–Mar. 12, '57
Robert J. Walker	May 27, 1857–Nov. 16, '57
James W. Denver	May 12, 1858–Oct. 10, '58
Samuel Medary	Dec. 18, 1858–Dec. 17, '60

Acting Governors [2]

	Aggregate	
Daniel Woodson	5 times	(164 days) Apr. 17, 1855–Apr. 16, '57
Frederick P. Stanton	2 ,,	(78 ,,) Apr. 16, 1857–Dec. 21, '57
James W. Denver	1 ,,	(23 ,,) Dec. 21, 1857–May 12, '58
Hugh S. Walsh	4(5?),,	(177 ,,) July 3, 1858–June 16, '60
George M. Beebe	2 ,,	(131 ,,) Sept. 11, 1860–Feb. 9, '61

STATE GOVERNORS

Charles Robinson	Republican	1861–1863
Thomas Carney	,,	1863–1865
Samuel J. Crawford	,,	1865–1869
N. Green (to fill vacancy)	,,	1869 (3 months)
James M. Harvey	,,	1869–1873
Thomas A. Osborn	,,	1873–1877
George T. Anthony	,,	1877–1879
John P. St John	,,	1879–1883
George W. Glick	Democrat	1883–1885
John A. Martin	Republican	1885–1889
Lyman U. Humphrey	,,	1889–1893
Lorenzo D. Lewelling	Populist	1893–1895
Edmund N. Morrill	Republican	1895–1897
John W. Leedy	Democrat-Populist	1897–1899
W. E. Stanley	Republican	1899–1903
Willis J. Bailey	,,	1903–1905
Edward W. Hoch	,,	1905–1909
Walter R. Stubbs	,,	1909–

AUTHORITIES.—Consult for physiographic descriptions general works on the United States, exploration, surveys, &c., also paper by George I. Adams in American Geographical Society, *Bulletin* 34 (1902), pp. 89–104. On climate see U.S. Department of Agriculture, *Kansas Climate and Crop Service* (monthly, since 1887). On soil and agriculture, see *Biennial Reports* (Topeka, 1877 seq.) of the State Board of Agriculture; *Experiment Station Bulletin* of the Kansas Agricultural College (Manhattan); and statistics in the United States *Statistical Abstract* (annual, Washington), and Federal Census reports. On manufactures see Federal Census reports; Kansas Bureau of Labor and Industry, *Annual Report* (1885 seq.); Kansas Inspector of Coal Mines, *Annual Report* (1887 seq.). On administration consult the *State of Kansas Blue Book* (Topeka, periodical), and reports of the various state officers (Treasurer, annual, then biennial since 1877–1878; Board of Trustees of State Charities and Corrections, biennial, 1877–1878 seq.; State Board of Health, founded 1885, annual, then biennial reports since 1901–1902; Bureau of Labor Statistics, founded 1885, annual reports; Irrigation Commission, organized 1895, annual reports, &c.). On taxation see *Report and Bill of the State Tax Commission, created* 1901 (Topeka, 1901). On the history of the state, see A. T. Andreas, *History of Kansas* (Chicago, 1883; compiled mainly by J. C. Hebbard); D. W. Wilder's *Annals of Kansas* (Topeka, 1875 and later), indispensable for reference; L. W. Spring's *Kansas* (Boston, 1885, in the American Commonwealth Series); Charles Robinson, *The Kansas Conflict* (New York, 1892); Eli Thayer, *The Kansas Crusade* (New York, 1889); the *Proceedings of the Kansas State Historical Society* (Topeka, 1891 seq.), full of the most valuable material; W. E. Connelley, *Kansas Territorial Governors* (Topeka, 1900); W. E. Miller, *The Peopling of Kansas* (Columbus, O., 1906), a doctoral dissertation of Columbia University; and for the controversy touching John Brown, G. W. Brown's *The Truth at Last, Reminiscences of Old John Brown* (Rockford, Ill., 1880), and W. E. Connelley, *An Appeal to the Record . . . Refuting . . . Things Written for . . . Charles Robinson and G. W. Brown* (Topeka, 1903). W. C. Webb's *Republican Election Methods in Kansas, General Election of 1892, and Legislative Investigations* (Topeka, 1893) may also be mentioned.

KANSAS CITY, a city and the county-seat of Wyandotte county, Kansas, U.S.A., on the W. bank of the Missouri River, at the mouth of the Kansas, altitude about 800 ft. It is separated from its greater neighbour, Kansas City, Missouri, only by the state line, and is the largest city in the state. Pop. (1890), 38,315; (1900), 51,418, of whom 6,377 were foreign-born and 6509 were negroes; (1910 census) 82,331. It is served by the Union Pacific, the Missouri Pacific, the Chicago, Rock Island & Pacific, and the Chicago Great Western railways, and by electric lines connecting with Leavenworth and with Kansas City, Missouri. There are several bridges across the Kansas river. The city covers the low, level bottom-land at the junction of the two rivers, and spreads over the surrounding highlands to the W., the principal residential district. Its plan is regular. The first effective steps toward a city park and boulevard system were taken in 1907, when a board of park commissioners, consisting of three members, was appointed by the mayor. The city has been divided into the South Park District and the North Park District, and at the close of 1908 there were 10 m. of boulevards and parks aggregating 160 acres. A massive steel and concrete toll viaduct, about $1\frac{3}{4}$ m. in length, extends from the bluffs of Kansas City, Kan., across the Kansas valley to the bluffs of Kansas City, Mo., and is used by pedestrians, vehicles and street cars. There is a fine public library building given by Andrew Carnegie. The charities of the city are co-ordinated through the associated charities. Among charitable state-aided institutions are the St Margaret's hospital (Roman Catholic), Bethany hospital (Methodist), a children's home (1893), and, for negroes, the Douglass hospital training school for nurses (1898)—the last the largest private charity of the state. The medical department of the Kansas state university, the other departments of which are in Lawrence, is in Kansas City; and among the other educational institutions of the city are the Western university and industrial school (a co-educational school for negroes), the Kansas City Baptist theological seminary (1902), and the Kansas City university (Methodist Protestant, 1896), which had 454 students in 1908–1909 and comprises Mather college (for liberal arts), Wilson high school (preparatory), a school of elocution and oratory (in Kansas City, Mo.), a Normal School, Kansas City Hahnemann Medical College (in Kansas City, Mo.), and a school of theology. The city is the seat of the Kansas (State) school for the blind. Kansas City is one of the largest cities in the country without a drinking saloon. Industrially the city is important for its stockyards and its meat-packing interests. With the exception of Chicago, it is the largest live-stock market in the United States. The product-value of the city's factories in 1905 was $96,473,050; 93·5% consisting of the product of the wholesale slaughtering and meat-packing houses. Especially in the South-west markets Kansas City has an advantage over Chicago, St Louis, and other large packing centres (except St Joseph), not only in freights, but in its situation among the "corn and beef" states; it shares also the

[1] Terms of actual service in Kansas, not period of commissions. The appointment was for four years. Reeder was removed, all the others resigned.

[2] Secretaries of the Territory who served as governors in the interims of gubernatorial terms or when the governor was absent from the Territory. In the case of H. S. Walsh several dates cannot be fixed with exactness.

extraordinary railway facilities of Kansas City, Missouri. There are various important manufactures, such as soap and candles, subsidiary to the packing industry; and the city has large flour mills, railway and machine shops, and foundries. A large cotton-mill, producing coarse fabrics, was opened in 1907. Natural gas derived from the Kansas fields became available for lighting and heating, and crude oil for fuel, in 1906.

Kansas City was founded in 1886 by the consolidation of "old" Kansas City, Armourdale and Wyandotte (in which Armstrong and Riverview were then included). Of these municipalities Wyandotte, the oldest, was originally settled by the Wyandotte Indians in 1843; it was platted and settled by whites in 1857; and was incorporated as a town in 1858, and as a city in 1859. At Wyandotte were made the first moves for the Territorial organization of Kansas and Nebraska. During the Kansas struggle Wyandotte was a pro-slavery town, while Quindaro (1856), a few miles up the Missouri, was a free-state settlement and Wyandotte's commercial rival until after the Civil War. The convention that framed the constitution, the Wyandotte Constitution, under which Kansas was admitted to the Union, met here in July 1859. "Old" Kansas City was surveyed in 1869 and was incorporated as a city in 1872. Armourdale was laid out in 1880 and incorporated in 1882. The packing interest was first established in 1867; the first large packing plant was that of Armour & Co., which was removed to what is now Kansas City in 1871. Kansas City adopted government by commission in 1909.

KANSAS CITY, a city and port of entry of Jackson county, Missouri, U.S.A., the second in size and importance in the state, situated at the confluence of the Missouri and Kansas rivers, adjoining Kansas City, Kansas, and 235 m. W. by N. of St Louis. Pop. (1890), 132,716; (1900), 163,752, of whom 18,410 were foreign born (German, 4816; Irish, 3507; Swedish, 1869; English, 1863; English-Canadian, 1369; Italian, 1034), and 17,567 were negroes; (1910 census) 248,381. Kansas City, the gateway to the South-west, is one of the leading railway centres of the United States. It is served by the Union Pacific, the Missouri Pacific, the 'Frisco System, the Chicago, Burlington & Quincy, the Atchison, Topeka & Santa Fé, the Chicago Great Western, the Chicago, Milwaukee & St Paul, the Chicago & Alton, the Wabash, the Kansas City Southern, the Chicago, Rock Island & Pacific, the Missouri, Kansas & Texas, the Leavenworth, Kansas & Western, the Kansas City, Mexico & Orient, the St Louis, Kansas City & Colorado, the Quincy, Omaha & Kansas City, and the St Joseph & Grand Island railways, and by steamboat lines to numerous river ports.

The present retail, office, and wholesale sections were once high bluffs and deep ravines, but through and across these well graded streets were constructed. South and west of this highland, along the Kansas river, is a low, level tract occupied chiefly by railway yards, stock yards, wholesale houses and manufacturing establishments; north and east of the highland is a flat section, the Missouri River bottoms, occupied largely by manufactories, railway yards, grain elevators and homes of employés. Much high and dry "made" land has been reclaimed from the river flood-plain. Two great railway bridges across the Missouri, many smaller bridges across the Kansas, and a great interstate toll viaduct extending from bluff to bluff across the valley of the latter river, lie within the metropolitan area of the two cities. The streets of the Missouri city are generally wide and excellently paved. The city-hall (1890–1893), the court-house (1888–1892), and the Federal Building (1892–1900) are the most imposing of the public buildings. A convention hall, 314 ft. long and 198 ft. wide, with a seating capacity of about 15,000, is covered by a steel-frame roof without a column for its support; the exterior of the walls is cut stone and brick. The building was erected within three months, to replace one destroyed by fire, for the National Democratic Convention which met here on the 4th of July 1900. The Public Library with walls of white limestone and Texas granite, contained (1908) 95,000 volumes. The Congregational, the Calvary Baptist, the Second Presbyterian, the Independence Avenue Christian, the Independence Avenue Methodist, and the Second Christian Science churches are the finest church buildings. The board of trade building, the building of the *Star* newspaper, and several large office buildings (including the Scarritt, Long, and New York Life Insurance buildings) are worthy of mention.

Kansas City has over 2000 acres in public parks; but Swope Park, containing 1354 acres, lies south of the city limits. The others are distributed with a design to give each section a recreation ground within easy walking distance, and all (including Swope) are connected by parkways, boulevards and street-car lines. The Paseo Parkway, 250 ft. wide, extends from N. to S. through the centre of the city for a distance of $2\frac{1}{2}$ m., and adjoining it near its middle is the Parade, or principal playground. The city has eight cemeteries, the largest of which are Union, Elmwood, Mt Washington, St Mary's and Forest Hill. The charitable institutions and professional schools included in 1908 about thirty hospitals, several children's homes and homes for the aged, an industrial home, the Kansas City school of law, the University medical college, and the Scarritt training school. The city has an excellent public school system. A Methodist Episcopal institutional church, admirably equipped, was opened in 1906. The city has a juvenile court, and maintains a free employment bureau.

Kansas City is primarily a commercial centre, and its trade in livestock, grain and agricultural implements is especially large. The annual pure-bred livestock show is of national importance. The city's factory product increased from $23,588,653 in 1900 to $35,573,049 in 1905, or 50·8 %. Natural gas and crude petroleum from Kansas fields became of industrial importance about 1906. Natural gas is used to light the residence streets and to heat many of the residences.

Kansas City is one of the few cities in the United States empowered to frame its own charter. The first was adopted in 1875 and the second in 1889. In 1905 a new charter, drawn on the lines of the model "municipal program" advocated by the National Municipal League, was submitted to popular vote, but was defeated by the influence of the saloons and other special interests. The charter of 1908 is a revision of this proposed charter of 1905 with the objectionable features eliminated; it was adopted by a large majority vote. Under the provisions of the charter of 1908 the people elect a mayor, city treasurer, city comptroller, and judges of the municipal court, each for a term of two years. The legislative body is the common council composed of two houses, each having as many members as there are wards in the city—14 in 1908. The members of the lower house are elected, one by each ward, in the spring of each even numbered year. The upper house members are elected by the city at large and serve four years. A board of public works, board of park commissioners, board of fire and water commissioners, a board of civil service, a city counsellor, a city auditor, a city assessor, a purchasing agent, and subordinate officers, are appointed by the mayor, without confirmation by the common council. A non-partisan board composed of citizens who must not be physicians has general control of the city's hospitals and health department. A new hospital at a cost of half a million dollars was completed in 1908. The charter provides for a referendum vote on franchises, which may be ordered by the council or by petition of the people, the signatures of 20% of the registered voters being sufficient to force such election. Public work may be prevented by remonstrance of interested property owners except in certain instances, when the city, by vote of the people, may overrule all remonstrances. A civic league attempts to give a non-partisan estimate of all municipal candidates. The juvenile court, the arts and tenement commissions, the municipal employment bureau, and a park board are provided for by the charter. All the members of the city board of election commissioners and a majority of the police board are appointed by the governor of the state; and the police control the grant of liquor licences. The city is supplied with water drawn from the Missouri river above the mouth of the Kansas or Kaw (which is used as a sewer by Kansas City, Kan.); the main pumping station and settling basins being at

Quindaro, several miles up the river in Kansas; whence the water is carried beneath the Kansas, through a tunnel, to a high-pressure distributing station in the west bottoms. The waterworks (direct pressure system) were acquired by the city in 1895. All other public services are in private hands. The street-railway service is based on a universal 5-cent transfer throughout the metropolitan area. Some of the first overhead electric trolleys used in the United States were used here in 1885.

The first permanent settlement within the present limits of Kansas City, which took its name from Kansas river,[1] was established by French fur traders about 1821. Westport, a little inland town—platted 1833, a city 1857, merged in Kansas City in 1899—now a fashionable residence district of Kansas City—was a rival of Independence in the Santa Fé trade which she gained almost *in toto* in 1844 when the great Missouri flood (the greatest the river has known) destroyed the river landing utilized by Independence. Meanwhile, what is now Kansas City, and was then Westport Landing, being on the river where a swift current wore a rocky shore, steadily increased in importance and overshadowed Westport. But in 1838 lots were surveyed and the name changed to the Town of Kansas. It was officially organized in part in 1847, formally incorporated as a town in 1850, chartered under its present name in 1853, rechartered in 1875, in 1889 and in 1908. Before 1850 it was practically the exclusive eastern terminus on the river for the Santa Fé trade,[2] and a great outfitting point for Californian emigrants. The history of this border trade is full of picturesque colour. During the Civil War both Independence and Westport were the scene of battles; Kansas City escaped, but her trade went to Leavenworth, where it had the protection of an army post and a quiet frontier. After the war the railways came, taking away the traffic to Santa Fé, and other cities farther up the Missouri river took over the trade to its upper valley. In 1866 Kansas City was entered by the first railway from St Louis; 1867 saw the beginning of the packing industry; in 1869 a railway bridge across the Missouri assured it predominance over Leavenworth and St Joseph; and since that time—save for a depression shortly after 1890, following a real-estate boom—the material progress of the city has been remarkable; the population increased from 4418 in 1860 to 32,260 in 1870, 55,785 in 1880, and 132,716 in 1890.

See T. S. Case (ed.), *History of Kansas City, Missouri* (Syracuse, 1888); William Griffith, *History of Kansas City* (Kansas City, 1900); for industrial history, the *Greater Kansas City Yearbook* (1907 seq.); for all features of municipal interest, the *Kansas City Annual* (Kansas City, 1907 seq.), prepared for the Business Men's League.

KANSK, a town of eastern Siberia, in the government of Yeniseisk, 151 m. by rail E. of Krasnoyarsk, on the Kan River, a tributary of the Yenisei, and on the Siberian highway. Pop. (1897), 7504. It is the chief town of a district in which gold is found, but lies on low ground subject to inundation by the river.

KAN-SUH, a north-western province of China, bounded N. by Mongolia, E. by Shen-si, S. by Szech'uen, W. by Tibet and N.W. by Turkestan. The boundary on the N. remains undefined, but the province may be said to occupy the territory lying between 32° 30′ and 40° N., and 108° and 98° 20′ E., and to contain about 260,000 sq. m. The population is estimated at 9,800,000. Western Kan-suh is mountainous, and largely a wilderness of sand and snow, but east of the Hwang-ho the country is cultivated. The principal river is the Hwang-ho, and in the mountains to the south of Lan-chow Fu rises the Wei-ho, which traverses Shen-si and flows into the Hwang-ho at Tung-kwan. The chief products of Kan-suh are cloth, horse hides, a kind of curd like butter which is known by the Mongols under the name of *wuta*, musk, plums, onions, dates, sweet melons and medicines. (See CHINA.)

[1] "Kansas"—in archaic variants of spelling and pronunciation, "Kansaw," and still called, locally and colloquially, the "Kaw."

[2] Before Kansas City, first Old Franklin (opposite Boonville), then Ft. Osage, Liberty, Sibley, Lexington, Independence and Westport had successively been abandoned as terminals, as the transfer-point from boat to prairie caravan was moved steadily up the Missouri. Whisky, groceries, prints and notions were staples sent to Santa Fé; wool, buffalo robes and dried buffalo meat, Mexican silver coin, gold and silver dust and ore came in return. In 1860 the trade employed 3000 wagons and 7000 men, and amounted to millions of dollars in value.

KANT, IMMANUEL (1724–1804), German philosopher, was born at Königsberg on the 22nd of April 1724. His grandfather was an emigrant from Scotland, and the name Cant is not uncommon in the north of Scotland, whence the family is said to have come. His father was a saddler in Königsberg, then a stronghold of Pietism, to the strong influence of which Kant was subjected in his early years. In his tenth year he was entered at the Collegium Fredericianum with the definite view of studying theology. His inclination at this time was towards classics, and he was recognized, with his school-fellow, David Ruhnken, as among the most promising classical scholars of the college. His taste for the greater Latin authors, particularly Lucretius, was never lost, and he acquired at school an unusual facility in Latin composition. With Greek authors he does not appear to have been equally familiar. During his university course, which began in 1740, Kant was principally attracted towards mathematics and physics. The lectures on classics do not seem to have satisfied him, and, though he attended courses on theology, and even preached on one or two occasions, he appears finally to have given up the intention of entering the Church. The last years of his university studies were much disturbed by poverty. His father died in 1746, and for nine years he was compelled to earn his own living as a private tutor. Although he disliked the life and was not specially qualified for it—as he used to say regarding the excellent precepts of his *Pädagogik*, he was never able to apply them—yet he added to his other accomplishments a grace and polish which he displayed ever afterwards to a degree somewhat unusual in a philosopher by profession.

In 1755 Kant became tutor in the family of Count Kayserling. By the kindness of a friend named Richter, he was enabled to resume his university career, and in the autumn of that year he graduated as doctor and qualified as privatdocent. For fifteen years he continued to labour in this position, his fame as writer and lecturer steadily increasing. Though twice he failed to obtain a professorship at Königsberg, he steadily refused appointments elsewhere. The only academic preferment received by him during the lengthy probation was the post of under-librarian (1766). His lectures, at first mainly upon physics, gradually expanded until nearly all descriptions of philosophy were included under them.

In 1770 he obtained the chair of logic and metaphysics at Königsberg, and delivered as his inaugural address the dissertation *De mundi sensibilis et intelligibilis forma et principiis*. Eleven years later appeared the *Kritik of Pure Reason*, the work towards which he had been steadily advancing, and of which all his later writings are developments. In 1783 he published the *Prolegomena*, intended as an introduction to the *Kritik*, which had been found to stand in need of some explanatory comment. A second edition of the *Kritik*, with some modifications, appeared in 1787, after which it remained unaltered.

In spite of its frequent obscurity, its novel terminology, and its declared opposition to prevailing systems, the Kantian philosophy made rapid progress in Germany. In the course of ten or twelve years from the publication of the *Kritik of Pure Reason*, it was expounded in all the leading universities, and it even penetrated into the schools of the Church of Rome. Such men as J. Schulz in Königsberg, J. G. Kiesewetter in Berlin, Jakob in Halle, Born and A. L. Heydenreich in Leipzig, K. L. Reinhold and E. Schmid in Jena, Buhle in Göttingen, Tennemann in Marburg, and Snell in Giessen, with many others, made it the basis of their philosophical teaching, while theologians like Tieftrunk, Stäudlin, and Ammon eagerly applied it to Christian doctrine and morality. Young men flocked to Königsberg as to a shrine of philosophy. The Prussian Government even undertook the expense of their support. Kant was hailed by some as a second Messiah. He was consulted as an oracle on all questions of casuistry—as, for example, on the lawfulness of inoculation for the small-pox. This universal homage for a long time left Kant unaffected; it was only in his later years that he

spoke of his system as the limit of philosophy, and resented all further progress. He still pursued his quiet round of lecturing and authorship, and contributed from time to time papers to the literary journals. Of these, among the most remarkable was his review of Herder's *Philosophy of History*, which greatly exasperated that author, and led to a violent act of retaliation some years after in his *Metakritik of Pure Reason*. Schiller at this period in vain sought to engage Kant upon his *Horen*. He remained true to the *Berlin Journal*, in which most of his criticisms appeared.

In 1792 Kant, in the full height of his reputation, was involved in a collision with the Government on the question of his religious doctrines. Naturally his philosophy had excited the declared opposition of all adherents of historical Christianity, since its plain tendency was towards a moral rationalism, and it could not be reconciled to the literal doctrines of the Lutheran Church. It would have been much better to permit his exposition of the philosophy of religion to enjoy the same literary rights as his earlier works, since Kant could not be interdicted without first silencing a multitude of theologians who were at least equally separated from positive Christianity. The Government, however, judged otherwise; and after the first part of his book, *On Religion within the Limits of Reason alone*, had appeared in the *Berlin Journal*, the publication of the remainder, which treats in a more rationalizing style of the peculiarities of Christianity, was forbidden. Kant, thus shut out from Berlin, availed himself of his local privilege, and, with the sanction of the theological faculty of his own university, published the full work in Königsberg. The Government, probably influenced as much by hatred and fear of the French Revolution, of which Kant was supposed to be a partisan, as by love of orthodoxy, resented the act; and a secret cabinet order was received by him intimating the displeasure of the king, Frederick William II., and exacting a pledge not to lecture or write at all on religious subjects in future. With this mandate Kant, after a struggle, complied, and kept his engagement till 1797, when the death of the king, according to his construction of his promise, set him free. This incident, however, produced a very unfavourable effect on his spirits. He withdrew in 1794 from society; next year he gave up all his classes but one public lecture on logic or metaphysics; and in 1797, before the removal of the interdict on his theological teaching, he ceased altogether his public labours, after an academic course of forty-two years. He previously, in the same year, finished his treatises on the *Metaphysics of Ethics*, which, with his *Anthropology*, completed in 1798, were the last considerable works that he revised with his own hand. His *Lectures on Logic*, on *Physical Geography*, on *Paedagogics*, were edited during his lifetime by his friends and pupils. By way of asserting his right to resume theological disquisition, he also issued in 1798 his *Strife of the Faculties*, in which all the strongest points of his work on religion were urged afresh, and the correspondence that had passed between himself and his censors was given to the world.

From the date of his retirement from the chair Kant declined in strength, and gave tokens of intellectual decay. His memory began to fail, and a large work at which he wrought night and day, on the connexion between physics and metaphysics, was found to be only a repetition of his already published doctrines. After 1802, finding himself attacked with a weakness in the limbs attended with frequent fits of falling, he mitigated the Spartan severity of his life, and consented to receive medical advice. A constant restlessness oppressed him; his sight gave way; his conversation became an extraordinary mixture of metaphors; and it was only at intervals that gleams of his former power broke out, especially when some old chord of association was struck in natural science or physical geography. A few days before his decease, with a great effort he thanked his medical attendant for his visits in the words, "I have not yet lost my feeling for humanity." On the 12th of February 1804 he died, having almost completed his eightieth year. His stature was small, and his appearance feeble. He was little more than five feet high; his breast was almost concave, and, like Schleiermacher, he was deformed in the right shoulder. His senses were quick and delicate; and, though of weak constitution, he escaped by strict regimen all serious illness.

His life was arranged with mechanical regularity; and, as he never married, he kept the habits of his studious youth to old age. His man-servant, who awoke him summer and winter at five o'clock, testified that he had not once failed in thirty years to respond to the call. After rising he studied for two hours, then lectured other two, and spent the rest of the forenoon, till one, at his desk. He then dined at a restaurant, which he frequently changed, to avoid the influx of strangers, who crowded to see and hear him. This was his only regular meal; and he often prolonged the conversation till late in the afternoon. He then walked out for at least an hour in all weathers, and spent the evening in lighter reading, except an hour or two devoted to the preparation of his next day's lectures, after which he retired between nine and ten to rest. In his earlier years he often spent his evenings in general society, where his knowledge and conversational talents made him the life of every party. He was especially intimate with the families of two English merchants of the name of Green and Motherby, where he found many opportunities of meeting ship-captains, and other travelled persons, and thus gratifying his passion for physical geography. This social circle included also the celebrated J. G. Hamann, the friend of Herder and Jacobi, who was thus a mediator between Kant and these philosophical adversaries.

Kant's reading was of the most extensive and miscellaneous kind. He cared comparatively little for the history of speculation, but his acquaintance with books of science, general history, travels and belles lettres was boundless. He was well versed in English literature, chiefly of the age of Queen Anne, and had read English philosophy from Locke to Hume, and the Scottish school. He was at home in Voltaire and Rousseau, but had little or no acquaintance with the French sensational philosophy. He was familiar with all German literature up to the date of his *Kritik*, but ceased to follow it in its great development by Goethe and Schiller. It was his habit to obtain books in sheets from his publishers Kanter and Nicolovius; and he read over for many years all the new works in their catalogue, in order to keep abreast of universal knowledge. He was fond of newspapers and works on politics; and this was the only kind of reading that could interrupt his studies in philosophy.

As a lecturer, Kant avoided altogether that rigid style in which his books were written. He sat behind a low desk, with a few jottings on slips of paper, or textbooks marked on the margin, before him, and delivered an extemporaneous address, opening up the subject by partial glimpses, and with many anecdotes or familiar illustrations, till a complete idea of it was presented. His voice was extremely weak, but sometimes rose into eloquence, and always commanded perfect silence. Though kind to his students, he refused to remit their fees, as this, he thought, would discourage independence. It was another principle that his chief exertions should be bestowed on the intermediate class of talent, as the geniuses would help themselves, and the dunces were beyond remedy.

Simple, honourable, truthful, kind-hearted and high-minded as Kant was in all moral respects, he was somewhat deficient in the region of sentiment. He had little enthusiasm for the beauties of nature, and indeed never sailed out into the Baltic, or travelled more than 40 miles from Königsberg. Music he disregarded, and all poetry that was more than sententious prose. His ethics have been reproached with some justice as setting up too low an ideal for the female sex. Though faithful in a high degree to the duties of friendship, he could not bear to visit his friends in sickness, and after their death he repressed all allusion to their memory. His engrossing intellectual labours no doubt tended somewhat to harden his character; and in his zeal for rectitude of purpose he forgot the part which affection and sentiment must ever play in the human constitution.

On the 12th of February 1904, the hundredth anniversary of Kant's death, a Kantian society (*Kantgesellschaft*) was formed at Halle under the leadership of Professor H. Vaihinger to promote Kantian studies. In 1909 it had an annual membership

of 191; it supports the periodical *Kantstudien* (founded 1896; see BIBLIOGRAPHY, *ad init.*).

THE WRITINGS OF KANT

No other thinker of modern times has been throughout his work so penetrated with the fundamental conceptions of physical science; no other has been able to hold with such firmness the balance between empirical and speculative ideas. Beyond all question much of the influence which the critical philosophy has exercised and continues to exercise must be ascribed to this characteristic feature in the training of its great author.

The early writings of Kant are almost without exception on questions of physical science. It was only by degrees that philosophical problems began to engage his attention, and that the main portion of his literary activity was turned towards them. The following are the most important of the works which bear directly on physical science.

1. *Gedanken von der wahren Schätzung der lebendigen Kräfte* (1747); an essay dealing with the famous dispute between the Cartesians and Leibnitzians regarding the expression for the *amount of a force*. According to the Cartesians, this quantity was directly proportional to velocity; according to their opponents, it varied with the square of the velocity. The dispute has now lost its interest, for physicists have learned to distinguish accurately the two quantities which are vaguely included under the expression *amount of force*, and consequently have been able to show in what each party was correct and in what it was in error. Kant's essay, with some fallacious explanations and divisions, criticizes acutely the arguments of the Leibnitzians, and concludes with an attempt to show that both modes of expression are correct when correctly limited and interpreted.

2. *Whether the Earth in its Revolution has experienced some Change since the Earliest Times* (1754; ed. and trans., W. Hastie, 1900, *Kant's Cosmogony*; cf. Lord Kelvin in *The Age of the Earth*, 1897, p. 7). In this brief essay Kant throws out a notion which has since been carried out, in ignorance of Kant's priority, by Delaunay (1865) and Adams. He points out that the action of the moon in raising the waters of the earth must have a secondary effect in the slight retardation of the earth's motion, and refers to a similar cause the fact that the moon turns always the same face to the earth.

3. *Allgemeine Naturgeschichte und Theorie des Himmels*, published anonymously in 1755 (4th ed. 1808; republished H. Ebert, 1890). In this remarkable work Kant, proceeding from the Newtonian conception of the solar system, extends his consideration to the entire sidereal system, points out how the whole may be mechanically regarded, and throws out the important speculation which has since received the title of the nebular hypothesis. In some details, such *e.g.* as the regarding of the motion of the entire solar system as portion of the general cosmical mechanism, he had predecessors, among others Thomas Wright of Durham, but the work as a whole contains a wonderfully acute anticipation of much that was afterwards carried out by Herschel and Laplace. The hypothesis of the original nebular condition of the system, with the consequent explanation of the great phenomena of planetary formations and movements of the satellites and rings, is unquestionably to be assigned to Kant. (On this question see discussion in W. Hastie's *Kant's Cosmogony*, as above.)

4. *Meditationum quarundam de igne succincta delineatio* (1755): an inaugural dissertation, containing little beyond the notion that bodies operate on one another through the medium of a uniformly diffused, elastic and subtle matter (ether) which is the underlying substance of heat and light. Both heat and light are regarded as vibrations of this diffused ether.

5. *On the Causes of Earthquakes* (1755); *Description of the Earthquake of 1755* (1756); *Consideration of some Recently Experienced Earthquakes* (1756).

6. *Explanatory Remarks on the Theory of the Winds* (1756). In this brief tract, Kant, apparently in entire ignorance of the explanation given in 1735 by Hadley, points out how the varying velocity of rotation of the successive zones of the earth's surface furnishes a key to the phenomena of periodic winds. His theory is in almost entire agreement with that now received. See the parallel statements from Kant's tract and Dove's essay on the influence of the rotation of the earth on the flow of its atmosphere (1835), given in Zöllner's work, *Ueber die Natur der Cometen*, pp. 477–482.

7. *On the Different Races of Men* (1775); *Determination of the Notion of a Human Race* (1785); *Conjectural Beginning of Human History* (1786): three tracts containing some points of interest as regards the empirical grounds for Kant's doctrine of teleology. Reference will be made to them in the notice of the *Kritik of Judgment*.

8. *On the Volcanoes in the Moon* (1785); *On the Influence of the Moon on the Weather* (1794). The second of these contains a remarkable discussion of the relation between the centre of the moon's figure and its centre of gravity. From the difference between these Kant is led to conjecture that the climatic conditions of the side of the moon turned from us must be altogether unlike those of the face presented to us. His views have been restated by Hansen.

9. *Lectures on Physical Geography* (1822): published from notes of Kant's lectures, with the approval of the author.

Consideration of these works is sufficient to show that Kant's mastery of the science of his time was complete and thorough, and that his philosophy is to be dealt with as having throughout a reference to general scientific conceptions. For more detailed treatment of his importance in science, reference may be made to Zöllner's essay on "Kant and his Merits on Natural Science" contained in the work on the *Nature of Comets* (pp. 426–484); to Dietrich, *Kant and Newton*; Schultze, *Kant and Darwin*; Reuschle's careful analysis of the scientific works in the *Deutsche Vierteljahrs-Schrift* (1868); W. Hastie's introduction to *Kant's Cosmogony* (1900), which summarizes criticism to that date; and articles in *Kant-Studien* (1896 foll.).

The notice of the philosophical writings of Kant need not be more than bibliographical, as in the account of his philosophy it will be necessary to consider at some length the successive stages in the development of his thought. Arranged chronologically these works are as follows:—

1755. *Principiorum primorum cognitionis metaphysicae novae dilucidatio.*

1756. *Metaphysicae cum geometria junctae usus in philosophia naturali, cujus specimen I. continet monadologiam physicam.*

1762. *Die falsche Spitzfindigkeit der vier syllogistischen Figuren*, "The False Subtlety of the Four Syllogistic Figures" (trans. T. K. Abbott, *Kant's Introduction to Logic and his Essay on the Mistaken Subtilty of the Figures*, 1885).

1763. *Versuch den Begriff der negativen Grössen in die Weltweisheit einzuführen*, "Attempt to introduce the Notion of Negative Quantities into Philosophy."

1763. *Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes*, "The only possible Foundation for a Demonstration of the Existence of God."

1764. *Beobachtungen über das Gefühl des Schönen und Erhabenen* (Riga, 1771; Königsberg, 1776).

1764. *Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und Moral*, "Essay on the Evidence (Clearness) of the Fundamental Propositions of Natural Theology and Ethics."

1766. *Träume eines Geistersehers, erläutert durch Träume der Metaphysik*, "Dreams of a Ghost-seer (or Clairvoyant), explained by the Dreams of Metaphysic" (Eng. trans. E. F. Goerwitz, with introd. by F. Sewall, 1900).

1768. *Von dem ersten Grunde des Unterschiedes der Gegenden im Raum*, "Foundation for the Distinction of Positions in Space."

The above may all be regarded as belonging to the precritical period of Kant's development. The following introduce the notions and principles characteristic of the critical philosophy.

1770. *De mundi sensibilis et intelligibilis forma et principiis.*

1781. *Kritik der reinen Vernunft*, "Kritik of Pure Reason" (revised ed. 1787; ed. Vaihinger, 1881 foll. and B. Erdmann, 1900; Eng. trans., F. Max Müller, 1896, 2nd ed. 1907, and J. M. D. Meiklejohn, 1854).

1783. *Prolegomena zu einer jeden künftigen Metaphysik die als Wissenschaft wird auftreten können*, "Prolegomena to all Future Metaphysic which may present itself as Science" (ed. B. Erdmann, 1878; Eng. trans. J. P. Mahaffy and J. H. Bernard, 2nd ed. 1889; Belfort Bax, 1883 and Paul Carus, 1902; and cf. M. Apel, *Kommentar zu Kants Prolegomena*, 1908).

1784. *Idee zu einer allgemeinen Geschichte im weltbürgerlicher Absicht*, "Notion of a Universal History in a Cosmopolitan Sense." With this may be coupled the review of Herder in 1785.

1785. *Grundlegung zur Metaphysik der Sitten*, "Foundations of the Metaphysic of Ethics" (see T. K. Abbott, *Fundamental Principles of the Metaphysic of Ethics*, 3rd ed. 1907).

1786. *Metaphysische Anfangsgründe der Naturwissenschaft*, "Metaphysical Elements of Natural Science" (ed. A. Höfler, 1900; trans. Belfort Bax, *Prolegomena and Metaphysical Foundations*, 1883).

1788. *Ueber den Gebrauch teleologischer Prinzipien in der Philosophie*, "On the Employment of Teleological Principles in Philosophy."

1788. *Kritik der praktischen Vernunft*, "Kritik of Practical Reason" (trans. T. K. Abbott, ed. 1898).

1790. *Kritik der Urtheilskraft*, "Kritik of Judgment" (trans. with notes J. H. Bernard, 1892).

1790. *Ueber eine Entdeckung, nach der alle neue Kritik der reinen Vernunft durch eine ältere entbehrlich gemacht werden soll*, "On a Discovery by which all the recent Critique of Pure Reason is superseded by a more ancient" (*i.e* by Leibnitz's philosophy).

1791. *Ueber die wirklichen Fortschritte der Metaphysik seit Leibnitz und Wolff*, "On the Real Advances of Metaphysics since Leibnitz and Wolff"; and *Ueber das Misslingen aller philosophischen Versuche in der Theodicee.*

1793. *Die Religion innerhalb der Grenzen der blossen Vernunft*, "Religion within the Bounds of Reason only" (Eng. trans. J. W. Semple, 1838).

1794. *Ueber Philosophie überhaupt*, "On Philosophy generally," and *Das Ende aller Dinge.*

1795. *Zum ewigen Frieden* (Eng. trans., M. Campbell Smith, 1903).

1797. *Metaphysische Anfangsgründe der Rechtslehre* (trans. W Hastie), and *Metaphysische Anfangsgründe der Tugendlehre.*

1798. *Der Streit der Facultäten*, "Contest of the Faculties."

1798. *Anthropologie in pragmatischer Hinsicht.*

The Kantian Philosophy.[1]

Historians are accustomed to divide the general current of speculation into epochs or periods marked by the dominance of some single philosophic conception with its systematic evolution. Perhaps in no case is the character of an epoch more clearly apparent than in that of the critical philosophy. The great work of Kant absolutely closed the lines of speculation along which the philosophical literature of the 18th century had proceeded, and substituted for them a new and more comprehensive method of regarding the essential problems of thought, a method which has prescribed the course of philosophic speculation in the present age. The critical system has thus a two-fold aspect. It takes up into itself what had characterized the previous efforts of modern thought, shows the imperfect nature of the fundamental notions therein employed, and offers a new solution of the problems to which these notions had been applied. It opens up a new series of questions upon which subsequent philosophic reflection has been directed, and gives to them the form, under which it is possible that they should be fruitfully regarded. A work of this kind is essentially epoch-making.

In any complete account of the Kantian system it is therefore necessary that there should be constant reference, on the one hand, to the peculiar character of the preceding 18th-century philosophy, and, on the other hand, to the problems left for renewed treatment to more modern thought. Fortunately the development of the Kantian system itself furnishes such treatment as is necessary of the former reference. For the critical philosophy was a work of slow growth. In the early writings of Kant we are able to trace with great definiteness the successive stages through which he passed from the notions of the preceding philosophy to the new and comprehensive method which gives its special character to the critical work. Scarcely any great mind, it has been said with justice, ever matured so slowly. In the early essays we find the principles of the current philosophies, those of Leibnitz and English empiricism, applied in various directions to those problems which serve as tests of their truth and completeness; we note the appearance of the difficulties or contradictions which manifest the one-sidedness or imperfection of the principle applied; and we can trace the gradual growth of the new conceptions which were destined, in the completed system, to take the place of the earlier method. To understand the Kantian work it is indispensable to trace the history of its growth in the mind of its author.

Of the two preceding stages of modern philosophy, only the second, that of Locke and Leibnitz, seems to have influenced practically the course of Kant's speculation. With the Cartesian movement as a whole he shows little acquaintance and no sympathy, and his own philosophic conception is never brought into relation with the systematic treatment of metaphysical problems characteristic of the Cartesian method. The fundamental question for philosophic reflection presented itself to him in the form which it had assumed in the hands of Locke and his successors in England, of Leibnitz and the Leibnitzian school in Germany. The transition from the Cartesian movement to this second stage of modern thought had doubtless been natural and indeed necessary. Nevertheless the full bearings of the philosophic question were somewhat obscured by the comparatively limited fashion in which it was then regarded. The tendency towards what may be technically called subjectivism, a tendency which differentiates the modern from the ancient method of speculation, is expressed in Locke and Leibnitz in a definite and peculiar fashion. However widely the two systems differ in details, they are at one in a certain fundamental conception which dominates the whole course of their philosophic construction. They are throughout individualist, *i.e.* they accept as given fact the existence of the concrete, thinking subject, and endeavour to show how this subject, as an individual conscious being, is related to the wider universe of which he forms part. In dealing with such a problem, there are evidently two lines along which investigation may proceed. It may be asked how the individual mind comes to know himself and the system of things with which he is connected, how the varied contents of his experience are to be accounted for, and what certainty attaches to his subjective consciousness of things. Regarded from the individualist point of view, this line of inquiry becomes purely psychological, and the answer may be presented, as it was presented by Locke, in the fashion of a natural history of the growth of conscious experience in the mind of the subject. Or, it may be further asked, how is the individual really connected with the system of things apparently disclosed to him in conscious experience? what is the precise significance of the existence which he ascribes both to himself and to the objects of experience? what is the nature of the relation between himself as one part of the system, and the system as a whole? This second inquiry is specifically metaphysical in bearing, and the kind of answer furnished to it by Leibnitz on the one hand, by Berkeley on the other, is in fact prescribed or determined beforehand by the fundamental conception of the individualist method with which both begin their investigations. So soon as we make clear to ourselves the essential nature of this method, we are able to discern the specific difficulties or perplexities arising in the attempt to carry it out systematically, and thus to note with precision the special problems presented to Kant at the outset of his philosophic reflections.

Consider, first, the application of the method on its psychological side, as it appears in Locke. Starting with the assumption of conscious experience as the content or filling-in of the individual mind, Locke proceeds to explain its genesis and nature by reference to the real universe of things and its mechanical operation upon the mind. The result of the interaction of mind, *i.e.* the individual mind, and the system of things, is conscious experience, consisting of ideas, which may be variously compounded, divided, compared, or dealt with by the subjective faculties or powers with which the entity, Mind, is supposed to be endowed. Matter of fact and matter of knowledge are thus at a stroke dissevered. The very notion of relation between mind and things leads at once to the counter notion of the absolute restriction of mind to its own subjective nature. That Locke was unable to reconcile these opposed notions is not surprising; that the difficulties and obscurities of the *Essay* arise from the impossibility of reconciling them is evident on the slightest consideration of the main positions of that work. Of these difficulties the philosophies of Berkeley and Hume are systematic treatments. In Berkeley we find the resolute determination to accept only the one notion, that of mind as restricted to its own conscious experience, and to attempt by this means to explain the nature of the external reality to which obscure reference is made. Any success in the attempt is due only to the fact that Berkeley introduces alongside of his individualist notion a totally new conception, that of mind itself as not in the same way one of the matters of conscious experience, but as capable of reflection upon the whole of experience and of reference to the supreme mind as the ground of all reality. It is only in Hume that we have definitely and completely the evolution of the individualist notion as groundwork of a theory of knowledge; and it is in his writings, therefore, that we may expect to find the fundamental difficulty of that notion clearly apparent. It is not a little remarkable that we should find in Hume, not only the sceptical dissolution of all fixity of cognition, which is the inevitable result of the individualist method, but also the clearest consciousness of the very root of the difficulty. The systematic application of the doctrine that conscious experience consists only of isolated objects of knowledge, impressions or ideas, leads Hume to distinguish between truths reached by analysis and truths which involve real connexion of the objects of knowledge. The first he is willing to accept without further inquiry, though it is an error to suppose, as Kant seems to have supposed, that he regarded mathematical propositions as coming under this head (see HUME); with respect to the second, he finds himself, and confesses that he finds himself, hopelessly at fault. No real connexions between isolated objects of experience are perceived by us. No single matter of fact necessarily implies the existence of any other. In short, if the difficulty be put in its ultimate form, no existence thought as a distinct individual can transcend itself, or imply relation to any other existence. If the parts of conscious experience are regarded as so many distinct things, there is no possibility of connecting them other than contingently, if at all. If the individual mind be really thought as individual, it is impossible to explain how it should have knowledge or consciousness at all. "In short," says Hume, "there are two principles which I cannot render consistent, nor is it in my power to renounce either of them, viz. *that all our distinct perceptions are distinct existences*, and *that the mind never perceives any real connexion among distinct existences*. Did our perceptions either inhere in something simple or individual, or did the mind perceive some real connexion among them, there would be no difficulty in the case" (App. to *Treatise of Human Nature*).

Thus, on the one hand, the individualist conception, when carried out to its full extent, leads to the total negation of all real cognition. If the real system of things, to which conscious experience has reference, be regarded as standing in casual relation to this experience there is no conceivable ground for the extension to reality of the notions which somehow are involved in thought. The same result is apparent, on the other hand, when we consider the theory of knowledge implied in the Leibnitzian individualism. The metaphysical conception of the monads, each of which is the universe *in nuce*, presents insuperable difficulties when the connexion or interdependence of the monads is in question, and these difficulties obtrude themselves when the attempt is made to work out a consistent doctrine of cognition. For the whole mass of cognisable fact, the *mundus intelligibilis*, is contained *impliciter* in each monad, and the several modes of apprehension can only be regarded as so many stages in the developing consciousness of the monad. Sense and understanding, real connexion of facts and analysis of notions, are not, therefore, distinct in kind, but differ only in degree. The same fundamental axioms, the logical principles of identity and sufficient reason, are applicable in explanation of all given propositions. It is true that Leibnitz himself did not work out any complete doctrine of knowledge, but in the hands of his successors the theory took definite shape in the principle that the whole work of cognition is in essence analytical. The process of analysis might be complete or incomplete. For finite intelligences there was an inevitable incompleteness so far as knowledge of matters of fact was

[1] See further IDEALISM; METAPHYSICS; LOGIC, &c., where Kant's relation to subsequent thought is discussed.

concerned. In respect to them, the final result was found in a series of irreducible notions or categories, the *prima possibilia*, the analysis and elucidation of which was specifically the business of philosophy or metaphysics.

It will be observed that, in the Leibnitzian as in the empirical individualism, the fundamental notion is still that of the abstract separation of the thinking subject from the materials of conscious experience. From this separation arise all the difficulties in the effort to develop the notion systematically, and in tracing the history of Kant's philosophical progress we are able to discern the gradual perception on his part that here was to be found the ultimate cause of the perplexities which became apparent in considering the subordinate doctrines of the system. The successive essays which have already been enumerated as composing Kant's precritical work are not to be regarded as so many imperfect sketches of the doctrines of the *Kritik*, nor are we to look in them for anticipations of the critical view. They are essentially tentative, and exhibit with unusual clearness the manner in which the difficulties of a received theory force on a wider and more comprehensive view. There can be no doubt that some of the special features of the *Kritik* are to be found in these precritical essays, *e.g.* the doctrine of the *Aesthetik* is certainly foreshadowed in the *Dissertation* of 1770; the *Kritik*, however, is no patchwork, and what appears in the *Dissertation* takes an altogether new form when it is wrought into the more comprehensive conception of the later treatise.

The particular problem which gave the occasion to the first of the precritical writings is, in an imperfect or particular fashion, the fundamental question to which the *Kritik* is an answer. What is the nature of the distinction between knowledge gained by analysis of notions and knowledge of matters of fact? Kant seems never to have been satisfied with the Wolffian identification of logical axioms and of the principle of sufficient reason. The tract on the *False Subtlety of the Four Syllogistic Figures*, in which the view of thought or reason as analytic is clearly expressed, closes with the significant division of judgments into those which rest upon the logical axioms of identity and contradiction and those for which no logical ground can be shown. Such immediate or indemonstrable judgments, it is said, abound in our experience. They are, in fact, as Kant presently perceived, the foundations for all judgments regarding real existence. It was impossible that the question regarding their nature and legitimacy and their distinction from analytic judgments should not present itself to him. The three tracts belonging to the years 1763–1764 bring forward in the sharpest fashion the essential opposition between the two classes of judgments. In the *Essay on Negative Quantities*, the fundamental thought is the total distinction in kind between logical opposition (the contradictoriness of notions, which Kant always viewed as formed, definite products of thought) and real opposition. For the one adequate explanation is found in the logical axiom of analytical thinking; for the other no such explanation is to be had. Logical ground and real ground are totally distinct. "I can understand perfectly well," says Kant, "how a consequence follows from its reason according to the law of identity, since it is discoverable by mere analysis of the notion contained in it. . . . But how something follows from another thing and not according to the law of identity, this I should gladly have made clear to me. . . . How shall I comprehend that, since something is, something else should be?" Real things, in short, are distinct existences, and, as distinct, not necessarily or logically connected in thought. "I have," he proceeds, "reflected on the nature of our knowledge in relation to our judgment of reason and consequent, and I intend to expound fully the result of my reflections. It follows from them that the relation of a real ground to that which is thereby posited or denied cannot be expressed by a judgment but only by means of a notion, which by analysis may certainly be reduced to yet simpler notions of real grounds, but yet in such a way that the final resort of all our cognition in this regard must be found in simple and irreducible notions of real grounds, the relation of which to their consequents cannot be made clear."

The striking similarity between Kant's expressions in this *Essay* and the remarks with which Hume introduces his analysis of the notion of cause has led to the supposition that at this period of his philosophical career Kant was definitely under the influence of the earlier empirical thinker. Consideration of the whole passage is quite sufficient to show the groundlessness of this supposition. The difficulty with which Kant is presented was one arising inevitably from reflection upon the Leibnitzian theory of knowledge, and the solution does not in any way go beyond that theory. It is a solution, in fact, which must have been impossible had the purport of Hume's empirical doctrine been present to Kant's mind. He is here at the point at which he remained for many years, accepting without any criticism certain fundamental notions as required for real cognition. His ideal of metaphysic is still that of complete analysis of given notions. No glimmering of the further question, Whence come these notions and with what right do we apply them in cognition? is yet apparent. Any direct influence from Hume must be referred to a later period in his career.

The prize essay *On the Principles of Natural Theology and Morals* brings forward the same fundamental opposition—though in a special form. Here, for the first time, appears definitely the distinction between synthesis and analysis, and in the distinction is found the reason for the superior certainty and clearness of mathematics as opposed to philosophy. Mathematics, Kant thinks, proceeds synthetically, for in it the notions are constructed. Metaphysics, on the other hand, is analytical in method; in it the notions are given, and by analysis they are cleared up. It is to be observed that the description of mathematics as synthetic is not an anticipation of the critical doctrine on the same subject. Kant does not, in this place, raise the question as to the reason for assuming that the arbitrary syntheses of mathematical construction have any reference to reality. The deeper significance of synthesis has not yet become apparent.

In the *Only Possible Ground of Proof for the Existence of God*, the argument, though largely Leibnitzian, advances one step farther towards the ultimate inquiry. For there Kant states as precisely as in the critique of speculative theology his fundamental doctrine that real existence is not a predicate to be added in thought to the conception of a possible subject. So far as subjective thought is concerned, possibility, not real existence, is contained in any judgment.

The year 1765 was marked by the publication of Leibnitz's posthumous *Nouveaux Essais*, in which his theory of knowledge is more fully stated than in any of his previous tracts. In all probability Kant gave some attention to this work, though no special reference to it occurs in his writings, and it may have assisted to give additional precision to his doctrine. In the curious essay, *Dreams of a Clairvoyant*, published 1766, he emphasizes his previously reached conclusion that connexions of real fact are mediated in our thought by ultimate notions, but adds that the significance and warrant for such notions can be furnished only by experience. He is inclined, therefore, to regard as the function of metaphysics the complete statement of these ultimate, indemonstrable notions, and therefore the determination of the limits to knowledge by their means. Even at this point, where he approximates more closely to Hume than to any other thinker, the difficulty raised by Hume does not seem to occur to him. He still appears to think that experience does warrant the employment of such notions, and when there is taken into account his correspondence with Lambert during the next few years, one would be inclined to say that the *Architektonik* of the latter represents most completely Kant's idea of philosophy.

On another side Kant had been shaking himself free from the principles of the Leibnitzian philosophy. According to Leibnitz, space, the order of coexisting things, resulted from the relations of monads to one another. But Kant began to see that such a conception did not accord with the manner in which we determine directions or positions in space. In the curious little essay, *On the Ground of distinguishing Particular Divisions in Space*, he pointed out that the idea of space as a whole is not deducible from the experience of particular spaces, or particular relations of objects in space, that we only cognize relations in space by reference to space as a whole, and finally that definite positions involve reference to space as a given whole.

The whole development of Kant's thought up to this point is intelligible when regarded from the Leibnitzian point of view, with which he started. There appears no reason to conclude that Hume at this time exercised any direct influence. One may go still further, and add that even in the *Dissertation* of 1770, generally regarded as more than foreshadowing the *Kritik*, the really critical question is not involved. A brief notice of the contents of this tract will suffice to show how far removed Kant yet was from the methods and principles of the critical or transcendental philosophy. Sense and understanding, according to the *Dissertation*, are the two sources of knowledge. The objects of the one are things of sense or *phenomena*; the objects of the other are *noumena*. These are absolutely distinct, and are not to be regarded as differing only in degree. In *phenomena* we distinguish *matter*, which is given by sense, and *form*, which is the law of the order of sensations. Such form is twofold—the order of space and time. Sensations formed by space and time compose the world of appearance, and this when treated by the understanding, according to logical rules, is *experience*. But the logical use of the understanding is not its only use. Much more important is the *real* use, by which are produced the pure notions whereby we think things as they are. These pure notions are the laws of the operation of the intellect; they are *leges intellectus*.

Apart, then, from the expanded treatment of space and time as subjective forms, we find in the *Dissertation* little more than the very precise and definite formulation of the slowly growing opposition to the Leibnitzian doctrines. That the pure intellectual notions should be defended as springing from the nature of intellect is not out of harmony with the statement of the *Träume eines Geistersehers*, for there the pure notions were allowed to exist, but were not held to have validity for actual things except on grounds of experience. Here they are supposed to exist, dissevered from experience, and are allowed validity as determinations of things in themselves.

The stage which Kant had now reached in his philosophical development was one of great significance. The doctrine of knowledge expressed in the *Dissertation* was the final form which the Wolffian rationalism could assume for him, and, though many of the elements of the *Kritik* are contained therein, it was not really in advance of the Wolffian theory. The doctrine of space and time

as forms of sense-perception, the reference of both space and time and the pure intellectual notions to the laws of the activity of mind itself, the distinction between sense and understanding as one of kind, not of degree, with the correlative distinction between phenomena and noumena,—all of these reappear, though changed and modified, in the *Kritik*. But, despite this resemblance, it seems clear that, so far as the *Dissertation* is concerned, the way had only been prepared for the true critical inquiry, and that the real import of Hume's sceptical problem had not yet dawned upon Kant. From the manner, however, in which the doctrine of knowledge had been stated in the *Dissertation*, the further inquiry had been rendered inevitable. It had become quite impossible for Kant to remain longer satisfied with the ambiguous position assigned to a fundamental element of his doctrine of knowledge, the so-called pure intellectual notions. Those notions, according to the *Dissertation*, had no function save in relation to things-in-themselves, *i.e.* to objects which are not directly or immediately brought into relation to our faculty of cognition. They did not serve as the connecting links of formed experience; on the contrary, they were supposed to be absolutely dissevered from all experience which was possible for intelligence like ours. In his previous essays, Kant, while likewise maintaining that such pure, irreducible notions existed, had asserted in general terms that they applied to experience, and that their applicability or justification rested on experience itself, but had not raised the question as to the ground of such justification. Now, from another side, the supreme difficulty was presented—how could such notions have application to any objects whatsoever? For some time the correlative difficulty, how *objects* of sense-perception were possible, does not seem to have suggested itself to Kant. In the *Dissertation* sense-perception had been taken as receptivity of representations of objects, and experience as the product of the treatment of such representations by the logical or analytical processes of understanding. Some traces of this confused fashion of regarding sense-perceptions are left even in the *Kritik*, specially perhaps in the *Aesthetik*, and they give rise to much of the ambiguity which unfortunately attaches to the more developed theory of cognition. So soon, however, as the critical question was put, On what rests the reference of representations in us to the object or thing? in other words, How do we come to have knowledge of objects at all? it became apparent that the problem was one of perfect generality, and applied, not only to cognition through the pure notions, but to sense-perceptions likewise. It is in the statement of this general problem that we find the new and characteristic feature of Kant's work.

There is thus no reason to doubt the substantial accuracy of Kant's reference to the particular occasion or cause of the critical inquiry. Up to the stage indicated by the *Dissertation* he had been attempting, in various ways, to unite two radically divergent modes of explaining cognition—that which would account for the content of experience by reference to affection from things without us, and that which viewed the intellect itself as somehow furnished with the means of pure, rational cognition. He now discovered that Hume's sceptical analysis of the notion of cause was really the treatment of one typical or crucial instance of the much more general problem. If experience, says Hume, consists solely of states of mind somehow given to us, each of which exists as an effect, and therefore as distinct from others, with what right do we make the common assumption that parts of experience are necessarily connected? The only possible answer, drawn from the premises laid down, must be that there is no warrant for such an assumption. Necessity for thought, as Kant had been willing to admit and as Hume also held, involves or implies something more than is given in experience—for that which is given is contingent—and rests upon an a priori or pure notion. But a priori notions, did they exist, could have no claim to regulate experience. Hume, therefore, for his part, rejected entirely the notion of cause as being fictitious and delusive, and professed to account for the habit of regarding experience as necessarily connected by reference to arbitrarily formed custom of thinking. Experience, as given, contingent material, had a certain uniformity, and recurring uniformities generated in us the habit of regarding things as necessarily connected. That such a resort to experience for explanation could lead to no valid conclusion has been already noted as evident to Hume himself.

The dogmatic or individualist conception of experience had thus proved itself inadequate to the solution of Hume's difficulty regarding the notion of cause,—a difficulty which Kant, erroneously, had thought to be the only case contemplated by his predecessor. The perception of its inadequacy in this respect, and the consequent generalization of Hume's problem, are the essential features of the new critical method. For Kant was now prepared to formulate his general inquiry in a definite fashion. His long-continued reflection on the Wolffian doctrine of knowledge had made clear to him that synthetic connexion, the essence of real cognition, was not contained in the products of thinking as a formal activity of mind operating on material otherwise supplied. On the other hand, Hume's analysis enabled him to see that synthetic connexion was not contained in experience regarded as given material. Thus neither the formal nor the material aspect of conscious experience, when regarded from the individualist point of view, supplied any foundation for real knowledge, whether a priori or empirical. An absolutely new conception of experience was necessary, if the fact of cognition was to be explained at all, and the various modes in which Kant expresses the business of his critical philosophy were merely different fashions of stating the one ultimate problem, differing according to the particular aspect of knowledge which he happened to have in view. To inquire how synthetic a priori judgments are possible, or how far cognition extends, or what worth attaches to metaphysical propositions, is simply to ask, in a specific form, what elements are necessarily involved in experience of which the subject is conscious. How is it possible for the individual thinking subject to connect together the parts of his experience in the mode we call cognition?

The problem of the critical philosophy is, therefore, the complete analysis of experience from the point of view of the conditions under which such experience is possible for the conscious subject. The central ideas are thus self-consciousness, as the supreme condition under which experience is subjectively possible, and the manifold details of experience as a varied and complex whole. The solution of the problem demanded the utmost care in keeping the due balance between these ideas; and it can hardly be said that Kant was perfectly successful. He is frequently untrue to the more comprehensive conception which dominates his work as a whole. The influence of his previous philosophical training, nay, even the unconscious influence of terminology, frequently induces in his statements a certain laxity and want of clearness. He selects definitely for his starting point neither the idea of self-consciousness nor the details of experience, but in his actual procedure passes from one to the other, rarely, if ever, taking into full consideration the weighty question of their relation to one another. Above all, he is continuously under the influence of the individualist notion which he had done so much to explode. The conception of conscious experience, which is the net result of the *Kritik*, is indefinitely profounder and richer than that which had ruled the 18th century philosophizing, but for Kant such experience still appears as somehow the arbitrary product of the relation between the individual conscious subject and the realm of real facts. When he is actually analysing the conditions of knowledge, the influence of the individualist conception is not prominent; the conditions are stated as quite general, as conditions of knowledge. But so soon as the deeper, metaphysical problems present themselves, the shadow of the old doctrine reappears. Knowledge is regarded as a mechanical product, part furnished by the subject, part given to the subject, and is thus viewed as mechanically divisible into a priori and a posteriori, into pure and empirical, necessary and contingent. The individual as an agent, conscious of universal moral law, is yet regarded as in a measure opposed to experience, and the Kantian ethical code remains purely formal. The ultimate relation between intelligence and natural fact, expressed in the notion of end, is thought as problematic or contingent. The difficulties or obscurities of the Kantian system, of which the above are merely the more prominent, may all be traced to the one source, the false or at least inadequate idea of the individual. The more thorough explanation of the relation between experience as critically conceived and the individual subject was the problem left by Kant for his successors.

In any detailed exposition of the critical system it would be requisite in the first place to state with some fullness the precise nature of the problems immediately before Kant, and in the second place to follow with some closeness the successive stages of the system as presented in the three main works, the *Kritik of Pure Reason*, the *Kritik of Practical Reason* and the *Kritik of Judgment*, with the more important of the minor works, the *Metaphysic of Nature* and the *Metaphysic of Ethics*. It would be necessary, also, in any such expanded treatment, to bring out clearly the Kantian classification of the philosophical sciences, and to indicate the relation between the critical or transcendental investigation of the several faculties and the more developed sciences to which that investigation serves as introduction. As any detailed statement of the critical system, however compressed, would be beyond the limits of the present article, it is proposed here to select only the more salient doctrines, and to point out in connexion with them what advance had been effected by Kant, and what remained for subsequent efforts at complete solution of the problems raised by him. Much that is of interest and value must necessarily be omitted in any sketch of so elaborate a system, and for all points of special interpretation reference must needs be made to the many elaborate dissertations on or about the Kantian philosophy.

The doctrine from which Kant starts in his critical or transcendental investigation of knowledge is that to which the slow development of his thought had led him. The essence of cognition or knowledge was a synthetic act, an act of combining in thought the detached elements of experience. Now synthesis was explicable neither by reference to pure thought, the logical or elaborative faculty, which in Kant's view remained analytic in function, nor by reference to the effects of external real things upon our faculties of cognition. For, on the one hand, analysis or logical treatment applied only to objects of knowledge as already given in synthetic forms, and, on the other hand, real things could yield only isolated effects and not the combination of these effects in the forms of cognitive experience. If experience is to be matter of knowledge for the conscious subject, it must be regarded as the conjoint product

of given material and synthetic combination. Form and matter may indeed be regarded separably and dealt with in isolation for purposes of critical inquiry, but in experience they are necessarily and inseparably united. The problem of the *Kritik* thus becomes for Kant the complete statement of the elements necessarily involved in synthesis, and of the subjective processes by which these elements are realized in our individual consciousness. He is not asking, with Locke, whence the details of experience arise; he is not attempting a natural history of the growth of experience in the individual mind; but he is endeavouring to state exhaustively what conditions are necessarily involved in any fact of knowledge, *i.e.* in any synthetic combination of parts of experience by the conscious subject.

So far as the elements necessarily involved in conscious experience are concerned, these may be enumerated briefly thus:—given data of sense, inner or outer; the forms of perception, *i.e.* space and time; the forms of thought, *i.e.* the categories; the ultimate condition of knowledge, the identity of the pure ego or self. The ego or self is the central unity in reference to which alone is any part of experience cognizable. But the consciousness of self is the foundation of knowledge only when related to given material. The ego has not in itself the element of difference, and the essence of knowledge is the consciousness of unity in difference. For knowledge, therefore, it is necessary that difference should be *given* to the ego. The modes under which it is possible for such given difference to become portion of the conscious experience of the ego, the modes under which the isolated data can be synthetically combined so as to form a cognizable whole, make up the form of cognition, and upon this form rests the possibility of any a priori or rational knowledge.

The notion of the ego as a purely logical unity, containing in itself no element of difference, and having only analytical identity, is fundamental in the critical system, and lies at the root of all its difficulties and perplexities. To say that the ego as an individual does not *produce* the world of experience is by no means the same as to say that the ego is pure unity without element of difference. In the one case we are treating the ego as one of the objects of experience and denying of it productive efficacy; in the second case we are dealing with the unity of the ego as a condition of knowledge, of any experience whatsoever. In this second sense, it is wholly wrong to assert that the ego is pure identity, pure unity. The unity and identity of the ego, so regarded, are taken in abstraction, *i.e.* as dissevered from the more complex whole of which they are necessary elements. When the ego is taken as a condition of knowledge, its unity is not more important than the difference necessarily correlated with it. That the ego as a thing should not produce difference is quite beside the mark. The consequences of the abstract separation which Kant so draws between the ego and the world of experience are apparent throughout his whole system. Assuming at the outset an opposition between the two, self and matter of knowledge, he is driven by the exigencies of the problem of reconciliation to insert term after term as means of bringing them together, but never succeeds in attaining a junction which is more than mechanical. To the end, the ego remains, partly the pure logical ego, partly the concrete individual spirit, and no explanation is afforded of the relation between them. It is for this reason that the system of forms of perception and categories appears so contingent and haphazard. No attempt is made to show how or why the difference supplied for the pure logical ego should present itself necessarily under these forms. They are regarded rather as portions of the subjective mechanism of the individual consciousness. The mind or self appears as though it were endowed with a complex machinery by which alone it could act upon the material supplied to it. Such a crude conception is far, indeed, from doing justice to Kant's view, but it undoubtedly represents the underlying assumption of many of his cardinal doctrines. The philosophy of Fichte is historically interesting as that in which the deficiencies of Kant's fundamental position were first discerned and the attempt made to remedy them.

Unfortunately for the consistency of the *Kritik*, Kant does not attempt to work out systematically the elements involved in knowledge before considering the subjective processes by which knowledge is realized in consciousness. He mixes up the two inquiries, and in the general division of his work depends rather upon the results of previous psychology than upon the lines prescribed by his own new conception of experience. He treats the elements of cognition separately in connexion with the several subjective processes involved in knowledge, viz. sense and understanding. Great ambiguity is the natural result of this procedure. For it was not possible for Kant to avoid the misleading connotation of the terms employed by him. In strictness, sense, understanding, imagination and reason ought to have had their functions defined in close relation to the elements of knowledge with which they are severally connected, and as these elements have no existence as separate facts, but only as factors in the complex organic whole, it might have been possible to avoid the error of supposing that each subjective process furnished a distinct, separately cognizable portion of a mechanical whole. But the use of separate terms, such as sense and understanding, almost unavoidably led to phraseology only interpretable as signifying that each furnished a specific kind of knowledge, and all Kant's previous training contributed to strengthen this erroneous view. Especially noteworthy is this in the case of the categories. Kant insists upon treating these as *Begriffe*, notions, and assigns to them certain characteristics of notions. But it is readily seen, and in the *Logik* Kant shows himself fully aware of the fact, that these pure connective links of experience, general aspects of objects of intelligible experience, do not resemble concepts formed by the so-called logical or elaborative processes from representations of completed objects. Nothing but harm can follow from any attempt to identify two products which differ so entirely. So, again, the *Aesthetik* is rendered extremely obscure and difficult by the prevalence of the view, already noted as obtaining in the *Dissertation*, that sense is a faculty receiving representations of objects. Kant was anxious to avoid the error of Leibnitz, who had taken sense and understanding to differ in degree only, not in kind; but in avoiding the one error he fell into another of no less importance.

The consideration of the several elements which in combination make up the fact of cognition, or perception, as it may be called, contains little or nothing bearing on the origin and nature of the given data of sense, inner or outer. The manifold of sense, which plays so important a part in the critical theory of knowledge, is left in an obscure and perplexed position. So much is clear, however, that according to Kant sense is not to be regarded as receptive of representations of objects. The data of sense are mere *stimuli*, not partial or confused representations. The sense-manifold is not to be conceived as having, *per se*, any of the qualities of objects as actually cognized; its parts are not cognizable *per se*, nor can it with propriety be said to be received successively or simultaneously. When we apply predicates to the sense-manifold regarded in isolation, we make that which is only a factor in the experience of objects into a separate, independent object, and use our predicates transcendently. Kant is not always in his language faithful to his view of the sense-manifold, but the theory as a whole, together with his own express definitions, is unmistakable. On the origin of the data of sense, Kant's remarks are few and little satisfactory. He very commonly employs the term *affection* of the faculty of sense as expressing the mode of origin, but offers no further explanation of a term which has significance only when interpreted after a somewhat mechanical fashion. Unquestionably certain of his remarks indicate the view that the origin is to be sought in things-in-themselves, but against hasty misinterpretations of such remarks there are certain cautions to be borne in mind. The relation between phenomena and noumena in the Kantian system does not in the least resemble that which plays so important a part in modern psychology—between the subjective results of sense affection and the character of the objective conditions of such affection. Kant has pointedly declared that it would be a gross absurdity to suppose that in his view separate, distinct things-in-themselves existed corresponding to the several objects of perception. And, finally, it is not at all difficult to understand why Kant should say that the affection of sense originated in the action of things-in-themselves, when we consider what was the thing-in-itself to which he was referring. The thing-in-itself to which the empirical order and relations of sense-experience are referred is the divine order, which is not matter of knowledge, but involved in our practical or moral beliefs. Critics who limit their view to the *Kritik of Pure Reason*, and there, in all probability, to the first or constructive portion of the work, must necessarily fail to interpret the doctrines of the Kantian system, which do not become clear or definite till the system has been developed. Reason was, for Kant, an organic whole; the speculative and moral aspects are never severed; and the solution of problems which appear at first sight to belong solely to the region of speculative thought may be found ultimately to depend upon certain characteristics of our nature as practical.

Data of sense-affection do not contain in themselves synthetic combination. The first conditions of such combination are found by Kant in the universal forms under which alone sense-phenomena manifest themselves in experience. These universal forms of perception, space and time, are necessary, a priori, and in characteristic features resembling intuitions, not notions. They occupy, therefore, a peculiar position, and one section of the *Kritik*, the *Aesthetik*, is entirely devoted to the consideration of them. It is important to observe that it is only through the a priori character of these perceptive forms that rational science of nature is at all possible. Kant is here able to resume, with fresh insight, his previous discussions regarding the synthetic character of mathematical propositions. In his early essays he had rightly drawn the distinction between mathematical demonstration and philosophic proof, referring the certainty of the first to the fact that the constructions were synthetic in character and entirely determined by the action of constructive imagination. It had not then occurred to him to ask, With what right do we assume that the conclusions arrived at from arbitrary constructions in mathematical matter have applicability to objects of experience? Might not mathematics be a purely imaginary science? To this question he is now enabled to return an answer. Space and time, the two essential conditions of sense-perception, are not data given by things, but universal forms of intellect into which all data of sense must be received. Hence, whatever is true of space and time regarded by imagination as objects, *i.e.* quantitative constructions, must be true of the objects making up our sense-experience. The same forms and the same constructive activity of imagination are involved in mathematical

synthesis and in the constitution of objects of sense-experience. The foundation for pure or rational mathematics, there being included under this the pure science of movement, is thus laid in the critical doctrine of space and time.

The *Aesthetik* isolates sense-perception, and considers its forms as though it were an independent, complete faculty. A certain confusion, arising from this, is noticeable in the *Analytik* when the necessity for justifying the position of the categories is under discussion, but the real difficulty in which Kant was involved by his doctrine of space and time has its roots even deeper than the erroneous isolation of sensibility. He has not in any way "deduced" space and time, but, proceeding from the ordinary current view of sense-experience, has found these remaining as residuum after analysis. The relation in which they stand to the categories or pure notions is ambiguous; and, when Kant has to consider the fashion in which category and data of sense are to be brought together, he merely places side by side as a priori elements the pure connective notions and the pure forms of perception, and finds it, apparently, only a matter of contingent convenience that they should harmonize with one another and so render cognition possible. To this point also Fichte was the first to call attention.

Affection of sense, even when received into the pure forms of perception, is not matter of knowledge. For cognition there is requisite synthetic combination, and the intellectual function through which such combination takes place. The forms of intellectual function Kant proceeds to enumerate with the aid of the commonly received logical doctrines. For this reference to logic he has been severely blamed, but the precise nature of the debt due to the commonly accepted logical classification is very generally misconceived. Synthetic combination, Kant points out, is formally expressed in a judgment, which is the act of uniting representations. At the foundation of the judgments which express the types of synthetic combination, through which knowledge is possible, lie the pure general notions, the abstract aspect of the conditions under which objects are cognizable in experience. General logic has also to deal with the union of representations, though its unity is analytic merely, not synthetic. But the same intellectual function which serves to give unity in the analytic judgments of formal logic serves to give unity to the synthetic combinations of real perception. It appeared evident, then, to Kant that in the forms of judgment, as they are stated in the common logic, there must be found the analogues of the types of judgment which are involved in transcendental logic, or in the theory of real cognition. His view of the ordinary logic was wide and comprehensive, though in his restriction of the science to pure form one can trace the influence of his earlier training, and it is no small part of the value of the critical philosophy that it has revived the study of logic and prepared the way for a more thorough consideration of logical doctrines. The position assigned to logic by Kant is not, in all probability, one which can be defended; indeed, it is hard to see how Kant himself, in consistency with the critical doctrine of knowledge, could have retained many of the older logical theorems, but the precision with which the position was stated, and the sharpness with which logic was marked off from cognate philosophic disciplines, prepared the way for the more thoughtful treatment of the whole question.

Formal logic thus yields to Kant the list of the general notions, pure intellectual predicates, or categories, through which alone experience is possible for a conscious subject. It has already been noted how serious was the error involved in the description of these as notions, without further attempt to clear up their precise significance. Kant, indeed, was mainly influenced by his strong opposition to the Leibnitzian rationalism, and therefore assigns the categories to understanding, the logical faculty, without consideration of the question,—which might have been suggested by the previous statements of the *Dissertation*,—what relation these categories held to the empirical notions formed by comparison, abstraction and generalization when directed upon representations of objects. But when the categories are described as notions, *i.e.* formed products of thought, there rises of necessity the problem which had presented itself to Kant at every stage of his pre-critical thinking,—with what right can we assume that these notions apply to objects of experience? The answer which he proceeds to give altogether explodes the definition of the categories as formed products of thought, and enables us to see more clearly the nature of the new conception of experience which lies in the background of all the critical work.

The unity of the ego, which has been already noted as an element entering into the synthesis of cognition, is a unity of a quite distinct and peculiar kind. That the ego to which different parts of experience are presented must be the same ego, if there is to be cognition at all, is analytically evident; but the peculiarity is that the ego must be conscious of its own unity and identity, and this unity of self-consciousness is only possible in relation to difference not contained in the ego but given to it. The unity of apperception, then, as Kant calls it, is only possible in relation to synthetic unity of experience itself, and the forms of this synthetic unity, the categories, are, therefore, on the one hand, necessary as forms in which self-consciousness is realized, and, on the other hand, restricted in their application and validity to the data of given sense, or the particular element of experience. Thus experience presents itself as the organic combination of the particular of sense with the individual unity of the ego through the universal forms of the categories. Reference of representations to the unity of the object, synthetic unity of apperception, and subsumption of data of sense under the categories, are thus three sides or aspects of the one fundamental fact.

In this deduction of the categories, as Kant calls it, there appears for the first time an endeavour to connect together into one organic whole the several elements entering into experience. It is evident, however, that much was wanting before this essential task could be regarded as complete. Kant has certainly brought together self-consciousness, the system of the categories and data of sense. He has shown that the conditions of self-consciousness are the conditions of possible experience. But he has not shown, nor did he attempt to show, how it was that the conditions of self-consciousness are the very categories arrived at by consideration of the system of logical judgments. He does endeavour to show, but with small success, how the junction of category and data of sense is brought about, for according to his scheme these stood, to a certain extent at least, apart from and independent of one another. The failure to effect an organic combination of the several elements was the natural consequence of the false start which had been made.

The mode in which Kant endeavours to show how the several portions of cognition are subjectively realized brings into the clearest light the inconsistencies and imperfections of his doctrine. Sense had been assumed as furnishing the particular of knowledge, understanding as furnishing the universal; and it had been expressly declared that the particular was cognizable only in and through the universal. Still, each was conceived as somehow in itself complete and finished. Sense and understanding had distinct functions, and there was wanting some common term, some intermediary which should bring them into conjunction. Data of sense as purely particular could have nothing in common with the categories as purely universal. But data of sense had at least one universal aspect,—their aspect as the particular of the general forms, space and time. Categories were in themselves abstract and valueless, serviceable only when restricted to possible objects of experience. There was thus a common ground on which category and intuition were united in one, and an intermediate process whereby the universal of the category might be so far individualized as to comprehend the particular of sense. This intermediate process—which is really the junction of understanding and sense—Kant calls productive imagination, and it is only through productive imagination that knowledge or experience is actually realized in our subjective consciousness. The specific forms of productive imagination are called *schemata*, and upon the nature of the schema Kant gives much that has proved of extreme value for subsequent thought.

Productive imagination is thus the concrete element of knowledge, and its general modes are the abstract expression of the a priori laws of all possible experience. The categories are restricted in their applicability to the schema, *i.e.* to the pure forms of conjunction of the manifold in time, and in the modes of combination of schemata and categories we have the foundation for the rational sciences of mathematics and physics. Perception or real cognition is thus conceived as a complex fact, involving data of sensé and pure perceptive forms, determined by the category and realized through productive imagination in the schema. The system of principles which may be deduced from the consideration of the mode in which understanding and sense are united by productive imagination is the positive result of the critical theory of knowledge, and some of its features are remarkable enough to deserve attention. According to his usual plan, Kant arranges these principles in conformity with the table of the categories, dividing the four classes, however, into two main groups, the mathematical and the dynamical. The mathematical principles are the abstract expression of the necessary mode in which data of sense are determined by the category in the form of intuitions or representations of objects; the dynamical are the abstract expression of the modes in which the existence of objects of intuition is determined. The mathematical principles are constitutive, *i.e.* express determinations of the objects themselves; the dynamical are regulative, *i.e.* express the conditions under which objects can form parts of real experience. Under the mathematical principles come the general rules which furnish the ground for the application of quantitative reasoning to real facts of experience. For as data of sense are only possible objects when received in the forms of space and time, and as space and time are only cognized when determined in definite fashion by the understanding through the schema of number (quantity) or degree (quality), all intuitions are extensive quantities and contain a real element, that of sense, which has degree. Under the dynamical principles, the general modes in which the existence of objects are determined, fall the analogies of experience, or general rules according to which the existence of objects in relation to one another can be determined, and the postulates of experience, the general rules according to which the existence of objects for us or our own subjective existence can be determined. The analogies of experience rest upon the order of perceptions in time, *i.e.* their permanence, succession or coexistence, and the principles are respectively those of substance, causality and reciprocity. It is to be observed that Kant in the expression of these analogies reaches the final solution of the difficulty which had

so long pressed upon him, the difficulty as to the relation of the pure connective notions to experience. These notions are not directly applicable to experience, nor do we find in experience anything corresponding to the pure intellectual notions of substance, cause and reciprocity. But experience is for us the combination of data of sense in the forms of productive imagination, forms determined by the pure intellectual notions, and accordingly experience is possible for us only as in modes corresponding to the notions. The permanent in time is substance in any possible experience, and no experience is possible save through the determination of all changes as in relation to a permanent in time. Determined sequence is the causal relation in any possible experience, and no experience is possible save through the determination of perceived changes as in relation to a determined order in time. So with coexistence and reciprocity.

The postulates of experience are general expressions of the significance of existence in the experience of a conscious subject. The element of reality in such experience must always be given by intuition, and, so far as determination of existence is assumed, external intuition is a necessary condition of inner intuition. The existence of external things is as certain as the existence of the concrete subject, and the subject cannot cognise himself as existing save in relation to the world of facts of external perception. Inner and outer reality are strictly correlative elements in the experience of the conscious subject.

Throughout the positive portion of his theory of cognition, Kant has been beset by the doctrine that the categories, as finished, complete notions, have an import or significance transcending the bounds of possible experience. Morever, the manner in which space and time had been treated made it possible for him to regard these as contingent forms, necessary for intelligences like ours, but not to be viewed as absolutely necessary. The real meaning of these peculiarities is hardly ever expressed by him, though it is clear that the solution of the matter is to be found in the inadequacy of the positive theory to meet the demands of reason for completed explanation. But the conclusion to which he was led was one of the greatest importance for the after development of his system. Cognition is necessarily limited. The categories are restricted in their application to elements of possible experience to that which is presented in intuition, and all intuition is for the ego contingent. But to assert that cognition is limited and its matter contingent is to form the idea of an intelligence for whom cognition would not be limited and for whom the data of intuition would not be given, contingent facts, but necessarily produced along with the pure categories. This idea of an intuitive understanding is the definite expression for the complete explanation which reason demands, and it involves the conception of a realm of objects for such an understanding, a realm of objects which, in opposition to the *phenomena* of our relative and limited experience, may be called *noumena* or things-in-themselves. The *noumenon*, therefore, is in one way the object of a non-sensuous intuition, but more correctly is the expression of the limited and partial character of our knowledge. The idea of a noumenon is thus a limiting notion.

Assuredly, the difficult section of the *Kritik*, on the ground of the distinction between phenomena and noumena, would not have led to so much misconception as it has done, had Kant then brought forward what lies at the root of the distinction, his doctrine of reason and its functions. Understanding, as has been seen, is the faculty of cognition strictly so called; and within its realm, that of space, time and matter, positive knowledge is attainable. But the ultimate conception of understanding, that of the world of objects, quantitatively determined, and standing in relation of mutual reciprocity to one another, is not a final ground of explanation. We are still able and necessitated to reflect upon the whole world of phenomena as thus cognized, and driven to inquire after its significance. In our reflection we necessarily treat the objects, not as phenomena, as matters of positive, scientific knowledge, but as things-in-themselves, as noumena. The distinction between phenomena and noumena is, therefore, nothing but the expression of the distinction between understanding and reason, a distinction which, according to Kant, is merely subjective.

The specific function of reason is the effort after completed explanation of the experience presented in cognition. But in such effort there are no notions to be employed other than the categories, and these, as has already been seen, have validity only in reference to objects of possible experience. We may expect, then, to find the transcendent employment of the categories leading into various difficulties and inconsistencies. The criticism of reason in its specific aspect throws fresh light on the limits to human knowledge and the significance of experience.

Experience has presented itself as the complex result of relation between the ego or subject and the world of phenomena. Reason may therefore attempt a completed explanation either of the ego or of the world of phenomena or of the total relation between them. The three inquiries correspond to the subjects of the three ancient metaphysical sciences, rational psychology, rational cosmology, rational theology. It is readily seen, in regard to the first of them, that all attempts to determine the nature of the ego as a simple, perdurable, immaterial substance rest upon a confusion between the ego as pure logical unity and the ego as object of intuition, and involve a transcendent use of the categories of experience. It profits not to apply such categories to the soul, for no intuition corresponding to them is or can be given. The idea of the soul must be regarded as transcendent. So too when we endeavour, with the help of the categories of quantity, quality, relation and modality, to determine the nature and relation of parts of the world, we find that reason is landed in a peculiar difficulty. Any solution that can be given is too narrow for the demands of reason and too wide for the restrictions of understanding. The transcendent employment of the categories leads to antinomy, or equally balanced statements of apparently contradictory results. Due attention to the relation between understanding and reason enables us to solve the antinomies and to discover their precise origin and significance. Finally, the endeavour to find in the conception of God, as the supreme reality, the explanation of experience, is seen to lead to no valid conclusion. There is not any intuition given whereby we might show the reality of our idea of a Supreme Being. So far as knowledge is concerned, God remains a transcendental ideal.

The criticism of the transcendental ideas, which is also the examination of the claims of metaphysic to rank as a science, yields a definite and intelligible result. These ideas, the expression of the various modes in which unity of reason may be sought, have no objects corresponding to them in the sphere of cognition. They have not, therefore, like the categories, any *constitutive* value, and all attempts at metaphysical construction with the notions or categories of science must be resigned as of necessity hopeless. But the ideas are not, on that account, destitute of all value. They are supremely significant, as indicating the very essence of the function of reason. The limits of scientific cognition become intelligible, only when the sphere of understanding is subjected to critical reflexion and compared with the possible sphere of reason, that is, the sphere of rationally complete cognition. The ideas, therefore, in relation to knowledge strictly so called, have *regulative* value, for they furnish the general precepts for extension and completion of knowledge, and, at the same time, since they spring from reason itself, they have a real value in relation to reason as the very inmost nature of intelligence. Self-consciousness cannot be regarded as merely a mechanically determined result. Free reflection upon the whole system of knowledge is sufficient to indicate that the sphere of intuition, with its rational principles, does not exhaust conscious experience. There still remains, over and above the realm of nature, the realm of free, self-conscious spirit; and, within this sphere, it may be anticipated that the ideas will acquire a significance richer and deeper than the merely regulative import which they possess in reference to cognition.

Where, then, are we to look for this realm of free self-consciousness? Not in the sphere of cognition, where objects are mechanically determined, but in that of will or of reason as practical. That reason is practical or prescribes ends for itself is sufficiently manifest from the mere fact of the existence of the conception of morality or duty, a conception which can have no corresponding object within the sphere of intuition, and which is theoretically, or in accordance with the categories of understanding, incognizable. The presence of this conception is the datum upon which may be founded a special investigation of the conditions of reason as practical, a *Kritik* of pure practical reason, and the analysis of it yields the statement of the formal prescripts of morality.

The realization of duty is impossible for any being which is not thought as free, *i.e.* capable of self-determination. Freedom, it is true, is theoretically not an object of cognition, but its impossibility is not thereby demonstrated. The theoretical proof rather serves as useful aid towards the more exact determination of the nature and province of self-determination, and of its relation to the whole concrete nature of humanity. For in man self-determination and mechanical determination by empirical motives coexist, and only in so far as he belongs and is conscious of belonging both to the sphere of sense and to the sphere of reason does moral obligation become possible for him. The supreme end prescribed by reason in its practical aspect, namely, the complete subordination of the empirical side of nature to the prescripts of morality, demands, as conditions of its possible realization, the permanence of ethical progress in the moral agent, the certainty of freedom in self-determination, and the necessary harmonizing of the spheres of sense and reason through the intelligent author or ground of both. These conditions, the postulates of practical reason, are the concrete expressions of the three transcendental ideas, and in them we have the full significance of the ideas for reason. Immortality of the soul, positive freedom of will, and the existence of an intelligent ground of things are speculative ideas practically warranted, though theoretically neither demonstrable nor comprehensible.

Thus reason as self-determining supplies notions of freedom; reason as determined supplies categories of understanding. Union between the two spheres, which seem at first sight disparate, is found in the necessary postulate that reason shall be realized, for its realization is only possible in the sphere of sense. But such a union, when regarded *in abstracto*, rests upon, or involves, a notion of quite a new order, that of the adaptation of nature to reason, or, as it may be expressed, that of end in nature. Understanding and reason thus coalesce in the faculty of *judgment*, which mediates between, or brings together, the universal and particular elements

in conscious experience. Judgment is here merely *reflective*; that is to say, the particular element is given, so determined as to be possible material of knowledge, while the universal, not necessary for cognition, is supplied by reason itself. The empirical details of nature, which are not determined by the categories of understanding, are judged as being arranged or ordered by intelligence, for in no other fashion could nature, in its particular, contingent aspect, be thought as forming a complete, consistent, intelligible whole.

The investigation of the conditions under which adaptation of nature to intelligence is conceivable and possible makes up the subject of the third great *Kritik*, the *Kritik of Judgment*, a work presenting unusual difficulties to the interpreter of the Kantian system. The general principle of the adaptation of nature to our faculties of cognition has two specific applications, with the second of which it is more closely connected than with the first. In the first place, the adaptation may be merely *subjective*, when the empirical condition for the exercise of judgment is furnished by the feeling of pleasure or pain; such adaptation is aesthetic. In the second place, the adaptation may be objective or logical, when empirical facts are given of such a kind that their possibility can be conceived only through the notion of the end realized in them; such adaptation is teleological, and the empirical facts in question are organisms.

Aesthetics, or the scientific consideration of the judgments resting on the feelings of pleasure and pain arising from the harmony or want of harmony between the particular of experience and the laws of understanding, is the special subject of the *Kritik of Judgment*, but the doctrine of teleology there unfolded is the more important for the complete view of the critical system. For the analysis of the teleological judgment and of the consequences flowing from it leads to the final statement of the nature of experience as conceived by Kant. The phenomena of organic production furnish data for a special kind of judgment, which, however, involves or rests upon a quite general principle, that of the contingency of the particular element in nature and its subjectively necessary adaptation to our faculty of cognition. The notion of contingency arises, according to Kant, from the fact that understanding and sense are distinct, that understanding does not determine the particular of sense, and, consequently, that the principle of the adaptation of the particular to our understanding is merely supplied by reason on account of the peculiarity or limited character of understanding. End in nature, therefore, is a subjective or problematic conception, implying the limits of understanding, and consequently resting upon the idea of an understanding constituted unlike ours—of an intuitive understanding in which particular and universal should be given together. The idea of such an understanding is, for cognition, transcendent, for no corresponding fact of intuition is furnished, but it is realized with practical certainty in relation to reason as practical. For we are, from practical grounds, compelled with at least practical necessity to ascribe a certain aim or end to this supreme understanding. The moral law, or reason as practical, prescribes the realization of the highest good, and such realization implies a higher order than that of nature. We must, therefore, regard the supreme cause as a moral cause, and nature as so ordered that realization of the moral end is in it possible. The final conception of the Kantian philosophy is, therefore, that of ethical teleology. As Kant expresses it in a remarkable passage of the *Kritik*, "The systematic unity of ends in this world of intelligences, which, although as mere nature it is to be called only the world of sense, can yet as a system of freedom be called an intelligible, *i.e.* moral world (*regnum gratiae*), leads inevitably to the teleological unity of all things which constitute this great whole according to universal natural laws, just as the unity of the former is according to universal and necessary moral laws, and unites the practical with the speculative reason. The world must be represented as having originated from an idea, if it is to harmonize with that use of reason without which we should hold ourselves unworthy of reason—viz. the moral use, which rests entirely on the idea of the supreme good. Hence all natural research tends towards the form of a system of ends, and in its highest development would be a physico-theology. But this, since it arises from the moral order as a unity grounded in the very essence of freedom and not accidentally instituted by external commands, establishes the teleology of nature on grounds which a priori must be inseparably connected with the inner possibility of things. The teleology of nature is thus made to rest on a transcendental theology, which takes the ideal of supreme ontological perfection as a principle of systematic unity, a principle which connects all things according to universal and necessary natural laws, since they all have their origin in the absolute necessity of a single primal being" (p. 538).

BIBLIOGRAPHY.—Editions and works of reference are exceedingly numerous. Since 1896 an indispensable guide is the periodical review *Kantstudien* (Hamburg and Berlin, thrice yearly), edited by Hans Vaihinger and Bruno Bauch, which contains admirable original articles and notices of all important books on Kant and Kantianism. It has reproduced a number of striking portraits of Kant. For books up to 1887 see Erich Adickes in *Philosophical Review* (Boston, 1892 foll.); for 1890–1894 R. Reicke's *Kant Bibliographie* (1895). See also in general the latest edition of Ueberweg's *Grundriss der Geschichte der Philosophie*.

EDITIONS.—Complete editions of Kant's works are as follows: (1) G. Hartenstein (Leipzig, 1838–1839, 10 vols.); (2) K. Rosenkranz and F. W. Schubert (Leipzig, 1838–1840, 12 vols., the 12th containing a history of the Kantian school); (3) G. Hartenstein, "in chronological order" (Leipzig, 1867–1869, 8 vols.); (4) Kirchmann (in the "Philosophische Bibliothek," Berlin, 1868–1873, 8 vols. and supplement); (5) under the auspices of the Königlich Preussische Akademie der Wissenschaften a new collected edition was begun in 1900 (vol. ii., 1906) in charge of a number of editors. It was planned in four sections: Works, Letters, MSS. Remains and *Vorlesungen*. There are also useful editions of the three *Kritiks* by Kehrbach, and critical editions of the *Prolegomena* and *Kritik der reinen Vernunft* by B. Erdmann (see also his *Beiträge zur Geschichte und Revision des Textes von Kants Kritik der reinen Vernunft* (1900). A useful selection (in English) is that of John Watson, *The Philosophy of Kant* (Glasgow, 1888).

TRANSLATIONS.—There are translations in all the principal languages. The chief English translators are J. P. Mahaffy, W. Hastie, T. K. Abbott, J. H. Bernard and Belfort Bax. Their versions have been mentioned in the section on "Works" above.

BIOGRAPHICAL.—Schubert in the 11th vol. of Rosenkranz's edition; Borowski, *Darstellung des Lebens und Charakters Kants* (Königsberg, 1804); Wasianski, *Kant in seinen letzten Lebensjahren* (Königsberg, 1804); Stuckenberg, *The Life of Immanuel Kant* (1882); Rudolf Reicke, *Kants Briefwechsel* (1900). See also several of the critical works below. On Kant's portraits see D. Minden, *Ueber Portraits und Abbildungen Imm. Kants* (1868) and cf. frontispieces of *Kantstudien* (as above).

CRITICAL (in alphabetical order of authors).—R. Adamson, *Philosophy of Kant* (1879; Germ. trans., 1880); Felix Adler, *A Critique of Kant's Ethics* (1908); S. Aicher, *Kants Begriff der Erkenntnis verglichen mit dem des Aristoteles* (1907); M. Apel, *Immanuel Kant: Ein Bild seines Lebens und Denkens* (1904); Arnoldt, *Kritische Exkurse im Gebiete der Kantforschung* (1894); C. Bache, "*Kants Prinzip der Autonomie im Verhältnis zur Idee des Reichs der Zwecke*" (*Kantstudien*, 1909); B. Bauch, *Luther und Kant* (1904); Paul Boehm, *Die vorkritischen Schriften Kants* (1906); E. Caird, *Critical Philosophy of Kant* (2 vols., 1889); Chalybäus, *Historische Entwickelung der spekulativen Philosophie von Kant bis Hegel* (5th ed., 1860); H. S. Chamberlain, *Immanuel Kant* (1909); Cousin, *Leçons sur la philosophie de Kant* (4th ed., 1864); B. Erdmann, *Immanuel Kant, Kants Kritizismus in der 1 und 2 Auflage der "Kritik der reinen Vernunft"* (1877); O. Ewald, *Kants kritischer Idealismus als Grundlage von Erkenntnistheorie und Ethik* (1908) and *Kants Methodologie in ihren Grundzügen* (1906); Kuno Fischer, *Immanuel Kant* (4th ed., 1898–1899), *Die beiden Kantischen Schulen in Jena* (1862), and *Commentary on Kant's Kritik of Pure Reason* (1878); F. Förster, *Der Entwicklungsgang der Kantischen Ethik bis zur Kritik der reinen Vernunft* (1893); A. Fouillée, *Le Moralisme de Kant et l'amoralisme contemporaine* (1905); C. R. E. von Hartmann, *Kants Erkenntnistheorie und Metaphysik in den vier Perioden ihrer Entwickelung* (1894); A. Hegler, *Die Psychologie in Kants Ethik* (1891); G. D. Hicks, *Die Begriffe Phänomenon und Noumenon in ihrem Verhältniss zu einander bei Kant* (1897); G. Jacoby, *Herders und Kants Aesthetik* (1907); W. Kabitz, *Studien zur Entwickelungsgeschichte der Fichteschen Wissenschaftslehre aus der Kantischen Philosophie* (1902); M. Kelly, *Kant's Philosophy as rectified by Schopenhauer* (1909); W. Koppelmann, *I. Kant und die Grundlagen der christlichen Religion* (1890); M. Kronenberg, *Kant: Sein Leben und seine Lehre* (1897; 3rd ed., 1905); E. Kühnemann, *Kants und Schillers Begründung der Aesthetik* (1895) and *Die Kantischen Studien Schillers und die Komposition des Wallenstein* (1889); H. Levy, *Kants Lehre vom Schematismus der reinen Verstandesbegriffe* (1901); Arthur O. Lovejoy, *Kant and the English Platonists* (1908); J. P. Mahaffy, *Kant's Critical Philosophy for English Readers* (1872–1874); W. Mengel, *Kants Begründung der Religion* (1900); A. Messer, *Kants Ethik* (1904); H. Meyer-Benfey, *Herder und Kant* (1904); Morris, *Kant's Critique of Pure Reason* (Chicago, 1882); C. Oesterreich, *Kant und die Metaphysik* (1906); F. Paulsen, *Kant: Sein Leben und seine Lehre* (1898; 4th ed., 1904; Eng. 1902); Harold H. Prichard, *Kant's Theory of Knowledge* (1909); A. Seth Pringle-Pattison, *The Development from Kant to Hegel* (1882); and, on Kant's philosophy of religion, in *The Philosophic Radicals* (1907); F. Rademaker, *Kants Lehren vom innern Sinn in der Kritik der reinen Vernunft* (1908); R. Reininger, *Kants Lehre vom inneren Sinn und seine Theorie der Erfahrung* (1900); C. B. Renouvier, *Critique de la doctrine de Kant* (1906); H. Romundt, *Kants philosophische Religionslehre eine Frucht der gesammten Vernunftkritik* (1902); T. Ruyssen, *Kant* (1900); E. Saenger, *Kants Lehre vom Glauben* (1903); O. Schapp, *Kants Lehre vom Genie und die Entstehung der "Kritik der Urteilskraft"* (1901); Carl Schmidt, *Beiträge zur Entwickelung der Kant'schen Ethik* (1900); A. Schweitzer, *Die Religionsphilosophie Kants* (1899); H. Sidgwick, *Lectures on the Philosophy of Kant* (1905); J. H. Stirling, *Text Book to Kant* (1881); G. Simmel, *Kant und Goethe* (1906); L. Staehlin, *Kant, Lotze und Ritschl* (1889); O. Thon, *Die Grundprinzipien der Kantischen Moralphilosophie* (1895); T. Valentiner, *Kant und die platonische Philosophie* (1904); C. Vorländer, *Kant, Schiller, Goethe* (1907); G. C. Uphues, *Kant und sein Vorgänger* (1906); W. Wallace, *Kant* (1905); M. Wartenberg, *Kants Theorie der Kausalität* (1899); John Watson, *Philosophy of Kant Explained* (1908), *Kant and his English Critics*

(1881); A. Weir, *A Student's Introduction to Critical Philosophy* (1906); G.A. Wyneken, *Hegel's Kritik Kants* (1898); W. Windelband, *Kuno Fischer und sein Kant* (1897).

On Kant's theory of education, see E. F. Büchner, *The Educational Theory of Immanuel Kant* (trans., ed., intro., 1904); trans. of *Ueber Pädagogik* by Annette Churton (1899); J. Geluk, *Kant* (1883).

(R. Ad.; X.)

KANURI, or Beriberi, an African tribe of mixed origin, the dominant race of Bornu. They are large-boned and coarse-featured, but contain nevertheless a distinct strain of Fula blood. Beriberi (or Berberi) is the name given them by the Hausa (see Bornu).

KAOLIN, a pure white clay, know also as china-clay, since it is an essential ingredient in the manufacture of china, or porcelain. The word kaolin, formerly written by some authors caulin, is said to be a corruption of the Chinese *Kau-ling*, meaning "High Ridge," the name of a hill east of King-te-chen, whence the earliest samples of the clay sent to Europe were obtained by the Père d'Entrecolles, a French Jesuit missionary in China in the early part of the 18th century. His specimens, examined in Paris by R. A. Réaumur, showed that true porcelain, the composition of which had not previously been known in Europe, contained two essential ingredients, which came to be known —though it now appears incorrectly—as kaolin and petuntse, corresponding respectively to our china-clay and china-stone. The kaolin confers plasticity on the paste and secures retention of form for the ware when exposed to the heat of the kiln, whilst the petuntse gives the translucency so characteristic of porcelain. Some of the earliest discoveries of kaolin in Europe were at Aue, near Schneeberg in Saxony, and at St Yrieix, near Limoges in France. In England it was discovered in Cornwall about the year 1750 by William Cookworthy, of Plymouth; and in 1768 he took out his patent for making porcelain from moorstone or growan (china-stone) and growan clay (kaolin), the latter imparting "whiteness and infusibility" to the china. These raw materials were found first at Tregonning Hill, near Breage, and afterwards at St Stephen's in Brannel, near St Austell; and their discovery led to the manufacture of hard paste, or true porcelain, at Plymouth and subsequently at Bristol.

Kaolin is a hydrous aluminium silicate, having the formula $H_4Al_2Si_2O_9$, or $Al_2Si_2O_7.2H_2O$, but in common clay this silicate is largely mixed with impurities. Certain clays contain pearly white hexagonal scales, usually microscopic, referable to the monoclinic system, and having the chemical composition of kaolin. This crystalline substance was termed kaolinite by S. W. Johnson and J. M. Blake in 1867, and it is now regarded as the basis of pure clay. The kaolinite of Amlwch in Anglesey has been studied by Allan Dick. The origin of kaolin may be traced to the alteration of certain aluminous silicates like feldspar, scapolite, beryl and topaz; but all large deposits of china-clay are due to the decomposition of feldspar, generally in granite, but sometimes in gneiss, pitchstone, &c. The turbidity of many feldspars is the result of partial "kaolinization," or alteration to kaolin. The china-clay rocks of Cornwall and Devon are granites in which the orthoclase has become kaolinized. These rocks are sometimes known as carclazite, a name proposed by J. H. Collins from a typical locality, the Carclaze mine, near St Austell. It has often been supposed that the alteration of the granite has been effected mainly by meteoric agencies, the carbonic acid having decomposed the alkaline silicate of the feldspar, whilst the aluminous silicate assumes a hydrated condition and forms kaolin. In many cases, however, it seems likely that the change has been effected by subterranean agencies, probably by heated vapours carrying fluorine and boron, since minerals containing these elements, like tourmaline, often occur in association with the china-clay. According to F. H. Butler the kaolinization of the west of England granite may have been effected by a solution of carbonic acid at a high temperature, acting from below.

The china-stone, or petuntse, is a granitic rock which still retains much of the unaltered feldspar, on which its fusibility depends. In order to prepare kaolin for the market, the china-clay rock is broken up, and the clay washed out by means of water. The liquid containing the clay in mechanical suspension is run into channels called "drags" where the coarser impurities subside, and whence it passes to another set of channels known as "micas," where the finer materials settle down. Thus purified, the clay-water is led into a series of pits or tanks, in which the finely divided clay is slowly deposited; and, after acquiring sufficient consistency, it is transferred to the drying-house, or "dry," heated by flues, where the moisture is expelled, and the kaolin obtained as a soft white earthy substance. The clay has extensive application in the arts, being used not only in ceramic manufacture but in paper-making, bleaching and various chemical industries.

Under the species "kaolinite" may be included several minerals which have received distinctive names, such as the Saxon mineral called from its pearly lustre nacrite, a name originally given by A. Brongniart to a nacreous mica; pholerite found chiefly in cracks of ironstone and named by J. Guillemin from the Greek *φολίς*, a scale; and lithomarge, the old German *Steinmark*, a compact clay-like body of white, yellow or red colour. Dr C. Hintze has pointed out that the word pholerite should properly be written pholidite (*φολίς*, *φολίδος*). Closely related to kaolinite is the mineral called halloysite, a name given to it by P. Berthier after his uncle Omalius d'Halloy, the Belgian geologist. (F. W. R.*)

KAPUNDA, a municipal town of Light county, South Australia, 48 m. by rail N.N.E. of Adelaide. Pop. (1901), 1805. It is the centre of a large wheat-growing district. The celebrated copper mines discovered in 1843 were closed in 1879. There are quarries near the town, in which is found fine marble of every colour from dark blue to white. This marble was largely used in the Houses of Parliament at Adelaide.

KAPURTHALA, a native state of India, within the Punjab. Area, 652 sq. m.; pop. (1901), 314,341, showing an increase of 5% in the decade; estimated gross revenue, £178,000; tribute, £8700. The Kapurthala family is descended from Jassa Singh, a contemporary of Nadir Shah and Ahmad Shah, who by his intelligence and bravery made himself the leading Sikh of his day. At one time it held possessions on both sides of the Sutlej, and also in the Bari Doab. The cis-Sutlej estates and scattered tracts in the Bari Doab were forfeited owing to the hostility of the chief in the first Sikh war; but the latter were afterwards restored in recognition of the loyalty of Raja Randhir Singh during the mutiny of 1857, when he led a contingent to Oudh which did good service. He also received a grant of land in Oudh, 700 sq. m. in extent, yielding a gross rental of £89,000. In Oudh, however, he exercises no sovereign powers, occupying only the status of a large landholder, with the title of Raja-i-Rajagan. Raja Sir Jagatjit Singh, K.C.S.I., was born in 1872, succeeded his father in 1877, and attained his majority in 1890. During the Tirah expedition of 1897–98 the Kapurthala imperial service infantry took a prominent part. The territory is crossed by the railway from Jullundur to Amritsar. The state has a large export trade in wheat, sugar, tobacco and cotton. The hand-painted cloths and metal-work of Phagwara are well known. The town of Kapurthala is 11 miles from Jullundur; pop. (1901), 18,519.

KARACHI, or Kurrachee, a seaport and district of British India, in the Sind province of Bombay. The city is situated at the extreme western end of the Indus delta, 500 m. by sea from Bombay and 820 m. by rail from Lahore, being the maritime terminus of the North-Western railway, and the main gateway for the trade of the Punjab and part of central Asia. It is also the capital of the province of Sind. Pop. (1881), 73,500; (1891), 105,199; (1901), 115,407. Before 1725 no town appears to have existed here; but about that time some little trade began to centre upon the convenient harbour, and the silting up of Shahbandar, the ancient port of Sind, shortly afterwards drove much of its former trade and population to the rising village. Under the Kalhora princes, the khan of Kalat obtained a grant of the town, but in 1795 it was captured by the Talpur Mirs, who built the fort at Manora, at the entrance to the harbour. They also made considerable efforts to increase the trade of the port

and at the time of the British acquisition of the province the town and suburbs contained a population of 14,000. This was in 1843, from which time the importance of the place practically dates.

The harbour of Karachi has an extreme length and breadth of about 5 m. It is protected by the promontory of Manora Head; and the entrance is partially closed by rocks and by the peninsula (formerly an island) of Kiamari. On Manora Head, which is fortified, are the buildings of the port establishment, a cantonment, &c. Kiamari is the landing-place for passengers and goods, and has three piers and railway connexions. The harbour improvements were begun in 1854 with the building of the Napier Mole or causeway connecting Kiamari with the mainland. The entrance has a minimum depth of 25 ft.; and a large number of improvements and extensions have been carried out by the harbour board, which was created in 1880, and transformed in 1886 into the port trust.

The great extension of the canal colonies in the Punjab, entirely devoted to the cultivation of wheat, has immensely increased the export trade of Karachi. It now ranks as the third port of India, being surpassed only by Calcutta and Bombay. The principal articles of export, besides wheat, are oilseeds, cotton, wool, hides and bones. The annual value of exports, including specie, amounts to about nine millions sterling. There are iron works and manufactures of cotton cloth, silk scarves and carpets. The fisheries and oyster beds are important.

Among the principal public buildings are government house, the Frere municipal hall, and the Napier barracks. The military cantonments, stretching north-east of the city, form the headquarters of a brigade in the 4th division of the southern army. An excellent water supply is provided by an underground aqueduct 18 m. in length. The chief educational institutions are the Dayaram Jethmal Arts College, with a law class; five high schools, of which two are for Europeans and one for Mahommedans; a convent school for girls; and an engineering class. The average rainfall for the year is about 5 in. The rainy months are July and August, but one or two heavy showers usually fall about Christmas. The end of May, beginning of June, and first fortnight in October are hot. November, December, January, February and March are delightfully cool and dry; the remaining months are damp with a constant cool sea breeze.

The DISTRICT OF KARACHI has an area of 11,970 sq. m. Pop. (1901), 607,439, showing an increase of 6% in the decade. It consists of an immense tract of land stretching from the mouth of the Indus to the Baluch boundary. It differs in general appearance from the rest of Sind, having a rugged, mountainous region along its western border. The country gradually slopes away to the south-east, till in the extreme south the Indus delta presents a broad expanse of low, flat and unpicturesque alluvium. Besides the Indus and its mouths, the only river in the district is the Hab, forming the boundary between Sind and Baluchistan. The Manchhar lake in Sehwan sub-division forms the only considerable sheet of water in Sind. The hot springs at Pir Mangho are 6 m. N. of Karachi town. The principal crops are rice, millets, oil-seeds and wheat. In addition to Karachi, there are seaports at Sirgonda and Keti Bandar, which conduct a considerable coasting trade. Tatta was the old capital of Sind. Kotri is an important railway station on the Indus. The main line of the North-Western railway runs through the district. From Kotri downwards the line has been doubled to Karachi, and at Kotri a bridge has been constructed across the Indus opposite Hyderabad, to connect with the Rajputana railway system.

See A. F. Baillie, *Kurrachee: Past, Present and Future* (1890).

KARAGEORGE (in Servian, *Karadyordye*) (*c.* 1766–1817), the leader of the Servians during their first revolution against the Turks (1804–13), and founder of the Servian dynasty Karageorgevich. His Christian name was George (Dyordye), but being not only of dark complexion but of gloomy, taciturn and easily excitable temper, he was nicknamed by the Servians "Tsrni Dyordye" and by the Turks "Karageorge," both meaning "Black George," the Turkish name becoming soon the generally adopted one. He was born in 1766 (according to some in 1768), the son of an extremely poor Servian peasant, Petroniye Petrovich. When quite a young man, he entered the service of a renowned Turkish brigand, Fazli-Bey by name, and accompanied his master on his adventurous expeditions. When twenty he married and started a small farm. But having killed a Turk, he left Servia for Syrmia, in Croatia-Slavonia, where the monks of the monastery Krushedol engaged him as one of their forest guards. He remained in the service of the monks nearly two years, then enlisted into an Austrian regiment, and as sergeant took part in the Austrian war against Turkey (1788–91). He deserted his regiment, returned to Servia, and settled in the village of Topola, living sometimes as a peaceful farmer and sometimes again as the leader of a small band of "hayduks"—men who attacked, robbed and in most cases killed the travelling Turks in revenge for the oppression of their country.

The circumstances in which the Servians rose against the janissaries of the pashalik of Belgrade are related in the article on SERVIA. The leaders of the insurgents' bands and other men of influence met about the middle of February 1804 at the village of Orashatz, and there elected Karageorge as the supreme leader (Vrhovni Vozd) of the nation. Under his command the Servians speedily cleared their country not only of the janissaries disloyal to the Sultan, but of all other Turks, who withdrew from the open country to the fortified places. Karageorge and his armed Servians demanded from the Sultan the privileges of self-government. The Porte, confronted by the chances of a war with Russia, decided in the autumn of 1806 to grant to the Servians a fairly large measure of autonomy. Unfortunately Karageorge was comparatively poor in political gifts and diplomatic tact. While the *hattisherif* granting the rights demanded by the Servians was on the way to Servia, Karageorge attacked the Turks in Belgrade and Shabats, captured the towns first and then also the citadels, and allowed the Turkish population of Belgrade to be massacred. At the same time the Russian headquarters in Bucharest informed Karageorge that Russia was at war with Turkey and that the Tsar counted on the co-operation of the Servians. Karageorge and his Servians then definitely rejected all the concessions which the Porte had granted them, and joined Russia, hoping thereby to secure the complete independence of Servia. The co-operation of the Servians with the Russians was of no great importance, and probably disappointing to both parties. But as the principal theatre of war was far away from Servia on the lower Danube, Karageorge was able to give more attention to the internal organization of Servia. The national assembly proclaimed Karageorge the hereditary chief and *gospodar* of the Servians (Dec. 26, 1808), he on his part promising under oath to govern the country "through and by the national council" (senate).

Karageorge's hasty and uncompromising temper and imperious habits, as well as his want of political tact, soon made him many enemies amongst the more prominent Servians (voyvodes and senators). His difficulties were considerably increased by the intrigues of the Russian political agent to Servia, Rodophinikin. A crisis came during the summer months of the year 1813. The treaty of peace, concluded by the Russians somewhat hurriedly in Bucharest in 1812, did not secure efficiently the safety of the Servians. The Turks demanded from Karageorge, as a preliminary condition for peace, that the Servians should lay down their arms, and Karageorge refused to comply. Thereupon the entire Turkish army which fought against the Russians on the Danube, being disengaged, invaded Servia. After a few inefficient attempts to stem the invasion, Karageorge gave up the struggle, and with most of the voyvodes and chiefs of the nation left the country, and crossed to Hungary as a refugee (Sept. 20, 1813). From Hungary he went to Russia and settled in Khotin (Bessarabia), enjoying a pension from the Tsar's government. But in the summer of 1817 he suddenly and

secretly left Russia and reappeared quite alone in Servia in the neighbourhood of Semendria (Smederevo) on the Danube. The motives and the object of his return are not clear. Some believe that he was sent by the Hetaerists to raise up Servia to a new war with Turkey and thereby facilitate the rising of the Greek people. It is generally assumed, however, that, having heard that Servia, under the guidance of Milosh Obrenovich, had obtained a certain measure of self-government, he desired to put himself again at the head of the nation. This impression seems to have been that of Milosh himself, who at once reported to the Pasha of Belgrade the arrival of Karageorge. The pasha demanded that Karageorge, alive or dead, should be delivered to him immediately, and made Milosh personally responsible for the execution of that order. Karageorge's removal could not unfortunately be separated from the personal interest of Milosh; already acknowledged as chief of the nation, Milosh did not like to be displaced by his old chief, who in a critical moment had left the country. Karageorge was killed (July 27, O.S., 1817) while he was asleep, and his head was sent to the pasha for transmission to Constantinople. It is impossible to exonerate Milosh Obrenovich from responsibility for the murder, which became the starting-point for a series of tragedies in the modern history of Servia.

Karageorge was one of the most remarkable Servians of the 19th century. No other man could have led the bands of undisciplined and badly-armed Servian peasants to such decisive victories against the Turks. Although he never assumed the title of prince, he practically was the first chief and master (*gospodar*) of the people of Servia. He succeeded, however, not because he was liked but because he was feared. His gloomy silence, his easily aroused anger, his habit of punishing without hesitation the slightest transgressions by death, spread terror among the people. He is believed to have killed his own father in a fit of anger when the old man refused to follow him in his flight to Hungary at the beginning of his career. In another fit of rage at the report that his brother Marinko had assaulted a girl, he ordered his men to seize his brother and to hang him there and then in his presence, and he forbade his mother to go into mourning for him. Even by his admirers he is admitted to have killed by his own hand no fewer than 125 men who provoked his anger. But in battles he is acknowledged to have been always admirable, displaying marvellous energy and valour, and giving proofs of a real military genius. The Servians consider him one of their greatest men. In grateful remembrance of his services to the national cause they elected his younger son, Alexander, in 1842, to be the reigning prince of Servia, and again in 1903 they chose his grandson, Peter Karageorgevich (son of Alexander) to be the king of Servia.

See SERVIA; also Ranke, *Die serbische Revolution*; Stoyan Novakovich, *Vaskzhs srpske drzhave* (Belgrade, 1904); M. G. Milityevich, *Karadyordye* (Belgrade, 1904). (C. MI.)

KARA-HISSAR ("Black Castle"). (1) AFIUM KARA-HISSAR (*q.v.*). (2) ICHJE, or ISCHA KARA-HISSAR (anc. *Docimium*), a small village about 14 m. N.E. of No. 1. Docimium was a Macedonian colony established on an older site. It was a self-governing municipality, striking its own coins, and stood on the Apamea-Synnada-Pessinus road, by which the celebrated marble called Synnadic, Docimian and Phrygian was conveyed to the coast. The quarries are 2½ m. from the village, and the marble was carried thence direct to Synnada (Chifut Kassaba). Some of the marble has the rich purple veins in which poets saw the blood of Atys.

See W. M. Ramsay, *Hist. Geog. of Asia Minor* (London, 1890); Murray, *Hbk. to Asia Minor* (1893).

KARA-HISSAR SHARKI [*i.e.* "eastern Kara-Hissar"], also called Shabin Kara-Hissar from the alum mines in its vicinity, the chief town of a sanjak of the same name in the Sivas vilayet of Asia Minor. Pop. about 12,000, two-thirds Mussulman. It is the Roman *Colonia*, which gradually superseded Pompey's foundation, *Nicopolis*, whose ruins lie at Purkh, about 12 m. W. (hence Kara-Hissar is called Nikopoli by the Armenians). In later Byzantine times it was an important frontier station, and did not pass into Ottoman hands till twelve years after the capture of Constantinople. The town, altitude 4860 ft., is built round the foot of a lofty rock, upon which stand the ruins of the Byzantine castle, *Maurocastron*, the Kara Hissar Daula of early Moslem chroniclers. It is connected with its port, Kerasund, and with Sivas, Erzingan and Erzerum, by carriage roads.

KARAISKAKIS, GEORGES (1782–1827), leader in the War of Greek Independence, was born at Agrapha in 1782. During the earlier stages of the war he served in the Morea, and had a somewhat discreditable share in the intrigues which divided the Greek leaders. But he showed a sense of the necessity for providing the country with a government, and was a steady supporter of Capo d'Istria. His most honourable services were performed in the middle and later stages of the war. He helped to raise the first siege of Missolonghi in 1823, and did his best to save the town in the second siege in 1826. In that year he commanded the patriot forces in Rumelia, and though he failed to co-operate effectually with other chiefs, or with the foreign sympathizers fighting for the Greeks, he gained some successes against the Turks which were very welcome amid the disasters of the time. He took a share in the unsuccessful attempts to raise the siege of Athens in 1827, and made an effort to prevent the disastrous massacre of the Turkish garrison of fort S Spiridion. He was shot in action on the 4th of May 1827. Finlay speaks of him as a capable partisan leader who had great influence over his men, and describes him as of "middle size, thin, dark-complexioned, with a bright expressive animal eye which indicated gipsy blood."

See G. Finlay, *History of the Greek Revolution* (London, 1861).

KARAJICH, VUK STEFANOVICH (1787–1864), the father of modern Servian literature, was born on the 6th of November 1787 in the Servian village of Trshich, on the border between Bosnia and Servia. Having learnt to read and write in the old monastery Tronosha (near his native village), he was engaged as writer and reader of letters to the commander of the insurgents of his district at the beginning of the first Servian rising against the Turks in 1804. Mostly in the position of a scribe to different voyvodes, sometimes as school-teacher, he served his country during the first revolution (1804–1813), at the collapse of which he left Servia, but instead of following Karageorge and other voyvodes to Russia he went to Vienna. There he was introduced to the great Slavonic scholar Yerney Kopitar, who, having heard him recite some Servian national ballads, encouraged him to collect the poems and popular songs, write a grammar of the Servian language, and, if possible, a dictionary. This programme of literary work was adhered to by Karajich, who all his life acknowledged gratefully what he owed to his learned teacher.

In the second half of the 18th and in the beginning of the 19th century all Servian literary efforts were written in a language which was not the Servian vernacular, but an artificial language, of which the foundation was the Old Slavonic in use in the churches, but somewhat Russianized, and mixed with Servian words forced into Russian forms. That language, called by its writers "the Slavonic-Servian," was neither Slavonic nor Servian. It was written in Old Cyrillic letters, many of which had no meaning in the Servian language, while there were several sounds in that language which had no corresponding signs or letters in the Old Slavonic alphabet. The Servian philosopher Dositey Obradovich (who at the end of the 18th century spent some time in London teaching Greek) was the first Servian author to proclaim the principle that the books for the Servian people ought to be written in the language of the people. But the great majority of his contemporaries were of opinion that the language of Servian literature ought to be evolved out of the dead Old Slavonic of the church books. The church naturally decidedly supported this view. Karajich was the great reformer who changed all this. Encouraged by Kopitar, he published in 1814 (2nd ed., 1815) in Vienna his first book, *Mala Prostonarodna Slaveno-Serbska Pyesmaritsa* ("A small collection of Slavonic-Servian songs of the common people"), containing a

hundred lyric songs, sung by the peasant women of Servia, and six poems about heroes, or as the Servians call them *Yunachke pesme*, which are generally recited by the blind bards or by peasants. From that time Karajich's literary activity moved on two parallel lines: to give scientific justification and foundation to the adoption of the vernacular Servian as the literary language; and, by collecting and publishing national songs, folk-lore, proverbs, &c., to show the richness of the Servian people's poetical and intellectual gifts, and the wealth and beauty of the Servian language. By his reform of the Servian alphabet and orthography, his Servian grammar and his Servian dictionary, he established the fact that the Servian language contains thirty distinct sounds, for six of which the Old Slavonic alphabet had no special letters. He introduced new letters for those special sounds, at the same time throwing out of the Old Slavonic alphabet eighteen letters for which the Servian language had no use. This reform was strenuously opposed by the church and many conservative authors, who went so far as to induce the Servian government to prohibit the printing of books in new letters, a prohibition removed in 1859. Karajich's alphabet facilitated his reform of orthography, his principle being: *write as you speak, and read as it is written!* Hardly any other language in the civilized world has such a simple, logical, scientific spelling system and orthography as the Servian has in Karajich's system. His first grammatical essay was published in Vienna in 1814, *Pismenitsa Serbskoga yezika po govoru prostoga naroda* (" The grammar of the Servian language as spoken by the common people "). An improved edition appeared in Vienna in 1818, together with his great work *Srpski Ryechnik* (Lexicon Serbico-Germanico-Latinum). This dictionary—containing 26,270 words—was full of important contributions to folk-lore, as Karajich never missed an opportunity to add to the meaning of the word the description of the national customs or popular beliefs connected with it. A new edition of his dictionary, containing 46,270 words, was published at Vienna in 1852. Meanwhile he gave himself earnestly to the work of collecting the "creations of the mind of the Servian common people." He travelled through Servian countries (Servia, Bosnia, Herzegovina, Montenegro, Daimatia, Syrmia, Croatia), and the result was shown in a largely augmented edition of his *Srpske Narodne Pyesme*, of which the first three volumes appeared at Leipzig in 1823 and 1824, the fourth volume appearing at Vienna in 1833. *Popular Stories and Enigmas* was published in 1821, and *Servian National Proverbs* in 1836. From 1826 to 1834 he was the editor of an annual, called *Danitsa* (The Morning Star), which he filled with important contributions concerning the ethnography and modern history of the Servian people. In 1828 he published a historical monograph, *Milosh Obrenovich, Prince of Servia*; in 1837, in German, *Montenegro and Montenegrins*; in 1867, *The Servian Governing Council of State*. He supplied Leopold Ranke with the materials for his *History of the Servian Revolution*. He also translated the New Testament into Servian, for the British and Foreign Bible Society (Vienna, 1847). Karajich died in Vienna on the 6th of February 1864; and his remains were transferred to Belgrade in 1897 with great solemnity and at the expense of the government of Servia. (C. Mi.)

KARA-KALPAKS (" Black Caps "), a Mongolo-Tatar people, originally dominant along the east coast of the Aral Sea, where they still number some thousands. They thus form geographically the transition between the northern Kirghiz and the southern Turkomans. Once a powerful nation, they are scattered for the most part in Astrakhan, Perm, Orenburg, in the Caucasian province of Kuban, and in Tobolsk, Siberia, numbering in all about 50,000. These emigrants have crossed much with the alien populations among whom they have settled; hut the pure type on the Aral Sea are a tall powerful people, with broad flat faces, large eyes, short noses and heavy chins. Their women are the most beautiful in Turkestan. The name of " Black Caps " is given them in allusion to their high sheepskin hats. They are a peaceful agricultural folk, who have suffered much from their fierce nomad neighbours.

KARAKORUM (Turkish, " black stone débris "), the name of two cities in Mongolia. One of these, according to G. Potanin, was the capital of the Uighur kingdom in the 8th century, and the other was in the 13th century a capital of the steppe monarchy of Mongolia. The same name seems also to have been applied to the Khangai range at the headwaters of the Orkhon. (1) The Uighur KARAKORUM, also named Mubalik (" bad town "), was situated on the left bank of the Orkhon, in the Talal-khain-dala steppe, to the south-east of Ughei-nor. It was deserted after the fall of the Uighur kingdom, and in the 10th century Abaki, the founder of the Khitan kingdom, planted on its ruins a stone bearing a description of his victories. (2) The Mongolian KARAKORUM was founded at the birth of the Mongolian monarchy established by Jenghiz Khan. A palace for the khan was built in it by Chinese architects in 1234, and its walls were erected in 1235. Plano Carpini visited it in 1246, Rubruquis in 1253, and Marco Polo in 1275. Later, the fourth Mongolian king, Kublai, left Karakorum, in order to reside at Kai-pin-fu, near Peking. When the khan Arik-bog declared himself and Karakorum independent of Kublai-Khan, the latter besieged Karakorum, took it by famine, and probably laid it waste so thoroughly that the town was afterwards forgotten.

The exact sites of the two Mongolian capitals were only established in 1889–1891. Sir H. Yule (*The Book of Marco Polo*, 1871) was the first to distinguish two cities of this name. The Russian traveller Paderin in 1871 visited the Uighur capital (see TURKS), named now by the Mongols Kara Balghasun (" black city ") or Khara-kherem (" black wall "), of which only the wall and a tower are in existence, while the streets and ruins outside the wall are seen at a distance of 1¾ m. Paderin's belief that this was the old Mongol capital has been shown to be incorrect. As to the Mongolian Karakorum, it is identified by several authorities with a site on which towards the close of the 16th century the Buddhist monastery of Erdeni Tsu was built. This monastery lies about 25 m. south by east of the Uighur capital. North and north-east of the monastery are ruins of ancient buildings. Professor D. Pozdnéev, who visited Erdeni Tsu for a second time in 1892, stated that the earthen wall surrounding the monastery might well be part of the wall of the old city. The proper position of the two Karakorums was determined by the expedition of N. Yadrintsev in 1889, and the two expeditions of the Helsingfors Ugro-Finnish society (1890) and the Russian academy of science, under Dr W. Radlov (1891), which were sent out to study Yadrintsev's discovery.

See *Works* (*Trudy*) *of the Orkhon Expedition* (St Petersburg, 1892); Yule's *Marco Polo*, edition revised by Henri Cordier (of Paris), vol. i. ch. xlvi. (London, 1903). Cordier confines the use of Karakorum to the Mongol capital; Pozdnéev, *Mongolia and the Mongols*, vol. i. (St Petersburg, 1896); C. W. Campbell, " Journeys in Mongolia," *Geog. Journ.* vol. xx. (1903), with map. Campbell's report was printed as a parliamentary paper (*China No. 1, 1904*).

KARA-KUL, the name of two lakes (" Great " and " Little ") of Russian Turkestan, in the province of Ferghana, and on the Pamir plateau. Great Kara-kul, 12 m. long and 10 m. wide (formerly much larger), is under 39° N., to the south of the Trans-Alai range, and lies at an altitude of 13,200 ft.; it is surrounded by high mountains, and is reached from the north over the Kyzyl-art pass (14,015 ft.). A peninsula projecting from the south shore and an island off the north shore divide it into two basins, a smaller eastern one which is shallow, 42 to 63 ft., and a larger western one, which has depths of 726 to 756 ft. It has no drainage outlet. Little Kara-kul lies in the north-east Pamir, or Sarikol, north-west of the Mustagh-ata peak (25,850 ft.), at an altitude of 12,700 ft. It varies in depth from 79 ft. in the south to 50 to 70 ft. in the middle, and 1000 ft. or more in the north. It is a moraine lake; and a stream of the same name flows through it, but is named Ghez in its farther course towards Kashgar in East Turkestan.

KARA-KUM (" Black Sands "), a flat desert in Russian Central Asia. It extends to nearly 110,000 sq. m., and is bounded on the N.W. by the Ust-urt plateau, between the Sea of Aral and the Caspian Sea, on the N.E. by the Amu-darya, on the S. by the Turkoman oases, and on the W. it nearly reaches the Caspian

Sea. Only part of this surface is covered with sand. There are broad expanses (*takyrs*) of clay soil upon which water accumulates in the spring; in the summer these are muddy, but later quite dry, and merely a few Solanaceae and bushes grow on them. There is also *shor*, similar to the above but encrusted with salt and gypsum, and relieved only by Solanaceae along their borders. The remainder is occupied with sand, which, according to V. Mainov, assumes five different forms. (1) *Barkhans*, chiefly in the east, which are mounds of loose sand, 15 to 35 ft. high, hoof-shaped, having their gently sloping convex sides turned towards the prevailing winds, and a concave side, 30° to 40° steep, on the opposite slope. They are disposed in groups or chains, and the winds drive them at an average rate of 20 ft. annually towards the south and south-east. Some grass (*Stipa pennata*) and bushes of *saksaul* (*Haloxylon ammodendron*) and other steppe bushes (*e.g. Calligonium*, *Halimodendron* and *Atraphaxis*) grow on them. (2) Mounds of sand, of about the same size, but irregular in shape and of a slightly firmer consistence, mostly bearing the same bushes, and also *Artemisia* and *Tamarix*; they are chiefly met with in the east and south. (3) A sandy desert, slightly undulating, and covered in spring with grass and flowers (*e.g.* tulips, *Rheum*, various Umbelliferae), which are soon burned by the sun; they cover very large spaces in the south-east. (4) Sands disposed in waves from 50 to 70 ft., and occasionally up to 100 ft. high, at a distance of from 200 to 400 ft. from each other; they cover the central portion, and their vegetation is practically the same as in the preceding division. (5) Dunes on the shores of the Caspian, composed of moving sands, 35 to 80 ft. high and devoid of vegetation.

A typical feature of the Kara-kum is the number of "old river beds," which may have been either channels of tributaries of the Amu and other rivers or depressions which contained elongated salt lakes. Water is only found in wells, 10 to 20 m. apart—sometimes as much as 100 m.—which are dug in the takyrs and give saline water, occasionally unfit to drink, and in pools of rain-water retained in the lower parts of the takyrs. The population of the Kara-kum, consisting of nomad Kirghiz and Turkomans, is very small. The region in the north of the province of Syr-darya, between Lake Aral and Lake Chalkarteniz, is also called Kara-kum. (P. A. K.; J. T. Be.)

KARAMAN (anc. *Laranda*, a name still used by the Christian inhabitants), a town in the Konia vilayet of Asia Minor, situated in the plain north of Mount Taurus. Pop. 8000. It has few industries and little trade, but the medieval walls, well preserved castle and mosques are interesting, and the old Seljuk *medresse*, or college, is a beautiful building. Karaman is connected with Konia by railway, having a station on the first section of the Bagdad railway. Little is known of its ancient history except that it was destroyed by Perdiccas about 322 B.C., and afterwards became a seat of Isaurian pirates. It was occupied by Frederick Barbarossa in 1190; in 1466 it was captured by Mahommed II., and in 1486 by Bayezid II.

KARAMANIA, formerly an independent inland province in the south of Asia Minor, named after Karaman, the son of an Armenian convert to Islam, who married a daughter of Ala ed-Din Kaikobad, the Seljuk sultan of Rum, and was granted Laranda in fief, and made governor of Selefke, 1223–1245. The name Karaman is, however, Turkoman and that of a powerful tribe, settled apparently near Laranda. The Armenian convert must have been adopted into this. On the collapse of the Seljuk empire, Karaman's grandson, Mahmud, 1279–1319, founded a state, which included Pamphylia, Lycaonia and large parts of Cilicia, Cappadocia and Phrygia. Its capital, Laranda, superseded Konia. This state was frequently at war with the kings of Lesser Armenia, the Lusignan princes of Cyprus and the knights of Rhodes. It was also engaged in a long struggle for supremacy with the Osmanli Turks, which only ended in 1472, when it was definitely annexed by Mahommed II. The Osmanlis divided Karamania into Kharij north, and Ichili south, of the Taurus, and restored Konia to its metropolitan position. The name Karamania is now often given by geographers to Ichili only; but so far as it has had any exact significance in modern times, it has stood for the whole province of Konia. Before the present provincial division was made (1864), Karamania was the eyalet of which Konia was the capital, and it did not extend to the sea, the whole littoral from Adalia eastward being under the pasha of Adana. Nevertheless, in Levantine popular usage at the present day, "Karamania" signifies the coast from Adalia to Messina. (D. G. H.)

KARAMNASA, a river of northern India, tributary to the Ganges on its right bank, forming the boundary between Bengal and the United Provinces. The name means "destroyer of religious merit," which is explained by more than one legend. To this day all high-caste Hindus have to be carried over without being defiled by the touch of its waters.

KARA MUSTAFA (d. 1683), Turkish vizier, surnamed "Merzifunli," was a son of Uruj Bey, a notable Sipahi of Merzifun (Marsovan), and brother-in-law to Ahmed Kuprili, whom he succeeded as grand vizier in 1676, after having for some years held the office of Kaimmakam or *locum tenens*. His greed and ostentation were equalled by his incapacity, and he behaved with characteristic insolence to the foreign ambassadors, from whom he extorted large bribes. After conducting a campaign in Poland which terminated unfortunately, he gave a ready response to the appeal for aid made by the Hungarians under Imre Thököly (*q.v.*) when they rose against Austria, his hope being to form out of the Habsburg dominions a Mussulman empire of the West, of which he should be the sultan. The plan was foiled in part by his own lack of military skill, but chiefly through the heroic resistance of Vienna and its timely relief by John Sobieski, king of Poland. Kara Mustafa paid for his defeat with his life; he was beheaded at Belgrade in 1683 and his head was brought to the sultan on a silver dish.

Another Kara Mustafa Pasha (d. 1643), who figures in Turkish history, was by birth a Hungarian, who was enrolled in the Janissaries, rose to be Kapudan Pasha under Murad IV., and after the capture of Bagdad was made grand vizier. He was severe, but just and impartial, and strove to effect necessary reforms by reducing the numbers of the Janissaries, improving the coinage, and checking the state expenditure. But the discontent of the Janissaries led to his dismissal and death in 1643.

KARAMZIN, NIKOLAI MIKHAILOVICH (1765–1826), Russian historian, critic, novelist and poet, was born at the village of Mikhailovka, in the government of Orenburg, and not at Simbirsk as many of his English and German biographers incorrectly state, on the 1st of December (old style) 1765. His father was an officer in the Russian army, of Tatar extraction. He was sent to Moscow to study under Professor Schaden, whence he afterwards removed to St Petersburg, where he made the acquaintance of Dmitriev, a Russian poet of some merit, and occupied himself with translating essays by foreign writers into his native language. After residing some time at St Petersburg, he went to Simbirsk, where he lived in retirement till induced to revisit Moscow. There, finding himself in the midst of the society of learned men, he again betook himself to literary work. In 1789 he resolved to travel, and visited Germany, France, Switzerland and England. On his return he published his *Letters of a Russian Traveller*, which met with great success. These letters were first printed in the *Moscow Journal*, which he edited, but were afterwards collected and issued in six volumes (1797–1801). In the same periodical Karamzin also published translations of some of the tales of Marmontel, and some original stories, among which may be mentioned *Poor Liza* and *Natalia the Boyar's Daughter*. In 1794 and 1795 Karamzin abandoned his literary journal, and published a miscellany in two volumes, entitled *Aglaia*, in which appeared, among other things, "The Island of Bornholm" and "Ilia Mourometz," a story based upon the adventures of the well-known hero of many a Russian legend. In 1797–1799 he issued another miscellany or poetical almanac, *The Aonides*, in conjunction with Derzhávin and Dmitriev. In 1798 he compiled *The Pantheon*, a collection of pieces from the works of the most celebrated authors ancient and modern, translated into Russian. Many of his lighter productions were subsequently printed by him in a volume entitled *My Trifles*. In 1802 and 1803 Karamzin

edited the journal the *European Messenger*. It was not until after the publication of this work that he realized where his strength lay, and commenced his *History of the Russian Empire*. In order to accomplish the task, he secluded himself for two years; and, on the cause of his retirement becoming known to the emperor Alexander, Karamzin was invited to Tver, where he read to the emperor the first eight volumes of his history. In 1816 he removed to St Petersburg, where he spent the happiest days of his life, enjoying the favour of Alexander, and submitting to him the sheets of his great work, which the emperor read over with him in the gardens of the palace of Tzarskoë Selo. He did not, however, live to carry his work further than the eleventh volume, terminating it at the accession of Michael Romanov in 1613. He died on the 22nd of May (old style) 1826, in the Taurida palace. A monument was erected to his memory at Simbirsk in 1845.

As an historian Karamzin has deservedly a very high reputation. Till the appearance of his work little had been done in this direction in Russia. The preceding attempt of Tatistchev was merely a rough sketch, inelegant in style, and without the true spirit of criticism. Karamzin was most industrious in accumulating materials, and the notes to his volumes are mines of curious information. The style of his history is elegant and flowing, modelled rather upon the easy sentences of the French prose writers than the long periodical paragraphs of the old Slavonic school. Perhaps Karamzin may justly be censured for the false gloss and romantic air thrown over the early Russian annals, concealing the coarseness and cruelty of the native manners; in this respect he reminds us of Sir Walter Scott, whose writings were at this time creating a great sensation throughout Europe, and probably had their influence upon him. Karamzin appears openly as the panegyrist of the autocracy; indeed, his work has been styled the "Epic of Despotism." He does not hesitate to avow his admiration of Ivan the Terrible, and considers him and his grandfather Ivan III. as the builders up of Russian greatness, a glory which in his earlier writings, perhaps at that time more under the influence of Western ideas, he had assigned to Peter the Great In the battle-pieces (*e.g.* the description of the field of Koulikovo, the taking of Kazan, &c.) we find considerable powers of description; and the characters of many of the chief personages in the Russian annals are drawn in firm and bold lines. As a critic Karamzin was of great service to his country; in fact he may be regarded as the founder of the review and essay (in the Western style) among the Russians.

KARA SEA, a portion of the Arctic Ocean demarcated, and except on the north-west completely enclosed, by Novaya Zemlya, Vaygach Island and the Siberian coast. It is approached from the west by three straits—Matochkin, between the two islands of Novaya Zemlya, and Kara and Yugor to the north and south of Vaygach Island respectively. On the south-east Kara Bay penetrates deeply into the mainland, and to the west of this the short Kara river enters the sea. The sea is all shallow, the deepest parts lying off Vaygach Island and the northern part of Novaya Zemlya. It had long the reputation of being almost constantly ice-bound, but after the Norwegian captain Johannesen had demonstrated its accessibility in 1869, and Nordenskiöld had crossed it to the mouth of the Yenisei in 1875, it was considered by many to offer a possible trade route between European Russia and the north of Siberia. But the open season is in any case very short, and the western straits are sometimes icebound during the entire year.

KARASU-BAZAR, a town of Russia, in the Crimea and government of Taurida, in 45° 3′ N. and 34° 26′ E., 25 m. E.N.E. of Simferopol. Pop. (1897), 12,961, consisting of Tatars, Armenians, Greeks, Qaraite Jews, and about 200 so-called Krymchaki, *i.e.* Jews who have adopted the Tatar language and dress, and who live chiefly by making morocco leather goods, knives, embroidery and so forth. The site is low, but the town is surrounded by hills, which afford protection from the north wind. The dirty streets full of petty traders, the gloomy bazaar with its multitude of tiny shops, the market squares, the blind alleys, the little gates in the dead courtyard walls, all give the place the stamp of a Tatar or Turkish town. Placed on the high road between Simferopol and Kerch, and in the midst of a country rich in corn land, vineyards and gardens, Karasu-Bazar used to be a chief seat of commercial activity in the Crimea; but it is gradually declining in importance, though still a considerable centre for the export of fruit.

The caves of Akkaya close by give evidence of early occupation of the spot. When in 1736 Khan Feta Ghirai was driven by the Russians from Bakhchi-sarai he settled at Karasu-Bazar, but next year the town was captured, plundered and burned by the Russians.

KARATEGHIN, a country of Central Asia, subject to Bokhara, and consisting of a highland district bounded on the N. by Samarkand and Ferghana (Khokand), on the E. by Ferghana, on the S. by Darvaz, and on the W. by Hissar and other Bokharian provinces. The plateau is traversed by the Surkhab or Vakhsh, a right-hand tributary of the Amu-darya (Oxus). On the N. border run the Hissar and Zarafshan mountains, and on the S. border the Peter I. (Periokhtan) range (24,900 ft.). The area is 8000 sq. m. and the population about 60,000–five-sixths Tajiks, the rest Kara-kirghiz. With the neighbouring lands Karateghin has no communication except during summer, that is, from May to September. The winter climate is extremely severe; snow begins to fall in October and it is May before it disappears. During the warmer months, however, the mountain sides are richly clothed with the foliage of maple, mountain ash, apple, pear and walnut trees; the orchards furnish, not only apples and pears, but peaches, cherries, mulberries and apricots; and the farmers grow sufficient corn to export. Both cattle and horses are of a small and hardy breed. Rough woollen cloth and mohair are woven by the natives, who also make excellent fire-arms and other weapons. Gold is found in various places and there are salt-pits in the mountains. The chief town, Harm or Garm, is a place of some 2000 inhabitants, situated on a hill on the right bank of the Surkhab.

The native princes, who claimed to be descended from Alexander the Great, were till 1868 practically independent, though their allegiance was claimed in an ineffective way by Khokand, but eventually Bokhara took advantage of their intestine feuds to secure their real submission in 1877.

KARAULI, or KEROWLEE, a native state of India, in the Rajputana agency. Area, 1242 sq. m.; pop. (1901), 156,786; estimated revenue about £330,000. Almost the entire territory is composed of hills and broken ground, but there are no lofty peaks, the highest having an elevation of less than 1400 ft. above sea-level. The Chambal river flows along the south-east boundary of the state. Iron ore and building stone comprise the mineral resources. The prevailing agricultural products are millets, which form the staple food of the people. The only manufactures consist of a little weaving, dyeing, wood-turning and stone-cutting. The principal imports are piece goods, salt, sugar, cotton, buffaloes and bullocks; the exports rice and goats. The feudal aristocracy of the state consists of Jadu Rajputs connected with the ruling house. They pay a tribute in lieu of constant military service, but in case of emergency or on occasions of state display they are bound to attend on the chief with their retainers. The maharaja is the head of the clan, which claims descent from Krishna. Maharaja Bhanwar Pal Deo, who was born in 1862 and succeeded in 1866, was appointed G.C.I.E. in 1897, on the occasion of Queen Victoria's diamond jubilee.

The town of KARAULI had a population in 1901 of 23,482. It dates from 1348, and is well situated in a position naturally defended by ravines on the north and east, while it is further protected by a great wall. The palace of the maharaja is a handsome block of buildings dating mainly from the middle of the 18th century.

KAREN, one of the chief hill races of Burma. The Karens inhabit the central Pegu Yoma range, forming the watershed between the Sittang and Irrawaddy rivers, the Paunglaung range between the Sittang and the Salween, and the eastern slopes of the Arakan Yoma mountains to the west of the Irrawaddy delta. They are supposed to be the descendants of Chinese tribes driven southwards by the pressure of the Shan races, before they were again made to retire into the hills by the expansion of the Môn power. Their own traditions ascribe their original home to the west of the sandy desert of Gobi stretching between China and Tibet. According to the census of 1901 they numbered in all 727,235 persons within British India, divided into the Sgaw, 86,434, the Pwo, 174,070, and the Bghai, 4936,

while 457,355 are returned as "unspecified." The Sgaw and Pwo are collectively known as the "White Karens," and chiefly inhabit British territory. They take their name from the colour of their clothes. The Bghai, or "Red Karens," who are supposed by some to be an entirely distinct race, chiefly inhabit the independent hill state of Karen-ni (*q.v.*). The Karen is of a squarer build than the Burman, his skin is fairer, and he has more of the Mongolian obliquity of the eyes. In character also the people differ from the Burmese. They are singularly devoid of humour, they are stolid and cautious, and lack altogether the light gaiety and fascination of the Burmese. They are noted for truthfulness and chastity, but are dirty and addicted to drink. The White Karens furnish perhaps the most notable instance of conversion to Christianity of any native race in the British empire. Prepared by prophecies current among them, and by curious traditions of a biblical flavour, in addition to their antagonism to the dominant Burmese, they embraced with fervour the new creed brought to them by the missionaries, so that out of the 147,525 Christians in Burma according to the census of 1901 upwards of a hundred thousand were Karens. The Red Karens differ considerably from the White Karens. They are the wildest and most lawless of the so-called Karen tribes. Every male belonging to the clan used to have the rising sun tattooed in bright vermilion on his back. The men are small and wizened, but athletic, and have broad reddish-brown faces. Their dress consists of a short pair of breeches, usually of a reddish colour, with black and white stripes interwoven perpendicularly or like a tartan, and a handkerchief is tied round the head. The Karen language is tonal, and belongs to the Siamese-Chinese branch of the Indo-Chinese family.

See D. M. Smeaton, *The Loyal Karens of Burma* (1887); J. Nisbet, *Burma under British Rule* (1901); M. and B. Ferrars, *Burma* (1900); and O'Connor Scott, *The Silken East* (1904). (J. G. Sc.)

KAREN-NI, the country of the Red Karens, a collection of small states, formerly independent, but now feudatory to Burma. It is situated approximately between 18° 50′ and 19° 55′ N. and between 97° 10′ and 97° 50′ E. The tract is bounded on the N. by the Shan states of Möng Pai, Hsatung and Mawkmai; on the E. by Siam; on the S. by the Papun district of Lower Burma; and on the W. a stretch of mountainous country, inhabited by the Bre and various other small tribes, formerly in a state of independence, divides it from the districts of Toungoo and Yamethin. It is divided in a general way into eastern and western Karen-ni; the former consisting of one state, Gantarawadi, with an approximate area of 2500 sq. m.; the latter of the four small states of Kyebogyi, area about 350 sq. m.; Bawlake, 200 sq. m.; Nammekon, 50 sq. m.; and Naungpale, about 30 sq. m. The small states of western Karen-ni were formerly all subject to Bawlake, but the subordination has now ceased. Karen-ni consists of two widely differing tracts of country, which roughly mark now, and formerly actually did mark, the division into east and west. Gantarawadi has, however, encroached westwards beyond the boundaries which nature would assign to it. The first of these two divisions is the southern portion of the valley of the Hpilu, or Balu stream, an open, fairly level plain, well watered and in some parts swampy. The second division is a series of chains of hills, intersected by deep valleys, through which run the two main rivers, the Salween and the Pawn, and their feeder streams. Many of the latter are dried up in the hot season and only flow freely during the rains. The whole country being hilly, the most conspicuous ridge is that lying between the Pawn and the Salween, which has an average altitude of 5000 ft. It is crossed by several tracks, passable for pack-animals, the most in use being the road between Sawlon, the capital of Gantarawadi and Man Maü. The principal peak east of the Salween is on the Loi Lan ridge, 7109 ft. above mean sea-level. Parts of this ridge form the boundary between eastern Karen-ni and Mawkmai on the west and Siam on the east. It falls away rapidly to the south, and at Pang Salang is crossed at a height of 2200 ft. by the road from Hsataw to Mehawnghsawn. West of the Balu valley the continuation of the eastern rim of the Myelat plateau rises in Loi Nangpa to about 5000 ft. The Nam Pawn is a large river, with an average breadth of 100 yds., but is unnavigable owing to its rocky bed. Even timber cannot be floated down it without the assistance of elephants. The Salween throughout Karen-ni is navigated by large native craft. Its tributary, the Me Pai, on the eastern bank, is navigable as far as Mehawnghsawn in Siamese territory. The Balu stream flows out of the Inle lake, and is navigable from that point to close on Lawpita, where it sinks into the ground in a marsh or succession of funnel holes. Its breadth averages 50 yds., and its depth is 15 ft. in some places.

The chief tribes are the Red Karens (24,043), Bres (3500), and Padaungs (1867). Total revenue, Rs. 37,000. An agent of the British government, with a guard of military police, is posted at the village of Loikaw. Little of the history of the Red Karens is known; but it appears to be generally admitted that Bawlake was originally the chief state of the whole country, east and west, but eastern Karen-ni under Papaw-gyi early became the most powerful. Slaving raids far into the Shan states brought on invasions from Burma, which, however, were not very successful. Eastern Karen-ni was never reduced until Sawlapaw, having defied the British government, was overcome and deposed by General Collett in the beginning of 1889. Sawlawi was then appointed myoza, and received a *sanad*, or patent of appointment, on the same terms as the chiefs of the Shan states. The independence of the Western Karen-ni states had been guaranteed by the British government in a treaty with King Mindon in 1875. They were, however, formally recognized as feudatories in 1892 and were presented with *sanads* on the 23rd of January of that year. Gantarawadi pays a regular tribute of Rs. 5000 yearly, whereas these chieflets pay an annual *kadaw*, or *nuzzur*, of about Rs. 100. They are forbidden to carry out a sentence of death passed on a criminal without the sanction of the superintendent of the southern Shan states, but otherwise retain nearly all their customary law.

Tin, or what is called tin, is worked in Bawlake. It appears, however, to be very impure. It is worked intermittently by White Karens on the upper waters of the Hkemapyu stream. Rubies, spinels and other stones are found in the upper Tu valley and in the west of Nammekon state, but they are of inferior quality. The trade in teak is the chief or only source of wealth in Karen-ni. The largest and most important forests are those on the left bank of the Salween. Others lie on both banks of the Nam Pawn, and in western Karen-ni on the Nam Tu. The yearly out-turn is estimated at over 20,000 logs, and forest officers have estimated that an annual out-turn of 9000 logs might be kept up without injury to the forests. Some quantity of cutch is exported, as also stick-lac, which the Red Karens graft so as to foster the production. Other valuable forest produce exists, but is not exported. Rice, areca-nuts, and betel-vine leaf are the chief agricultural products. The Red Karen women weave their own and their husbands' clothing. A characteristic manufacture is the *pa-si* or Karen metal drum, which is made at Ngwedaung. These drums are from 2½ to 3 ft. across the boss, with sides of about the same depth. The sound is out of proportion to the metal used, and is inferior to that of the Shan and Burmese gongs. It is thought that the population of Karen-ni is steadily decreasing. The birth-rate of the people is considered to exceed the death-rate by very little, and the Red Karen habit of life is most unwholesome. Numbers have enlisted in the Burma police, but there are various opinions as to their value. (J. G. Sc.)

KARIKAL, a French settlement in India, situated on the south-east coast, within the limits of Tanjore district, with an area of 53 sq. m., and a population (1901) of 56,595. The site was promised to the French by the Tanjore raja in 1738, in return for services rendered, but was only obtained by them by force in 1739. It was captured by the British in 1760, restored in 1765, again taken in 1768, and finally restored in 1817. The town is neatly built on one of the mouths of the Cauvery, and carries on a brisk trade with Ceylon, exporting rice and importing chiefly European articles and timber. A *chef de l'administration*, subordinate to the government at Pondicherry, is in charge of the settlement, and there is a tribunal of first instance.

KARLI, a village of British India, in the Poona district of the Bombay presidency, famous for its rock caves. Pop. (1901), 903. The great cave of Karli is said by Fergusson to be without exception the largest and finest *chaitya* cave in India; it was

excavated at a time when the style was in its greatest purity, and is splendidly preserved. The great *chaitya* hall is 126 ft. long, 45 ft. 7 in. wide, and about 46 ft. high. A row of ornamental columns rises on either side to the ribbed teak roof, and at the far end of the nave is a massive *dagoba*. Dating from the beginning of the Christian era or earlier, this cave has a wooden roof, which repeats the pattern of the walls, and which Fergusson considers to be part of the original design. Since wood rapidly deteriorates in India owing to the climate and the ravages of white ants, the state of preservation of this roof is remarkable.

KARLOWITZ, or CARLOWITZ (Hungarian, *Karlóeza;* Croatian, *Karlovci*), a city of Croatia-Slavonia, in the county of Syrmia; on the right bank of the Danube, and on the railway from Peterwardein, 6 m. N.W. to Belgrade. Pop. (1900), 5643. Karlowitz is the seat of an Orthodox metropolitan, and has several churches and schools, and a hospital. The fruit-farms and vineyards of the Fruška Gora, a range of hills to the south, yield excellent plum brandy and red wine. An obelisk at Slankamen, 13 m. E. by S., commemorates the defeat of the Turks by Louis of Baden, in 1691. The treaty of Karlowitz, between Austria, Turkey, Poland and Venice, was concluded in 1699; in 1848–1849 the city was the headquarters of Servian opposition to Hungary. It was included, until 1881, in the Military Frontier.

KARLSKRONA [CARLSCRONA,] a seaport of Sweden, on the Baltic coast, chief town of the district (*län*) of Blekinge, and headquarters of the Swedish navy. Pop. (1900), 23,955. It is pleasantly situated upon islands and the mainland, 290 m. S.S.W. of Stockholm by rail. The harbour is capacious and secure, with a sufficient depth of water for the largest vessels. It has three entrances; the principal, and the only one practicable for large vessels, is to the south of the town, and is defended by two strong forts, at Drottningskär on the island of Aspö, and on the islet of Kungsholm. The dry docks, of great extent, are cut out of the solid granite. There is slip-accommodation for large vessels. Karlskrona is the seat of the Royal Naval Society, and has a navy-arsenal and hospital, and naval and other schools. Charles XI., the founder of the town as naval headquarters (1680), is commemorated by a bronze statue (1897). There are factories for naval equipments, galvanized metal goods, felt hats, canvas, leather and rice, and breweries and granite quarries. Exports are granite and timber; imports, coal, flour, provisions, hides and machinery.

KARLSRUHE, or CARLSRUHE, a city of Germany, capital of the grand-duchy of Baden, 33 m. S.W. of Heidelberg, on the railway Frankfort-on-Main-Basel, and 39 m. N.W. of Stuttgart. Pop. (1895), 84,030; (1905), 111,200. It stands on an elevated plain, 5 m. E. of the Rhine and on the fringe of the Hardtwald forest. Karlsruhe takes its name from Karl Wilhelm, margrave of Baden, who, owing to disputes with the citizens of Durlach, erected here in 1715 a hunting seat, around which the town has been built. The city is surrounded by beautiful parks and gardens. The palace (Schloss), built in 1751–1776 on the site of the previous erection of 1715, is a plain building in the old French style, composed of a centre and two wings, presenting nothing remarkable except the octagon tower (*Bleiturm*), from the summit of which a splendid view of the city and surrounding country is obtained, and the marble saloon, in which the meridian of Cassini was fixed or drawn. In front of the palace is the Great Circle, a semicircular line of buildings, containing the government offices. From the palace the principal streets, fourteen in number, radiate in the form of an expanded fan, in a S.E., S. and S.W. direction, and are again intersected by parallel streets. This fan-like plan of the older city has, however, been abandoned in the more modern extensions. Karlsruhe has several fine public squares, the principal of which are the Schlossplatz, with Schwanthaler's statue of the grand duke Karl Friedrich in the centre, and market square (Marktplatz), with a fountain and a statue of Louis, grand duke of Baden. In the centre of the Rondelplatz is an obelisk in honour of the grand duke Karl Wilhelm. The finest street is the Kaiserstrasse, running from east to west and having a length of a mile and a half and a uniform breadth of 72 ft. In it are several of the chief public buildings, notably the technical high school, the arsenal and the post office. Among other notable buildings are the town hall; the theatre; the hall of representatives; the mint; the joint museum of the grand-ducal and national collections (natural history, archaeology, ethnology, art and a library of over 150,000 volumes); the palace of the heir-apparent, a late Renaissance building of 1891–1896; the imperial bank (1893); the national industrial hall, with an exhibition of machinery; the new law courts; and the hall of fine arts, which shelters a good picture gallery. The city has six Evangelical and four Roman Catholic Churches. The most noteworthy of these are the Evangelical town church, the burial-place of the margraves of Baden; the Christuskirche, and the Bernharduskirche. Karlsruhe possesses further the Zähringen museum of curiosities, which is in the left wing of the Schloss; an architectural school (1891); industrial art school and museum; cadet school (1892); botanical and electrotechnical institutes; and horticultural and agricultural schools. Of its recent public monuments may be mentioned one to Joseph Victor von Scheffel (1826–1886); a bronze equestrian statue of the emperor William I. (1896); and a memorial of the 1870–71 war. Karlsruhe is the headquarters of the XIV. German army corps. Since 1870 the industry of the city has grown rapidly, as well as the city itself. There are large railway workshops; and the principal branches of industry are the making of locomotives, carriages, tools and machinery, jewelry, furniture, gloves, cement, carpets, perfumery, tobacco and beer. There is an important arms factory. Maxau, on the Rhine, serves as the river port of Karlsruhe and is connected with it by a canal finished in 1901.

See Fecht, *Geschichte der Haupt- und Residenzstadt Karlsruhe* (Karlsruhe, 1887); F. von Weech, *Karlsruhe, Geschichte der Stadt und ihrer Verwaltung* (Karlsruhe, 1893–1902); Naeher, *Die Umgebung der Residenz Karlsruhe* (Karlsruhe, 1888); and the annual *Chronik der Haupt- und Residenzstadt Karlsruhe.*

KARLSTAD [CARLSTAD], a town of Sweden, the capital of the district (*län*) of Vermland, on the island of Tingvalla under the northern shore of Lake Vener, 205 m. W. of Stockholm by the Christiania railway. Pop. (1900), 11,869. The fine Klar River here enters the lake, descending from the mountains of the frontier. To the north-west lies the Fryksdal or valley of the Nors River, containing three beautiful lakes and fancifully named the "Swedish Switzerland." In this and other parts of the district are numerous iron-works. Karlstad was founded in 1584. It is the seat of a bishop and has a cathedral. Trade is carried on by way of the lake and the Göta canal. There are mechanical works, match factories and stockinet factories, and a mineral spring rich in iron, the water of which is bottled for export. Under the constitution of united Sweden and Norway, in the event of the necessity of electing a Regent and the disagreement of the parliaments of the two countries, Karlstad was indicated as the meeting-place of a delegacy for the purpose. Here, on the 31st of August 1905 the conference met to decide upon the severance of the union between Sweden and Norway, the delegates concluding their work on the 23rd of September.

KARLSTADT or CARLSTADT (Hungarian, *Károlyváros*; Croatian, *Karlovac*), a royal free city, municipality and garrison town in the county of Agram, Croatia-Slavonia; standing on hilly ground beside the river Kulpa, which here receives the Korana and the Dobra. Pop. (1900), 7396. Karlstadt is on the railway from Agram to Fiume. It consists of the fortress, now obsolete, the inner town and the suburbs. Besides the Roman Catholic and Orthodox churches, its chief buildings are the Franciscan monastery, law-courts and several large schools, including one for military cadets. Karlstadt has a considerable transit trade in grain, wine, spirits and honey, and manufactures the liqueur called *rosoglio.*

KARMA, sometimes written KARMAN, a Sanskrit noun (from the root *kṛi*, to do), meaning deed or action. In addition to this simple meaning it has also, both in the philosophical and the colloquial speech of India a technical meaning, denoting "a person's deeds as determining his future lot." This is not merely in the vague sense that on the whole good will be rewarded

and evil punished, but that every single act must work out to the uttermost its inevitable consequences, and receive its retribution, however many ages the process may require. Every part of the material universe—man, woman, insect, tree, stone, or whatever it be—is the dwelling of an eternal spirit that is working out its destiny, and while receiving reward and punishment for the past is laying up reward and punishment for the future. This view of existence as an endless and concomitant sowing and reaping is accepted by learned and unlearned alike as accounting for those inequalities in human life which might otherwise lead men to doubt the justice of God. Every act of every person has not only a moral value producing merit or demerit, but also an inherent power which works out its fitting reward or punishment. To the Hindu this does not make heaven and hell unnecessary. These two exist in many forms more or less grotesque, and after death the soul passes to one of them and there receives its due; but that existence too is marked by desire and action, and is therefore productive of merit or demerit, and as the soul is thus still entangled in the meshes of karma it must again assume an earthly garb and continue the strife. Salvation is to the Hindu simply deliverance from the power of karma, and each of the philosophic systems has its own method of obtaining it. The last book of the Laws of Manu deals with *karmaphalam*, "the fruit of karma," and gives many curious details of the way in which sin is punished and merit rewarded. The origin of the doctrine cannot be traced with certainty, but there is little doubt that it is post-vedic, and that it was readily accepted by Buddha in the 6th century B.C. As he did not believe in the existence of soul he had to modify the doctrine (see BUDDHISM).

KÁRMÁN, JÓZSEF (1769–1795), Hungarian author, was born at Losoncz on the 14th of March 1769, the son of a Calvinist pastor. He was educated at Losoncz and Pest, whence he migrated to Vienna. There he made the acquaintance of the beautiful and eccentric Countess Markovics, who was for a time his mistress, but she was not, as has often been supposed, the heroine of his famous novel *Fanni Hagyományai* (Fanny's testament). Subsequently he settled in Pest as a lawyer. His sensibility, social charm, liberal ideas (he was one of the earliest of the Magyar freemasons) and personal beauty, opened the doors of the best houses to him. He was generally known as the Pest Alcibiades, and was especially at home in the salons of the Protestant magnates. In 1792, together with Count Ráday, he founded the first theatrical society at Buda. He maintained that Pest, not Pressburg, should be the literary centre of Hungary, and in 1794 founded the first Hungarian quarterly, *Urania*, but it met with little support and ceased to exist in 1795, after three volumes had appeared. Kármán, who had long been suffering from an incurable disease, died in the same year. The most important contribution to *Urania* was his sentimental novel, *Fanni Hagyományai*, much in the style of *La nouvelle Héloïse* and *Werther*, the most exquisite product of Hungarian prose in the 18th century and one of the finest psychological romances in the literature. Kármán also wrote two satires and fragments of an historical novel, while his literary programme is set forth in his dissertation *Anemzet csinosodâsa*.

Kármán's collected works were published in Abafi's *Nemzeti Könyvtár* (Pest, 1878), &c., preceded by a life of Kármán. See F. Baráth, *Joseph Kármán* (Hung., Vas. Ujs, 1874); Zsolt Beöthy, article on Kármán in *Képes Irodalomtörtenet* (Budapest, 1894).

(R. N. B.)

KARNAK, a village in Upper Egypt (pop. 1907, 12,585), which has given its name to the northern half of the ruins of Thebes on the east bank of the Nile, the southern being known as Luxor (*q.v.*). The Karnak ruins comprise three great enclosures built of crude brick. The northernmost and smallest of these contained a temple of the god Mont, built by Amenophis III., and restored by Rameses II. and the Ptolemies. Except a well-preserved gateway dating from the reign of Ptolemy Euergetes I., little more than the plan of the foundations is traceable. Its axis, the line of which is continued beyond the enclosure wall by an avenue of sphinxes, pointed down-stream (N.E.). The southern enclosure contained a temple of the goddess Mût, also built by Amenophis III., and almost as ruinous as the last, but on a much larger scale. At the back is the sacred lake in the shape of a horse-shoe. The axis of the temple runs approximately northward, and is continued by a great avenue of rams to the southern pylons of the central enclosure. This last is of vast dimensions, forming approximately a square of 1500 ft., and it contains the greatest of all known temples, the Karnak temple of Ammon (see ARCHITECTURE, sect. "Egyptian," with plan).

Inside and outside each of these enclosures there were a number of subsidiary temples and shrines, mostly erected by individual kings to special deities. The triad of Thebes was formed by Ammon, his wife Mût and their son Khons. The large temple of Khons is in the enclosure of the Ammon temple, and the temple of Mût, as already stated, is connected with the latter by the avenue of rams. The Mont temple, on the other hand, is isolated from the others and turned away from them; it is smaller than that of Khons. Mont, however, may perhaps be considered a special god of Thebes; he certainly was a great god from very ancient times in the immediate neighbourhood, his seats being about 4 m. N.E. at Medamot, the ancient Madu, and about 10 m. S.W. on the west bank at Hermonthis.

It is probable that a temple of Ammon existed at Karnak under the Old Kingdom, if not in the prehistoric age; but it was unimportant, and no trace of it has been discovered. Slight remains of a considerable temple of the Middle Kingdom survive behind the shrine of the great temple, and numbers of fine statues of the twelfth and later dynasties have been found; two of these were placed against the later seventh pylon, while a large number were buried in a great pit, in the area behind that pylon, which has yielded an enormous number of valuable and interesting monuments reaching to the age of the Ptolemies. The axis of the early temple lay from E. to W., and was followed by the main line of the later growth; but at the beginning of the eighteenth dynasty, Amenophis I. built a temple south of the west front of the old one, and at right angles to it, and thus started a new axis which was later developed in the series of pylons VII.–X., and the avenue to the temple of Mût. The VIIIth pylon in particular was built by Hatshepsut, probably as an approach to this temple of Amenophis, but eventually Tethmosis III. cleared the latter away entirely. Thebes was then the royal residence, and Ammon of Karnak was the great god of the state. Tethmosis I. built a court round the temple of the Middle Kingdom, entered through a pylon (No. V.), and later added the pylon No. IV. with obelisks in front of it. Hatshepsut placed two splendid obelisks between the Pylons IV. and V., and built a shrine in the court of Tethmosis I., in front of the old temple. Tethmosis III., greatest of the Pharaohs, remodelled the buildings about the obelisks of his unloved sister with the deliberate intention of hiding them from view, and largely reconstructed the surroundings of the court. At a later date, after his wars were over, he altered Hatshepsut's sanctuary, engraving on the walls about it a record of his campaigns; to this time also is to be attributed the erection of a great festival hall at the back of the temple. The small innermost pylon (No. VI.) is likewise the work of Tethmosis III. Amenophis III., though so great a builder at Thebes, seems to have contented himself with erecting a great pylon (No. III.) at the west end. The closely crowded succession of broad pylons here suggests a want of space for westward expansion, and this is perhaps explained by a trace of a quay found by Legrain in 1905 near the southern line of pylons; a branch of the Nile or a large canal may have limited the growth. As has been stated, Tethmosis III. continued on the southern axis; he destroyed the temple of Amenophis I. and erected a larger pylon (No. VII.) to the north of Hatshepsut's No. VIII. To these Haremheb added two great pylons and the long avenue of ram-figures, changing the axis slightly so as to lead direct to the temple of Mût built by Amenophis III. All of these southern pylons are well spaced. In the angle between these pylons and the main temple was the great rectangular sacred lake. By this time the temple of Karnak had attained to little more than half of its ultimate length from east to west.

With the XIXth Dynasty there is a notable change perhaps due to the filling of the hypothetical canal. No more was added on the southern line of building, but westward Rameses I. erected pylon No. II. at an ample distance from that of Amenophis III., and Seti I. and Rameses II. utilized the space between for their immense Hall of Columns, one of the most celebrated achievements of Egyptian architecture. The materials of which the pylon is composed bear witness to a temple having stood near by of the heretic and unacknowledged kings of the XVIIIth Dynasty. Haremheb's pylon No. IX. was likewise constructed out of the ruins of a temple dedicated by Amenophis IV. (Akhenaten) to the sun-god Harmakhis. Rameses III. built a fine temple, still well preserved, to Ammon at right angles to the axis westward of pylon No. II.; Sheshonk I. (Dynasty XXII.) commenced a great colonnaded court in front of the pylon, enclosing part of this temple and a smaller triple shrine built by Seti II. In the centre of the court Tirhaka (Tirhaka, Dynasty XXV.) set up huge columns 64 ft. high, rivalling those of the central aisle in the Hall of Columns, for some building now destroyed. A vast unfinished pylon at the west end (No. I.), 370 ft. wide and 142½ ft. high, is of later date than the court, and is usually attributed to the Ptolemaic age. It will be observed that the successive pylons diminish in size from the outside inwards. Portions of the solid crude-brick scaffolding are still seen banked against this pylon. About 100 metres west of it is a stone quay, on the platform of which stood a pair of obelisks of Seti II.; numerous graffiti recording the height of the Nile from the XXIst to the XXVIth Dynasties are engraved on the quay.

Besides the kings named above, numbers of others contributed in greater or less measure to the building or decoration of the colossal temple. Alexander the Great restored a chamber in the festival hall of Tethmosis III., and Ptolemy Soter built the central shrine of granite in the name of Philip Arrhidaeus. The walls throughout, as usually in Egyptian temples, are covered with scenes and inscriptions, many of these, such as those which record the annals of Tethmosis III., the campaign of Seti I. in Syria, the exploit of Rameses II. at the battle of Kadesh and his treaty with the Hittites, and the dedication of Sheshonk's victories to Ammon, are of great historical importance. Several large stelae with interesting inscriptions have been found in the ruins, and statues of many ages of workmanship. In December 1903 M. Legrain, who has been engaged for several years in clearing the temple area systematically, first tapped an immense deposit of colossal statues, stelae and other votive objects large and small in the space between pylon No. VII. and the great hypostyle hall. After three seasons' work, much of it in deep water, 750 large monuments have been extracted, while the small figures, &c. in bronze and other materials amount to nearly 20,000. The value of the find, both from the artistic and historical standpoints, is immense. The purpose of the deposit is still in doubt; many of the objects are of the finest materials and finest workmanship, and in perfect preservation: even precious metals are not absent. Multitudes of objects in wood, ivory, &c., have decayed beyond recovery. That all were waste pieces seems incredible. They are found lying in the utmost confusion; in date they range from the XIIth Dynasty to the Ptolemaic period.

The inundation annually reaches the floor of the temple, and the saltpetre produced from the organic matter about the ruins, annually melting and crystallizing, has disintegrated the soft sandstone in the lower courses of the walls and the lower drums and bases of the columns. There is moreover no solid foundation in any part of the temple. Slight falls of masonry have taken place from time to time, and the accumulation of rubbish was the only thing that prevented a great disaster. Repairs, often on a large scale, have therefore gone on side by side with the clearance, especially since the fall of many columns in the great hall in 1899. All the columns which fell in that year were re-erected by 1908.

The temple of Khons, in the S.W. corner of the great enclosure, is approached by an avenue of rams, and entered through a fine pylon erected by Euergetes I. It was built by Rameses III. and his successors of the XXth Dynasty, with Hrihōr of Dynasty XXI. Excavations in the opposite S.E. corner have revealed flint weapons and other sepulchral remains of the earliest periods, proving that the history of Thebes goes back to a remote antiquity.

See Baedeker's *Handbook for Egypt*; also *Description de l'Égypte.*, *Atlas*, *Antiquités* (tome iii.); A. Mariette, *Karnak, Étude topographique et archéologique*; L. Borchardt, *Zur Baugeschichte des Ammontempels von Karnak*; G. Legrain in *Recueil des travaux rélatifs à l'arch. Égypt.*, vol. xxvii. &c.; and reports in *Annales du service des antiquités de l'Égypte.* (F. Ll. G.)

KARNAL, a town and district of British India, in the Delhi division of the Punjab. The town is 7 m. from the right bank of the Jumna, with a railway station 76 m. N. of Delhi. Pop. (1901), 23,559. There are manufactures of cotton cloth and boots, besides considerable local trade and an annual horse fair.

The District of Karnal stretches along the right bank of the Jumna, north of Delhi. It is entirely an alluvial plain, but is crossed by the low uplift of the watershed between the Indian Ocean and the Bay of Bengal. Area, 3153 sq. m.; pop. (1901), 883,225, showing an increase of nearly 3% in the decade. The principal crops are millets, wheat, pulse, rice, cotton and sugar-cane. There are several factories for ginning and pressing cotton. The district is traversed by the Delhi-Umballa-Kalka railway, and also by the Western Jumna canal. It suffered from famine in 1896–1897, and again to some extent in 1899–1900.

No district of India can boast of a more ancient history than Karnal, as almost every town or stream is connected with the legends of the *Mahabharata*. The town of Karnal itself is said to owe its foundation to Raja Karna, the mythical champion of the Kauravas in the great war which forms the theme of the national epic. Panipat, in the south of the district, is said to have been one of the pledges demanded from Duryodhana by Yudisthira as the price of peace in that famous conflict. In historical times the plains of Panipat have three times proved the theatre of battles which decided the fate of Upper India. It was here that Ibrahim Lodi and his vast host were defeated in 1526 by the veteran army of Baber; in 1556 Akbar reasserted the claims of his family on the same battlefield against the Hindu general of the house of Adil Shah, which had driven the heirs of Baber from the throne for a brief interval; and at Panipat too, on the 7th of January 1761, the Mahratta confederation was defeated by Ahmad Shah Durani. During the troublous period which then ensued the Sikhs managed to introduce themselves, and in 1767 one of their chieftains, Desu Singh, appropriated the fort of Kaithal, which had been built during the reign of Akbar. His descendants, the bhais of Kaithal, were reckoned amongst the most important Cis-Sutlej princes. Different portions of this district have lapsed from time to time into the hands of the British.

KÁROLYI, ALOYS, Count (1825–1889), Austro-Hungarian diplomatist, was born in Vienna on the 8th of August 1825. The greatness of the Hungarian family of Károlyi dates from the time of Alexander Károlyi (1668–1743), one of the generals of Francis Rákóczy II., who in 1711 negotiated the peace of Szatmár between the insurgent Hungarians and the new king, the emperor Charles VI., was made a count of the Empire in 1712, and subsequently became a field marshal in the imperial army. Aloys Károlyi entered the Austrian diplomatic service, and was attached successively to embassies at various European capitals. In 1858 he was sent to St Petersburg on a special mission to seek the support of Russia against Napoleon III. He was ambassador at Berlin in 1866 at the time of the rupture between Prussia and Austria, and after the Seven Weeks' War was charged with the negotiation of the preliminaries of peace at Nikolsburg. He was again sent to Berlin in 1871, acted as second plenipotentiary at the Berlin congress of 1878, and was sent in the same year to London, where he represented Austria for ten years. He died on the 2nd of December 1889 at Tótmegyer.

KAROSS, a cloak made of sheepskin, or the hide of other animals, with the hair left on. It is properly confined to the coat of skin without sleeves worn by the Hottentots and Bushmen of South Africa. These karosses are now often replaced by a blanket. Their chiefs wore karosses of the skin of the wild cat, leopard or caracal. The word is also loosely applied to the cloaks of leopard-skin worn by the chiefs and principal men of the Kaffir tribes. Kaross is probably either a genuine Hottentot word, or else an adaptation of the Dutch *kuras* (Portuguese *couraça*), a cuirass. In a vocabulary dated 1673 *karos* is described as a "corrupt Dutch word."

KARR, JEAN BAPTISTE ALPHONSE (1808–1890), French critic and novelist, was born in Paris, on the 24th of November 1808, and after being educated at the Collège Bourbon, became a teacher there. In 1832 he published a novel, *Sous les tilleuls*, characterized by an attractive originality and a delightful freshness of personal sentiment. A second novel, *Une heure trop tard*, followed next year, and was succeeded by many other popular works. His *Vendredi soir* (1835) and *Le Chemin le plus court* (1836) continued the vein of autobiographical romance with which he had made his first success. *Gêneviève* (1838) is one of his best stories, and his *Voyage autour de mon jardin* (1845) was deservedly popular. Others were *Feu Bressier* (1848), and *Fort en thème* (1853), which had some influence in stimulating educational reform. In 1839 Alphonse Karr, who was essentially a brilliant journalist, became editor of *Le Figaro*, to which he had been a constant contributor; and he also started a monthly journal, *Les Guêpes*, of a keenly satirical tone, a publication which brought him the reputation of a somewhat bitter wit. His epigrams were frequently quoted; *e.g.* "plus ça change, plus c'est la même chose," and, on the proposal to abolish capital punishment, "je veux bien que messieurs les assassins commencent." In 1848 he founded *Le Journal*. In 1855 he went to live at Nice, where he indulged his predilections for floriculture, and gave his name to more than one new variety. Indeed he practically founded the trade in cut flowers on the Riviera. He was also devoted to fishing, and in *Les Soirées de Sainte-Adresse* (1853) and *Au bord de la mer* (1860) he made use of his experiences. His reminiscences, *Livre de bord*, were published in 1879–1880. He died at St Raphaël (Var), on the 29th of September 1890.

KARRER, FELIX (1825–1903), Austrian geologist, was born in Venice on the 11th of March 1825. He was educated in Vienna, and served for a time in the war department, but he retired from the public service at the age of thirty-two, and devoted himself to science. He made especial studies of the Tertiary formations and fossils of the Vienna Basin, and investigated the geological relations of the thermal and other springs in that region. He became an authority on the foraminifera, on which subject he published numerous papers. He wrote also a little book entitled *Der Boden der Hauptstädte Europas* (1881). He died in Vienna on the 19th of April 1903.

KARROO, two extensive plateaus in the Cape province, South Africa, known respectively as the Great and Little Karroo. Karroo is a corruption of *Karusa*, a Hottentot word meaning dry, barren, and its use as a place-name indicates the character of the plateaus so designated. They form the two intermediate "steps" between the coast-lands and the inner plateau which constitutes the largest part of South Africa. The Little (also called Southern) Karroo is the table-land nearest the southern coast-line of the Cape, and is bounded north by the Zwaarteberg, which separates it from the Great Karroo. From west to east the Little Karroo has a length of some 200 m., whilst its average width is 30 m. West of the Zwaarteberg the Little Karroo merges into the Great Karroo. Eastward it is limited by the hills which almost reach the sea in the direction of St Francis and Algoa Bays. The Great Karroo is of much larger extent. Bounded south, as stated, by the Zwaarteberg, further east by the Zuurberg (of the coast chain), its northern limit is the mountain range which, under various names, such as Nieuwveld and Sneeuwberg, forms the wall of the inner plateau. To the south-west and west it is bounded by the Hex River Mountains and the Cold Bokkeveld, eastward by the Great Fish River. West to east it extends fully 350 m. in a straight line, varying in breadth from more than 80 to less than 40 m. Whilst the Little Karroo is divided by a chain of hills which run across it from east to west, and varies in altitude from 1000 to 2000 ft., the Great Karroo has more the aspect of a vast plain and has a level of from 2000 to 3000 ft. The total area of the Karroo plateaus is stated to be over 100,000 sq. m. The plains are dotted with low ranges of *kopjes*. The chief characteristics of the Karroo are the absence of running water during a great part of the year and the consequent parched aspect of the country. There is little vegetation save stunted shrubs, such as the mimosa (which generally marks the river beds), wild pomegranate, and wax heaths, known collectively as Karroo bush. After the early rains the bush bursts into gorgeous purple and yellow blossoms and vivid greens, affording striking evidence of the fertility of the soil. Such parts of the Karroo as are under perennial irrigation are among the most productive lands in South Africa. Even the parched bush provides sufficient nourishment for millions of sheep and goats. There are also numerous ostrich farms, in particular in the districts of Oudtshoorn and Ladismith in the Little Karroo, where lucerne grows with extraordinary luxuriance. The Karroo is admirably adapted to sufferers from pulmonary complaints. The dryness of the air tempers the heat of summer, which reaches in January a mean maximum of 87° F., whilst July, the coldest month, has a mean minimum of 36° F. A marked feature of the climate is the great daily range (nearly 30°) in temperature; the Karroo towns are also subject to violent dust storms. Game, formerly plentiful, has been, with the exception of buck, almost exterminated. In a looser sense the term Karroo is also used of the vast northern plains of the Cape which are part of the inner table-land of the continent. (See CAPE COLONY.)

KARS, a province of Russian Transcaucasia, having the governments of Kutais and Tiflis on the N., those of Tiflis and Erivan on the E., and Asiatic Turkey on the S. and W. Its area amounts to 7410 sq. m. It is a mountainous, or rather a highland, country, being in reality a plateau, with ranges of mountains running across it. The northern border is formed by the Arzyan range, a branch of the Ajari Mts., which attains altitudes of over 9000 ft. In the south the Kara-dagh reach 10,270 ft. in Mount Ala-dagh, and the Agry-dagh 10,720 ft. in Mount Ashakh; and in the middle Allah-akhbar rises to 10,215 ft. The passes which connect valley with valley often lie at considerable altitudes, the average of those in the S.E. being 9000 ft. Chaldir-gol (altitude 6520 ft.) and one or two other smaller lakes lie towards the N.E.; the Chaldir-gol is overhung on the S.W. by the Kysyr-dagh (10,470 ft.). The east side of the province is throughout demarcated by the Arpa-chai, which receives from the right the Kars river, and as it leaves the province at its S.E. corner joins the Aras. The Kura rises within the province not far from the Kysyr-dagh and flows across it westwards, then eastwards and north-eastwards, quitting it in the north-east. The winters are very severe. The towns of Kaghyshman (4620 ft.) and Sarykamish (7800 ft.) have a winter temperature like that of Finland, and at the latter place, with an annual mean (35° F.) equal to that of Hammerfest in the extreme north of Norway, the thermometer goes down in winter to 40° below zero and rises in summer to 99°. The annual mean temperature at Kars is 40·5° and at Ardahan, farther north, 37°. The Alpine meadows (*yailas*) reach up to 1000 ft. and afford excellent pasturage in spring and summer. The province is almost everywhere heavily forested. Firs and birches flourish as high as 7000 ft., and the vine up to above 3000 ft. Cereals ripen well, and barley and maize grow up to considerable altitudes. Large numbers of cattle and sheep are bred. Extensive deposits of salt occur at Kaghyshman and Olty. The population was 167,610 in 1883 and 292,863 in 1897. The estimated population in 1906 was 349,100. It is mixed. In remote antiquity the province was inhabited by Armenians, the ruins of whose capital, Ani, attest the ancient prosperity of the country. To the Armenians succeeded the Turks, while

Kurds invaded the Alpine pasturages above the valley of the Aras; and after them Kabardians, Circassians, Ossetes and Kara-papaks successively found a refuge in this highland region. After the Russo-Turkish War of 1877–78, when this region was transferred to Russia by the treaty of Berlin, some 82,750 Turks emigrated to Asia Minor, their places being taken by nearly 22,000 Armenians, Greeks and Russians. At the census of 1897 the population consisted principally of Armenians (73,400), Kurds (43,000), Greeks (32,600), Kara-papaks (30,000), Russians, Turks and Persians. The capital is Kars. The province is divided into four districts, the chief towns of which are Kars (*q.v.*), Ardahan (pop. 800 in 1897), Kaghyshman (3435) and Olty. (J. T. Be.)

KARS, a fortified town of Russian Transcaucasia, in the province of Kars, formerly at the head of a sanjak in the Turkish vilayet of Erzerum. It is situated in 40° 37′ N. and 43° 6′ E., 185 m. by rail S.W. of Tiflis, on a dark basalt spur of the Soghanli-dagh, above the deep ravine of the Kars-chai, a sub-tributary of the Aras. Pop. (1878), 8672; (1897), 20,891. There are three considerable suburbs—Orta-kapi to the S., Bairam Pasha to the E., and Timur Pasha on the western side of the river. At the N.W. corner of the town, overhanging the river, is the ancient citadel, in earlier times a strong military post, but completely commanded by the surrounding eminences. The place is, however, still defended by a fort and batteries. There is a 10th century cathedral, Kars being the see of a bishop of the Orthodox Greek Church. Coarse woollens, carpets and felt are manufactured.

During the 9th and 10th centuries the seat of an independent Armenian principality, Kars was captured and destroyed by the Seljuk Turks in the 11th century, by the Mongols in the 13th, and by Timur (Tamerlane) in 1387. The citadel, it would appear, was built by Sultan Murad III. during the war with Persia, at the close of the 16th century. It was strong enough to withstand a siege by Nadir Shah of Persia, in 1731, and in 1807 it successfully resisted the Russians. After a brave defence it surrendered on the 23rd of June 1828 to the Russian general Count I. F. Paskevich, 11,000 men becoming prisoners of war. During the Crimean War the Turkish garrison, guided by General Williams (Sir W. Fenwick Williams of Kars) and other foreign officers, kept the Russians at bay during a protracted siege; but, after the garrison had been devastated by cholera, and food had utterly failed, nothing was left but to capitulate (Nov. 1855). The fortress was again stormed by the Russians in the war of 1877–78, and on its conclusion was transferred to Russia.

See Kmety, *The Defence of Kars* (1856), translated from the German; H. A. Lake, *Kars and our Captivity in Russia* (London, 1856); and *Narrative of the Defence of Kars* (London, 1857); Dr Sandwith, *Narrative of the Siege of Kars* (London, 1856); C. B. Norman, *Armenia and the Campaign of 1877* (London, 1878); Greene, *Russian Army and its Campaigns in Turkey* (1879).

KARSHI, a town of Bokhara, in Central Asia, situated 96 m. S.E. of the city of Bokhara, in a plain at the junction of two main confluents of the Kashka-darya. It is a large and straggling place, with a citadel, and the population amounts to 25,000. There are three colleges, and the Biki mosque is a fine building inlaid with blue and white tiles. Along the river stretches a fine promenade sheltered by poplars. Poppies and tobacco are largely grown, the tobacco being deemed the best in Central Asia. There is a considerable trade in grain; but the commercial prosperity of Karshi is mainly due to its being a meeting-point for the roads from Samarkand, Bokhara, Hissar, Balkh and Maimana, and serves as the market where the Turkomans and Uzbegs dispose of their carpets, knives and fire-arms. Its coppersmiths turn out excellent work. Karshi was a favourite residence of Timur (Tamerlane).

KARST, in physical geography, the region east of the northern part of the Adriatic. It is composed of high and dry limestone ridges. The country is excessively faulted by a long series of parallel fractures that border the N.E. Adriatic and continue inland that series of steps which descend beneath the sea and produce the series of long parallel islands off the coast of Triest and along the Dalmatian shore. It has been shown by E. Suess (*Antlitz der Erde*, vol. i. pt. 2, ch. iii.) that the N. Adriatic is a sunken dish that has descended along these fractures and folds, which are not uncommonly the scene of earthquakes, showing that these movements are still in progress. The crust is very much broken in consequence and the water sinks readily through the broken limestone rocks, which owing to their nature are also very absorbent. The result is that the scenery is barren and desolate, and as this structure always, wherever found, gives rise to similar features, a landscape of this character is called a Karst landscape. The water running in underground channels dissolves and denudes away the underlying rock, producing great caves as at Adelsberg, and breaking the surface with sinks, potholes and unroofed chasms. The barren nature of a purely limestone country is seen in the treeless regions of some parts of Derbyshire, while the underground streams and sinks of parts of Yorkshire, and the unroofed gorge formed by the Cheddar cliffs, give some indication of the action that in the high fractured mountains of the Karst produces a depressing landscape which has some of the features of the " bad lands " of America, though due to a different cause.

KARSTEN, KARL JOHANN BERNHARD (1782–1853), German mineralogist, was born at Bützow in Mecklenburg, on the 26th of November 1782. He was author of several comprehensive works, including *Handbuch der Eisenhüttenkunde* (2 vols., 1816; 3rd ed., 1841); *System der Metallurgie geschichtlich, statistisch, theoretisch und technisch* (5 vols. with atlas, 1831–1832); *Lehrbuch der Salinenkunde* (2 vols., 1846–1847). He was well known as editor of the *Archiv für Bergbau und Hüttenwesen* (20 vols., 1818–1831); and (with H. von Dechen) of the *Archiv für Mineralogie, Geognosie, Bergbau und Hüttenkunde* (26 vols., 1829–1854). He died at Berlin on the 22nd of August 1853. His son, Dr Hermann Karsten (1809–1877), was professor of mathematics and physics in the university of Rostock.

KARTIKEYA, in Hindu mythology, the god of war. Of his birth there are various legends. One relates that he had no mother but was produced by Siva alone, and was suckled by six nymphs of the Ganges, being miraculously endowed with six faces that he might simultaneously obtain nourishment from each. Another story is that six babes, miraculously conceived, were born of the six nymphs, and that Parvati, the wife of Siva, in her great affection for them, embraced the infants so closely that they became one, but preserved six faces, twelve arms, feet, eyes, &c. Kartikeya became the victor of giants and the leader of the armies of the gods. He is represented as riding a peacock. In southern India he is known as Subramanya.

KARUN, an important river of Persia. Its head-waters are in the mountain cluster known since at least the 14th century as Zardeh Kuh (13,000 ft.) and situated in the Bakhtiari country about 115 m. W. of Isfahan. In its upper course until it reaches Shushter it is called Ab i Kurang (also Kurand and Kuran), and in the *Bundahish*, an old cosmographical work in Pahlavi, it is named Kharāē.[1] From the junction of the two principal sources in the Zardeh Kuh at an altitude of about 8000 ft., the Ab i Kurang is a powerful stream, full, deep and flowing with great velocity for most of its upper course between precipices varying in height from 1000 to 3000 ft. The steepness and height of its banks make it in general useless for irrigation purposes. From its principal sources to Shushter the distance as the crow flies is only about 75 m., but the course of the river is so tortuous that it travels 250 m. before it reaches that city. Besides being fed on its journey through the Bakhtiari country by many mountain-side streams, fresh-water and salt, it receives various tributaries, the most important being the Ab i Bazuft from the right and the Ab i Barz from the left. At Shushter it divides into two branches, one the " Gerger," an artificial channel cut in olden times and flowing east of the

[1] The *real* principal source of the river has been correctly located at ten miles above the *reputed* principal source, but the name Kurang has been erroneously explained as standing for Kuh i rang and has been given to the mountain with the real principal source. Kuh i rang has been wrongly explained as meaning the " variegated mountain."

city, the other the "Shutait" flowing west. These two branches, which are navigable to within a few miles below Shushter, unite after a run of about 50 m. at Band i Kir, 24 m. S. of Shushter, and there also take up the Ab i Diz (river of Dizful). From Band i Kir to a point two miles above Muhamrah the river is called Karun (Rio Carom of the Portuguese writers of the 16th and 17th centuries) and is navigable all the way with the exception of about two miles at Ahvaz, where a series of cliffs and rocky shelves cross the river and cause rapids. Between Ahvaz and Band i Kir (46 m. by river, 24 m. by road) the river has an average depth of about 20 ft., but below Ahvaz down to a few miles above Muhamrah it is in places very shallow, and vessels with a draught exceeding 3 ft. are liable to ground. About 12 m. above Muhamrah and branching off to the left is a choked-up river bed called the "blind Karun," by which the Karun found its way to the sea in former days. Ten miles farther a part of the river branches off to the left and due S. by a channel called Bahmashir (from Bahman-Ardashir, the name of the district in the early middle ages) which is navigable to the sea for vessels of little draught. The principal river, here about a quarter of a mile broad and 20 to 30 ft. deep, now flows west, and after passing Muhamrah enters into the Shatt el Arab about 20 m. below Basra. This part of the river, from the Bahmashir to the Shatt, is a little over three miles in length and, as its name, Hafar ("dug") implies, an artificial channel. It was dug *c.* A.D. 980 by Azud ed-Dowleh to facilitate communication by water between Basra and Ahvaz, as related by the Arab geographer Mukaddasi A.D. 986. The total length of the river is 460 to 470 m. while the distance from the sources to its junction with the Shatt el Arab is only 160 m. as the crow flies. The Karun up to Ahvaz was opened to international navigation on the 30th of October 1888, and Messrs Lynch of London established a fortnightly steamer service on it immediately after.

To increase the water supply of Isfahan Shah Tahmasp I. (1524–1576) and some of his successors, notably Shah Abbas I. (1587–1629), undertook some works for diverting the Kurang into a valley which drains into the Zayendeh-rud, the river of Isfahan, by tunnelling, or cutting through a narrow rocky ridge separating the two river systems. The result of many years' work, a cleft 300 yds. long, 15 broad and 18 deep, cut into the rock, probably amounting to no more than one-twentieth of the necessary work, can be seen at the junction of the two principal sources of the Kurang.

On the upper Karun see Mrs Bishop, *Journeys in Persia and Kurdistan* (London, 1891); Lord Curzon, *Persia and the Persian Question* (London, 1892); Lieut.-Colonel H. A. Sawyer, "The Bakhtiari Mountains and Upper Elam," *Geog. Journal* (Dec. 1894).

(A. H.–S.)

KARWAR, or CARWAR, a seaport of British India, administrative headquarters of North Kanara district in the Bombay presidency; 295 m. S. of Bombay city. Pop. (1901), 16,847. As early as 1660 the East India Company had a factory here, with a trade in muslin and pepper; but it suffered frequently from Dutch, Portuguese and native attacks, and in 1752 the English agent was withdrawn. Old Karwar fell into ruins, but a new town grew up after the transfer of North Kanara to the Bombay presidency. It is the only safe harbour all the year round between Bombay and Cochin. In the bay is a cluster of islets called the Oyster Rocks, on the largest of which is a lighthouse. Two smaller islands in the bay afford good shelter to native craft during the strong north-west winds that prevail from February to April. The commercial importance of Karwar has declined since the opening of the railway to Marmagao in Portuguese territory.

KARWI, a town of British India, in the Banda district of the United Provinces, on a branch of the Indian Midland railway; pop. (1901), 7743. Before the Mutiny it was the residence of a Mahratta noble, who lived in great state, and whose accumulations constituted the treasure afterwards famous as "the Kirwee and Banda Prize Money."

KARYOGAMY (Gr. *κάρυον*, nut or kernel, thus "nucleus," and *γάμος*, marriage), in biology: (1) the fusion of nuclei to form a single nucleus in syngamic processes (see REPRODUCTION); (2) the process of pairing in Infusoria (*q.v.*), in which two migratory nuclei are interchanged and fuse with two stationary nuclei, while the cytoplasmic bodies of the two mates are in intimate temporary union.

KASAI, or CASSAI, a river of Africa, the chief southern affluent of the Congo. It enters the main stream in 3° 10′ S., 16° 16′ E. after a course of over 800 m. from its source in the highlands which form the south-western edge of the Congo basin—separating the Congo and Zambezi systems. The Kasai and its many tributaries cover a very large part of the Congo basin. The Kasai rises in about 12° S., 19° E. and flows first in a north-easterly direction. About 10° 35′ S., 22° 15′ E. it makes a rectangular bend northward and then takes a north-westerly direction. Five rivers—the Luembo, Chiumbo, Luijimo or Luashimo, Chikapa and Lovua or Lowo—rise west of the Kasai and run in parallel courses for a considerable distance, falling successively into the parent stream (between 7° and 6° S.) as it bends westward in its northern course. The Luembo and Chiumbo join and enter the Kasai as one river. A number of rapids occur in these streams. A few miles below the confluence of the Lowo, the last of the five rivers named to join the Kasai, the main stream is interrupted by the Wissmann Falls which, though not very high, bar further navigation from the north. Below this point the river receives several right-hand (eastern) tributaries. These also have their source in the Zambezi-Congo watershed, rising just north of 12° S., flowing north in parallel lines, and in their lower course bending west to join the Kasai. The chief of these affluents are the Lulua and the Sankuru, the Lulua running between the Kasai and the Sankuru. The Sankuru makes a bold curve westward on reaching 4° S., following that parallel of latitude a considerable distance. Its waters are of a bright yellow colour. After the junction of the two rivers (in 4° 17′ S., 20° 15′ E.), the united stream of the Kasai flows N.W. to the Congo. From the south it is joined by the Loange and the Kwango. The Kwango is a large river rising a little north of 12° S., and west of the source of the Kasai. Without any marked bends it flows north—is joined from the east by the Juma, Wamba and other streams—and has a course of 600 m. before joining the Kasai in 3° S., 18′ E. The lower reaches of the Kwango are navigable; the upper course is interrupted by rapids. On the north (in 3° 8′ S., 17° E.) the lower Kasai is joined by the Lukenye or Ikatta. This river, the most northerly affluent of the Kasai, rises between 24° and 25° E., and about 3° S. in swampy land through which the Lomami (another Congo affluent) flows northward. The Lukenye has an east to west direction flowing across a level country once occupied by a lake, of which Lake Leopold II. (*q.v.*), connected with the lower course of the Lukenye, is the scanty remnant. Below the lake the Lukenye is known as the Mfini. Near its mouth the Kasai, in its lower course generally a broad stream strewn with islands, is narrowed to about half a mile on passing through a gap in the inner line of the West African highlands, by the cutting of which the old lake of the Kasai basin must have been drained. The Kasai enters the Congo with a minimum depth of 25 feet and a breadth of about 700 yards, at a height of 942 ft. above the sea. The confluence is known as the Kwa mouth, Kwa being an alternative name for the lower Kasai. The volume of water entering the Congo averages 321,000 cub. ft. per second: far the largest amount discharged by any of the Congo affluents. In floodtime the current flows at the rate of 5 or 6 m. an hour. The Kasai and its tributaries are navigable for over 1500 m. by steamer.

The Kwango affluent of the Kasai was the first of the large affluents of the Congo known to Europeans. It was reached by the Portuguese from their settlements on the west coast in the 16th century. Of its lower course they were ignorant. Portuguese travellers in the 18th century are believed to have reached the upper Kasai, but the first accurate knowledge of the river basin was obtained by David Livingstone, who reached the upper Kasai from the east and explored in part the upper Kwango (1854–1855). V. L. Cameron and Paul Pogge crossed the upper Kasai in the early "seventies." The Kwa mouth was seen by H. M. Stanley in his journey down the Congo in 1877, and he rightly regarded it as the

outlet of the Kwango, though not surmising it was also the outlet of the Kasai. In 1882 Stanley ascended the river to the Kwango-Kasai confluence and thence proceeding up the Mfini discovered Lake Leopold II. In 1884 George Grenfell journeyed up the river beyond the Kwango confluence. The systematic exploration of the main stream and its chief tributaries was, however, mainly the work of Hermann von Wissmann, Ludwig Wolf, Paul Pogge and other Germans during 1880–1887. (See Wissmann's books, especially *Im Innern Afrikas*, Leipzig, 1888.) On his third journey, 1886, Wissmann was accompanied by Grenfell. Major von Mechow, an Austrian, explored the middle Kwango in 1880, and its lower course was subsequently surveyed by Grenfell and Holman Bentley, a Baptist missionary. In 1899–1900 a Belgian expedition under Captain C. Lemaire traced the Congo-Zambezi watershed, obtaining valuable information concerning the upper courses of the southern Kasai tributaries. The upper Kasai basin and its peoples were further investigated by a Hungarian traveller, E. Torday, in 1908–1909. (See Torday's paper in *Geog. Jour.*, 1910; also CONGO and the authorities there cited.)

KASBEK (Georgian, *Mkin-vari*; Ossetian, *Urs-khokh*), one of the chief summits of the Caucasus, situated in 42° 42′ N. and 44° 30′ E., 7 m. as the crow flies from a station of the same name on the high road to Tiflis. Its altitude is 16,545 ft. It rises on the range which runs north of the main range (main water-parting), and which is pierced by the gorges of the Ardon and the Terek. It represents an extinct volcano, built up of trachyte and sheathed with lava, and has the shape of a double cone, whose base lies at an altitude of 5800 ft. Owing to the steepness of its slopes, its eight glaciers cover an aggregate surface of not more than 8 sq. m., though one of them, Maliev, is 36 m. long. The best-known glacier is the Dyevdorak, or Devdorak, which creeps down the north-eastern slope into a gorge of the same name, reaching a level of 7530 ft. At its eastern foot runs the Georgian military road through the pass of Darial (7805 ft.). The summit was first climbed in 1868 by D. W. Freshfield, A. W. Moore, and C. Tucker, with a Swiss guide. Several successful ascents have been made since, the most valuable in scientific results being that of Pastukhov (1889) and that of G. Merzbacher and L. Purtscheller in 1890. Kasbek has a great literature, and has left a deep mark in Russian poetry.

See D. W. Freshfield in *Proc. Geog. Soc.* (November 1888) and *The Exploration of the Caucasus* (2nd ed., 2 vols., 1902); Hatisian's "Kazbek Glaciers" in *Izvestia Russ. Geog. Soc.* (xxiv., 1888); Pastukhov in *Izvestia of the Caucasus Branch of Russ. Geog. Soc.* (x. 1, 1891, with large-scale map).

KASHAN, a small province of Persia, situated between Isfahan and Kum. It is divided into the two districts *germsir*, the "warm," and *sardsir*, the "cold," the former with the city of Kashan in the plains, the latter in the hills. It has a population of 75,000 to 80,000, and pays a yearly revenue of about £18,000. KASHAN (Cashan) is the provincial capital, in 34° 0′ N. and 51° 27′ E., at an elevation of 3190 ft., 150 m. from Teheran; pop. 35,000, including a few hundred Jews occupied as silk-winders, and a few Zoroastrians engaged in trade. Great quantities of silk stuffs, from raw material imported from Gilan, and copper utensils are manufactured at Kashan and sent to all parts of Persia. Kashan also exports rose-water made in villages in the hilly districts about 20 m. from the city, and is the only place in Persia where cobalt can be obtained, from the mine at Kamsar, 19 m. to the south. At the foot of the hills 4 m. W. of the city are the beautiful gardens of Fin, the scene of the official murder, on the 9th of January 1852, of Mirza Taki Khan, Amir Nizam, the grand vizier, one of the ablest ministers that Persia has had in modern times.

KASHGAR, an important city of Chinese Turkestan, in 39° 24′ 26″ N. lat., 76° 6′ 47″ E. long., 4043 ft. above sea-level. It consists of two towns, Kuhna Shahr or "old city," and Yangi Shahr or "new city," about five miles apart, and separated from one another by the Kyzyl Su, a tributary of the Tarim river. It is called Su-lēh by the Chinese, which perhaps represents an original Solek or Sorak. This name seems to be older than Kashgar, which is said to mean "variegated houses." Situated at the junction of routes from the valley of the Oxus, from Khokand and Samarkand, Almati, Aksu, and Khotan, the last two leading from China and India, Kashgar has been noted from very early times as a political and commercial centre. Like all other cities of Central Asia, it has changed hands repeatedly, and was from 1864–1887 the seat of government of the Amir Yakub Beg, surnamed the Atalik Ghazi, who established and for a brief period ruled with remarkable success a Mahommedan state comprising the chief cities of the Tarim basin from Turfan round along the skirt of the mountains to Khotan. But the kingdom collapsed with his death and the Chinese retook the country in 1877 and have held it since.

Kuhna Shahr is a small fortified city on high ground overlooking the river Tuman. Its walls are lofty and supported by buttress bastions with loopholed turrets at intervals; the fortifications, however, are but of hard clay and are much out of repair. The city contains about 2500 houses. Beyond the bridge, a little way off, are the ruins of ancient Kashgar, which once covered a large extent of country on both sides of the Tuman, and the walls of which even now are 12 feet wide at the top and twice that in height. This city—Aski Shahr (Old Town) as it is now called—was destroyed in 1514 by Mirza Ababakar (Abubekr) on the approach of Sultan Said Khan's army. About two miles to the north beyond the river is the shrine of Hazrat Afak, the saint king of the country, who died and was buried here in 1693. It is a handsome mausoleum faced with blue and white glazed tiles, standing under the shade of some magnificent silver poplars. About it Yakub Beg erected a commodious college, mosque and monastery, the whole being surrounded by rich orchards, fruit gardens and vineyards. The Yangi Shahr of Kashgar is, as its name implies, modern, having been built in 1838. It is of oblong shape running north and south, and is entered by a single gateway. The walls are lofty and massive and topped by turrets, while on each side is a projecting bastion. The whole is surrounded by a deep and wide ditch, which can be filled from the river, at the risk, however, of bringing down the whole structure, for the walls are of mud, and stand upon a porous sandy soil. In the time of the Chinese, before Yakub Beg's sway, Yangi Shahr held a garrison of six thousand men, and was the residence of the *amban* or governor. Yakub erected his *orda* or palace on the site of the amban's residence, and two hundred ladies of his harem occupied a commodious enclosure hard by. The population of Kashgar has been recently estimated at 60,000 in the Kuhna Shahr and only 2000 in the Yangi Shahr.

With the overthrow of the Chinese rule in 1865 the manufacturing industries of Kashgar declined. Silk culture and carpet manufacture have flourished for ages at Khotan, and the products always find a ready sale at Kashgar. Other manufactures consist of a strong coarse cotton cloth called *kham* (which forms the dress of the common people, and for winter wear is padded with cotton and quilted), boots and shoes, saddlery, felts, furs and sheepskins made up into cloaks, and various articles of domestic use. A curious street sight in Kashgar is presented by the hawkers of meat pies, pastry and sweetmeats, which they trundle about on hand-barrows just as their counterparts do in Europe; while the knife-grinder's cart, and the vegetable seller with his tray or basket on his head, recall exactly similar itinerant traders further west.

The earliest authentic mention of Kashgar is during the second period of ascendancy of the Han dynasty, when the Chinese conquered the Hiungnu, Yutien (Khotan), Sulei (Kashgar), and a group of states in the Tarim basin almost up to the foot of the Tian Shan mountains. This happened in 76 B.C. Kashgar does not appear to have been known in the West at this time but Ptolemy speaks of Scythia beyond the Imaus, which is in a *Kasia Regio*, possibly exhibiting the name whence Kashgar and Kashgaria (often applied to the district) are formed. Next ensues a long epoch of obscurity. The country was converted to Buddhism and probably ruled by Indo-Scythian or Kushan kings. Hsüan Tswang passed through Kashgar (which he calls Ka-sha) on his return journey from India to China. The Buddhist religion, then beginning to decay in India, was working its way to a new growth in China, and contemporaneously the Nestorian Christians were establishing bishoprics at Herat, Merv and Samarkand, whence they subsequently proceeded to Kashgar, and finally to China itself. In the 8th century came the Arab invasion from the west, and we find Kashgar and Turkestan lending assistance to the reigning queen of Bokhara, to enable her to repel the enemy. But although the Mahommedan religion from the very commencement sustained checks, it nevertheless made its

weight felt upon the independent states of Turkestan to the north and east, and thus acquired a steadily growing influence. It was not, however, till the 10th century that Islam was established at Kashgar, under the Uighur kingdom (see TURKS). The Uighurs appear to have been the descendants of the people called Tölas and to have been one of the many Turkish tribes who migrated westwards from China. Boghra Khan, the most celebrated prince of this line, was converted to Mahommedanism late in the 10th century and the Uighur kingdom lasted until 1120 but was distracted by complicated dynastic struggles. The Uighurs employed an alphabet based upon the Syriac and borrowed from the Nestorian missionaries. They spoke a dialect of Turkish preserved in the Kudatku Bilik, a moral treatise composed in 1065. Their kingdom was destroyed by an invasion of the Kara-Kitais, another Turkish tribe pressing westwards from the Chinese frontier, who in their turn were swept away in 1219 by Jenghiz Khan. His invasion gave a decided check to the progress of the Mahommedan creed, but on his death, and during the rule of the Jagatai Khans, who became converts to that faith, it began to reassert its ascendancy. Marco Polo visited the city, which he calls Cascar, about 1275 and left some notes on it.

In 1389–1390 Timur ravaged Kashgar, Andijan and the intervening country. Kashgar passed through a troublous time, and in 1514, on the invasion of the Khan Sultan Said, was destroyed by Mirza Ababakar, who with the aid of ten thousand men built the new fort with massive defences higher up on the banks of the Tuman. The dynasty of the Jagatai Khans collapsed in 1572 by the dismemberment of the country between rival representatives; and soon after two powerful Khoja factions, the White and Black Mountaineers (*Ak* and *Kara Taghluk*), arose, whose dissensions and warfares, with the intervention of the Kalmucks of Dzungaria, fill up the history till 1759, when a Chinese army from Ili (Kulja) invaded the country, and, after perpetrating wholesale massacres, finally consolidated their authority by settling therein Chinese emigrants, together with a Manchu garrison. The Chinese had thoughts of pushing their conquests towards western Turkestan and Samarkand, the chiefs of which sent to ask assistance of the Afghan king Ahmed Shah. This monarch despatched an embassy to Peking to demand the restitution of the Mahommedan states of Central Asia, but the embassy was not well received, and Ahmed Shah was too much engaged with the Sikhs to attempt to enforce his demands by arms. The Chinese continued to hold Kashgar, with sundry interruptions from Mahommedan revolts—one of the most serious occurring in 1827, when the territory was invaded and the city taken by Jahanghir Khoja; Chang-lung, however, the Chinese general of Ili, recovered possession of Kashgar and the other revolted cities in 1828. A revolt in 1829 under Mahommed Ali Khan and Yusuf, brother of Jahanghir, was more successful, and resulted in the concession of several important trade privileges to the Mahommedans of the district of Alty Shahr (the "six cities"), as it was then named. Until 1846 the country enjoyed peace under the just and liberal rule of Zahir-ud-din, the Chinese governor, but in that year a fresh Khoja revolt under Kath Tora led to his making himself master of the city, with circumstances of unbridled licence and oppression. His reign was, however, brief, for at the end of seventy-five days, on the approach of the Chinese, he fled back to Khokand amid the jeers of the inhabitants. The last of the Khoja revolts (1857) was of about equal duration with the previous one, and took place under Wali-Khan, a degraded debauchee, and the murderer of the lamented traveller Adolf Schlagintweit.

The great Tungani (Dungani) revolt, or insurrection of the Chinese Mahommedans, which broke out in 1862 in Kansuh, spread rapidly to Dzungaria and through the line of towns in the Tarim basin. The Tungani troops in Yarkand rose, and (10th of August 1863) massacred some seven thousand Chinese, while the inhabitants of Kashgar, rising in their turn against their masters, invoked the aid of Sadik Beg, a Kirghiz chief, who was reinforced by Buzurg Khan, the heir of Jahanghir, and Yakub Beg, his general, these being despatched at Sadik's request by the ruler of Khokand to raise what troops they could to aid his Mahommedan friends in Kashgar. Sadik Beg soon repented of having asked for a Khoja, and eventually marched against Kashgar, which by this time had succumbed to Buzurg Khan and Yakub Beg, but was defeated and driven back to Khokand. Buzurg Khan delivered himself up to indolence and debauchery, but Yakub Beg, with singular energy and perseverance, made himself master of Yangi Shahr, Yangi-Hissar, Yarkand and other towns, and eventually became sole master of the country, Buzurg Khan proving himself totally unfitted for the post of ruler. Kashgar and the other cities of the Tarim basin remained under Yakub Beg's rule until 1877, when the Chinese regained possession of their ancient dominion.

(C. E. D. B.; C. EL.)

KASHI, or KASI, formerly the Persian word for all glazed and enamelled pottery irrespectively; now the accepted term for certain kinds of enamelled tile-work, including brick-work and tile-mosaic work, manufactured in Persia and parts of Mahommedan India, chiefly during the 16th and 17th centuries.[1]

Undoubtedly originating in the Semitic word for glass, *kas*, it is quite possible that the name *kashi* is immediately derived from Kashan, a town in Persia noted for its *faïence*. This ancient pottery site, in turn, probably receives its name from the old-time industry; as a "city of the plain" it would obviously have no claim to the farther-eastern suffix *shan*, meaning a mountain. Sir George Birdwood wisely considers that "the art of glazing eathenware has, in Persia, descended in an almost unbroken tradition from the period of the greatness of Chaldaea and Assyria . . . the name *kas*, by which it is known in Arabic and Hebrew, carries us back to the manufacture of glass and enamels for which great Sidon was already famous 1500 years before Christ . . . the designs used in the decoration of Sind and Punjab glazed pottery also go to prove how much these Indian wares have been influenced by Persian examples and the Persian tradition of the much earlier art of Nineveh and Babylon" (*The Industrial Arts of India*, 1880). The two native names for glass, *kanch* and *shisha*, common to Persia and India, are, seemingly, modifications of kashi. The Indian tradition of Chinese potters settling in bygone days at Lahore and Hala respectively, still lingers in the Punjab and Sind provinces, and evidently travelled eastward from Persia with the Moguls. Howbeit in Lahore the name Chíní is sometimes wrongly applied to *kashi* work; and the so-called Chíní-ka-Rauza mausoleum at Agra is an instance of this misuse. It now seems an established fact that a colony of Chinese ceramic experts migrated to Isfahan during the 16th century (probably in the reign, and at the invitation, of Shah Abbas I.), and there helped to revive the jaded pottery industry of that district.

Kashi work consisted of two kinds: (*a*) Enamel-faced tiles and bricks of strongly fired red earthenware, or terra-cotta; (*b*) Enamel-faced tiles and tesserae of lightly fired "lime-mortar," or sandstone. Tile-mosaic work is described by some authorities as the true *kashi*. From examination of figured tile-mosaic patterns, it would appear that, in some instances, the shaped tesserae had been cut out of enamelled slabs or tiles after firing; in other examples to have been cut into shape before receiving their facing of coloured enamel. Mosaic panels in the fort at Lahore are described by J. L. Kipling as "showing a *gul dasta*, or foliated pattern of a branching tree, each leaf of which is a separate piece of pottery." Conventional representations of foliage, flowers and fruit, intricate geometrical figures, interlacing arabesques, and decorative calligraphy—inscriptions in Arabic and Persian—constitute the ordinary *kashi* designs. The colours chiefly used were cobalt blue, copper blue (turquoise colour), lead-antimoniate yellow (mustard colour), manganese purple, iron brown and tin white. A colour-scheme, popular with Mogul and contemporary Persian *kashigars*, was the design, in cobalt blue and copper blue, reserved on a ground of deep mustard yellow. Before applying the enamel colours, the rough face of the tile, or the tesserae, received a thin coating of slip of variable composition. It is probably owing to some defect in this part of the process, or to imperfect firing, that the enamelled tile surfaces on many old buildings, particularly on the south side, have weathered and flaked away.

In India the finest examples of *kashi* work are in the Punjab and Sind provinces. At Lahore, amongst many beautiful structures, the most notable are the mosque of Wazir Khan (A.D. 1634) and the gateways of three famous pleasure gardens, the Shalamar Bagh (A.D. 1637), the Gulabi Bagh (A.D. 1640), and the Charburji (*c.* A.D. 1665). At Tatta the Jami Masjid, built by Shah Jahan (*c.* A.D. 1645), is a splendid illustration; whilst in that "vast cemetery of six square miles" on the adjacent Malki plateau, are numerous Mahommedan tombs (A.D. 1570–1640) with extraordinary *kashi* ornamentation. Delhi, Multan, Jullundur, Shahdara, Lahore cantonment, Agra and Hyderabad (Sind), all possess excellent monuments of the best period viz. those erected during the reigns of Akbar and Jahangir (A.D. 1556–1628).

In Persia, at Isfahan, Kashan, Meshed and Kerman are a few buildings and ruins showing the old *kashi* work; the palace of Chehel Sitùn in Isfahan, built during the reign of Shah Abbas I. (*c.* A.D. 1600), is a magnificent specimen of this art.

Occasional revivals of the manufacture have taken place both in India and Persia. Mahommed Sharíf, a potter of Jullundur in the Punjab, reproduced the Mogul enamelled tile-work in 1885, and there is a manuscript record of a certain Ustad Ali Mahommed, of Isfahan, who revived the Persian processes in 1887. (W. B.*; C. S. C.)

KASHMIR, or CASHMERE, a native state of India, including much of the Himalayan mountain system to the north of the Punjab. It has been fabled in song for its beauty (*e.g.* in Moore's *Lalla Rookh*), and is the chief health resort for Europeans in India, while politically it is important as guarding one of the approaches to India on the north-west frontier. The proper

[1] Káshí, the Hindu name for the sacred city of Benares, has no ceramic significance.

name of the state is Jammu and Kashmir, and it comprises in all an estimated area of 80,900 sq. m., with a population (1901) of 2,905,578, showing an increase of 14·21% in the decade. It is bounded on the north by some petty hills chiefships and by the Karakoram mountains; on the east by Tibet; and on the south and west by the Punjab and North-West Frontier provinces. The state is in direct political subordination to the Government of India, which is represented by a resident. Its territories comprise the provinces of Jammu (including the jagir of Punch), Kashmir, Ladakh, Baltistan and Gilgit; the Shin states of Yaghistan, of which the most important are Chilas, Darel and Tangir, are nominally subordinate to it, and the two former pay a tribute of gold dust. The following are the statistics for the main divisions of the state:—

	Area in sq. m.	Pop. in 1901.
Jammu	5,223	1,521,307
Kashmir	7,922	1,157,394
Frontier Districts	443	226,877

The remainder of the state consists of uninhabited mountains, and its only really important possessions are the districts of Jammu and Kashmir.

Physical Conformation.—The greater portion of the country is mountainous, and with the exception of a strip of plain on the south-west, which is continuous with the great level of the Punjab, may be conveniently divided into the following regions:

(1) The outer hills and the central mountains of Jammu district.
(2) The valley of Kashmir.
(3) The far side of the great central range, including Ladakh, Baltistan and Gilgit.

The hills in the outer region of Jammu, adjoining the Punjab plains, begin with a height of 100 to 200 ft., followed by a tract of rugged country, including various ridges running nearly parallel, with long narrow valleys between. The average height of these ridges is from 3000 to 4000 ft. The central mountains are commonly 8000 to 10,000 ft., covered with pasture or else with forest. Then follow the more lofty mountain ranges, including the region of perpetual snow. A great chain of snowy mountains branching off south-east and north-west divides the drainage of the Chenab and the Jhelum rivers from that of the higher branches of the Indus. It is within spurs from this chain that the valley of Kashmir is enclosed amid hills which rise from 14,000 to 15,000 ft., while the valley itself forms a cup-like basin at an elevation of 5000 to 6000 ft. All beyond that great range is a wide tract of mountainous country, bordering the north-western part of Tibet and embracing Ladakh, Baltistan and Gilgit.

The length of the Kashmir valley, including the inner slopes of its surrounding hills, is about 120 m. from north-west to south-east with a maximum width of about 75 m. The low and comparatively level floor of the basin is 84 m. long and 20 to 24 m. broad.

The hills forming the northern half-circuit of the Kashmir valley, and running beyond, include many lofty mountain masses and peaks, the most conspicuous of which, a little outside the confines of Kashmir, is Nanga Parbat, the fourth highest mountain in the world, 26,656 ft. above the sea, with an extensive area of glacier on its eastern face. The great ridge which is thrown off to the south-west by Nanga Parbat rises, at a distance of 12 m., to another summit 20,740 ft. in height, from which run south-west, and south-east the ridges which are the northern watershed boundary of Kashmir. The former range, after running 70 m. south-west, between the valleys of the Kishenganga and the Kunhar or Nain-sukh, turns southward, closely pressing the river Jhelum, after it has received the Kishenganga, with a break a few miles farther south which admits the Kunhar. This range presents several prominent summits, the highest two 16,487 and 15,544 ft. above the sea. The range which runs south-east from the junction peak above mentioned divides the valley of the Kishenganga from that of the Astor and other tributaries of the Indus. The highest point on this range, where it skirts Kashmir, is 17,202 ft. above the sea. For more than 50 m. from Nanga Parbat there are no glaciers on this range; thence eastward they increase; one, near the Zoji-la pass, is only 10,850 ft. above the sea. The mountains at the east end of the valley, running nearly north and south, drain inwards to the Jhelum, and on the other side to the Wardwan, a tributary of the Chenab. The highest part of this eastern boundary is 14,700 ft. There no are glaciers. The highest point on the Panjal range, which forms the south and south-west boundary, is 15,523 ft. above the sea.

The river Jhelum (*q.v.*) or Behat (Sanskrit (*Vitasta*)—the Hydaspes of Greek historians and geographers—flows north-westward through the middle of the valley. After a slow and winding course it expands about 25 m. below Srinagar, over a slight depression in the plain, and forms the Wular lake and marsh, which is about 12½ m. by 5 m. in extent, and surrounded by the lofty mountains which tower over the north and north-east of the valley. Leaving the lake on the south-west side, near the town of Sopur, the river pursues its sluggish course south-westward, about 18 m. to the gorge at Baramulla. From this point the stream is more rapid through the narrow valley which conducts it westward 75 m. to Muzaffarabad, where it turns sharply south, joined by the Kishenganga. At Islamabad, about 40 m. above Srinagar, the river is 5400 ft. above sea-level, and at Srinagar 5235 ft. It has thus a fall of about 4 ft. per mile in this part of its course. For the next 24 m. to the Wular lake, and thence to Baramulla, its fall is only about 2¼ ft. in the mile. On the 80 m. of the river in the flat valley between Islamabad and Baramulla, there is much boat traffic; but none below Baramulla, till the river comes out into the plains.

On the north-east side of this low narrow plain of the Jhelum is a broad hilly tract between which and the higher boundary range runs the Kishenganga River. Near the east end of this interior hilly tract, and connected with the higher range, is one summit 17,839 ft. Around this peak and between the ridges which run from it are many small glaciers. These heights look down on one side into the beautiful valley of the Sind River, and on another into the valley of the Lidar, which join the Jhelum. Among the hills north of Srinagar rises one conspicuous mountain mass, 16,903 ft. in height, from which on its north side descend tributaries of the Kishenganga, and on the south the Wangat River, which flows into the Sind. By these rivers and their numerous affluents the whole valley of Kashmir is watered abundantly.

Around the foot of many spurs of the hills which run down on the Kashmir plain are pieces of low table-land, called *karéwa*. These terraces vary in height at different parts of the valley from 100 to 300 ft. above the alluvial plain. Those which are near each other are mostly about the same level, and separated by deep ravines. The level plain in the middle of the Kashmir valley consists of fine clay and sand, with water-worn pebbles. The karewas consist of horizontal beds of clay and sand, the lacustrine nature of which is shown by the shells which they contain.

Two passes lead northward from the Kashmir valley, the Burzil (13,500 ft.) and the Kamri (14,050). The Burzil is the main pass between Srinagar and Gilgit via Astor. It is usually practicable only between the middle of July and the middle of September. The road from Srinagar to Lehin Ladakh follows the Sind valley to the Zoji-la-pass (11,300 ft.) Only a short piece of the road, where snow accumulates, prevents this pass being used all the year. At the south-east end of the valley are three passes, the Margan (11,500 ft.), the Hoksar (13,315) and the Marbal (11,500), leading to the valleys of the Chenab and the Ravi. South of Islamabad, on the direct route to Jammu and Sialkot, is the Banihal pass (9236 ft.). Further west on the Panjal range is the Pir Panjal or Panchal pass (11,400 ft.), with a second pass, the Rattan Pir (8200 ft.), across a second ridge about 15 m. south-west of it. Between the two passes is the beautifully situated fort of Baramgali. This place is in the domain of the raja of Punch, cousin and tributary of the maharaja of Kashmir. At Rajaori, south of these passes, the road divides: one line leads to Bhimber and Gujrat, the other to Jammu and Sialkot by Aknur. South-west of Baramulla is the Haji Pir pass (8500 ft.), which indicates the road to Punch. From Punch one road leads down to the plains at the town of Jhelum, another eastward through the hills to the Rattan Pir pass and Rajaori. Lastly, there is the river pass of the Jhelum, which is the easy route from the valley westward, having two ways down to the plains, one by Muzaffarabad and the Hazara valley to Hasan Abdal, the other by the British hill station of Murree to Rawalpindi.

Geology.—The general strike of the beds, and of the folds which have affected them, is from N.W. to S.E., parallel to the mountain ranges. Along the south-western border lies the zone of Tertiary beds which forms the Sub-Himalayas. Next to this is a great belt of Palaeozoic rocks, through which rise the granite, gneiss and schist of the Zanskar and Dhauladhar ranges and of the Pir Panjal. In the midst of the Palaeozoic area lie the alluvium and Pleistocene deposits of the Srinagar valley, and the Mesozoic and Carboniferous basin of the upper part of the Sind valley. Beyond the great Palaeozoic belt is a zone of Mesozoic and Tertiary beds which commences at Kargil and extends south-eastward past the Kashmir boundary to Spiti and beyond. Finally, in Baltistan and the Ladakh range there is a broad zone composed chiefly of gneiss and schist of ancient date.

The oldest fossils found belong either to the Ordovician or Silurian systems. But it is not until the Carboniferous is reached that fossils become at all abundant (so far as is yet known). The Mesozoic deposits belong chiefly to the Trias and Jura, but Cretaceous beds have been found near the head of the Tsarap valley. The Tertiary system includes representatives of all the principal divisions recognized in other parts of the Himalayas.

Climate.—The valley of Kashmir, sheltered from the south-west monsoon by the Panjal range, has not the periodical rains of India. Its rainfall is irregular, greatest in the spring months. Occasional

storms in the monsoon pass over the crests of the Panjal and give heavy rain on the elevated plateaus on the Kashmir side. And again clouds pass over the valley and are arrested by the higher hills on the north-east side. Snow falls on the surrounding hills at intervals from October to March. In the valley the first snow generally falls about the end of December, but never to any great amount. The hottest months are July, August and the greater part of September, during which the noon shade temperature varies from 85° to 90° and occasionally 95° at Srinagar, probably the hottest place in the valley. The coldest months are January and February, when for several weeks the average minimum temperature is about 15° below freezing. As a health resort the province, excluding Srinagar, which is insanitary and relaxing, has no rival anywhere in the neighbourhood of India. Its climate is admirably adapted to the European constitution, and in consequence of the varied range of temperature and the facility of moving about the visitor is enabled with ease to select places at elevations most congenial to him. Formerly only 200 passes a year were issued by the government, but now no restriction is placed on visitors, and their number increases annually. European sportsmen and travellers, in addition to residents of India, resort there freely. The railway to Rawalpindi, and a driving road thence to Srinagar make the valley easy of access. When the temperature in Srinagar rises at the beginning of June, there is a general exodus to Gulmarg, which has become a fashionable hill-station. This great influx of visitors has resulted in a corresponding diminution of game. Special game preservation rules have been introduced, and *nullahs* are let out for stated periods with a restriction on the number of head to be shot. The wild animals of the country include ibex, markhor, oorial, the Kashmir stag, and black and brown bears. Many sportsmen now cross into Ladakh and the Pamirs.

People.—The great majority of the inhabitants of Kashmir are professedly Mahommedans, but their conversion to the faith of Islam is comparatively recent and they are still strongly influenced by their ancient superstitions. At the census of 1901 out of a total population in the whole state of 2,905,578, there were 2,154,695 Mahommedans, 689,073 Hindus, 35,047 Buddhists and 25,828 Sikhs. The Hindus are mostly found in Jammu, and the Buddhists are confined to Ladakh. In Kashmir proper the few Hindus (60,682) are almost all Brahmans, known as Pundits. Superstition has made the Kashmiri timid; tyranny has made him a liar; while physical disasters have made him selfish and pessimistic. Up to recent times the cultivator lived under a system of *begar*, which entitled an official to take either labour or commodities free of payment from the villages. Having no security of property, the people had no incentive to effort, and with no security for life they lost the independence of free men. But the land settlement of 1889 swept all these abuses away. Restrictive monopolies, under which bricks, lime, paper and certain other manufactures were closed to private enterprise, were abolished. The results of the settlement are thus enumerated by Sir Walter Lawrence: "Little by little, confidence has sprung up. Land which had no value in 1889 is now eagerly sought after by all classes. Cultivation has extended and improved. Houses have been rebuilt and repaired, fields fenced in, orchards planted, vegetable gardens well stocked and new mills constructed. Women no longer are seen toiling in the fields, for their husbands are now at home to do the work, and the long journeys to Gilgit are a thing of the past. When the harvest is ripe the peasant reaps it at his own good time, and not a soldier ever enters the villages." In consequence of this improvement in their conditions of life and of the influx of wealth into the country brought by visitors, the Kashmiri grows every year in material prosperity and independence of character. The Kashmir women have a reputation for beauty which is not altogether deserved, but the children are always pretty.

The language spoken in Kashmir is akin to that of the Punjab, though marked by many peculiarities. It possesses an ancient literature, which is written in a special character (*see* KASHMIRI).

Natural Calamities.—The effect of physical calamities partly incidental to the climate of Kashmir, upon the character of its inhabitants has been referred to. The list includes fires, floods, earthquakes, famines and cholera. The ravages of fire are chiefly felt in Srinagar, where the wood houses and their thatched roofs fall an easy prey to the flames. The national habit of carrying a *kangar*, or small brazier, underneath the clothes for the purpose of warming the body, is a fruitful cause of fires. Srinagar is said to have been burnt down eighteen times. Many disastrous floods are recorded, the greatest being the terrible inundation which followed the slipping of the Khadanyar mountain below Baramula in A.D. 879. The channel of the Jhelum river was blocked and a large part of the valley submerged. In 1841 a serious flood caused great damage to life and property; there was another in 1893, when six out of the seven bridges in Srinagar were washed away, 25,426 acres under crops were submerged and 2225 houses were wrecked; another flood occurred in July 1903, when the bund between the Dal Lake and the canal gave way, and the lake rose 10 ft. in half an hour. Between two and three thousand houses in and around Srinagar collapsed, while over 40 miles of the tonga road were submerged. Since the 15th century eleven great earthquakes have occurred, all of long duration and accompanied by great loss of life. During the 19th century there were four severe earthquakes, the last two occurring in 1864 and 1885, when some 3500 people were killed. Native historians record nineteen great famines, the last two occurring in 1831 and 1877. In 1878 it was reported that only two-fifths of the total population of the valley survived. During the 19th century also there were ten epidemics of cholera, all more or less disastrous, while the worst (in 1892) was probably the last. During that year 5781 persons died in Srinagar and 5931 in the villages. The centre of infection is generally supposed to be the squalid capital of Srinagar, and some efforts to improve its sanitation have been made of recent years.

Crops.—The staple crop of the valley is rice, which forms the chief food of the people. Indian corn comes next; wheat, barley and oats are also grown. Every kind of English vegetable thrives well, especially asparagus, artichoke, seakale, broad beans, scarlet-runners, beetroot, cauliflower and cabbage. Fruit trees are met with all over the valley, wild but bearing fruit, and the cultivated orchards yield pears, apples, peaches, cherries, &c., equal to the best European produce. The chief trees are deodar, firs and pines, *chenar* or plane, maple, birch and walnut. There are state departments of viticulture, hops, horticulture and sericulture. A complete list of the flora and fauna of the valley will be found in Sir Walter Lawrence's book on Kashmir.

Industries.—The chief industry of Srinagar was formerly the weaving of the celebrated Kashmir shawl, which dates back to the days of the emperor Baber. These shawls first became fashionable in Europe in the reign of Napoleon, when they fetched from £10 to £100; but the industry received a blow at the time of the Franco-German War, and the famine of 1877 scattered the weavers. The place of the Kashmir shawl has to some extent been taken by the Kashmir carpet, but the most thriving industry now is that of silk-weaving. Srinagar is also celebrated for its silver-work, papier mâché and wood-carving. The minerals and metals of the Jammu district are promising, and a company has been formed to work them. Coal of fair quality has been found, but the difficulties of transport interfere with its working.

History.—The metrical chronicle of the kings of Kashmir, called *Rajatarangini*, was pronounced by Professor H. H. Wilson to be the only Sanskrit composition yet discovered to which the title of history can with any propriety be applied. It first became known to the Mahommedans when, on Akbar's invasion of Kashmir in 1588, a copy was presented to the emperor. A translation into Persian was made by his order, and a summary of its contents, from this Persian translation, is given by Abu'l Fazl in the *Á'ín-i-Akbarí*. The *Rajatarangini*, the first of a series of four Sanskrit histories, was written about the middle of the 12th century by P. Kalhana. His work, in six books, makes use of earlier writings now lost. Commencing with traditional history of very early times, it comes down to the reign of Sangrama Deva, 1006; the second work, by Jonaraja, takes up the history in continuation of Kalhana's, and, entering the Mahommedan period, gives an account of the reigns down to that of Zain-ul-ab-ad-din, 1412. P. Srivara carried on the record to the accession of Fah Shah, 1486. And the fourth work, called *Rājāvalipataka*, by Prajnia Bhatta, completes the history to the time of the incorporation of Kashmir in the dominions of the Mogul emperor Akbar, 1588.

In the *Rājātarangini* it is stated that the valley of Kashmir was formerly a lake, and that it was drained by the great *rishi* or sage, Kasyapa, son of Marichi, son of Brahma, by cutting the gap in the hills at Baramulla (Varaha-mula). When Kashmir had been drained, he brought in the Brahmans to occupy it. This is still the local tradition, and in the existing physical condition of the country we may see some ground for the story which has taken this form. The name of Kasyapa is by history and tradition connected with the draining of the lake, and the chief town or collection of dwellings in the valley was called Kasyapa-pur—a name which has been plausibly identified with the Κασπάπυρος of Hecataeus (Steph. Byz., *s.v.*) and Κασπάτυρος of Herodotus (iii. 102, iv. 44). Kashmir is the country meant also by Ptolemy's Κασπήρια. The ancient

name Kasyapa-pur was applied to the kingdom of Kashmir when it comprehended great part of the Punjab and extended beyond the Indus. In the 7th century Kashmir is said by the Chinese traveller Hsuan Tsang to have included Kabul and the Punjab, and the hill region of Gandhara, the country of the Gandarae of classical geography.

At an early date the Sanskrit name of the country became *Kāsmīr*. The earliest inhabitants, according to the *Rajatarangini*, were the people called Naga, a word which signifies "snake." The history shows the prevalence in early times of tree and serpent worship, of which some sculptured stones found in Kashmir still retain the memorials. The town of Islamabad is called also by its ancient name Anant-nag ("eternal snake"). The source of the Jhelum is at Vir-nag (the powerful snake), &c. The other races mentioned as inhabiting this country and the neighbouring hills are Gandhari, Khasa and Daradae. The Khasa people are supposed to have given the name Kasmir. In the *Mahabharata* the Kasmira and Daradae are named together among the Kshattriya races of northern India. The question whether, in the immigration of the Aryans into India, Kashmir was taken on the way, or entered afterwards by that people after they had reached the Punjab from the north-west, appears to require an answer in favour of the latter view (see vol. ii. of Dr J. Muir's *Sanskrit Texts*). The Aryan races of Kashmir and surrounding hills, which have at the present time separate geographical distribution, are given by Mr Drew as *Kashmiri* (mostly Mahommedan), in the Kashmir basin and a few scattered places outside; *Dard* (mostly Mahommedan) in Gilgit and hills north of Kashmir; *Dogra* (Hindu) in Jamma; *Dogra* (Mahommedan, called *Chibāli*) in Punch and hill country west of Kashmir; *Pahāri* or mountaineers (Hindu) in Kishtwar, east of Kashmir, and hills about the valley of the Chenab.

In the time of Asoka, about 245 B.C., one of the Indian Buddhist missions was sent to Kashmir and Gandhara. After his death Brahmanism revived. Then in the time of the three Kushan princes, Huvishka, Jushka and Kanishka, who ruled over Kashmir about the beginning of the Christian era, Buddhism was to a great extent restored, though for several centuries the two religions existed together in Kashmir, Hinduism predominating. Yet Kashmir, when Buddhism was gradually losing its hold, continued to send Buddhist teachers to other lands. In this Hindu-Buddhist period, and chiefly between the 5th and 10th centuries of the Christian era, were erected the Hindu temples in Kashmir. In the 6th and 7th centuries Kashmir was visited by some of the Chinese Buddhist pilgrims to India. The country is called *Shie-mi* in the narrative of To Yeng and Sung Yun (578). One of the Chinese travellers of the next century was for a time an elephant-tamer to the king of Kashmir. Hsuan Tsang spent two years (631–633) in Kashmir (*Kia-chī-mī-lo*). He entered by Baramula and left by the Pir Panjal pass. He describes the hill-girt valley, and the abundance of flowers and fruits, and he mentions the tradition about the lake. He found in Kashmir many Buddhists as well as Hindus. In the following century the kings of Kashmir appear to have paid homage and tribute to China, though this is not alluded to in the Kashmir chronicle. Hindu kings continued to reign till about 1294, when Udiana Deva was put to death by his Mahommedan vizier, Amir Shah, who ascended the throne under the name of Shams-ud-din.

Of the Mahommedan rulers mentioned in the Sanskrit chronicles, one, who reigned about the close of the 14th century, has made his name prominent by his active opposition to the Hindu religion, and his destruction of temples. This was Sikandar, known as *But-shikan*, or the "idol-breaker." It was in his time that India was invaded by Timur, to whom Sikandar made submission and paid tribute. The country fell into the hands of the Moguls in 1588. In the time of Alamgir it passed to Ahmad Shah Durani, on his third invasion of India (1756); and from that time it remained in the hands of Afghans till it was wrested from them by Ranjit Singh, the Sikh monarch of the Punjab, in 1819. Eight Hindu and Sikh governors under Ranjit Singh and his successors were followed by two Mahommedans similarly appointed, the second of whom, Shekh Imam-ud-din, was in charge when the battles of the first Sikh war 1846 brought about new relations between the British Government and the Sikhs.

Gulab Singh, a Dogra Rajput, had from a humble position been raised to high office by Ranjit Singh, who conferred on him the small principality of Jammu. On the final defeat of the Sikhs at Sobraon (February 1846), Gulab Singh was called to take a leading part in arranging conditions of peace. The treaty of Lahore (March 9, 1846) sets forth that, the British Government having demanded, in addition to a certain assignment of territory, a payment of a crore and a half of rupees (1½ millions sterling), and the Sikh government being unable to pay the whole, the maharaja (Dhulip Singh) cedes, as equivalent for one crore, the hill country belonging to the Punjab between the Beas and the Indus, including Kashmir and Hazara. The governor-general, Sir Henry Hardinge, considered it expedient to make over Kashmir to the Jammu chief, securing his friendship while the British government was administering the Punjab on behalf of the young maharaja. Gulab Singh was well prepared to make up the payment in default of which Kashmir was ceded to the British; and so, in consideration of his services in restoring peace, his independent sovereignty of the country made over to him was recognized, and he was admitted to a separate treaty. Gulab Singh had already, after several extensions of territory east and west of Jammu, conquered Ladakh (a Buddhist country, and till then subject to Lhasa), and had then annexed Skardo, which was under independent Mahommedan rulers. He had thus by degrees half encircled Kashmir, and by this last addition his possessions attained nearly their present form and extent. Gulab Singh died in 1857, and was succeeded by his son, Ranbir Singh, who died in 1885. The next ruler, Maharaja Partab Singh, G.C.S.I. (b. 1850), immediately on his accession inaugurated the settlement reforms already described. His rule was remarkable for the reassertion of the Kashmir sovereignty over Gilgit (*q.v.*). Kashmir imperial service troops participated in the Black Mountain expedition of 1891, the Hunza Nagar operations of 1891, and the Tirah campaign of 1897–1898. The total revenue of the state is about £666,000.

See Drew, *Jammu and Kashmir* (1875); M. A. Stein, *Kalhana's Rajatarangini* (1900); W. R. Lawrence, *The Valley of Kashmir* (1895); Colonel A. Durand, *The Making of a Frontier* (1899); R. Lydekker, "The Geology of the Kashmir and Chamba Territories," *Records of the Geological Survey of India*, vol. xxii. (1883); J. Duke, *Kashmir Handbook* (1903). (T. H. H.*)

KASHMIRI (properly *Kāśmīrī*), the name of the vernacular language spoken in the valley of Kashmir (properly *Kaśmīr*) and in the hills adjoining. In the Indian census of 1901 the number of speakers was returned at 1,007,957. By origin it is the most southern member of the Dard group of the Piśāca languages (see INDO-ARYAN LANGUAGES). The other members of the group are Shīnā, spoken to its north in the country round Gilgit, and Kōhistānī, spoken in the hill country on both sides of the river Indus before it debouches on to the plains of India. The Piśāca languages also include Khōwār, the vernacular of Chitral, and the Kāfir group of speeches, of which the most important is the Bashgali of Kafiristan. Of all these forms of speech Kashmiri is the only one which possesses a literature, or indeed an alphabet. It is also the only one which has been dealt with in the census of India, and it is therefore impossible to give even approximate figures for the numbers of speakers of the others. The whole family occupies the three-sided tract of country between the Hindu-Kush and the north-western frontier of British India.

As explained in INDO-ARYAN LANGUAGES, the Piśāca languages are Aryan, but are neither Iranian nor Indo-Aryan. They represent the speech of an independent Aryan migration over the Hindu-Kush directly into their present inhospitable seats, where they have developed a phonetic system of their own, while they have retained unchanged forms of extreme antiquity which have long passed out of current use both in Persia and in India. Their speakers appear to have left the main Aryan body after the great fission which resulted in the Indo-Aryan migration, but before all the typical peculiarities of Iranian speech had fully developed. They are thus representatives of a stage of

linguistic progress later than that of Sanskrit, and earlier than that which we find recorded in the Iranian Avesta.

The immigrants into Kashmir must have been Shīns, speaking a language closely allied to the ancestor of the modern Shīnā. They appear to have dispossessed and absorbed an older non-Aryan people, whom local tradition now classes as Nāgas, or Snake-gods, and, at an early period, to have come themselves under the influence of Indo-Aryan immigrants from the south, who entered the valley along the course of the river Jhelam. The language has therefore lost most of its original Piśāca character, and is now a mixed one. Sanskrit has been actively studied for many centuries, and the Kashmiri vocabulary, and even its grammar, are now largely Indian. So much is this the case that, for convenience' sake, it is now frequently classed (see INDO-ARYAN LANGUAGES) as belonging to the north-western group of Indo-Aryan languages, instead of as belonging to the Piśāca family as its origin demands. It cannot be said that either classification is wrong.

Kashmiri has few dialects. In the valley there are slight changes of idiom from place to place, but the only important variety is Kishtwārī, spoken in the hills south-west of Kashmir. Smaller dialects, such as Pogul and Rāmbanī of the hills south of the Banihāl pass, may also be mentioned. The language itself is an old one. Pure Kashmiri words are preserved in the Sanskrit *Rājataraṅgiṇī* written by Kalhaṇa in the 12th century A. D., and, judging from these specimens, the language does not appear to have changed materially since his time.

General Character of the Language.—Kashmiri is a language of great philological interest. The two principal features which at once strike the student are the numerous epenthetic changes of vowels and consonants and the employment of pronominal suffixes. In both cases the phenomena are perfectly plain, cause and effect being alike presented to the eye in the somewhat complicated systems of declension and conjugation. The Indo-Aryan languages proper have long ago passed through this stage, and many of the phenomena now presented by them are due to its influence, although all record of it has disappeared. In this way a study of Kashmiri explains a number of difficulties found by the student of Indo-Aryan vernaculars.[1]

In the following account the reader is presumed to be in possession of the facts recorded in the articles INDO-ARYAN LANGUAGES and PRAKRIT, and the following contractions will be employed: Ksh. = Kashmiri ; Skr. = Sanskrit ; P. = Piśāca ; Sh. = Shīnā.

A. *Vocabulary.* The vocabulary of Kashmiri is, as has been explained, mixed. At its basis it has a large number of words which are also found in the neighbouring Shīnā, and these are such as connote the most familiar ideas and such as are in most frequent use. Thus, the personal pronouns, the earlier numerals, the words for "father," "mother," "fire," "the sun," are all closely connected with corresponding Shīnā words. There is also a large Indian element, consisting partly of words derived from Sanskrit vocables introduced in ancient times, and partly of words borrowed in later days from the vernaculars of the Punjab. Finally, there is a considerable Persian (including Arabic) element due to the long Mussulman domination of the Happy Valley. Many of these have been considerably altered in accordance with Kashmiri phonetic rules, so that they sometimes appear in strange forms. Thus the Persian *lagām*, a bridle, has become *lākam*, and the Arabic *bābat*, concerning, appears as *bāpat*. The population speaking Kashmiri is mainly Mussulman, there being, roughly speaking, nine Mahommedan Kashmiris to less than one Hindu. This difference of religion has strongly influenced the vocabulary. The Mussulmans use Persian and Arabic words with great freedom, while the Hindus, or "Pandits" as they are called, confine their borrowings almost entirely to words derived from Sanskrit. As the literary class is mostly Hindu, it follows that Kashmiri literature, taken as a whole, while affording most interesting and profitable study, hardly represents the actual language spoken by the mass of the people. There are, however, a few good Kashmiri works written by Mussulmans in their own dialect.

B. *Written Characters.* Mussulmans and Christian missionaries employ an adaptation of the Persian character for their writings. This alphabet is quite unsuited for representing the very complex Kashmiri vowel system. Hindus employ the Sāradā alphabet, of Indian origin and akin to the well-known Nāgarī. Kashmiri vowel sounds can be recorded very successfully in this character, but there is, unfortunately, no fixed system of spelling. The Nagari alphabet is also coming into use in printed books, no Sāradā types being yet in existence.

C. *Phonetics.* Comparing the Kashmiri with the Sanskrit alphabet (see SANSKRIT), we must first note a considerable extension of the vowel system. Not only does Ksh. possess the vowels *a*, *ā*, *i*, *ī*, *u*, *ū*, *r*, *ē*, *ai*, *ō*, *au*, and the *anunāsika* or nasal symbol ˜, but it has also a flat *ă* (like the *a* in "hat") a flat *ĕ* (like the *e* in "met"), a short *ŏ* (like the *o* in "hot") and a broad *å* (like the *a* in "all"). It also has a series of what natives call "*mātrā*-vowels," which are represented in the Roman character by small letters above the line, viz. ^{a}, ^{i}, ^{u}, ^{u}. Of these, ^{a} is simply a very short indeterminate sound something like that of the Hebrew *sh^{a}wā mobile*, except that it may sometimes be the only vowel in a word, as in *ts^{a}h*, thou. The ^{i} is a hardly audible *i*, while ^{u} and ^{u} are quite inaudible at the end of a syllable. When ^{i} or ^{u} is followed by a consonant in the same syllable ^{i} generally and ^{u} always becomes a full *i* or *u* respectively and is so pronounced. On the other hand, in similar circumstances, ^{u} remains unchanged in writing, but is pronounced like a short German *ü*. It should be observed that this ^{u} always represents an older *ī*, and is still considered to be a palatal, not, like ^{u}, a labial vowel. Although these mātrā-vowels are so slightly heard, they exercise a great influence on the sound of a preceding syllable. We may compare the sound of *a* in the English word "mar." If we add *e* to the end of this word we get "mare," in which the sound of the *a* is altogether changed, although the *e* is not itself pronounced in its proper place. The back-action of these mātrā-vowels is technically known as *umlaut* or "epenthesis," and is the most striking feature of the Kashmiri language, the structure of which is unintelligible without a thorough knowledge of the system. In the following pages when a vowel is epenthetically affected by a mātrā-vowel the fact will be denoted by a dot placed under it, thus *kạr^{u}*. This is not the native system, according to which the change is indicated sometimes by a diacritical mark and sometimes by writing a different letter. The changes of pronunciation effected by each mātrā-vowel are shown in the following table. If natives employ a different letter to indicate the change the fact is mentioned. In other cases they content themselves with diacritical marks. When no entry is made, it should be understood that the sound of the vowel remains unaltered:—

Preceding Vowel.	*Pronunciation when followed by*			
	a-mātrā	*i-mātrā*	*ū-mātrā*	*u-mātrā*
ạ	ạ (*ạd^{a}r*, be moist) (something like a short German *ö*)	*a^{i}* (*kạr^{i}*, pr. *ka^{i}r^{i}*, made, plural masc.)	*ū* (as in German: *kạr^{u}*, pr. *kür*, made, fem. sing.)	*o* (like first *o* in "promote"; *kạr^{u}*, pr. *kor*, made, masc. sing.)
ạ̄	*ō* (*kạ̄ñ^{a}r*, pr. *kōñ^{a}r*, make one-eyed) (like a long German *ō*)	*ō^{i}* (German *ō*; *mạ̄r^{i}*, pr. *mō^{i}r^{i}*, killed, masc. plur.)	*ō* (*mạ̄r^{u}*, pr. *mōr*, killed, fem. sing.)	*å* (*mạ̄r^{u}*, pr. *mār*, written, *mōr^{u}*, killed, masc. sing.)
ị	—	—	*yū* (*lịv^{a}*, pr. *lyūv*, plastered, fem. sing.	*yu* (*lịv^{u}*, pr. *lyuv*, written *lyuv^{u}*, plastered, masc. sing.)
ị̄	—	—	—	*yū* (*nīl^{u}*, pr. *nyūl*, written *nyūl^{u}*, blue, masc. sing.)
ụ	—	*u^{i}* (*gụr^{i}*, pr. *gu^{i}r^{i}*, horses)	—	—
ụ̄	—	*ū^{i}* (*gụ̄r^{i}*, pr. *gū^{i}r^{i}*, cowherds)	—	—
ẹ̆	*i* (*lẹ̆d^{a}r*, pr. *lid^{a}r*, be yellow)	—	*yū* (*tsẹ̆l^{a}*, pr. *tsyūl*, squeezed, fem. sing.)	*yu* (*tsẹ̆l^{u}*, pr. *tsyul*, written *tsyul^{u}*, squeezed, masc. sing.)
ẹ̄	—	*ī* (*phẹ̄r^{i}*, pr. and written *phīr^{i}*, turned, masc. plur.)	*ī* (*phẹ̄r^{u}*, pr. *phīr*, written, *phīr^{u}*, turned, fem. sing.)	*yū* (*phẹ̄r^{u}*, pr. *phyūr*, written *phyūr^{u}*, turned, masc. sing.)
ọ̆	*u* (*họ̆kh^{a}r*, pr. *hukh^{a}r*, make dry)	*ŏ^{i}* (*wọ̆th^{i}*, pr. *wŏ^{i}th^{i}*, arisen, masc. plur.)	*ū* (*wọ̆th^{u}*, pr. *wūth*, arisen, fem. sing.)	*o* (*wọ̆th^{u}*, pr. *woth*, arisen, masc. sing.)
ọ̄	—	*ū^{i}* (*bū^{i}z^{i}*, pr. *bū^{i}z^{i}*, written *būz^{i}*, heard. masc. plur.)	*ū* (*bọ̄z^{u}*, pr. *būz*, written, *būz^{u}*, heard, fem. sing.)	*ū* (*bōz^{u}*, pr. *būz*, written *būz^{u}*, heard, masc. sing.)

The letters *u* and *i*, even when not *u*-mātrā or *i*-mātrā, often change a preceding long *ā* to *å*, which is usually written *ō*, and *ī* respectively. Thus *rāwukh*, they have lost, is pronounced *råwukh*, and, in the

[1] See G. A. Grierson, "On Pronominal Suffixes in the Kāçmīrī Languages," and "On the Radical and Participial Tenses of the Modern Indo-Aryan Languages," in *Journal of the Asiatic Society of Bengal*, vol. lxiv. (1895), pt. i. pp. 336 and 352.

native character, is written *rōwukh*. Similarly *mālis* becomes *mālis* (*mōlis*). The diphthong *ai* is pronounced *ö* when it commences a word; thus, *aiṭh*, eight, is pronounced *öṭh*. When *i* and *u* commence a word they are pronounced *yi* and *wu* respectively. With one important exception, common to all Piśāca languages, Kashmiri employs every consonant found in the Sanskrit alphabet. The exception is the series of aspirated consonants, *gh, jh, ḍh, dh* and *bh*, which are wanting in Ksh., the corresponding unaspirated consonants being substituted for them. Thus, Skr. *ghōṭakas*, but Ksh. *gur*^{u}, a horse; Skr. *bhavati*, Ksh. *bŏvi*, he will be. There is a tendency to use dental letters where Hindī employs cerebrals, as in Hindi *uṭh*, Ksh. *wŏth*, arise. Cerebral letters are, however, owing to Sanskrit influence, on the whole better preserved in Ksh. than in the other Piśāca languages. The cerebral *ṣ* has almost disappeared, *ś* being employed instead. The only common word in which it is found is the numeral *ṣah*, six, which is merely a learned spelling for *śah*, due to the influence of the Skr. *ṣaṭ*. From the palatals *c, ch, j*, a new series of consonants has been formed, viz. *ts, tsh* (aspirate of *ts*—*i.e. ts*+*h*, not *t*+*sh*), and *z* (as in English, not *dz*). Thus, Skr. *cōras*, Ksh. *tsūr*, a thief; Skr. *chalayati*, Ksh. *tshali*, he will deceive; Skr. *jalam*, Ksh. *zal*, water. The sibilant *ś*, and occasionally *s*, are frequently represented by *h*. Thus, Skr. *daśa*, Ksh. *dah*, ten; Skr. *śiras*, Ksh. *hīr*, a head. We may compare with this the Persian word *Hind*, India (compare the Greek Ἰνδός, an Indian), derived from the Skr. *Sindhus*, the river Indus. When such an *h* is followed by a palatal letter the *ś* returns; thus, from the base *hiś-*, like this, we have the nominative masculine *hịh*^{u}, but the feminine *hɪ́ś*^{ü}, and the abstract noun *hiśyar*, because ^{ü} and *y* are palatal letters.

The palatal letters *i, e, ū-mātrā* and *y* often change a preceding consonant. The modifications will be seen from the following examples: *rāt-*, night; nom. plur. *rāts*^{ü}; *wŏth*, arise; *wǫ̆tsh*^{ü}, she arose: *lad*, build; *lǫz*^{ü}, she was built: *ran*, cook; *rąñ*^{ü}, she was cooked; *paṭ*^{ü}, a tablet; Ag. sing. *paci*: *kāth-*, a stalk; nom. plur. *kāchĕ*: *baḍ-*, great; nom. plur. fem. *bajĕ*: *batuk*^{u}, a duck; fem. *bat*^{ə}*c*^{ü}: *ȟǫ̆kh*^{u}, dry; fem. *hǫ̆ch*^{ü}; *srǫ̆g*^{u}, cheap; *srǫ̆jyar*, cheapness: *wāl*^{u}, a ring; fem. *wāj*^{ü}, a small ring; *lōs*, be weary; *lǭs*^{ü} or *lǭts*^{ü}, she was weary. These changes are each subject to certain rules. Cerebral letters (*ṭ, ṭh, ḍ*) change only before *i, ĕ* or *y*, and not before *ū-mātrā*. The others, on the contrary, do not change *i*, but do change before *ĕ, y* or *ū-mātrā*.

No word can end in an unaspirated surd consonant. If such a consonant falls at the end of a word it is aspirated. Thus, *ak*, one, becomes *akh* (but acc. *akis*); *kaṭ*, a ram, becomes *kaṭh*; and *hat*, a hundred, *hath*.

D. *Declension*. If the above phonetic rules are borne in mind, declension in Kashmiri is a fairly simple process. If attention is not paid to them, the whole system at once becomes a field of inextricable confusion. In the following pages it will be assumed that the reader is familiar with them.

Nouns substantive and adjective have two genders, a masculine and a feminine. Words referring to males are masculine, and to females are feminine. Inanimate things are sometimes masculine and sometimes feminine. Pronouns have three genders, arranged on a different principle. One gender refers to male living beings, another to female living beings, and a third (or neuter) to all inanimate things whether they are grammatically masculine or feminine. Nouns ending in ^{u} are masculine, and most, but not all, of those ending in ^{i}, ^{u}, *ĕ* or *ñ* are feminine. Of nouns ending in consonants, some are masculine, and some are feminine. No rule can be formulated regarding these, except that all abstract nouns ending in *ar* (a very numerous class) are masculine. There are four declensions. The first consists of masculine nouns ending in a consonant, in *a, ĕ* or ^{ü} (very few of these last two). The second consists of the important class of masculine nouns in ^{u}; the third of feminine nouns in ^{i}, ^{ü}, or *ñ* (being the feminines corresponding to the masculine nouns of the second declension); and the fourth of feminine nouns ending in ^{ə}, *ĕ* or a consonant.

The noun possesses two numbers, a singular and a plural, and in each number there are, besides the nominative, three organic cases, the accusative, the case of the agent (see below, under "verbs"), and the ablative. The accusative, when not definite, may also be the same in form as the nominative. The following are the forms which a noun takes in each declension, the words chosen as examples being: First declension, *tsūr*, a thief; second declension, *mąl*^{u}, a father; third declension, *maj*^{ü}, a mother; fourth declension, (*a*) *māl*, a garland, (*b*) *rāt-*, night.

	First Declension.	Second Declension.	Third Declension.	Fourth Declension *a.*	Fourth Declension *b.*
Sing.:					
Nom.	*tsūr*	*mąl*^{u} (pr. *mȧl*)	*mąj*^{ü} (*möj*)	*māl*	*rāth*
Acc.	*tsūras*	*mąlis* (*mölis*)	*mąjĕ*	*māli*	*rąts*^{ü} (*röts*)
Ag.	*tsūran*	*mąl*^{i} (*mö*^{i}*l*^{i})	*mąji*	*māli*	*rąts*^{ü} (*röts*)
Abl.	*tsūra*	*māli*	*māji*	*māli*	*rąts*^{ü} (*röts*)
Plur.:					
Nom	*tsūr*	*mąl*^{i} (*mö*^{i}*l*^{i})	*mąjĕ*	*māla*	*rąts*^{ü} (*röts*)
Acc.	*tsūran*	*mąlĕn*	*mąjĕn*	*mālan*	*rąts*^{ü}*n* (*rötsūn*)
Ag. and Abl.	*tsūrau*	*mālyau*	*mąjyau*	*mālau*	*rąts*^{ü}*v* (*rötsūv*)

The declension *4b* is confined to certain nouns in *t, th, d, n, h* and *l*, in which the final consonant is liable to change owing to a following *ū-mātrā*.

Other cases are formed (as in true Indo-Aryan languages) by the addition of postpositions, some of which are added to the accusative, while others are added to the ablative case. To the former are added *manz*, in; *kịt*^{u}, to or for; *sūtin*, with, and others. To the ablative are added *sūtin*, when it signifies "by means of"; *putshy*, for; *pĕṭh*^{ə}, from, and others. For the genitive, masculine nouns in the singular, signifying animate beings, take *sąnd*^{u}, and if they signify things without life, take *k*^{u}. All masculine plural nouns and all feminine nouns whether singular or plural take *hąnd*^{u}. *Sąnd*^{u} and *hąnd*^{u} are added to the accusative, which drops a final *s*, while *k*^{u} is added to the ablative. Thus, *tsūra sąnd*^{u}, of the thief; *mąl*^{i} *sąnd*^{u}, of the father; *sŏnąk*^{u} (usually written *sŏnuk*^{u}), of gold (*sŏn*, abl. sing. *sŏna*); *tsūran hąnd*^{u}, of thieves; *karĕn hąnd*^{u}, of bracelets (second declension); *mājĕ hąnd*^{u}, of the mother; *mājĕn hąnd*^{u}, of the mothers. Masculine proper names, however, take *n*^{u} in the singular, as in *Rādhākṛṣṇąn*$_{u}$ of Rādhākrishna. These genitive terminations, and also the dative termination *kịt*^{u}, are adjectives, and agree with the governing noun in gender, number and case. Thus, *tsūra sąnd*^{u} *nĕcivu*, the son of the thief; *tsūra sąnd*^{i} *nĕcivi*, by the son of the thief; *tsūra sąnz*^{ü} *kōr*^{u}, the daughter of the thief; *kulịk*^{u} *lang*, a bough of the tree; *kulic*^{ü} *ląnḍ*^{ü}, a twig of the tree. *Sąnd*^{u} has fem. sing. *sąnz*^{u}, masc. plur. *sąnd*^{i}, fem. plur. *sanza*. Similarly *hąnd*^{u}. *K*^{u} has fem. sing. *c*^{ü}, masc. plur. *k*^{i}, fem. plur. *cĕ*; *n*^{u}, fem. sing. *ñ*, masc. plur. *n*^{i}, fem. plur. *ñĕ*. Similarly for the dative we have the following forms: *mąlis kịt*^{u} *pąñ*^{u}, water (masc.) for the father; *mąlis kits*^{ü} *gāv*, a cow for the father; *mąlis kit*^{i} *rav*, blankets (masc. plur.) for the father; *mąlis kitsa pōthĕ*, books (fem. plur.) for the father. All these postpositions of the genitive and *kịt*^{u} of the dative are declined regularly as substantives, the masculine ones belonging to the second declension and the feminine ones to the third. Note that the feminine plural of *sąnd*^{u} is *sanza*, not *sanzĕ*, as we might expect; so also feminine nouns in *ts*^{u}, *tsh*^{u}, *z*^{ü} and *s*^{ü}.

Adjectives ending in ^{u} (second declension) form the feminine in ^{ü}, with the usual changes of the preceding consonant. Thus *tąt*^{u}, hot, fem. *tąts*^{ü} (pronounced *tüts*). Other adjectives do not change for gender. All adjectives agree with the qualified noun in gender, number and case, the postposition, if any, being added to the latter word of the two. Take, for example. *chąt*^{u}, white, and *gur*^{u}, a horse. From these we have *chąt*^{u} *gur*^{u}, a white horse; acc. sing. *chatis guris*; nom. plur. *chąt*^{i} *gụr*^{i}; and *chatyau guryau sūtin*, by means of white horses.

The first two personal pronouns are *bŏh*. I; *mĕ*, me, by me; *ạs*^{i}, we; *asĕ*, us, by us; and *ts*^{ə}*h*, thou; *tsĕ*, thee, by thee; *tǫ̆h*^{i}, ye; *tŏhĕ* you, by you. Possessive pronouns are employed instead of the genitive. Thus, *myąn*^{u}, my; *sąn*^{u}, our; *cyąn*^{u}, thy; *tuhąnd*^{u}, your. For the third person, we have sing. masc. *suh*, fem. *sŏh*, neut. *tih*; acc. sing. (masc. or fem.) *tamis* or *tas*, neut. *tath*; agent sing masc. neut. *tąm*^{i}, fem. *tami*. The plural is of common gender throughout. Nom. *tim*; acc. *timan*; ag. *timau*. The possessive pronoun is *tasąnd*^{u}, of him, of her; *tamyuk*^{n}, of it; *tihąnd*^{u}, of them. The neuter gender is used for all things without life.

Other pronouns are:—This: *yih* (com. gen.); acc. masc. fem. *yimis*, or *nŏmis*, neut, *yith*, *nŏth*; ag. masc. neut., *yim*^{i}, *nǫ̆m*^{i}, fem. *yimi*, *nŏmi*; nom. plur. *yim*, fem. *yima*, and so on.

That (within sight): masc. neut. *huh*, fem. *hŏh*; acc. masc. fem. *humis* or *amis*, neut. *huth*, and so on; nom. plur. masc *hum*.

Who, masc. *yus*, fem. *yŏssa*, neut. *yih*; acc. masc. fem. *yĕmis*, *yĕs*, neut. *yĕth*; ag. masc. neut. *yĕm*^{i}, fem. *yĕmi*; nom. plur. masc. *yim*, and so on.

Who? masc. *kus*, fem. *kŏssa*, neut. *kyāh*; acc. masc. fem. *kamis*, *kas*, neut. *kath*; ag. masc. neut. *kam*^{i}, fem. *kami*; nom. plur. masc. *kam*.

Self, *pāna*. Anyone, someone, *kāh*, *kūh*, or *kātshāh*, neut. *kĕtshāh*.

Kashmiri makes very free use of pronominal suffixes, which are added to verbs to supply the place of personal terminations. These represent almost any case, and are as follows:—

	First Person.	Second Person.	Third Person.
Sing.—			
Nom.	*s*	*kh, h*	none
Acc.	*m*	*th, y*	*s*
Dat.	*m*	*y*	*s*
Ag.	*m*	*th, y*	*n*
Plur.—			
Nom.	none	*wa*	none
Other cases	none	*wa*	*kh, h*

Before these the verbal terminations are often slightly changed for the sake of euphony, and, when necessary for the pronunciation, the vowel *a* is inserted as a junction vowel.

In this connexion we may mention another set of suffixes also commonly added to verbs, with an adverbial force. Of these *na* negatives the verb, as in *chuh*, he is; *chuna*, he is not; *ā* asks a

question, as in *chwā*, is he? *ti* adds emphasis, as in *chuti*, he is indeed; and *tyā* asks a question with emphasis, as in *chutyā*, is he indeed?

Two or three suffixes may be employed together. as in *kạrᵘ*, was made, *kạru-m*, was made by me, *kạrᵘ-m-akh*, thou wast made by me; *kạrᵘ-m-akh-ā*, wast thou made by me? The two *kh* suffixes become *h* when they are followed by a pronominal suffix commencing with a vowel, as in *kạrᵘ-h-as* (for *kạrᵘ-kh-as*), I was made by them.

E. *Conjugation.* As in the case of the modern Indo-Aryan vernaculars, the conjugation of the verb is mainly participial. Three only of the old tenses, the present, the future and the imperative have survived, the first having become a future, and the second a past conditional. These three we may call radical tenses. The rest, viz. the Kashmiri present, imperfect, past, aorist, perfect and other past tenses are all participial.

The verb substantive, which is also used as an auxiliary verb, has two tenses, a present and a past. The former is made by adding the pronominal suffixes of the nominative to a base *chu(h)*, and the latter by adding the same to a base *āsᵘ*. Thus:—

	Singular		*Plural*	
	Masculine	Feminine	Masculine	Feminine
1	*chu-s*, I am	*chĕ-s*, I am	*chih*, we are	*chĕh*, we are
2	*chu-kh*, thou art	*chĕ-kh*, thou art	*chi-wa*, you are	*chĕ-wa*, you are
3	*chuh*, he is	*chĕh*, she is	*chih*, they are	*chĕh*, they are
1	*āsu-s*, I was	*āsᵘ-s*, I was	*āsⁱ*, we were	*āsa*, we were
2	*āsu-kh*, thou wast	*āsᵘ-kh*, thou wast	*āsⁱ-wa*, you were	*āsa-wa*, you were
3	*āsᵘ*, he was	*āsᵘ*, she was	*āsⁱ*, they were	*āsa*, they were

As for the finite verb, the modern future (old present), and the past conditional (old future) do not change for gender, and do not employ suffixes, but retain relics of the old personal terminations of the tenses from which they are derived. They are thus conjugated, taking the verbal root *kar*, as the typical verb.

	Future, I shall make, &c.		Past Conditional, (if) I had made, &c.	
	Singular	*Plural*	*Singular*	*Plural*
1	*kara*	*karav*	*karahâ*	*karahâv*
2	*karakh*	*kariv*	*karahâkh*	*kạrⁱhīv*
3	*kari*	*karan*	*karihē*	*karahân*

For the imperative we have 2nd person singular, *kar*, plur. *kariv*; third person singular and plural *karin*.

Many of the above forms will be intelligible from a consideration of the closely allied Sanskrit, although they are not derived from that language; but some (*e.g.* those of the second person singular) can only be explained by the analogy of the Iranian and of the Piśāca languages.

The present participle is formed by adding *ān* to the root; thus, *karān*, making. It does not change for gender. From this we get a present and an imperfect, formed by adding respectively the present and past tenses of the auxiliary verb. Thus, *kāran chus*, I (masculine) am making, I make; *karān chĕs*, I (feminine) am making, I make; *karān āsus*, I (masculine) was making; and so on.

There are several past participles, all of which are liable to change for gender, and are utilized in conjugation. We have:—

	Singular		*Plural*	
	Masculine	Feminine	Masculine	Feminine
Weak past participle	*kạrᵘ*	*kạrᵘ*	*kạrⁱ*	*karĕ*
Strong past participle	*karyōv*	*karyēya*	*karyēy*	*karyēya*
Pluperfect participle	*karyāv*	*karyēya*	*karēyēy*	*karyēya*
Compound past participle	*kạrᵘmạtᵘ*	*kạrᵘmạtsᵘ*	*kạrⁱmāṭⁱ*	*karĕmatsạ*

In the strong past participle and the pluperfect participle, the final *v* and *y* (like the final *h* of *chuh* quoted above) are not parts of the original words, but are only added for the sake of euphony. The true words are *karyō*, *karyē*, *karyā* and *karyēyē*. There are three conjugations. The first includes all transitive verbs. These have both the weak and the strong past participles. The second conjugation consists of sixty-six common intransitive verbs, which also have both of these participles. The third conjugation consists of the remaining intransitive verbs. These have only the strong past participle. The weak past participle in the first two conjugations refers to something which has lately happened, and is used to form an immediate past tense. The strong past participle is more indefinite, and is employed to form a tense corresponding to the Greek aorist. The pluperfect participle refers to something which happened a long time ago, and is used to form the past tense of narration. As the third conjugation has no weak past participle, the strong past participle is employed to make the immediate past, and the pluperfect participle is employed to make the aorist past, while the new pluperfect participle is formed to make the tense of narration. Thus, from the root *wuph*, fly (third conjugation) we have *wuphyōv*, he flew just now, while *karyōv* (first conjugation) means "he was made at some indefinite time"; *wuphyāv*, he flew at some indefinite time, but *karyāv*, he was made a long time ago; finally, the new participle of the third conjugation, *wuphiyāv*, he flew a long time ago.

The corresponding tenses are formed by adding pronominal suffixes to the weak, the strong, or the pluperfect participle. In the last two the final *v* and *y*, being no longer required by euphony, are dropped. In the case of transitive verbs the participles are passive by derivation and in signification, and hence the suffix indicating the subject must be in the agent case. Thus *kạrᵘ* means "made." For "I made" we must say "made by me," *kạru-m*; for "thou madest," *kạru-th*, made by thee, and so on. If the thing made is feminine the participle must be feminine, and similarly if it is plural it must be plural. Thus, *kạru-m*, I made him; *kạrᵘ-m*, I made her; *kạri-m*, I made them (masculine); and *karĕ-m*, I made them (feminine). Similarly from the other two participles we have *karyō-m*, I made him; *karyēya-m*, I made her; *karyā-m*, I made him (a long time ago). The past participles of intransitive verbs are not passive, and hence the suffix indicating the subject must be in the nominative form. Thus *tsạlᵘ*, escaped (second conjugation); *tsạlu-s*, escaped-I, I (masculine) escaped; *tsạjᵘ-s*, I (feminine) escaped, and so on. Similarly for the third conjugation, *wuphyōv*, flew; *wuphyō-s*, I (masculine) flew; *wuphyēya-s*, I (feminine) flew, &c.

As explained above, these suffixes may be piled one on another. As a further example we may give *kạrᵘ*, made; *kạru-n*, made by him, he made; *kạru-n-as*, made by him I, he made me, or (as *-s* also means "for him") he made for him; *kạru-n-as-ā*, did he make me? or, did he make for him? and so on.

Tenses corresponding to the English perfect and pluperfect are formed by conjugating the auxiliary verb, adding the appropriate suffixes, with the compound past participle. Thus *kạrᵘmạtᵘ chu-n-as*, made am-by-him-I, he has made me; *tsạlᵘ mạtᵘ chu-kh*, escaped art thou, thou hast escaped; *wuphyōmạtᵘ chu-s*, flown am-I, I have flown. Similarly for the pluperfect, *kạrᵘmạtᵘ āsu-n-as*, made was-by-him-I, he had made me, and so on.

Many verbs have irregular past participles. Thus *mar*, die, has *mūdᵘ*; *di*, give, has *dịtᵘ*; *khi*, eat, has *khyauv* for its weak, and *khĕyōv* for its strong participle, while *ni*, take, has *nyūv* and *niyōv*, respectively. Others must be learnt from the regular grammars.

The infinitive is formed by adding *-un* to the root; thus *kar-un*, to make. It is declined like a somewhat irregular noun of the first declension, its accusative being *karanas*. There are three forms of the noun of agency, of which typical examples are *kar-awunᵘ*, *kar-an-wạ̄lᵘ*, and *kar-an-grākh*, a maker.

The passive is formed by conjugating the verb *yi*, come, with the ablative of the infinitive. Thus, *karana yiwān chuh*, it is coming by making, or into making, *i.e.* it is being made. A root is made active or causal by adding *-anaw*, *-āw*, or *-ᵉrāw*. Thus, *kar-anāw*, cause to make; *kumal*, be tender, *kumal-āw*, make tender; *kal*, be dumb, *kạl-ᵉrāw*, make dumb. Some verbs take one form and some another, and there are numerous irregularities, especially in the case of the last.

F. *Indeclinables.* Indeclinables (adverbs, prepositions, conjunctions and interjections) must be learnt from the dictionary. The number of interjections is very large, and they are distinguished by minute rules depending on the gender of the person addressed and the exact amount of respect due to him.

Literature.—Kashmiri possesses a somewhat extensive literature, which has been very little studied. The missionary William Carey published in 1821 a version of the New Testament (in the Śāradā character), which was the first book published in the language. In 1885 the Rev. J. Hinton Knowles published at Bombay a collection of Kashmiri proverbs and sayings, and K. F. Burkhard in 1895 published an edition of Maḥmūd Gāmī's poem on Yūsuf and Zulaikhā. This, with the exception of later translations of the Scriptures in the Persian character and a few minor works, is all the literature that has been printed or about which anything has been written. Maḥmūd Gāmī's poem is valuable as an example of the Kashmiri used by Mussulmans. For Hindu literature, we may quote a history of Krishna by Dīnanātha. The very popular *Lallā-vākya*, a poem on Śaiva philosopy by a woman named *Lālladēvī*, is said to be the oldest work in the language which has survived. Another esteemed work is the *Śiva Pariṇaya* of Kṛṣṇa Rājānaka, a living author. These and other books which have been studied by the present writer have little independent value, being imitations of Sanskrit literature. Nothing is known about the dates of most of the authors.

AUTHORITIES.—The scientific study of Kashmiri is of very recent date. The only printed lexicographical work is a short vocabulary by W. J. Elmslie (London, 1872). K. F. Burkhard brought out a grammar of the Mussulman dialect in the *Proceedings of the Royal Bavarian Academy of Science* for 1887–1889, of which a translation by G. A. Grierson appeared in the *Indian Antiquary* of 1895 and the following years (reprinted as a separate publication, Bombay, 1897). T. R. Wade's Grammar (London, 1888) is the merest sketch, and the only attempt at a complete work of the kind in English is G. A. Grierson's *Essays on Kāçmīrī Grammar* (London and Calcutta, 1899). A valuable native grammar in Sanskrit, the *Kaśmīraśabdāmṛta* of Īśvara Kaula, has been edited by the same writer (Calcutta, 1888). For an examination of the origin of Kashmiri grammatical forms and the Piśāca question generally, see G. A. Grierson's "On Certain Suffixes in the Modern Indo-Aryan Vernaculars" in the *Zeitschrift für Vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen* for 1903 and *The Piśāca Languages of North-Western India* (London, 1906).

The only important text which has been published is Burkhard's edition, with a partial translation, of Mahmūd Gāmī's "Yūsuf and Zulaikhā" in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* for 1895 and 1899. The text of the *Siva Pariṇaya*, edited by G. A. Grierson, is in course of publication by the Asiatic Society of Bengal. (G. A. GR.)

KASHUBES (sing. *Kaszub*, plur. *Kaszebe*), a Slavonic people numbering about 200,000, and living on the borders of West Prussia and Pomerania, along the Baltic coast between Danzig and Lake Garden, and inland as far as Konitz. They have no literature and no history, as they consist of peasants and fishermen, the educated classes being mostly Germans or Poles. Their language has been held to be but a dialect of Polish, but it seems better to separate it, as in some points it is quite independent, in some it offers a resemblance to the language of the Polabs (*q.v.*). This is most seen in the western dialect of the so-called Slovinci (of whom there are about 250 left) and Kabatki, whereas the eastern Kashube is more like Polish, which is encroaching upon and assimilating it. Lorentz calls the western dialect a language, and distinguishes 38 vowels. The chief points of Kashube as against Polish are that all its vowels can be nasal instead of *a* and *e* only, that it has preserved quantity and a free accent, has developed several special vowels, *e. g. ö*, *æ*, *ü*, and has preserved the original order, *e.g. gard* as against *grod*. The consonants are very like Polish. (See also SLAVS.)

AUTHORITIES.—F. Lorentz, *Slovinzische Grammatik* (St Petersburg, 1903) and "Die gegenseitigen Verhältnisse der sogen. Lechischen Sprachen," in *Arch. f. Slav. Phil.* xxiv. (1902); J. Baudouin de Courtenay, "Kurzes Resumé der Kaschubischen Frage," ibid. xxvi. (1904); G. Bronisch, *Kaschubische Dialektstudien* (Leipzig, 1896–1898); S. Ramult, *Słownik języka pomorskiego czyli kaszubskiego*, *i.e.* "Dictionary of the Seacoast (Pomeranian) or Kashube Language" (Cracow, 1893). (E. H. M.)

KASIMOV, a town of Russia, in the government of Ryazañ, on the Oka river, in 54° 56′ N. and 41° 3′ E., 75 m. E.N.E. of Ryazañ. Pop. (1897), 13,545, of whom about 1000 were Tatars. It is famed for its tanneries and leather goods, sheepskins and post-horse bells. Founded in 1152, it was formerly known as Meshcherski Gorodets. In the 15th century it became the capital of a Tatar khanate, subject to Moscow, and so remained until 1667. The town possesses a cathedral, and a mosque supposed to have been built by Kasim, founder of the Tatar principality. Near the mosque stands a mausoleum built by Shah-Ali in 1555. Lying on the direct road from Astrakhan to Moscow and Nizhniy-Novgorod, Kasimov is a place of some trade, and has a large annual fair in July. The waiters in the best hotels of St Petersburg are mostly Kasimov Tatars.

See Veliaminov-Zernov, *The Kasimov Tsars* (St Petersburg, 1863–1866).

KASSA (Germ. *Kaschau*; Lat. *Cassovia*), the capital of the county of Abauj-Torna, in Hungary, 170 m. N.E. of Budapest by rail. Pop. (1900), 35,856. Kassa is one of the oldest and handsomest towns of Hungary, and is pleasantly situated on the right bank of the Hernád. It is surrounded on three sides by hills covered with forests and vineyards, and opens to the S.E. towards a pretty valley watered by the Hernád and the Tarcza. Kassa consists of the inner town, which was the former old town surrounded with walls, and of three suburbs separated from it by a broad glacis. The most remarkable building, considered the grandest masterpiece of architecture in Hungary, is the Gothic cathedral of St Elizabeth. Begun about 1270 by Stephen V., it was continued (1342-1382) by Queen Elizabeth, wife of Charles I., and her son Louis I., and finished about 1468, in the reign of Matthias I. (Corvinus). The interior was transformed in the 18th century to the Renaissance style, and the whole church thoroughly restored in 1877–1896. The church of St Michael and the Franciscan or garrison church date from the 13th century. The royal law academy, founded in 1659, and sanctioned by golden bull of King Leopold I. in 1660, has an extensive library; there are also a museum, a Roman Catholic upper gymnasium and seminary for priests, and other schools and benevolent institutions. Kassa is the see of a Roman Catholic bishopric. It is the chief political and commercial town of Upper Hungary, and the principal *entrepôt* for the commerce between Hungary and Galicia. Its most important manufactures are tobacco, machinery, iron, furniture, textiles and milling. About 3 m. N.W. of the town are the baths of Bankó, with alkaline and ferruginous springs, and about 12 m. N.E. lies Rânk-Herlein, with an intermittent chalybeate spring. About 20 m. W. of Kassa lies the famous Premonstratensian abbey of Jászó, founded in the 12th century. The abbey contains a rich library and valuable archives. In the neighbourhood is a fine stalactite grotto, which often served as a place of refuge to the inhabitants in war time.

Kassa was created a town and granted special privileges by Béla IV. in 1235, and was raised to the rank of a royal free town by Stephen V. in 1270. In 1290 it was surrounded with walls. The subsequent history presents a long record of revolts, sieges and disastrous conflagrations. In 1430 the plague carried off a great number of the inhabitants. In 1458 the right of minting money according to the pattern and value of the Buda coinage was granted to the municipality by King Matthias I. The bishopric was established in 1804. In the revolutionary war of 1848–49 the Hungarians were twice defeated before the walls of Kassa by the Austrians under General Schlick, and the town was held successively by the Austrians, Hungarians and Russians.

KASSALA, a town and *mudiria* of the Anglo-Egyptian Sudan. The town, a military station of some importance, lies on the river Gash (Mareb) in 15° 28′ N., 36° 24′ E., 260 m. E.S.E. of Khartum and 240 m. W. of Massawa, the nearest seaport. Pop. about 20,000. It is built on a plain, 1700 ft. above the sea, at the foot of the Abyssinian highlands 15 m.W. of the frontier of the Italian colony of Eritrea. Two dome-shaped mountains about 2600 ft. high, jebels Mokram and Kassala, rise abruptly from the plain some 3 m. to the east and south-east. These mountains and the numerous gardens Kassala contains give to the place a picturesque appearance. The chief buildings are of brick, but most of the natives dwell in grass *tukls*. A short distance from the town is Khatmia, containing a tomb mosque with a high tower, the headquarters of the Morgani family. The sheikhs El Morgani are the chiefs of a religious brotherhood widely spread and of considerable influence in the eastern Sudan. The Morgani family are of Afghan descent. Long settled in Jidda, the head of the family removed to the Sudan about 1800 and founded the Morgani sect. Kassala was founded by the Egyptians in 1840 as a fortified post from which to control their newly conquered territory near the Abyssinian frontier. In a few years it grew into a place of some importance. In November 1883 it was besieged by the dervishes. The garrison held out till the 30th of July 1885 when owing to lack of food they capitulated. Kassala was captured from the dervishes by an Italian force under Colonel Baratieri on the 17th of July 1894 and by the Italians was handed over on Christmas day 1897 to Egypt. The bulk of the inhabitants are Hallenga "Arabs."

Kassala *mudiria* contains some of the most fertile land in the Anglo-Egyptian Sudan. It corresponds roughly with the district formerly known as Taka. It is a region of light rainfall, and cultivation depends chiefly on the Gash flood. The river is however absolutely dry from October to June. White durra of excellent quality is raised.

KASSASSIN, a village of Lower Egypt 22 m. by rail W. of Ismailia on the Suez Canal. At this place, on the 28th of August and again on the 9th of September 1882 the British force operating against Arabi Pasha was attacked by the Egyptians—both attacks being repulsed (see EGYPT: *Military Operations*).

KASSITES, an Elamite tribe who played an important part in the history of Babylonia. They still inhabited the north-western mountains of Elam, immediately south of Holwan, when Sennacherib attacked them in 702 B.C. They are the Kossaeans of Ptolemy, who divides Susiana between them and the Elymaeans; according to Strabo (xi. 13, 3, 6) they were the neighbours of the Medes. Th. Nöldeke (*Gött. G. G.*, 1874, pp. 173 seq.) has shown that they are the Kissians of the older Greek authors who are identified with the Susians by Aeschylus (*Choeph.* 424, *Pers.* 17, 120) and Herodotus (v. 49, 52). We already hear of them as attacking Babylonia in the 9th year of Samsu-iluna the son of Khammurabi, and about 1780 B.C. they overran Babylonia and founded a dynasty there which lasted for 576 years and nine months. In the course of centuries, however, they were absorbed into the Babylonian population; the kings adopted Semitic names and married into the royal family of Assyria. Like the other languages of the non-Semitic tribes of Elam that of the Kassites was agglutinative; a vocabulary of it has been handed down in a cuneiform tablet, as well as a list of Kassite names with their Semitic equivalents. It has no connexion with Indo-European, as has erroneously been supposed. Some of the Kassite deities were introduced into the Babylonian pantheon, and the Kassite tribe of Khabirā seems to have settled in the Babylonian plain.

See Fr. Delitzsch, *Die Sprache der Kossäer* (1884). (A. H. S.)

KASTAMUNI, or KASTAMBŪL. (1) A vilayet of Asia Minor which includes Paphlagonia and parts of Pontus and Galatia. It is divided into four sanjaks—Kastamuni, Boli, Changra and Sinope—is rich in mineral wealth, and has many mineral springs and extensive forests, the timber being used for charcoal and building and the bark for tanning. The products are chiefly cereals, fruits, opium, cotton, tobacco, wool, ordinary goat-hair and mohair, in which there is a large trade. There are coal-mines at and near Eregli (anc. *Heracleia*) which yield steam coal nearly as good in quality as the English, but they are badly worked. Its population comprises about 993,000 Moslems and 27,000 Christians. (2) The capital of the vilayet, the ancient *Castamon*, altitude 2500 ft., situated in the narrow valley of the Geuk Irmak (*Amnias*), and connected by a carriage road, 54 m., with its port Ineboli on the Black Sea. The town is noted for its copper utensils, but the famous copper mines about 36 m. N., worked from ancient times to the 19th century, are now abandoned. There are over 30 mosques in the town, a dervish monastery, and numerous theological colleges (*medresses*), and the Moslem inhabitants have a reputation for bigotry. The climate though subject to extremes of heat and cold is healthy; in winter the roads are often closed by snow. The population of 16,000 includes about 2500 Christians. Castamon became an important city in later Byzantine times. It lay on the northern trunk-road to the Euphrates and was built round a strong fortress whose ruins crown the rocky hill west of the town. It was taken by the Danishmand Amirs of Sivas early in the 12th century, and passed to the Turks in 1393. (J. G. C. A.)

KASTORIA (Turkish *Kesrie*), a city of Macedonia, European Turkey, in the vilayet of Monastir, 45 m. S. by W. of Monastir (Bitolia). Pop. (1905), about 10,000, one-third of whom are Greeks, one-third Slavs, and the remainder Albanians or Turks. Kastoria occupies part of a peninsula on the western shore of Lake Kastoria, which here receives from the north its affluent the Zhelova. The lake is formed in a deep hollow surrounded by limestone mountains, and is drained on the south by the Bistritza, a large river which flows S.E. nearly to the Greek frontier, then sharply turns N.E., and finally enters the Gulf of Salonica. The lake has an area of 20 sq. m., and is 2850 ft. above sea-level. Kastoria is the seat of an Orthodox archbishop. It is usually identified with the ancient *Celetrum*, captured by the Romans under Sulpicius, during the first Macedonian campaign, 200 B.C., and better known for the defence maintained by Bryennius against Alexis I. in 1084. A Byzantine wall with round towers runs across the peninsula.

KASUR, a town of British India, in the Lahore district of the Punjab, situated on the north bank of the old bed of the river Beas, 34 m. S.E. of Lahore. Pop. (1901), 22,022. A Rajput colony seems to have occupied the present site before the earliest Mahommedan invasion; but Kasur does not appear in history until late in the Mussulman period, when it was settled by a Pathan colony from beyond the Indus. It has an export trade in grain and cotton, and manufactures of cotton and leather goods.

KATAGUM, the sub-province of the double province of Kano in the British protectorate of Northern Nigeria. It lies approximately between 11° and 13° N. and 8° 20′ and 10° 40′ E. It is bounded N. by the French Sudan, E. by Bornu, S. by Bauchi, and W. by Kano. Katagum consists of several small but ancient Mahommedan emirates—Katagum, Messau, Gummel, Hadeija, Machena, with a fringe of Bedde pagans on its eastern frontier towards Bornu, and other pagans on the south towards Bauchi. The Waube flows from Kano through the province via Hadeija and by Damjiri in Bornu to Lake Chad, affording a route for the transport of goods brought by the Zungeru-Zaria-Kano railway to the headquarters of Katagum and western Bornu. Katagum is a fertile province inhabited by an industrious people whose manufactures rival those of Kano.

In ancient times the province of Katagum formed the debateable country between Bornu and the Hausa states. Though Mahommedan it resisted the Fula invasion. Its northern emirates were for a long time subject to Bornu, and its customs are nearly assimilated to those of Bornu. The province was taken under administrative control by the British in October 1903. In 1904 the capitals of Gummel, Hadeija, Messau and Jemaari, were brought into touch with the administration and native and provincial courts established. At the beginning of 1905 Katagum was incorporated as a sub-province with the province of Kano, and the administrative organization of a double province was extended over the whole. Hadeija, which is a very wealthy town and holds an important position both as a source of supplies and a centre of trade, received a garrison of mounted infantry and became the capital of the sub-province.

Hadeija was an old Habe town and its name, an evident corruption of Khadija, the name of the celebrated wife and first convert of Mahomet, is a strong presumption of the incorrectness of the Fula claim to have introduced Islam to its inhabitants. The ruling dynasty of Hadeija was, however, overthrown by Fula usurpation towards the end of the 18th century, and the Fula ruler received a flag and a blessing from Dan Fodio at the beginning of his sacred war in the opening years of the 19th century. Nevertheless the habit of independence being strong in the town of Hadeija the little emirate held its own against Sokoto, Bornu and all comers. Though included nominally within the province at Katagum it was the boast of Hadeija that it had never been conquered. It had made nominal submission to the British in 1903 on the successful conclusion of the Kano-Sokoto campaign, and in 1905, as has been stated, was chosen as the capital of the sub-province. The emir's attitude became, however, in the spring of 1906 openly antagonistic to the British and a military expedition was sent against him. The emir with his disaffected chiefs made a plucky stand but after five hours' street fighting the town was reduced. The emir and three of his sons were killed, and a new emir, the rightful heir to the throne, who had shown himself in favour of a peaceful policy, was appointed. The offices of the war chiefs in Hadeija were abolished and 150 yards of the town wall were broken down.

Slave dealing is at an end in Katagum. The military station at Hadeija forms a link in the chain of British forts which extends along the northern frontier of the protectorate. (See NIGERIA.) (F. L. L.)

KATANGA, a district of Belgian Congo, forming the south-eastern part of the colony. Area, approximately, 180,000 sq. m.; estimated population 1,000,000. The natives are members of

the Luba-Lunda group of Bantus. It is a highly mineralized region, being specially rich in copper ore. Gold, iron and tin are also mined. Katanga is bounded S. and S.E. by Northern Rhodesia, and British capital is largely interested in the development of its resources, the administration of the territory being entrusted to a committee on which British members have seats. Direct railway communication with Cape Town and Beira was established in 1909. There is also a rail and river service via the Congo to the west coast. (See CONGO FREE STATE.)

KATER, HENRY (1777–1835), English physicist of German descent, was born at Bristol on the 16th of April 1777. At first he purposed to study law; but this he abandoned on his father's death in 1794, and entered the army, obtaining a commission in the 12th regiment of foot, then stationed in India, where he rendered valuable assistance in the great trigonometrical survey. Failing health obliged him to return to England; and in 1808, being then a lieutenant, he entered on a distinguished student career in the senior department of the Royal Military College at Sandhurst. Shortly after he was promoted to the rank of captain. In 1814 he retired on half-pay, and devoted the remainder of his life to scientific research. He died at London on the 26th of April 1835.

His first important contribution to scientific knowledge was the comparison of the merits of the Cassegrainian and Gregorian telescopes, from which (*Phil. Trans.*, 1813 and 1814) he deduced that the illuminating power of the former exceeded that of the latter in the proportion of 5 : 2. This inferiority of the Gregorian he explained as being probably due to the mutual interference of the rays as they crossed at the principal focus before reflection at the second mirror. His most valuable work was the determination of the length of the second's pendulum, first at London and subsequently at various stations throughout the country (*Phil. Trans.*, 1818, 1819). In these researches he skilfully took advantage of the well-known property of reciprocity between the centres of suspension and oscillation of an oscillating body, so as to determine experimentally the precise position of the centre of oscillation; the distance between these centres was then the length of the ideal simple pendulum having the same time of oscillation. As the inventor of the floating collimator, Kater rendered a great service to practical astronomy (*Phil. Trans.*, 1825, 1828). He also published memoirs (*Phil. Trans.*, 1821, 1831) on British standards of length and mass; and in 1832 he published an account of his labours in verifying the Russian standards of length. For his services to Russia in this respect he received in 1814 the decoration of the order of St. Anne; and the same year he was elected a fellow of the Royal Society.

His attention was also turned to the subject of compass needles, his Bakerian lecture "On the Best Kind of Steel and Form for a Compass Needle" (*Phil. Trans.*, 1821) containing the results of many experiments. The treatise on "Mechanics" in Lardner's *Cyclopaedia* was partly written by him; and his interest in more purely astronomical questions was evidenced by two communications to the Astronomical Society's *Memoirs* for 1831–1833—the one on an observation of Saturn's outer ring, the other on a method of determining longitude by means of lunar eclipses.

KATHA, a district in the northern division of Upper Burma, with an area of 6994 sq. m., 3730 of which consists of the former separate state of Wuntho. It is bounded N. by the Upper Chindwin, Bhamo and Myitkyina districts, E. by the Kaukkwe River as far as the Irrawaddy, thence east of the Irrawaddy by the Shan State of Möng Mit(Momeik), and by the Shweli River, S. by the Ruby Mines district and Shwebo, and W. by the Upper Chindwin district. Three ranges of hills run through the district, known as the Minwun, Gangaw and Mangin ranges. They separate the three main rivers—the Irrawaddy, the Mèza and the Mu. The Minwun range runs from north to south, and forms for a considerable part of its length the dividing line between the Katha district proper and what formerly was the Wuntho state. Its average altitude is between 1500 and 2000 ft. The Gangaw range runs from the north of the district for a considerable portion of its length close to and down the right bank of the Irrawaddy as far as Tigyaing, where the Myatheindan pagoda gives its name to the last point. Its highest point is 4400 ft., but the average is between 1500 and 2000 ft. The Katha branch of the railway crosses it at Petsut, a village 12 miles west of Katha town. The Mangin range runs through Wuntho (highest peak, Maingthôn, 5450 ft.).

Gold, copper, iron and lead are found in considerable quantities in the district. The Kyaukpazat gold-mines, worked by an English company, gave good returns, but the quartz reef proved to be a mere pocket and is now worked out. The iron, copper and lead are not now worked. Jade and soapstone also exist, and salt is produced from brine wells. There are three forest reserves in Katha, with a total area of 1119 sq. m. The population in 1901 was 176,223, an increase of 32% in the decade. The number of Shans is about half that of Burmese, and of Kadus half that of Shans. The Shans are mostly in the Wuntho subdivision. Rice is the chief crop in the plains, tea, cotton, sesamum and hill rice in the hills. The valley of the Mèza, which is very malarious, was used as a convict settlement under Burmese rule. The district was first occupied by British troops in 1886, but it was not finally quieted till 1890, when the Wuntho sawbwa was deposed and his state incorporated in Katha district.

KATHA is the headquarters of the district. The principal means of communication are the Irrawaddy Flotilla steamers, which run between Mandalay and Bhamo, and the railway which communicates with Sagaing to the south and Myitkyina to the north. A ferry-steamer plies between Katha and Bhamo.

KATHIAWAR, or KATTYWAR, a peninsula of India, within the Gujarat division of Bombay, giving its name to a political agency. Total area, about 23,400 sq. m.; pop. (1901), 2,645,805. These figures include a portion of the British district of Ahmedabad, a portion of the state of Baroda, and the small Portuguese settlement of Diu. The peninsula is bounded N. by the Runn of Cutch, E. by Ahmedabad district and the Gulf of Cambay, and S. and W. by the Arabian Sea. The extreme length is 220 m.; the greatest breadth about 165 m. Generally speaking, the surface is undulating, with low ranges running in various directions. With the exception of the Tangha and Mandav hills, in the west of Jhalawar, and some unimportant hills in Hallar, the northern portion of the country is flat; but in the south, from near Gogo, the Gir range runs nearly parallel with the coast, and at a distance of about 20 m. from it, along the north of Babriawar and Sorath, to the neighbourhood of Girnar. Opposite this latter mountain is the solitary Osam hill, and then still farther west is the Barada group, between Hallar and Barada, running about 20 m. north and south from Gumli to Ranawao. The Girnar group of mountains is an important granitic mass, the highest peak of which rises to 3500 ft. The principal river is the Bhadar, which rises in the Mandav hills, and flowing S.W. falls into the sea at Navi-Bandar; it is everywhere marked by highly cultivated lands adjoining its course of about 115 m. Other rivers are the Aji, Machhu and Satrunji—the last remarkable for romantic scenery. Four of the old races, the Jaitwas, Churasamas, Solunkis and Walas still exist as proprietors of the soil who exercised sovereignty in the country prior to the immigration of the Jhalas, Jadejas, Purmars, Kathis, Gohels, Jats, Mahommedans and Mahrattas, between whom the country is now chiefly portioned out. Kathiawar has many notable antiquities, comprising a rock inscription of Asoka, Buddhist caves, and fine Jain temples on the sacred hill of Girnar and at Palitana.

The political agency of Kathiawar has an area of 20,882 sq. m. In 1901 the population was 2,329,196, showing a decrease of 15% in the decade due to the results of famine. The estimated gross revenue of the several states is £1,278,000; total tribute (payable to the British, the gaekwar of Baroda and the nawab of Junagarh), £70,000. There are altogether 193 states of varying size and importance, of which 14 exercise independent jurisdiction, while the rest are more or less under British administration. The eight states of the first class are Junagaw, Nawanagar, Bhaunagar, Porbandar, Dhrangadra, Morvi, Gondal and Jafarabad. The headquarters of the political agent are at Rajkot, in the centre of the peninsula, where also is the Rajkumar college, for the education of the sons of the chiefs. There is a similar school for *girasias*, or chiefs of lower rank, at Gondal. An

excellent system of metre-gauge railways has been provided at the cost of the leading states. Maritime trade is also very active, the chief ports being Porbandar, Mangrol and Verawal. In 1903–1904 the total sea-borne exports were valued at £1,300,000, and the imports at £1,120,000. The progressive prosperity of Kathiawar received a shock from the famine of 1899–1900, which was felt everywhere with extreme severity.

KATKOV, MICHAEL NIKIFOROVICH (1818–1887), Russian journalist, was born in Moscow in 1818. On finishing his course at the university he devoted himself to literature and philosophy, and showed so little individuality that during the reign of Nicholas I. he never once came into disagreeable contact with the authorities. With the Liberal reaction and strong reform movement which characterized the earlier years of Alexander II.'s reign (1855–1881) he thoroughly sympathized, and for some time he warmly advocated the introduction of liberal institutions of the British type, but when he perceived that the agitation was assuming a Socialistic and Nihilist tinge, and that in some quarters of the Liberal camp indulgence was being shown to Polish national aspirations, he gradually modified his attitude until he came to be regarded by the Liberals as a renegade. At the beginning of 1863 he assumed the management and editorship of the *Moscow Gazette*, and he retained that position till his death in 1887. During these twenty-four years he exercised considerable influence on public opinion and even on the Government, by representing with great ability the moderately Conservative spirit of Moscow in opposition to the occasionally ultra-Liberal and always cosmopolitan spirit of St Petersburg. With the Slavophils he agreed in advocating the extension of Russian influence in south-eastern Europe, but he carefully kept aloof from them and condemned their archaeological and ecclesiastical sentimentality. Though generally temperate in his views, he was extremely incisive and often violent in his modes of expressing them, so that he made many enemies and sometimes incurred the displeasure of the press-censure and the ministers, against which he was more than once protected by Alexander III. in consideration of his able advocacy of national interests. He is remembered chiefly as an energetic opponent of Polish national aspirations, of extreme Liberalism, of the system of public instruction based on natural science, and of German political influence. In this last capacity he helped to prepare the way for the Franco-Russian alliance.

KATMANDU (less correctly KHATMANDU), the capital of the state of Nepal, India, situated on the bank of the Vishnumati river at its confluence with the Baghmati, in 27° 36′ N., 85° 24′ E. The town, which is said to have been founded about 723, contains a population estimated at 70,000, occupying 5000 houses made of brick, and usually from two to four storeys high. Many of the houses have large projecting wooden windows or balconies, richly carved. The maharaja's palace, a huge, rambling, ungainly building, stands in the centre of the town, which also contains numerous temples. One of these, a wooden building in the centre of the town, gives it its name (*kat* = wood). The streets are extremely narrow, and the whole town very dirty. A British resident is stationed about a mile north of the town.

KATO, TAKA-AKIRA (1859–), Japanese statesman, was born at Nagoya, and commenced life as an employee in the great firm of Mitsu Bishi. In 1887 he became private secretary to Count Okuma, minister of state for foreign affairs. Subsequently he served as director of a bureau in the finance department, and from 1894 to 1899 he represented his country at the court of St James. He received the portfolio of foreign affairs in the fourth Ito cabinet (1900–1901), which remained in office only a few months. Appointed again to the same position in the Saionji cabinet (1906), he resigned after a brief interval, being opposed to the nationalization of the private railways, which measure the cabinet approved. He then remained without office until 1908, when he again accepted the post of ambassador in London. He was decorated with the grand cross of St Michael and St George, and earned the reputation of being one of the strongest men among the junior statesmen.

KATRINE, LOCH, a freshwater lake of Scotland, lying almost entirely in Perthshire. The boundary between the counties of Perth and Stirling runs from Glengyle, at the head of the lake, down the centre to a point opposite Stronachlachar from which it strikes to the south-western shore towards Loch Arklet. The loch, which has a south-easterly trend, is about 8 m. long, and its greatest breadth is 1 m. It lies 364 ft. above the sea-level. It occupies an area of 4¾ square miles and has a drainage basin of 37½ square miles. The average depth is 142 ft., the greatest depth being 495 ft. The average annual rainfall is 78 inches. The mean temperature at the surface is 56·4° F., and at the bottom 41° F. The scenery has been immortalized in Sir Walter Scott's *Lady of the Lake*. The surrounding hills are of considerable altitude, the most remarkable being the head of Ben A'an (1750 ft.) and the grassy craigs and broken contour of Ben Venue (2393 ft.). It is fed by the Gyle and numerous burns, and drained by the Achray to Loch Achray and thence by the Black Avon to Loch Vennacher. Since 1859 it has formed the chief source of the water-supply of Glasgow, the aqueduct leaving the lake about 1½ m. S.E. of Stronachlachar. By powers obtained in 1885 the level of the lake was increased by 5 ft. by a system of sluices regulating the outflow of the Achray. One result of this damming up has been to submerge the Silver Strand and to curtail the dimensions of Ellen's Isle. The principal points on the shores are Glengyle, formerly a fastness of the Macgregors, the Trossachs, the Goblins' Cave on Ben Venue, and Stronachlachar (Gaelic, "the mason's nose"), from which there is a ferry to Coilachra on the opposite side. A road has been constructed from the Trossachs for nearly six miles along the northern shore. During summer steamers ply between the Trossachs and Stronachlachar and there is a daily service of coaches from the Trossachs to Callander (about 10 m.) and to Aberfoyle (9 m.), and between Stronachlachar, to Inversnaid on Loch Lomond (about 4½ m.). The road to Inversnaid runs through the Macgregors' country referred to in Scott's *Rob Roy*.

KATSENA, an ancient state of the western Sudan, now included in the province of Kano in the British protectorate of Northern Nigeria. Katsena was amongst the oldest of the Hausa states. There exist manuscripts which carry back its history for about 1000 years and tradition ascribes the origin of the Hausa population, which is known also by the name of Habe or Habeche, to the union of Bajibda of Bagdad with a prehistoric queen of Daura. The conquest of the Habe of Katsena by the Fula about the beginning of the 19th century made little difference to the country. The more cultivated Habe were already Mahommedan and the new rulers adopted the existing customs and system of government. These were in many respects highly developed and included elaborate systems of taxation and justice.

The capital of the administrative district is a town of the same name, in 13° N., 7° 41′ E., being 160 m. E. by S. of the city of Sokoto, and 84 m. N.W. of Kano. The walls of Katsena have a circuit of between 13 and 14 miles, but only a small part of the enclosed space is inhabited. In the 17th and 18th centuries it appears to have been the largest town in the Hausa countries, and its inhabitants at that time numbered some 100,000. The date of the foundation of the present town must be comparatively modern, for it is believed to have been moved from its ancient site and at the time of Leo Africanus (*c.* 1513) there was no place of any considerable size in the province of Katsena. Before that period Katsena boasted of being the chief seat of learning throughout the Hausa states and this reputation was maintained to the time of the Fula conquest. In the beginning of the 19th century the town fell into the hands of the Fula, but only after a protracted and heroic defence. In March 1903 Sir F. Lugard visited Katsena on his way from Sokoto and the emir and chiefs accepted British suzerainty without fighting. The Katsena district has since formed an administrative district in the double province of Kano and Katagum. The emir was unfaithful to his oath of allegiance to the British crown, and was deposed in 1904. His successor was installed and took the oath of allegiance

in December of the same year. Katsena is a rich and populous district.

See the *Travels* of Heinrich Barth (new ed., London, 1890, chs. xxiii. and xxiv.). Consult also the *Annual Reports* on Northern Nigeria issued by the Colonial Office, London, particularly the Report for 1902.

KATSENA is also the name of a town in the district of Katsena-Allah, in the province of Muri, Northern Nigeria. This district is watered by a river of the same name which takes its rise in the mountains of the German colony of Cameroon, and flows into the Benue at a point above Abinsi.

KATSURA, TARO, MARQUESS (1847–), Japanese soldier and statesman, was born in 1847 in Choshu. He commenced his career by fighting under the Imperial banner in the civil war of the Restoration, and he displayed such talent that he was twice sent at public expense to Germany (in 1870 and 1884) to study strategy and tactics. In 1886 he was appointed vice-minister of war, and in 1891 the command of division devolved on him. He led the left wing of the Japanese army in the campaign of 1894–95 against China, and made a memorable march in the depth of winter from the north-east shore of the Yellow Sea to Haicheng, finally occupying Niuchwang, and effecting a junction with the second army corps which moved up the Liaotung peninsula. For these services he received the title of viscount. He held the portfolio of war from 1898 to 1901, when he became premier and retained office for four and a half years, a record in Japan. In 1902 his cabinet concluded the first *entente* with England, which event procured for Katsura the rank of count. He also directed state affairs throughout the war with Russia, and concluded the offensive and defensive treaty of 1905 with Great Britain, receiving from King Edward the grand cross of the order of St Michael and St George, and being raised by the mikado to the rank of marquess. He resigned the premiership in 1905 to Marquess Saionji, but was again invited to form a cabinet in 1908. Marquess Katsura might be considered the chief exponent of conservative views in Japan. Adhering strictly to the doctrine that ministries were responsible to the emperor alone and not at all to the diet, he stood wholly aloof from political parties, only his remarkable gift of tact and conciliation enabling him to govern on such principles.

KATTERFELTO (or KATERFELTO), **GUSTAVUS** (d. 1799), quack doctor and conjurer, was born in Prussia. About 1782 he came to London, where his advertisements in the newspapers, headed "Wonders! Wonders! Wonders!" enabled him to trade most profitably upon the credulity of the public during the widespread influenza epidemic of that year. His public entertainment, which, besides conjuring, included electrical and chemical experiments and demonstrations with the microscope, extracted a flattering testimonial from the royal family, who witnessed it in 1784. The poet William Cowper refers to Katterfelto in *The Task*; he became notorious for a long tour he undertook, exciting marvel by his conjuring performances.

KATTOWITZ, a town in the Prussian province of Silesia, on the Rawa, near the Russian frontier, 5 m. S.E. from Beuthen by rail. Pop. (1875), 11,352; (1905), 35,772. There are large iron-works, foundries and machine shops in the town, and near it zinc and anthracite mines. The growth of Kattowitz, like that of other places in the same district, has been very rapid, owing to the development of the mineral resources of the neighbourhood. In 1815 it was a mere village, and became a town in 1867. It has monuments to the emperors William I. and Frederick III.

See G. Hoffmann, *Geschichte der Stadt Kattowitz* (Kattowitz, 1895).

KATWA, or CUTWA, a town of British India, in Burdwan district, Bengal, situated at the confluence of the Bhagirathi and Ajai rivers. Pop. (1901), 7220. It was the residence of many wealthy merchants, but its commercial importance has declined as it is without railway communication and the difficulties of the river navigation have increased. It was formerly regarded as the key to Murshidabad. The old fort, of which scarcely a vestige remains, is noted as the scene of the defeat of the Mahrattas by Ali Vardi Khan.

KATYDID, the name given to certain North American insects, belonging to the family *Locustidae*, and related to the green or tree grasshoppers of England. As in other members of the family, the chirrup, alleged to resemble the words "Katydid," is produced by the friction of a file on the underside of the left forewing over a ridge on the upperside of the right. Several species, belonging mostly to the genera *Microcentonus* and *Cyrtophallus*, are known.

KAUFBEUREN, a town in the kingdom of Bavaria, on the Wertach, 55 m. S.W. of Munich by rail. Pop. (1905), 8955. Kaufbeuren is still surrounded by its medieval walls and presents a picturesque appearance. It has a handsome town hall with fine paintings, an old tower (the Hexenturm, or witches' tower), a museum and various educational institutions. The most interesting of the ecclesiastical buildings is the chapel of St Blasius, which was restored in 1896. The chief industries are cotton spinning, weaving, bleaching, dyeing, printing, machine building and lithography, and there is an active trade in wine, beer and cheese. Kaufbeuren is said to have been founded in 842, and is first mentioned in chronicles of the year 1126. It appears to have become a free imperial city about 1288, retaining the dignity until 1803, when it passed to Bavaria. It was formerly a resort of pilgrims, and Roman coins have been found in the vicinity.

See F. Stieve, *Die Reichsstadt Kaufbeuren und die bayrische Restaurationspolitik* (Munich, 1870); and Schröder, *Geschichte der Stadt und Katholischen Pfarrei Kaufbeuren* (Augsburg, 1903).

KAUFFMANN, [MARIA ANNA] ANGELICA (1741–1807), the once popular artist and Royal Academician, was born at Coire in the Grisons, on the 30th of October 1741. Her father, John Josef Kauffmann, was a poor man and mediocre painter, but apparently very successful in teaching his precocious daughter. She rapidly acquired several languages, read incessantly, and showed marked talents as a musician. Her greatest progress, however, was in painting; and in her twelfth year she had become a notability, with bishops and nobles for her sitters. In 1754 her father took her to Milan. Later visits to Italy of long duration appear to have succeeded this excursion; in 1763 she visited Rome, returning to it again in 1764. From Rome she passed to Bologna and Venice, being everywhere fêted and caressed, as much for her talents as for her personal charms. Writing from Rome in August 1764 to his friend Franke, Winckelmann refers to her exceptional popularity. She was then painting his picture, a half-length, of which she also made an etching. She spoke Italian as well as German, he says; and she also expressed herself with facility in French and English—one result of the last-named accomplishment being that she painted all the English visitors to the Eternal City. "She may be styled beautiful," he adds, "and in singing may vie with our best virtuosi." While at Venice, she was induced by Lady Wentworth, the wife of the English ambassador to accompany her to London, where she appeared in 1766. One of her first works was a portrait of Garrick, exhibited in the year of her arrival at "Mr Moreing's great room in Maiden Lane." The rank of Lady Wentworth opened society to her, and she was everywhere well received, the royal family especially showing her great favour.

Her firmest friend, however, was Sir Joshua Reynolds. In his pocket-book her name as "Miss Angelica" or "Miss Angel" appears frequently, and in 1766 he painted her, a compliment which she returned by her "Portrait of Sir Joshua Reynolds," aetat. 46. Another instance of her intimacy with Reynolds is to be found in the variation of Guercino's "Et in Arcadia ego" produced by her at this date, a subject which Reynolds repeated a few years later in his portrait of Mrs Bouverie and Mrs Crewe. When, about November 1767, she was entrapped into a clandestine marriage with an adventurer who passed for a Swedish count (the Count de Horn) Reynolds befriended her, and it was doubtless owing to his good offices that her name is found among the signatories to the famous petition to the king for the establishment of the Royal Academy. In its first catalogue of 1769 she appears with "R.A." after her name (an honour which she shared

with another lady and compatriot, Mary Moser); and she contributed the "Interview of Hector and Andromache," and three other classical compositions. From this time until 1782 she was an annual exhibitor, sending sometimes as many as seven pictures, generally classic or allegorical subjects. One of the most notable of her performances was the "Leonardo expiring in the Arms of Francis the First," which belongs to the year 1778. In 1773 she was appointed by the Academy with others to decorate St Paul's, and it was she who, with Biagio Rebecca, painted the Academy's old lecture room at Somerset House. It is probable that her popularity declined a little in consequence of her unfortunate marriage; but in 1781, after her first husband's death (she had been long separated from him), she married Antonio Zucchi (1728–1795), a Venetian artist then resident in England. Shortly afterwards she retired to Rome, where she lived for twenty-five years with much of her old prestige. In 1782 she lost her father; and in 1795—the year in which she painted the picture of Lady Hamilton—her husband. She continued at intervals to contribute to the Academy, her last exhibit being in 1797. After this she produced little, and in November 1807 she died, being honoured by a splendid funeral under the direction of Canova. The entire Academy of St Luke, with numerous ecclesiastics and virtuosi, followed her to her tomb in S. Andrea delle Fratte, and, as at the burial of Raphael, two of her best pictures were carried in procession.

The works of Angelica Kauffmann have not retained their reputation. She had a certain gift of grace, and considerable skill in composition. But her drawing is weak and faulty; her figures lack variety and expression; and her men are masculine women. Her colouring, however, is fairly enough defined by Waagen's term "cheerful." Rooms decorated by her brush are still to be seen in various quarters. At Hampton Court is a portrait of the duchess of Brunswick; in the National Portrait Gallery, a portrait of herself. There are other pictures by her at Paris, at Dresden, in the Hermitage at St Petersburg, and in the Alte Pinakothek at Munich. The Munich example is another portrait of herself; and there is a third in the Uffizi at Florence. A few of her works in private collections have been exhibited among the "Old Masters" at Burlington House. But she is perhaps best known by the numerous engravings from her designs by Schiavonetti, Bartolozzi and others. Those by Bartolozzi especially still find considerable favour with collectors. Her life was written in 1810 by Giovanni de Rossi. It has also been used as the basis of a romance by Léon de Wailly, 1838; and it prompted the charming novel contributed by Mrs Richmond Ritchie to the *Cornhill Magazine* in 1875 under the title of "Miss Angel."

(A. D.)

KAUFMANN, CONSTANTINE PETROVICH (1818–1882), Russian general, was born at Maidani on the 3rd of March 1818. He entered the engineer branch in 1838, served in the campaigns in the Caucasus, rose to be colonel, and commanded the sappers and miners at the siege of Kars in 1855. On the capitulation of Kars he was deputed to settle the terms with General Sir W. Fenwick Williams. In 1861 he became director-general of engineers at the War Office, assisting General Milutin in the reorganization of the army. Promoted lieut.-general in 1864, he was nominated aide-de-camp-general and governor of the military conscription of Vilna. In 1867 he became governor of Turkestan, and held the post until his death, making himself a name in the expansion of the empire in central Asia. He accomplished a successful campaign in 1868 against Bokhara, capturing Samarkand and gradually subjugating the whole country. In 1873 he attacked Khiva, took the capital, and forced the khan to become a vassal of Russia. Then followed in 1875 the campaign against Khokand, in which Kaufmann defeated the khan, Nasr-ed-din. Khokand north of the Syr-daria was annexed to Russia, and the independence of the rest of the country became merely nominal. This rapid absorption of the khanates brought Russia into close proximity to Afghanistan, and the reception of Kaufmann's emissaries by the Amir was a main cause of the British war with Afghanistan in 1878. Although Kaufmann was unable to induce his government to support all his ambitious schemes of further conquest, he sent Skobeleff in 1880 and 1881 against the Akhal Tekkés, and was arranging to add Merv to his annexations when he died suddenly at Tashkend on the 15th of May 1882.

KAUKAUNA, a city of Outagamie county, Wisconsin, U.S.A., on the Fox river 7 m. N.E. of Appleton and about 100 m. N. of Milwaukee. Pop. (1900), 5115, of whom 1044 were foreign-born (1905) 4991; (1910) 4717. Kaukauna is served by the Chicago & North-Western railway (which has car-shops here), by inter-urban electric railway lines connecting with other cities in the Fox river, valley, and by river steamboats. It has a Carnegie library, a hospital and manufactories of pulp, paper, lumber and woodenware. Dams on the Fox River furnish a good water-power. The city owns its water-works. A small settlement of Indian traders was made here as early as 1820; in 1830 a Presbyterian mission was established, but the growth of the place was slow, and the city was not chartered until 1885.

KAULBACH, WILHELM VON (1805–1874), German painter, was born in Westphalia on the 15th of October 1805. His father, who was poor, combined painting with the goldsmith's trade, but means were found to place Wilhelm, a youth of seventeen, in the art academy of Düsseldorf, then becoming renowned under the directorship of Peter von Cornelius. Young Kaulbach contended against hardships, even hunger. But his courage never failed; and, uniting genius with industry, he was ere long foremost among the young national party which sought to revive the arts of Germany. The ambitious work by which Louis I. sought to transform Munich into a German Athens afforded the young painter an appropriate sphere. Cornelius had been commissioned to execute the enormous frescoes in the Glyptothek, and his custom was in the winters, with the aid of Kaulbach and others, to complete the cartoons at Düsseldorf, and in the summers, accompanied by his best scholars, to carry out the designs in colour on the museum walls in Munich. But in 1824 Cornelius became director of the Bavarian academy. Kaulbach, not yet twenty, followed, took up his permanent residence in Munich, laboured hard on the public works, executed independent commissions, and in 1849, when Cornelius left for Berlin, succeeded to the directorship of the academy, an office which he held till his death on the 7th of April 1874. His son Hermann (1846–1909) also became a distinguished painter.

Kaulbach matured, after the example of the masters of the Middle Ages, the practice of mural or monumental decoration; he once more conjoined painting with architecture, and displayed a creative fertility and readiness of resource scarcely found since the era of Raphael and Michelangelo. Early in the series of his multitudinous works came the famous Narrenhaus, the appalling memories of a certain madhouse near Düsseldorf; the composition all the more deserves mention for points of contact with Hogarth. Somewhat to the same category belong the illustrations to *Reineke Fuchs*. These, together with occasional figures or passages in complex pictorial dramas, show how dominant and irrepressible were the artist's sense of satire and enjoyment of fun; character in its breadth and sharpness is depicted with keenest relish, and at times the sardonic smile bursts into the loudest laugh. Thus occasionally the grotesque degenerates into the vulgar, the grand into the ridiculous, as in the satire on "the Pigtail Age" in a fresco outside the New Pinakothek. Yet these exceptional extravagances came not of weakness but from excess of power. Kaulbach tried hard to become Grecian and Italian; but he never reached Phidias or Raphael; in short the blood of Dürer, Holbein and Martin Schongauer ran strong in his veins. The art products in Munich during the middle of the 19th century were of a quantity to preclude first-rate quality, and Kaulbach contracted a fatal facility in covering wall and canvas by the acre. He painted in the Hofgarten, the Odeon, the Palace and on the external walls of the New Pinakothek. His perspicuous and showy manner also gained him abundant occupation as a book illustrator: in the pages of the poets his fancy revelled; he was glad to take inspiration from Wieland, Goethe, even Klopstock; among his engraved designs are the Shakespeare gallery, the Goethe gallery and a folio edition of the Gospels. With regard to these examples of "the Munich school," it was asserted that Kaulbach had been unfortunate alike in having found Cornelius for a master and King Louis for a patron, that he attempted "subjects far beyond him, believing

that his admiration for them was the same as inspiration"; and supplied the lack of real imagination by "a compound of intellect and fancy."

Nevertheless in such compositions as the Destruction of Jerusalem and the Battle of the Huns Kaulbach shows creative imagination. As a dramatic poet he tells the story, depicts character, seizes on action and situation, and thus as it were takes the spectator by storm. The manner may be occasionally noisy and ranting, but the effect after its kind is tremendous. The cartoon, which, as usual in modern German art, is superior to the ultimate picture, was executed in the artist's prime at the age of thirty. At this period, as here seen, the knowledge was little short of absolute; subtle is the sense of beauty; playful, delicate, firm the touch; the whole treatment artistic.

Ten or more years were devoted to what the Germans term a "cyclus"—a series of pictures depicting the Tower of Babel, the Age of Homer, the Destruction of Jerusalem, the Battle of the Huns, the Crusades and the Reformation. These major tableaux, severally 30 ft. long, and each comprising over one hundred figures above life-size, are surrounded by minor compositions making more than twenty in all. The idea is to congregate around the world's historic dramas the prime agents of civilization; thus here are assembled allegoric figures of Architecture and other arts, of Science and other kingdoms of knowledge, together with lawgivers from the time of Moses, not forgetting Frederick the Great. The chosen situation for this imposing didactic and theatric display is the Treppenhaus or grand staircase in the new museum, Berlin; the surface is a granulated, absorbent wall, specially prepared; the technical method is that known as "water-glass," or "liquid flint," the infusion of silica securing permanence. The same medium was adopted in the later wall-pictures in the Houses of Parliament, Westminster.

The painter's last period brings no new departure; his ultimate works stand conspicuous by exaggerations of early characteristics. The series of designs illustrative of Goethe, which had an immense success, were melodramatic and pandered to popular taste. The vast canvas, more than 30 ft. long, the Sea Fight at Salamis, painted for the Maximilianeum, Munich, evinces wonted imagination and facility in composition; the handling also retains its largeness and vigour; but in this astounding scenic uproar moderation and the simplicity of nature are thrown to the winds, and the whole atmosphere is hot and feverish.

Kaulbach's was a beauty-loving art. He is not supreme as a colourist; he belongs in fact to a school that holds colour in subordination; but he laid, in common with the great masters, the sure foundation of his art in form and composition. Indeed, the science of composition has seldom if ever been so clearly understood or worked out with equal complexity and exactitude; the constituent lines, the relation of the parts to the whole, are brought into absolute agreement; in modern Germany painting and music have trodden parallel paths, and Kaulbach is musical in the melody and harmony of his compositions. His narrative too is lucid, and moves as a stately march or royal triumph; the sequence of the figures is unbroken; the arrangement of the groups accords with even literary form; the picture falls into incident, episode, dialogue, action, plot, as a drama. The style is eclectic; in the Age of Homer the types and the treatment are derived from Greek marbles and vases; then in the Tower of Babel the severity of the antique gives place to the suavity of the Italian renaissance; while in the Crusades the composition is let loose into modern romanticism, and so the manner descends into the midst of the 19th century. And yet this scholastically compounded art is so nicely adjusted and smoothly blended that it casts off all incongruity and becomes homogeneous as the issue of one mind. But a fickle public craved for change; and so the great master in later years waned in favour, and had to witness, not without inquietude, the rise of an opposing party of naturalism and realism. (J. B. A.)

KAUNITZ-RIETBURG, WENZEL ANTON, PRINCE VON (1711–1794), Austrian chancellor and diplomatist, was born at Vienna on the 2nd of February 1711. His father, Max Ulrich, was the third count of Kaunitz, and married an heiress, Maria Ernestine Franziska von Rietburg. The family was ancient, and was believed to have been of Slavonic origin in Moravia. Wenzel Anton, being a second son, was designed for the church, but on the death of his elder brother he was trained for the law and for diplomacy, at Vienna, Leipzig and Leiden, and by travel. His family had served the Habsburgs with some distinction, and Kaunitz had no difficulty in obtaining employment. In 1735 he was a *Reichshofrath*. When the Emperor Charles VI. died in 1740, he is said to have hesitated before deciding to support Maria Theresa. If so, his hesitation did not last long, and left no trace on his loyalty. From 1742 to 1744 he was minister at Turin, and in the latter year was sent as minister with the Archduke Charles of Lorraine, the governor of Belgium. He was therefore an eye-witness of the campaigns in which Marshal Saxe overran Belgium. At this time he was extremely discouraged, and sought for his recall. But he had earned the approval of Maria Theresa, who sent him as representative of Austria to the peace congress of Aix-la-Chapelle in 1748. His tenacity and dexterity established his reputation as a diplomatist. He confirmed his hold on the regard and confidence of the empress by the line he took after the conclusion of the peace. In 1749 Maria Theresa appealed to all her counsellors for advice as to the policy Austria ought to pursue in view of the changed conditions produced by the rise of Prussia. The great majority of them, including her husband Francis I., were of opinion that the old alliance with the sea Powers, England and Holland, should be maintained. Kaunitz, either because he was really persuaded that the old policy must be given up, or because he saw that the dominating idea in the mind of Maria Theresa was the recovery of Silesia, gave it as his opinion that Frederick was now the "most wicked and dangerous enemy of Austria," that it was hopeless to expect the support of Protestant nations against him, and that the only way of recovering Silesia was by an alliance with Russia and France. The empress eagerly accepted views which were already her own, and entrusted the adviser with the execution of his own plans. An ambassador to France from 1750 to 1752, and after 1753 as "house, court and state chancellor," Kaunitz laboured successfully to bring about the alliance which led to the Seven Years' War. It was considered a great feat of diplomacy, and established Kaunitz as the recognized master of the art. His triumph was won in spite of personal defects and absurdities which would have ruined most men. Kaunitz had manias rarely found in company with absolute sanity. He would not hear of death, nor approach a sick man. He refused to visit his dying master Joseph II. for two whole years. He would not breathe fresh air. On the warmest summer day he kept a handkerchief over his mouth when out of doors, and his only exercise was riding under glass, which he did every morning for exactly the same number of minutes. He relaxed from his work in the company of a small dependent society of sycophants and buffoons. He was consumed by a solemn, garrulous and pedantic vanity. When in 1770 he met Frederick the Great at Mährisch-Neustadt, he came with a summary of political principles, which he called a catechism, in his pocket, and assured the king that he must be allowed to speak without interruption. When Frederick, whose interest it was to humour him, promised to listen quietly, Kaunitz rolled his mind out for two hours, and went away with the firm conviction that he had at last enlightened the inferior intellect of the king of Prussia as to what politics really were. Within a very short time Frederick had completely deceived and outmanœuvred him. With all his pomposity and conceit, Kaunitz was astute, he was laborious and orderly; when his advice was not taken he would carry out the wishes of his masters, while no defeat ever damped his pertinacity.

To tell his history from 1750 till his retirement in 1792 would be to tell part of the internal history of Austria, and all the international politics of eastern and central Europe. His governing principle was to forward the interests of "the august house of Austria," a phrase sometimes repeated at every few lines of his despatches. In internal affairs he in 1758 recommended, and helped to promote, a simplification of the confused and subdivided Austrian administration. But his main concern was always with diplomacy and foreign policy. Here he strove with untiring energy, and no small measure of success, to extend the Austrian dominions. After the Seven Years' War he endeavoured to avoid great risks, and sought to secure his ends by

alliances, exchanges and claims professing to have a legal basis, and justified at enormous length by arguments both pedantic and hypocritical. The French Revolution had begun to alter all the relations of the Powers before his retirement. He never understood its full meaning. Yet the circular despatch which he addressed to the ambassadors of the emperor on the 17th of July 1794 contains the first outlines of Metternich's policy of "legitimacy," and the first proposal for the combined action of the powers, based on the full recognition of one another's rights, to defend themselves against subversive principles. Kaunitz died at his house, the Garten Palast, near Vienna, on the 27th of June 1794. He married on the 6th of May 1736, Maria Ernestine von Starhemberg, who died on the 6th of September 1754. Four sons were born of the marriage.

See Hormayr, *Oesterreichischer Plutarch* (Vienna, 1823), for a biographical sketch based on personal knowledge. Also see Brunner, *Joseph II.: Correspondance avec Cobenzl et Kaunitz* (Mayence, 1871); A. Beer, *Joseph II., Leopold II. und Kaunitz* (Vienna, 1873).

KAUP, JOHANN JAKOB (1803–1873), German naturalist, was born at Darmstadt on the 10th of April 1803. After studying at Göttingen and Heidelberg he spent two years at Leiden, where his attention was specially devoted to the amphibians and fishes. He then returned to Darmstadt as an assistant in the grand ducal museum, of which in 1840 he became inspector. In 1829 he published *Skizze zur Entwickelungsgeschichte der europäischen Thierwelt*, in which he regarded the animal world as developed from lower to higher forms, from the amphibians through the birds to the beasts of prey; but subsequently he repudiated this work as a youthful indiscretion, and on the publication of Darwin's *Origin of Species* he declared himself against its doctrines. The extensive fossil deposits in the neighbourhood of Darmstadt gave him ample opportunities for palaeontological inquiries, and he gained considerable reputation by his *Beiträge zur näheren Kenntniss der urwelllichen Säugethiere* (1855–1862). He also wrote *Classification der Säugethiere und Vögel* (1844), and, with H. G. Brown (1800–1862) of Heidelberg, *Die Gavial-artigen Reste aus dem Lias* (1842–1844). He died at Darmstadt on the 4th of July 1873.

KAURI PINE, in botany, *Agathis australis*, a conifer native of New Zealand where it is abundant in forests in the North Island between the North Cape and 38° south latitude. The forests are rapidly disappearing owing to use as timber and to destruction by fires. It is a tall resiniferous tree, usually ranging from 80 to 100 ft. in height, with a trunk 4 to 10 ft. in diameter, but reaching 150 ft., with a diameter of 15 to 22 ft.; it has a straight columnar trunk and a rounded bushy head. The thick resiniferous bark falls off in large flat flakes. The leaves, which persist for several years, are very thick and leathery; on young trees they are lance-shaped 2 to 4 in. long and ¼ to ½ in. broad, becoming on mature trees linear-oblong or obovate-oblong and ¾ to 1½ in. long. The ripe cones are almost spherical, erect, and 2 to 3 in. in diameter; the broad, flat, rather thin cone-scales fall from the axis when ripe. Each scale bears a single compressed seed with a membranous wing. The timber is remarkable for its strength, durability and the ease with which it is worked. The resin, kauri-gum, is an amber-like deposit dug in large quantities from the sites of previous forests, in lumps generally varying in size from that of a hen's egg to that of a man's head. The colour is of a rich brown or amber yellow, or it may be almost colourless and translucent. It is of value for varnish-making.

KAVA (Cava or Ava), an intoxicating, but non-alcoholic beverage, produced principally in the islands of the South Pacific, from the roots or leaves of a variety of the pepper plant (*Piper methysticum*). The method of preparation is somewhat peculiar. The roots or leaves are first chewed by young girls or boys, care being taken that only those possessing sound teeth and excellent general health shall take part in this operation. The chewed material is then placed in a bowl, and water or coco-nut milk is poured over it, the whole is well stirred, and subsequently the woody matter is removed by an ingenious but simple mechanical manipulation. The resulting liquid, which has a muddy or *café-au-lait* appearance, or is of a greenish hue if made from leaves, is now ready for consumption. The taste of the liquid is at first sweet, and then pungent and acrid. The usual dose corresponds to about two mouthfuls of the root. Intoxication (but this apparently only applies to those not inured to the use of the liquor) follows in about twenty minutes. The drunkenness produced by kava is of a melancholy, silent and drowsy character. Excessive drinking is said to lead to skin and other diseases, but *per contra* many medicinal virtues are ascribed to the preparation. There appears to be little doubt that the active principle in this beverage is a poison of an alkaloidal nature. It seems likely that this substance is not present as such (*i.e.* as a free alkaloid) in the plant, but that it exists in the form of a glucoside, and that by the process of chewing this glucoside is split up by one of the ferments in the saliva into the free alkaloid and sugar.

See *Pharm. Journ.* iii. 474; iv. 85; ix. 219; vii. 149; *Comptes Rendus*, l. 436, 598; lii. 206; *Journ. de Pharm.* (1860) 20; (1862) 218; Seeman, *Flora Vitiensis*, 260; Beachy, *Voyage of the "Blossom,"* ii. 120.

KAVADH (Kabades, Kauades), a Persian name which occurs first in the mythical history of the old Iranian kingdom as Kai Kobadh (Kaikobad). It was borne by two kings of the Sassanid dynasty.

(1) Kavadh I., son of Pērōz, crowned by the nobles in 488 in place of his uncle Balash, who was deposed and blinded. At this time the empire was utterly disorganized by the invasion of the Ephthalites or White Huns from the east. After one of their victories against Pērōz, Kavadh had been a hostage among them during two years, pending the payment of a heavy ransom. In 484 Pērōz had been defeated and slain with his whole army. Balash was not able to restore the royal authority. The hopes of the magnates and high priests that Kavadh would suit their purpose were soon disappointed. Kavadh gave his support to the communistic sect founded by Mazdak, son of Bamdad, who demanded that the rich should divide their wives and their wealth with the poor. His intention evidently was, by adopting the doctrine of the Mazdakites, to break the influence of the magnates. But in 496 he was deposed and incarcerated in the "Castle of Oblivion (Lethe)" in Susiana, and his brother Jamasp (Zamaspes) was raised to the throne. Kavadh, however, escaped and found refuge with the Ephthalites, whose king gave him his daughter in marriage and aided him to return to Persia. In 499 he became king again and punished his opponents. He had to pay a tribute to the Ephthalites and applied for subsidies to Rome, which had before supported the Persians. But now the emperor Anastasius refused subsidies, expecting that the two rival powers of the East would exhaust one another in war. At the same time he intervened in the affairs of the Persian part of Armenia. So Kavadh joined the Ephthalites and began war against the Romans. In 502 he took Theodosiopolis in Armenia, in 503 Amida (Diarbekr) on the Tigris. In 505 an invasion of Armenia by the western Huns from the Caucasus led to an armistice, during which the Romans paid subsidies to the Persians for the maintenance of the fortifications on the Caucasus. When Justin I. (518–527) came to the throne the conflict began anew. The Persian vassal, Mondhir of Hira, laid waste Mesopotamia and slaughtered the monks and nuns. In 531 Belisarius was beaten at Callinicum. Shortly afterwards Kavadh died, at the age of eighty-two, in September 531. During his last years his favourite son Chosroes had had great influence over him and had been proclaimed successor. He also induced Kavadh to break with the Mazdakites, whose doctrine had spread widely and caused great social confusion throughout Persia. In 529 they were refuted in a theological discussion held before the throne of the king by the orthodox Magians, and were slaughtered and persecuted everywhere; Mazdak himself was hanged. Kavadh evidently was, as Procopius (*Pers.* i. 6) calls him, an unusually clear-sighted and energetic ruler. Although he could not free himself from the yoke of the Ephthalites, he succeeded in restoring order in the interior and fought with success against the Romans. He built some

towns which were named after him, and began to regulate the taxation.

(2) KAVADH II. SHEROE (Siroes), son of Chosroes II., was raised to the throne in opposition to his father in February 628, after the great victories of the emperor Heraclius. He put his father and eighteen brothers to death, began negotiations with Heraclius, but died after a reign of a few months. (ED. M.)

KAVALA, or CAVALLA, a walled town and seaport of European Turkey in the vilayet of Salonica, on the Bay of Kavala, an inlet of the Aegean Sea. Pop. (1905), about 5000. Kavala is built on a promontory stretching south into the bay, and opposite the island of Thasos. There is a harbour on each side of the promontory. The resident population is increased in summer by an influx of peasantry, of whom during the season 5000 to 6000 are employed in curing tobacco and preparing it for export. The finest Turkish tobacco is grown in the district, and shipped to all parts of Europe and America, to the annual value of about £1,250,000. Mehemet Ali was born here in 1769, and founded a Turkish school which still exists. His birthplace, an unpretentious little house in one of the tortuous older streets, can be distinguished by the tablet which the municipal authorities have affixed to its front wall. Numerous Roman remains have been found in the neighbourhood, of which the chief is the large aqueduct on two tiers of arches which still serves to supply the town and dilapidated citadel with water from Mount Pangeus.

Kavala has been identified with Neapolis, at which St Paul landed on his way from Samothrace to Philippi (Acts xvi. 11). Neapolis was the port of Philippi, as Kavala now is of Seres; in the bay on which it stands the fleet of Brutus and Cassius was stationed during the battle of Philippi. Some authorities identify Neapolis with Datum (Δάτον), mentioned by Herodotus as famous for its gold mines.

KAVANAGH, ARTHUR MACMORROUGH (1831–1889), Irish politician, son of Thomas Kavanagh, M.P., who traced his descent to the ancient kings of Leinster, was born in Co. Carlow, Ireland, on the 25th of March 1831. He had only the rudiments of arms and legs, but in spite of these physical defects had a remarkable career. He learnt to ride in the most fearless way, strapped to a special saddle, and managing the horse with the stumps of his arms; and also fished, shot, drew and wrote, various mechanical contrivances being devised to supplement his limited physical capacities. He travelled extensively in Egypt, Asia Minor, Persia and India between 1846 and 1853, and after succeeding to the family estates in the latter year, he married in 1855 his cousin, Miss Frances Mary Leathley. Assisted by his wife, he was a most philanthropic landlord, and was an active county magistrate and chairman of the board of guardians. A Conservative and a Protestant, he sat in Parliament for Co. Wexford from 1866 to 1868, and for Co. Carlow from 1868 to 1880. He was opposed to the disestablishment of the Irish Church, but supported the Land Act of 1870, and sat on the Bessborough Commission. In 1886 he was made a member of the Privy Council in Ireland. He died of pneumonia on the 25th of December 1889, in London. It is supposed that his extraordinary career suggested the idea of "Lucas Malet's" novel, *The History of Sir Richard Calmady.*

KAVANAGH, JULIA (1824–1877), British novelist, was born at Thurles in Tipperary, Ireland, in 1824. She was the daughter of Morgan Peter Kavanagh (d. 1874), author of various worthless philological works and some poems. Julia spent several years of her early life with her parents in Normandy, laying there the foundation of a mastery of the French language and insight into French modes of thought, which was perfected by her later frequent and long residences in France. Miss Kavanagh's literary career began with her arrival in London about 1844, and her uneventful life affords few incidents to the biographer. Her first book was *Three Paths* (1847), a story for the young; but her first work to attract notice was *Madeleine, a Tale of Auvergne* (1848). Other books followed: *A Summer and Winter in the Two Sicilies* (1858); *French Women of Letters* (1862); *English Women of Letters* (1862); *Woman in France during the 18th Century* (1850); and *Women of Christianity* (1852). The scenes of her stories are almost always laid in France, and she handles her French themes with fidelity and skill. Her style is simple and pleasing rather than striking; and her characters are interesting without being strongly individualized. Her most popular novels were perhaps *Adèle* (1857), *Queen Mab* (1863), and *John Dorrien* (1875). On the outbreak of the Franco-German War Julia Kavanagh removed with her mother from Paris to Rouen. She died at Nice on the 28th of October 1877.

KAVASS, or CAVASS (adapted from the Turkish *qawwas*, a bow-maker; Arabic *qaws*, a bow), a Turkish name for an armed police-officer; also for a courier such as it is usual to engage when travelling in Turkey.

KAVIRONDO, a people of British East Africa, who dwell in the valley of the Nzoia River, on the western slopes of Mount Elgon, and along the north-east coast of Victoria Nyanza. Kavirondo is the general name of two distinct groups of tribes, one Bantu and the other Nilotic. Both groups are immigrants, the Bantu from the south, the Nilotic from the north. The Bantu appear to have been the first comers. The Nilotic tribes, probably an offshoot of the Acholi (*q.v.*), appear to have crossed the lake to reach their present home, the country around Kavirondo Gulf. Of the two groups the Bantu now occupy a more northerly position than their neighbours, and "are practically the most northerly representatives of that race" (Hobley). Their further progress north was stopped by the southward movement of the Nilotic tribes, while the Nilotic Kavirondo in their turn had their wanderings arrested by an irruption of Elgumi people from the east. The Elgumi are themselves probably of Nilotic origin. Both groups of Kavirondo are physically fine, the Nilotic stock appearing more virile than the Bantu. The Bantu Kavirondo are divided into three principal types—the Awa-Rimi, the Awa-Ware and the Awa-Kisii. By the Nilotic Kavirondo their Bantu neighbours are known as Ja-Mwa. The generic name for the Nilotic tribes is Ja-Luo. The Bantu Kavirondo call them Awa-Nyoro. The two groups have many characteristics in common. A characteristic feature of the people is their nakedness. Among the Nilotic Kavirondo married men who are fathers wear a small piece of goat-skin, which though practically useless as a covering must be worn according to tribal etiquette. Even among men who have adopted European clothing this goat-skin must still be worn underneath. Contact with whites has led to the adoption of European clothing by numbers of the men, but the women, more conservative, prefer nudity or the scanty covering which they wore before the advent of Europeans. Among the Bantu Kavirondo married women wear a short fringe of black string in front and a tassel of banana fibre suspended from a girdle behind, this tassel having at a distance the appearance of a tail. Hence the report of early travellers as to a tailed race in Africa. The Nilotic Kavirondo women wear the tail, but dispense with the fringe in front. For "dandy" they wear a goat-skin slung over the shoulders. Some of the Bantu tribes practise circumcision, the Nilotic tribes do not. Patterns are tattooed on chest and stomach for ornament. Men, even husbands, are forbidden to touch the women's tails, which must be worn even should any other clothing be wrapped round the body. The Kavirondo are noted for their independent and pugnacious nature, their honesty and their sexual morality, traits particularly marked among the Bantu tribes. There are more women than men, and thus the Kavirondo are naturally inclined towards polygamy. Among the Bantu tribes a man has the refusal of all the younger sisters of his wife as they attain puberty. Practically no woman lives unmarried all her life, for if no suitor seeks her, she singles out a man and offers herself to him at a "reduced price," an offer usually accepted, as the women are excellent agricultural labourers. The Nilotic Kavirondo incline to exogamy, endeavouring always to marry outside their clan. Girls are betrothed at six or seven, and the husband-elect continually makes small presents to his father-in-law-elect till the bride reaches womanhood. It is regarded as shameful if the girl be not found a virgin on her wedding day. She is sent back to her parents, who have to return the marriage

price, and pay a fine. The wife's adultery was formerly punished with death, and the capital penalty was also inflicted on young men and girls guilty of unchastity. Among the Bantu Kavirondo the usual minimum price for a wife is forty hoes, twenty goats and one cow, paid in instalments. The Nilotic Kavirondo pay twenty sheep and two to six cows; the husband-elect can claim his bride when he has made half payment. If a woman dies without bearing children, the amount of her purchase is returnable by her father, unless the widower consents to replace her by another sister. The women are prolific and the birth of twins is common. This is considered a lucky event, and is celebrated by feasting and dances. Among the Bantu Kavirondo the mother of twins must remain in her hut for seven days. Among the Nilotic Kavirondo the parents and the infants must stay in the hut for a whole month. If a Bantu mother has lost two children in succession the next child born is taken out at dawn and placed on the road, where it is left till a neighbour, usually a woman friend who has gone that way on purpose, picks it up. She takes it to its mother who gives a goat in return. A somewhat similar custom prevails among the Nilotic tribes. Names are not male and female, and a daughter often bears her father's name.

The Kavirondo bury their dead. Among one of the Bantu tribes, the Awa-Kisesa, a chief is buried in the floor of his own hut in a sitting position, but at such a depth that the head protrudes. Over the head an earthenware pot is placed, and his principal wives have to remain in the hut till the flesh is eaten by ants or decomposes, when the skull is removed and buried close to the hut. Later the skeleton is unearthed, and reburied with much ceremony in the sacred burial place of the tribe. Married women of the Bantu tribes are buried in their hut lying on their right side with legs doubled up, the hut being then deserted. Among the Nilotic tribes the grave is dug beneath the verandah of the hut. Men of the Bantu tribes are buried in an open space in the midst of their huts; in the Nilotic tribes, if the first wife of the deceased be alive he is buried in her hut, if not, beneath the verandah of the hut in which he died. A child is buried near the door of its mother's hut. A sign of mourning is a cord of banana fibre worn round the neck and waist. A chief chooses, sometimes years before his death, one of his sons to succeed him, often giving a brass bracelet as insignia. A man's property is divided equally among his children.

The Kavirondo are essentially an agricultural people: both men and women work in the fields with large iron hoes. In addition to sorghum, *Eleusine* and maize, tobacco and hemp are both cultivated and smoked. Both sexes smoke, but the use of hemp is restricted to men and unmarried women, as it is thought to injure child-bearing women. Hemp is smoked in a hubble-bubble. The Kavirondo cultivate sesamum and make an oil from its seeds which they burn in little clay lamps. These lamps are of the ancient saucer type, the pattern being, in Hobley's opinion, introduced into the country by the coast people. While some tribes live in isolated huts, those in the north have strongly walled villages. The walls are of mud and formerly, among the Nilotic tribes, occasionally of stone. Since the advent of the British the security of the country has induced the Kavirondo to let the walls fall into disrepair. Their huts are circular with conical thatched roof, and fairly broad verandah all round. A portion of the hut is partitioned off as a sleeping-place for goats, and the fowls sleep indoors in a large basket. Skins form the only bedsteads. In each hut are two fireplaces, about which a rigid etiquette prevails. Strangers or distant relatives are not allowed to pass beyond the first, which is near the door, and is used for cooking. At the second, which is nearly in the middle of the hut, sit the hut owner, his wives, children, brothers and sisters. Around this fireplace the family sleep. Cooking pots, water pots and earthenware grain jars are the only other furniture. The food is served in small baskets. Every full grown man has a hut to himself, and one for each wife. The huts of the Masaba Kavirondo of west Elgon have the apex of the roof surmounted by a carved pole which Sir H. H. Johnston says is obviously a phallus. Among the Bantu Kavirondo a father does not eat with his sons, nor do brothers eat together. Among the Nilotic tribes father and sons eat together, usually in a separate hut with open sides. Women eat apart and only after the men have finished. The Kavirondo keep cattle, sheep, goats, fowls and a few dogs. Women do not eat sheep, fowls or eggs, and are not allowed to drink milk except when mixed with other things. The flesh of the wild cat and leopard is esteemed by most of the tribes. From *Eleusine* a beer is made. The Kavirondo are plucky hunters, capturing the hippopotamus with ropes and traps, and attacking with spears the largest elephants. Fish, of which they are very fond, are caught by line and rod or in traps. Bee-keeping is common, and where trees are scarce the hives are placed on the roof of the hut. Among the Bantu Kavirondo goats and sheep are suffocated, the snout being held until the animal dies. Though a peaceful people the Kavirondo fight well. Their weapons are spears with rather long flat blades without blood-courses, and broad-bladed swords. Some use slings, and most carry shields. Bows and arrows are also used; firearms are however displacing other weapons. Kavirondo warfare was mainly defensive and intertribal, this last a form of vendetta. When a man had killed his enemy in battle he shaved his head on his return and he was rubbed with "medicine" (generally goat's dung), to defend him from the spirit of the dead man. This custom the Awa-Wanga abandoned when they obtained firearms. The young warriors were made to stab the bodies of their slain enemies. Kavirondo industries are salt-making, effected by burning reeds and water-plants and passing water through the ashes; the smelting of iron ore (confined to the Bantu tribes); pottery and basket-work.

The Kavirondo have many tribes, divided, Sir H. H. Johnston suspects, totemically. Their religion appears to be a vague ancestor-worship, but the northern tribes have two gods, Awafwa and Ishishemi, the spirits of good and evil. To the former cattle and goats are sacrificed. The Kavirondo have great faith in divination from the entrails of a sheep. Nearly everybody and everything is to the Kavirondo ominous of good or evil. They have few myths or traditions; the ant-bear is the chief figure in their beast-legends. They believe in witchcraft and practise trial by ordeal. As a race the Kavirondo are on the increase. This is due to their fecundity and morality. Those who live in the low-lying lands suffer from a mild malaria, while abroad they are subject to dysentery and pneumonia. Epidemics of small-pox have occurred. Native medicine is of the simplest. They dress wounds with butter and leaves, and for inflammation of the lungs or pleurisy pierce a hole in the chest. There are no medicine-men—the women are the doctors. Certain of the incisor teeth are pulled out. If a man retains these he will, it is thought, be killed in warfare. Among certain tribes the women also have incisor teeth extracted, otherwise misfortune would befall their husbands. For the same reason the wife scars the skin of her forehead or stomach. A Kavirondo husband, before starting on a perilous journey, cuts scars on his wife's body to ensure him good luck. Of dances the Kavirondo have four—the birth dance, the death dance, that at initiation and one of a propitiatory kind in seasons of drought. Their music is plaintive and sometimes pretty, produced by a large lyre-shaped instrument. They use also various drums.

The Ja-Luo women use for ear ornaments small beads attached to pieces of brass. Like the aggry beads of West Africa these beads are not of local manufacture nor of recent introduction. They are ancient, in colour generally blue, occasionally yellow or green, and are picked up in certain districts after heavy rain. By the natives they are supposed to come down with the rain. They are identical in shape and colour with ancient Egyptian beads and other beads obtained from ancient cities in Baluchistan.

See C. W. Hobley, *Eastern Uganda, an Ethnological Survey* (Anthrop. Inst., *Occasional Papers*, No. 1, London, 1902); Sir H. H. Johnston, *Uganda Protectorate* (1902); J. F. Cunningham, *Uganda and its Peoples* (1905); Paul Kollmann, *The Victoria Nyanza* (1899).

(T. A. J.)

KAW, or KANSA, a tribe of North American Indians of Siouan stock. They were originally an offshoot of the Osages. Their early home was in Missouri, whence they were driven to Kansas by the Dakotas. They were moved from one reservation to another, till in 1873 they were settled in Indian Territory; they have since steadily decreased, and now number some 200.

KAWARDHA, a feudatory state of India, within the Central Provinces; area, 798 sq. m.; pop. (1901), 57,474, showing a decrease of 37 % in the decade, due to famine; estimated revenue, £7000. Half the state consists of hill and forest. The residence of the chief, who is a Raj Gond, is at Kawardha (pop. 4772), which is also the headquarters of the Kabirpanthi sect (see KABIR).

KAY, JOHN (1742–1826), Scottish caricaturist, was born near Dalkeith, where his father was a mason. At thirteen he was apprenticed to a barber, whom he served for six years. He then went to Edinburgh, where in 1771 he obtained the freedom of the city by joining the corporation of barber-surgeons. In 1785, induced by the favour which greeted certain attempts of his to etch in aquafortis, he took down his barber's pole and opened a small print shop in Parliament Square. There he continued to flourish, painting miniatures, and publishing at short intervals his sketches and caricatures of local celebrities and oddities, who abounded at that period in Edinburgh society. He died on the 21st of February 1826.

Kay's portraits were collected by Hugh Paton and published under the title *A series of original portraits and caricature etchings by the late John Kay, with biographical sketches and illustrative anecdotes* (Edin., 2 vols. 4to, 1838; 8vo ed., 4 vols., 1842; new 4to ed., with additional plates, 2 vols., 1877), forming a unique record

of the social life and popular habits of Edinburgh at its most interesting epoch.

KAY, JOSEPH (1821–1878), English economist, was born at Salford, Lancashire, on the 27th of February 1821. Educated privately and at Trinity College, Cambridge, he was called to the bar at the Inner Temple in 1848. He was appointed judge of the Salford Hundred court of record in 1862 and in 1869 was made a queen's counsel. He is best known for a series of works on the social condition of the poor in France, Switzerland, Holland, Germany and Austria, the materials for which he gathered on a four years' tour as travelling bachelor of his university. They were *The Education of the Poor in England and Europe* (London, 1846); *The Social Condition of the People in England and Europe* (London, 1850, 2 vols.); *The Condition and Education of Poor Children in English and in German Towns* (Manchester, 1853). He was also the author of *The Law relating to Shipmasters and Seamen* (London, 1875) and *Free Trade in Land* (1879, with a memoir). He died at Dorking, Surrey, on the 9th of October 1878.

KAYAK, or CAYAK, an Eskimo word for a fishing boat, in common use from Greenland to Alaska. It has been erroneously derived from the Arabic *caique,* supposed to have been applied to the native boats by early explorers. The boat is made by covering a light wooden framework with sealskin. A hole is pierced in the centre of the top of the boat, and the *kayaker* (also dressed in sealskin) laces himself up securely when seated to prevent the entrance of water. The kayak is propelled like a canoe by a double-bladed paddle. The name *kayak* is properly only applied to the boat used by an Eskimo man—that used by a woman is called an *umiak.*

KAYASTH, the writer caste of Northern India, especially numerous and influential in Bengal. In 1901 their total number in all India was more than two millions. Their claim to be Kshattriyas who have taken to clerical work is not admitted by the Brahmans. Under Mahommedan rule they learnt Persian, and filled many important offices. They are now eager students of English, and have supplied not only several judges to the high court but also the first Hindu to be a member of the governor-general's council. In Bombay their place is taken by the Prabhus, and in Assam by the Kalitas (Kolitas); in Southern India there is no distinct clerical caste.

KAYE, SIR JOHN WILLIAM (1814–1876), English military historian, was the son of Charles Kaye, a solicitor, and was educated at Eton and the Royal Military College, Addiscombe. From 1832 to 1841 he was an officer in the Bengal Artillery, afterwards spending some years in literary pursuits both in India and in England. In 1856 he entered the civil service of the East India Company, and when the government of India was transferred to the British crown succeeded John Stuart Mill as secretary of the political and secret department of the India office. In 1871 he was made a K.C.S.I. He died in London on the 24th of July 1876. Kaye's numerous writings include *History of the Sepoy War in India* (London, 1864–1876), which was revised and continued by Colonel G. B. Malleson and published in six volumes in 1888–1889; *History of the War in Afghanistan* (London, 1851), republished in 1858 and 1874; *Administration of the East India Company* (London, 1853); *The Life and Correspondence of Charles, Lord Metcalfe* (London, 1854); *The Life and Correspondence of Henry St George Tucker* (London, 1854); *Life and Correspondence of Sir John Malcolm* (London, 1856); *Christianity in India* (London, 1859); *Lives of Indian Officers* (London, 1867); and two novels, *Peregrine Pultney* and *Long engagements.* He also edited several works dealing with Indian affairs; wrote *Essays of an Optimist* (London, 1870); and was a frequent contributor to periodicals.

KAYSER, FRIEDRICH HEINRICH EMANUEL (1845–), German geologist and palaeontologist, was born at Königsberg, on the 26th of March 1845. He was educated at Berlin where he took his degree of Ph.D. in 1870. In 1882 he became professor of geology in the university at Marburg. He investigated fossils of various ages and from all parts of the world, but more especially from the Palaeozoic formations, including those of South Africa, the Polar regions, and notably the Devonian fossils of Germany, Bohemia and other parts of Europe.

Among his separate works are *Lehrbuch der Geologie* (2 vols., ii.), *Geologische Formationskunde* 1891 (2nd ed., 1902), and i. *Allgemeine Geologie* (1893), vol. ii. (the volume first issued) was translated and edited by P. Lake, 1893, under the title *Textbook of Comparative Geology.* Another work is *Beiträge zur Kenntniss der Fauna der Siegenschen Grauwacke* (1892).

KAY-SHUTTLEWORTH, SIR JAMES PHILLIPS, BART. (1804–1877), English politician and educationalist, was born at Rochdale, Lancashire, on the 20th of July 1804, the son of Robert Kay. At first engaged in a Rochdale bank, in 1824 he became a medical student at Edinburgh University. Settling in Manchester about 1827, he worked for the Ancoats and Ardwick Dispensary, and the experience which he thus gained of the conditions of the poor in the Lancashire factory districts, together with his interest in economic science, led to his appointment in 1835 as poor law commissioner in Norfolk and Suffolk and later in the London districts. In 1839 he was appointed first secretary of the committee formed by the Privy Council to administer the Government grant for the public education in Great Britain. He is remembered as having founded at Battersea, London, in conjunction with E. Carleton Tufnell, the first training college for school teachers (1839–1840); and the system of national school education of the present day, with its public inspection, trained teachers and its support by state as well as local funds, is largely due to his initiative. In 1842 he married Lady Janet Shuttleworth, assuming by royal licence his bride's name and arms. A breakdown in his health led him to resign his post on the committee in 1849, but subsequent recovery enabled him to take an active part in the working of the central relief committee instituted under Lord Derby, during the Lancashire cotton famine of 1861–1865. He was created a baronet in 1849. Until the end of his life he interested himself in the movements of the Liberal party in Lancashire, and the progress of education. He died in London on the 26th of May 1877. His *Physiology, Pathology and Treatment of Asphyxia* became a standard textbook, and he also wrote numerous papers on public education.

His son, Sir Ughtred James Kay-Shuttleworth (b. 1844), became a well-known Liberal politician, sitting in parliament for Hastings from 1869 to 1880 and for the Clitheroe division of Lancashire from 1885 till 1902, when he was created Baron Shuttleworth. He was chancellor of the duchy of Lancaster in 1886, and secretary to the Admiralty in 1892–1895.

KAZALA, or KAZALINSK, a fort and town in the Russian province of Syr-darya in West Turkestan, at the point where the Kazala River falls into the Syr-darya, about 50 m. from its mouth in Lake Aral, in 45° 45′ N. and 62° 7′ E., "at the junction," to quote Schuyler, "of all the trade routes in Central Asia, as the road from Orenburg meets here with the Khiva, Bokhara and Tashkent roads." Besides carrying on an active trade with the Kirghiz of the surrounding country, it is of growing importance in the general current of commerce. Pop. (1897), 7600. The floods in the river make it an island in spring; in summer it is parched by the sun and hot winds, and hardly a tree can be got to grow. The streets are wide, but the houses, as well as the fairly strong fort, are built of mud bricks.

KAZAÑ, a government of middle Russia, surrounded by the governments of Vyatka, Ufa, Samara, Simbirsk, Nizhniy-Novgorod and Kostroma. Area 24,601 sq. m. It belongs to the basins of the Volga and its tributary the Kama, and by these streams the government is divided into three regions; the first, to the right of the main river, is traversed by deep ravines sloping to the north-east, towards the Volga, and by two ranges of hills, one of which (300 to 500 ft.) skirts the river; the second region, between the left bank of the Volga and the left bank of the Kama, is an open steppe; and the third, between the left bank of the Volga and the right bank of the Kama, resembles in its eastern part the first region, and in its western part is covered with forest. Marls, limestones and sandstones, of Permian or Triassic age, are the principal rocks; the Jurassic formation

appears in a small part of the Tetyúshi district in the south; and Tertiary rocks stretch along the left bank of the Volga. Mineral springs (iron, sulphur and petroleum) exist in several places. The Volga is navigable throughout its course of 200 m. through Kazan, as well as the Kama (120 m.); and the Vyatka, Kazanka, Rutka, Tsivyl, Greater Kokshaga, Ilet, Vetluga and Mesha, are not without value as waterways. About four hundred small lakes are enumerated within the government; the upper and lower Kaban supply the city of Kazañ with water.

The climate is severe, the annual mean temperature being 37·8° F. The rainfall amounts to 16 in. Agriculture is the chief occupation, and 82% of the population are peasants. Out of 7,672,600 acres of arable land, 4,516,500 are under crops—chiefly rye and oats, with some wheat, barley, buckwheat, lentils, flax, hemp and potatoes. But there generally results great scarcity, and even famine, in bad years. Live stock are numerous. Forests cover 35% of the total area. Bee-keeping is an important industry. Factories employ about 10,000 persons and include flour-mills, distilleries, factories for soap, candles and tallow, and tanneries. A great variety of petty trades, especially those connected with wood, are carried on in the villages, partly for export. The fairs are well attended. There is considerable shipping on the Volga, Kama, Vyatka and their tributaries. Kazañ is divided into twelve districts. The chief town is Kazañ (*q.v.*). The district capitals, with their populations in 1897 are: Cheboksary (4568), Chistopol (20,161), Kozmodemyansk (5212), Laishev (5439), Mamadyzh (4213), Spask (2779), Sviyazhsk (2363), Tetyushi (4754), Tsarevokokshaisk (1654), Tsivylsk (2337) and Yadrin (2467). Population (1879), 1,872,437; (1897), 2,190,185, of whom 1,113,555 were women, and 176,396 lived in towns. The estimated population in 1906 was 2,504,400. It consists principally of Russians and Tatars, with a variety of Finno-Turkish tribes: Chuvashes, Cheremisses, Mordvinians, Votyaks, Mescheryaks, and some Jews and Poles. The Russians belong to the Orthodox Greek Church or are Nonconformists; the Tatars are Mussulmans; and the Finno-Turkish tribes are either pagans or belong officially to the Orthodox Greek Church, the respective proportions being (in 1897): Orthodox Greek, 69·4% of the whole; Nonconformists, 1%; Mussulmans, 28·8%. (P. A. K.; J. T. Be.)

KAZAÑ (called by the Cheremisses *Ozon*), a town of eastern Russia, capital of the government of the same name, situated in 55° 48′ N. and 49° 26″ E., on the river Kazanka, 3 m. from the Volga, which however reaches the city when it overflows its banks every spring. Kazañ lies 650 m. E. from Moscow by rail and 253 E. of Nizhniy-Novgorod by the Volga. Pop. (1883), 140,726; (1900), 143,707, all Russians except for some 20,000 Tatars. The most striking feature of the city is the *kreml* or citadel, founded in 1437, which crowns a low hill on the N.W. Within its wall, capped with five towers, it contains several churches, amongst them the cathedral of the Annunciation, founded in 1562 by Gury, the first archbishop of Kazañ, Kazañ being an archiepiscopal see of the Orthodox Greek Church. Other buildings in the kreml are a magnificent monastery, built in 1556; an arsenal; the modern castle in which the governor resides; and the red brick Suyumbeka tower, 246 ft. high, which is an object of great veneration to the Tatars as the reputed burial-place of one of their saints. A little E. of the kreml is the Bogoroditski convent, built in 1579 for the reception of the Black Virgin of Kazañ, a miracle-working image transferred to Moscow in 1612, and in St Petersburg since 1710. Kazañ is the intellectual capital of eastern Russia, and an important seat of Oriental scholarship. Its university, founded in 1804, is attended by nearly 1000 students. Attached to it are an excellent library of 220,000 vols., an astronomical observatory, a botanical garden and various museums. The ecclesiastical academy, founded in 1846, contains the old library of the Solovetsk (Solovki) monastery, which is of importance for the history of Russian religious sects. The city is adorned with bronze statues of Tsar Alexander II., set up facing the kreml in 1895, and of the poet G. R. Derzhavin (1743–1816); also with a monument commemorating the capture of Kazañ by Ivan the Terrible. The central parts of the city consist principally of small one-storeyed houses, surrounded by gardens, and are inhabited chiefly by Russians, while some 20,000 Tatars dwell in the suburbs. Kazañ is, further, the intellectual centre of the Russian Mahommedans, who have here their more important schools and their printing-presses. Between the city and the Volga is the Admiralty suburb, where Peter the Great had his Caspian fleet built for his campaigns against Persia. The more important manufactures are leather goods, soap, wax candles, sacred images, cloth, cottons, spirits and bells. A considerable trade is carried on with eastern Russia, and with Turkestan and Persia. Previous to the 13th century, the present government of Kazañ formed part of the territory of the Bulgarians, the ruins of whose ancient capital, Bolgari or Bolgary, lie 60 m. S. of Kazañ. The city of Kazañ itself stood, down to the 13th century, 30 m. to the N.E., where traces of it can still be seen. In 1438 Ulugh Mahommed (or Ula Makhmet), khan of the Golden Horde of the Mongols, founded, on the ruins of the Bulgarian state, the kingdom of Kazañ, which in its turn was destroyed by Ivan the Terrible of Russia in 1552 and its territory annexed to Russia. In 1774 the city was laid waste by the rebel Pugachev. It has suffered repeatedly from fires, especially in 1815 and 1825. The Kazañ Tatars, from having lived so long amongst Russians and Finnish tribes, have lost a good many of the characteristic features of their Tatar (Mongol) ancestry, and bear now the stamp of a distinct ethnographic type. They are found also in the neighbouring governments of Vyatka, Ufa, Orenburg, Samara, Saratov, Simbirsk, Tambov and Nizhniy-Novgorod. They are intelligent and enterprising, and are engaged principally in trade.

See Pineghin's *Kazañ Old and New* (in Russian); Velyaminov-Zernov's *Kasimov Tsars* (3 vols., St Petersburg, 1863–1866); Zarinsky's *Sketches of Old Kazañ* (Kazañ, 1877); Trofimov's *Siege of Kazañ in* 1552 (Kazañ, 1890); Firsov's books on the history of the native population (Kazañ, 1864 and 1869); and Shpilevski, on the antiquities of the town and government, in *Izvestia i Zapiski* of the Kazañ University (1877). A bibliography of the Oriental books published in the city is printed in *Bulletins* of the St Petersburg Academy (1867). Compare also L. Leger's "Kazañ et les tartares," in *Bibl. Univ. de Genève* (1874). (P. A. K.; J. T. Be.)

KĀZERŪN, a district and town of the province of Fars in Persia. The district is situated between Shiraz and Bushire. In its centre is the Kāzerūn Valley with a direction N.W. to S.E., a fertile plain 30 m. long and 7 to 8 m. broad, bounded S.E. by the Parishān Lake (8 m. long, 3 m. broad) N.W. by the Boshavir River, with the ruins of the old city of Beh-Shahpur (Beshāver, Boshāvir, also, short, Shāpūr) and Sassanian bas-reliefs on its banks. There also, in a cave, is a statue of Shapur. The remainder of the district is mostly hilly country intersected by numerous streams, plains and hills being covered with zizyphus, wild almond and oak. The district is divided into two divisions: town and villages, the latter being called Kuh i Marreh and again subdivided into (1) Pusht i Kuh; (2) Yarrūk; (3) Shakān. It has forty-six villages and a population of about 15,000; it produces rice of excellent quality, cotton, tobacco and opium, but very little corn, and bread made of the flour of acorns is a staple of food in many villages. Wild almonds are exported.

Kāzerūn, the chief place of the district, is an unwalled town situated in the midst of the central plain, in 29° 37′ N., 51° 43′ E. at an elevation of 2800 ft., 70 m. from Shiraz, and 96 m. from Bushire. It has a population of about 8000, and is divided into four quarters separated by open spaces. Adjoining it on the W. is the famous Nazar garden, with noble avenues of orange trees planted by a former governor, Hajji Ali Kuli Khan, in 1767. A couple of miles N. of the city behind a low range of hills are the imposing ruins of a marble building said to stand over the grave of Sheik Amin ed din Mahommed b. Zia ed din Mas'ūd, who died A.H. 740 (A.D. 1339). S.E. of the city on a hugh mound are ruins of buildings with underground chambers, popularly known as Kal'eh i Gabr, "castle of the fire-worshippers."

KAZINCZY, FERENCZ (1759–1831), Hungarian author, the most indefatigable agent in the regeneration of the Magyar

language and literature at the end of the 18th and beginning of the 19th century, was born on the 27th of October 1759, at Ér-Semlyén, in the county of Bihar, Hungary. He studied law at Kassa and Eperies, and in Pest, where he also obtained a thorough knowledge of French and German literature, and made the acquaintance of Gideon Ráday, who allowed him the use of his library. In 1784 Kazinczy became subnotary for the county of Abaúj; and in 1786 he was nominated inspector of schools at Kassa. There he began to devote himself to the restoration of the Magyar language and literature by translations from classical foreign works, and by the augmentation of the native vocabulary from ancient Magyar sources. In 1788, with the assistance of Baróti Szabó and John Bacsányi, he started at Kassa the first Magyar literary magazine, *Magyar Muzeum*; the *Orpheus*, which succeeded it in 1790, was his own creation. Although, upon the accession of Leopold II., Kazinczy, as a non-Catholic, was obliged to resign his post at Kassa, his literary activity in no way decreased. He not only assisted Gideon Ráday in the establishment and direction of the first Magyar dramatic society, but enriched the repertoire with several translations from foreign authors. His *Hamlet*, which first appeared at Kassa in 1790, is a rendering from the German version of Schröder. Implicated in the democratic conspiracy of the abbot Martinovics, Kazinczy was arrested on the 14th of December 1794, and condemned to death; but the sentence was commuted to imprisonment. He was released in 1801, and shortly afterwards married Sophia Török, daughter of his former patron, and retired to his small estate at Széphalom or "Fairhill," near Sátor-Ujhely, in the county of Zemplén. In 1828 he took an active part in the conferences held for the establishment of the Hungarian academy in the historical section of which he became the first corresponding member. He died of Asiatic cholera, at Széphalom, on the 22nd of August 1831.

Kazinczy, although possessing great beauty of style, cannot be regarded as a powerful and original thinker; his fame is chiefly due to the felicity of his translations from the masterpieces of Lessing, Goethe, Wieland, Klopstock, Ossian, La Rochefoucauld, Marmontel, Molière, Metastasio, Shakespeare, Sterne, Cicero, Sallust, Anacreon, and many others. He also edited the works of Baróczy (Pest, 1812, 8 vols.) and of the poet Zrinyi (1817, 2 vols.), and the poems of Dayka (1813, 3 vols.) and of John Kis, (1815, 3 vols.). A collective edition of his works (*Szép Literatura*), consisting for the most part of translations, was published at Pest, 1814–1816, in 9 vols. His original productions (*Eredeti Mukái*), largely made up of letters, were edited by Joseph Bajza and Francis Toldy at Pest, 1836–1845, in 5 vols. Editions of his poems appeared in 1858 and in 1863.

KAZVIN, a province and town of Persia. The province is situated N.W. of Teheran and S. of Gilan. On the W. it is bounded by Khamseh. It pays a yearly revenue of about £22,000, and contains many rich villages which produce much grain and fruit, great quantities of the latter being dried and exported.

Kazvin, the capital of the province, is situated at an elevation of 4165 ft., in 36° 15′ N. and 50° E., and 92 m. by road from Teheran. The city is said to have been founded in the 4th century by the Sassanian king Shapur II (309–379). It has been repeatedly damaged by earthquakes. Many of its streets and most of the magnificent buildings seen there by Chardin in 1674 and other travellers during the 17th century are in ruins. The most remarkable remains are the palace of the Safawid shahs and the mosque with its large blue dome. In the 16th century Shah Tahmasp I. (1524–1576) made Kazvin his capital, and it remained so till Shah Abbas I. (1587–1629) transferred the seat of government to Isfahán. The town still bears the title Dar es Salteneh, "the seat of government." Kazvin has many baths and cisterns fed by underground canals. The system of irrigation formerly carried on by these canals rendered the plain of Kazvin one of the most fertile regions in Persia; now most of the canals are choked up. The city has a population of about 50,000 and a thriving transit trade, particularly since 1899 when the carriage road between Resht and Teheran with Kazvin as a half-way stage was opened under the auspices of the Russian "Enzeli-Teheran Road Company." Great quantities of rice, fish and silk are brought to it from Gilan for distribution in Persia and export to Turkey.

KEAN, EDMUND (1787–1833), was born in London on the 17th of March[1] 1787. His father was probably Edmund Kean, an architect's clerk; and his mother was an actress, Ann Carey, grand-daughter of Henry Carey. When in his fourth year Kean made his first appearance on the stage as Cupid in Noverre's ballet of *Cymon*. As a child his vivacity and cleverness, and his ready affection for those who treated him with kindness, made him a universal favourite, but the harsh circumstances of his lot, and the want of proper restraint, while they developed strong self-reliance, fostered wayward tendencies. About 1794 a few benevolent persons provided the means of sending him to school, where he mastered his tasks with remarkable ease and rapidity; but finding the restraint intolerable, he shipped as a cabin boy at Portsmouth. Discovering that he had only escaped to a more rigorous bondage, he counterfeited both deafness and lameness with a histrionic mastery which deceived even the physicians at Madeira. On his return to England he sought the protection of his uncle Moses Kean, mimic, ventriloquist and general entertainer, who, besides continuing his pantomimic studies, introduced him to the study of Shakespeare. At the same time Miss Tidswell, an actress who had been specially kind to him from infancy, taught him the principles of acting. On the death of his uncle he was taken charge of by Miss Tidswell, and under her direction he began the systematic study of the principal Shakespearian characters, displaying the peculiar originality of his genius by interpretations entirely different from those of Kemble. His talents and interesting countenance induced a Mrs Clarke to adopt him, but the slight of a visitor so wounded his pride that he suddenly left her house and went back to his old surroundings. In his fourteenth year he obtained an engagement to play leading characters for twenty nights in York Theatre, appearing as Hamlet, Hastings and Cato. Shortly afterwards, while he was in the strolling troupe belonging to Richardson's show, the rumour of his abilities reached George III., who commanded him to recite at Windsor. He subsequently joined Saunders's circus, where in the performance of an equestrian feat he fell and broke his legs—the accident leaving traces of swelling in his insteps throughout his life. About this time he picked up music from Charles Incledon, dancing from D'Egville, and fencing from Angelo. In 1807 he played leading parts in the Belfast theatre with Mrs Siddons, who began by calling him "a horrid little man" and on further experience of his ability said that he "played very, very well," but that "there was too little of him to make a great actor." An engagement in 1808 to play leading characters in Beverley's provincial troupe was brought to an abrupt close by his marriage (July 17) with Miss Mary Chambers of Waterford, the leading actress. For several years his prospects were very gloomy, but in 1814 the committee of Drury Lane theatre, the fortunes of which were then so low that bankruptcy seemed inevitable, resolved to give him a chance among the "experiments" they were making to win a return of popularity. When the expectation of his first appearance in London was close upon him he was so feverish that he exclaimed "If I succeed I shall go mad." His opening at Drury Lane on the 26th of January 1814 as Shylock roused the audience to almost uncontrollable enthusiasm. Successive appearances in Richard III., Hamlet, Othello, Macbeth and Lear served to demonstrate his complete mastery of the whole range of tragic emotion. His triumph was so great that he himself said on one occasion, "I could not feel the stage under me." On the 29th of November 1820 Kean appeared for the first time in New York as Richard III. The success of his visit to America was unequivocal, although he fell into a vexatious dispute with the press. On the 4th of June 1821 he returned to England.

[1] This date is apparently settled by a letter from Kean in 1829, to Dr Gibson (see *Rothesay Express* for the 28th of June 1893, where the letter is printed and vouched for), inviting him to dinner on the 17th of March to celebrate Kean's birthday; various other dates have been given in books of reference, the 4th of November having been formerly accepted by this Encyclopaedia.

Probably his irregular habits were prejudicial to the refinement of his taste, and latterly they tended to exaggerate his special defects and mannerisms. The adverse decision in the divorce case of Cox *v.* Kean on the 17th of January 1825 caused his wife to leave him, and aroused against him such bitter feeling, shown by the almost riotous conduct of the audiences before which he appeared about this time, as nearly to compel him to retire permanently into private life. A second visit to America in 1825 was largely a repetition of the persecution which, in the name of morality, he had suffered in England. Some cities showed him a spirit of charity; many audiences submitted him to the grossest insults and endangered his life by the violence of their disapproval. In Quebec he was much impressed with the kindness of some Huron Indians who attended his performances, and he was made chief of the tribe, receiving the name Alanienouidet. Kean's last appearance in New York was on the 5th of December 1826 in Richard III., the rôle in which he was first seen in America. He returned to England and was ultimately received with all the old favour, but the contest had made him so dependent on the use of stimulants that the gradual deterioration of his gifts was inevitable. Still, even in their decay his great powers triumphed during the moments of his inspiration over the absolute wreck of his physical faculties, and compelled admiration after his gait had degenerated into a weak hobble, and the lightning brilliancy of his eyes had become dull and bloodshot, and the tones of his matchless voice marred by rough and grating hoarseness. His appearance in Paris was a failure owing to a fit of drunkenness. His last appearance on the stage was at Covent Garden, on the 25th of March 1833 when he played Othello to the Iago of his son Charles. At the words "Villain, be sure," in scene 3 of act iii., he suddenly broke down, and crying in a faltering voice "O God, I am dying. Speak to them, Charles," fell insensible into his son's arms. He died at Richmond on the 15th of May 1833.

It was in the impersonation of the great creations of Shakespeare's genius that the varied beauty and grandeur of the acting of Kean were displayed in their highest form, although probably his most powerful character was Sir Giles Overreach in Massinger's *A New Way to Pay Old Debts*, the effect of his first impersonation of which was such that the pit rose *en masse*, and even the actors and actresses themselves were overcome by the terrific dramatic illusion. His only personal disadvantage as an actor was his small stature. His countenance was strikingly interesting and unusually mobile; he had a matchless command of facial expression; his fine eyes scintillated with the slightest shades of emotion and thought; his voice, though weak and harsh in the upper register, possessed in its lower range tones of penetrating and resistless power, and a thrilling sweetness like the witchery of the finest music; above all, in the grander moments of his passion, his intellect and soul seemed to rise beyond material barriers and to glorify physical defects with their own greatness. Kean specially excelled as the exponent of passion. In Othello, Iago, Shylock and Richard III., characters utterly different from each other, but in which the predominant element is some form of passion, his identification with the personality, as he had conceived it, was as nearly as possible perfect, and each isolated phase and aspect of the plot was elaborated with the minutest attention to details, and yet with an absolute subordination of these to the distinct individuality he was endeavouring to portray. Coleridge said, "Seeing him act was like reading Shakespeare by flashes of lightning." If the range of character in which Kean attained supreme excellence was narrow, no one except Garrick has been so successful in so many great impersonations. Unlike Garrick, he had no true talent for comedy, but in the expression of biting and saturnine wit, of grim and ghostly gaiety, he was unsurpassed. His eccentricities at the height of his fame were numerous. Sometimes he would ride recklessly on his horse Shylock throughout the night. He was presented with a tame lion with which he might be found playing in his drawing-room. The prizefighters Mendoza and Richmond the Black were among his visitors. Grattan was his devoted friend. In his earlier days Talma said of him, "He is a magnificent uncut gem; polish and round him off and he will be a perfect tragedian." Macready, who was much impressed by Kean's Richard III. and met the actor at supper, speaks of his "unassuming manner . . . partaking in some degree of shyness" and of the "touching grace" of his singing. Kean's delivery of the three words "I answer—NO!" in the part of Sir Edward Mortimer in *The Iron Chest*, cast Macready into an abyss of despair at rivalling him in this rôle. So full of dramatic interest is the life of Edmund Kean that it formed the subject for a play by the elder Dumas, entitled *Kean ou désordre et génie*, in which Frederick-Lemaître achieved one of his greatest triumphs.

See Francis Phippen, *Authentic Memoirs of Edmund Kean* (1814); B. W. Procter (Barry Cornwall), *The Life of Edmund Kean* (1835); F. W. Hawkins, *The Life of Edmund Kean* (1869); J. Fitzgerald Molloy, *The Life and Adventures of Edmund Kean* (1888); Edward Stirling, *Old Drury Lane* (1887).

His son, CHARLES JOHN KEAN (1811–1868), was born at Waterford, Ireland, on the 18th of January 1811. After preparatory education at Worplesdon and at Greenford, near Harrow, he was sent to Eton College, where he remained three years. In 1827 he was offered a cadetship in the East India Company's service, which he was prepared to accept if his father would settle an income of £400 on his mother. The elder Kean refused to do this, and his son determined to become an actor. He made his first appearance at Drury Lane on the 1st of October 1827 as Norval in Home's *Douglas*, but his continued failure to achieve popularity led him to leave London in the spring of 1828 for the provinces. At Glasgow, on the 1st of October in this year, father and son acted together in Arnold Payne's *Brutus*, the elder Kean in the title-part and his son as Titus. After a visit to America in 1830, where he was received with much favour, he appeared in 1833 at Covent Garden as Sir Edmund Mortimer in Colman's *The Iron Chest*, but his success was not pronounced enough to encourage him to remain in London, especially as he had already won a high position in the provinces. In January 1838, however, he returned to Drury Lane, and played Hamlet with a success which gave him a place among the principal tragedians of his time. He was married to the actress Ellen Tree (1805–1880) on the 29th of January 1842, and paid a second visit to America with her from 1845 to 1847. Returning to England, he entered on a successful engagement at the Haymarket, and in 1850, with Robert Keeley, became lessee of the Princess Theatre. The most noteworthy feature of his management was a series of gorgeous Shakespearian revivals. Charles Kean was not a great tragic actor. He did all that could be done by the persevering cultivation of his powers, and in many ways manifested the possession of high intelligence and refined taste, but his defects of person and voice made it impossible for him to give a representation at all adequate of the varying and subtle emotions of pure tragedy. But in melodramatic parts such as the king in Boucicault's adaptation of Casimir Delavigne's *Louis XI.*, and Louis and Fabian dei Franchi in Boucicault's adaptation of Dumas's *The Corsican Brothers*, his success was complete. From his "tour round the world" Kean returned in 1866 in broken health, and died in London on the 22nd of January 1868.

See *The Life and Theatrical Times of Charles Kean*, by John William Cole (1859).

KEANE, JOHN JOSEPH (1839–), American Roman Catholic archbishop, was born in Ballyshannon, Co. Donegal, Ireland, on the 12th of September 1839. His family settled in America when he was seven years old. He was educated at Saint Charles's College, Ellicott City, Maryland, and at Saint Mary's Seminary, Baltimore, and in 1866 was ordained a priest and made curate of St Patrick's, Washington, D.C. On the 25th of August 1878 he was consecrated Bishop of Richmond, to succeed James Gibbons, and he had established the Confraternity of the Holy Ghost in that diocese, and founded schools and churches for negroes before his appointment as rector of the Catholic University, Washington, D.C., in 1886, and his appointment in 1888 to the see of Ajasso. He did much to upbuild the Catholic University, but his democratic and liberal policy

made him enemies at Rome, whence there came in 1896 a request for his resignation of the rectorate, and where he spent the years 1897–1900 as canon of St John Lateran, assistant bishop at the pontifical throne, and counsellor to the Propaganda. In 1900 he was consecrated archbishop of Dubuque, Iowa. He took a prominent part in the Catholic Young Men's National Union and in the Total Abstinence Union of North America; and was in general charge of the Catholic delegation to the World's Parliament of Religions held at the Columbian Exposition in 1893. He lectured widely on temperance, education and American institutions, and in 1890 was Dudleian lecturer at Harvard University.

A selection from his writings and addresses was edited by Maurice Francis Egan under the title *Onward and Upward: A Year Book* (Baltimore, 1902).

KEARNEY, a city and the county-seat of Buffalo county, Nebraska, U.S.A., about 130 m. W. of Lincoln. Pop. (1890), 8074; (1900), 5634 (650 foreign-born); (1910), 6202. It is on the main overland line of the Union Pacific, and on a branch of the Burlington & Missouri River railroad. The city is situated in the broad, flat bottom-lands a short distance N. of the Platte River. Lake Kearney, in the city, has an area of 40 acres. The surrounding region is rich farming land, devoted especially to the growing of alfalfa and Indian corn. At Kearney are a State Industrial School for boys, a State Normal School, the Kearney Military Academy, and a Carnegie library. Good water-power is provided by a canal from the Platte River about 17 m. above Kearney, and the city's manufactures include foundry and machine-shop products, flour and bricks. Kearney Junction, as Kearney was called from 1872 to 1875, was settled a year before the two railways actually formed their junction here or the city was platted. Kearney became a town in 1873, a city of the second class and the county seat in 1874, and a city of the first class in 1901. It is to be distinguished from an older and once famous prairie city, popularly known as "Dobey Town" (*i.e.* Adobe), founded in the early 'fifties on the edge of the reservation of old Fort Kearney (removed in 1848 from Nebraska City), in Kearney county, on the S. shore of the Platte about 6 m. S.E. of the present Kearney; here in 1861 the post office of Kearney City was established. In the days of the prairie freighting caravans Dobey Town was one of the most important towns between Independence, Missouri, and the Pacific coast, and it had a rough, wild, picturesque history; but it lost its immense freighting interests after the Union Pacific had been extended through it in 1866. The site of Dobey Town, together with the Fort, was abandoned in 1871. Fort Kearney and the city too were named in honour of General Stephen W. Kearny, and the name was at first correctly spelt without a second "e."

KEARNY, PHILIP (1815–1862), American soldier, was born in New York on the 2nd of June 1815, and was originally intended for the legal profession. He graduated at Columbia University (1833), but his bent was decidedly towards soldiering, and in 1837 he obtained a commission in the cavalry regiment of which his uncle, (General) Stephen Watts Kearny (1794–1848), was colonel and Lieutenant Jefferson Davis adjutant. Two years later he was sent to France to study the methods of cavalry training in vogue there. Before his return to the United States in 1840 he had served, on leave, in Algeria. He had inherited a large fortune, but he remained in the service, and his wide experience of cavalry work caused him to be employed on the headquarters staff of the army. After six more years' service Kearny left the army, but almost immediately afterwards he rejoined, bringing with him a company of cavalry, which he had raised and equipped chiefly at his own expense, to take part in the Mexican war. In December 1846 he was promoted captain. In leading a brilliant cavalry charge at Churubusco he lost his left arm, but he remained at the front, and won the brevet of major for his gallantry at Contreras and Churubusco. In 1851 he again resigned, to travel round the world. He saw further active service with his old comrades of the French cavalry in the Italian war of 1859, and received the cross of the Legion of Honour for his conduct at Solferino. Up to the outbreak of the American Civil War he lived in Paris, but early in 1861 he hastened home to join the Federal army. At first as a brigade commander and later as a divisional commander of infantry in the Army of the Potomac, he infused into his men his own cavalry spirit of dash and bravery. At Williamsburg, Seven Pines, and Second Bull Run, he displayed his usual romantic courage, but at Chantilly (Sept. 1, 1862), after repulsing an attack of the enemy, he rode out in the dark too far to the front, and mistaking the Confederates for his own men was shot dead. His body was sent to the Federal lines with a message from General Lee, and was buried in Trinity Churchyard, New York. His commission as major-general of volunteers was dated July 4, 1862, but he never received it.

See J. W. de Peyster, *Personal and Military History of Philip Kearny* (New York, 1869).

KEARNY, a town of Hudson county, New Jersey, U.S.A., between the Passaic and Hackensack rivers, adjoining Harrison, and connected with Newark by bridges over the Passaic. Pop. (1900), 10,896, of whom 3597 were foreign-born; (1910 census), 18,659. The New York & Greenwood Lake division of the Erie railroad has a station at Arlington, the principal village (in the N.W. part), which contains attractive residences of Newark, Jersey City and New York City business men. The town covers an area of about 7 sq. m., including a large tract of marsh-land. In Kearny are railway repair shops of the Pennsylvania system, and a large abattoir; and there are numerous manufactures. The value of the town's factory products increased from $1,607,002 in 1900 to $4,427,904 in 1905, or 175·5%. Among its institutions are the State Soldiers' Home, removed here from Newark in 1880, a Carnegie library, two Italian homes for orphans, and a Catholic Industrial School for boys.

The neck of land between the Passaic and the Hackensack rivers, for 7 m. N. from where they unite, was purchased from the proprietors of East Jersey and from the Indians by Captain William Sandford in 1668 and through Nathaniel Kingsland, sergeant-major of Barbadoes, received the name "New Barbadoes." After the town under this name had been extended considerably to the northward, the town of Lodi was formed out of the S. portion in 1825, the town of Harrison was founded out of the S. portion of Lodi in 1840, and in 1867 a portion of Harrison was set apart as a township and named in honour of General Philip Kearny, a former resident. Kearny was incorporated as a town in 1895.

KEARY, ANNIE (1825–1879), English novelist, was born near Wetherby, Yorkshire, on the 3rd of March 1825, the daughter of an Irish clergyman. She was the author of several children's books and novels, of which the best known is *Castle Daly*, an Irish story. She also wrote an *Early Egyptian History* (1861) and *The Nation Around* (1870). She died at Eastbourne on the 3rd of March 1879.

KEATE, JOHN (1773–1852), English schoolmaster, was born at Wells, Somersetshire, in 1773, the son of Prebendary William Keate. He was educated at Eton and King's College, Cambridge, where he had a brilliant career as a scholar; taking holy orders, he became, about 1797, an assistant master at Eton College. In 1809 he was elected headmaster. The discipline of the school was then in a most unsatisfactory condition, and Dr Keate (who took the degree of D.D. in 1810) took stern measures to improve it. His partiality for the birch became a by-word, but he succeeded in restoring order and strengthening the weakened authority of the masters. Beneath an outwardly rough manner the little man concealed a really kind heart, and when he retired in 1834, the boys, who admired his courage, presented him with a handsome testimonial. A couple of years before he had publicly flogged eighty boys on one day. Keate was made a canon of Windsor in 1820. He died on the 5th of March 1852 at Hartley Westpall, Hampshire, of which parish he had been rector since 1824.

See Maxwell Lyte, *History of Eton College* (3rd ed., 1899); Collins, *Etoniana*; Harwood, *Alumni Etonienses*; *Annual Register* (1852); *Gentleman's Magazine* (1852).

KEATS, JOHN (1795–1821), English poet, was born on the 29th or 31st of October 1795 at the sign of the Swan and Hoop, 24 The Pavement, Moorfields, London. He published his first volume of verse in 1817, his second in the following year, his third in 1820, and died of consumption at Rome on the 23rd of February 1821 in the fourth month of his twenty-sixth year. (For the biographical facts see the later section of this article.)

In Keats's first book there was little foretaste of anything greatly or even genuinely good; but between the marshy and sandy flats of sterile or futile verse there were undoubtedly some few purple patches of floral promise. The style was frequently detestable—a mixture of sham Spenserian and mock Wordsworthian, alternately florid and arid. His second book, *Endymion*, rises in its best passages to the highest level of Barnfield and of Lodge, the two previous poets with whom, had he published nothing more, he might most properly have been classed; and this, among minor minstrels, is no unenviable place. His third book raised him at once to a foremost rank in the highest class of English poets. Shelley, up to twenty, had written little or nothing that would have done credit to a boy of ten; and of Keats also it may be said that the merit of his work at twenty-five was hardly by comparison more wonderful than its demerit at twenty-two. His first book fell as flat as it deserved to fall; the reception of his second, though less considerate than on the whole it deserved, was not more contemptuous than that of immeasurably better books published about the same time by Coleridge, Landor and Shelley. A critic of exceptional carefulness and candour might have noted in the first book so singular an example of a stork among the cranes as the famous and notable sonnet on Chapman's Homer; a just judge would have indicated, a partial advocate might have exaggerated, the value of such golden grain amid a garish harvest of tares as the hymn to Pan and the translation into verse of Titian's Bacchanal which glorify the weedy wilderness of *Endymion*. But the hardest thing said of that poem by the *Quarterly* reviewer was unconsciously echoed by the future author of *Adonais*—that it was all but absolutely impossible to read through; and the obscener insolence of the "Blackguard's Magazine," as Landor afterwards very justly labelled it, is explicable though certainly not excusable if we glance back at such a passage as that where Endymion exchanges fulsome and liquorish endearments with the "known unknown *from whom his being sips such darling* (*!*) *essence.*" Such nauseous and pitiful phrases as these, and certain passages in his correspondence, make us understand the source of the most offensive imputations or insinuations levelled against the writer's manhood; and, while admitting that neither his love-letters, nor the last piteous outcries of his wailing and shrieking agony, would ever have been made public by merciful or respectful editors, we must also admit that, if they ought never to have been published, it is no less certain that they ought never to have been written; that a manful kind of man or even a manly sort of boy, in his love-making or in his suffering, will not howl and snivel after such a lamentable fashion. One thing hitherto inexplicable a very slight and rapid glance at his amatory correspondence will amply suffice to explain: how it came to pass that the woman so passionately beloved by so great a poet should have thought it the hopeless attempt of a mistaken kindness to revive the memory of a man for whom the best that could be wished was complete and compassionate oblivion. For the side of the man's nature presented to her inspection, this probably was all that charity or reason could have desired. But that there was a finer side to the man, even if considered apart from the poet, his correspondence with his friends and their general evidence to his character give more sufficient proof than perhaps we might have derived from the general impression left on us by his works; though indeed the preface to *Endymion* itself, however illogical in its obviously implied suggestion that the poem published was undeniably unworthy of publication, gave proof or hint at least that after all its author was something of a man. And the eighteenth of his letters to Miss Brawne stands out in bright and brave contrast with such as seem incompatible with the traditions of his character on its manlier side. But if it must be said that he lived long enough only to give promise of being a man, it must also be said that he lived long enough to give assurance of being a poet who was not born to come short of the first rank. Not even a hint of such a probability could have been gathered from his first or even from his second appearance; after the publication of his third volume it was no longer a matter of possible debate among judges of tolerable competence that this improbability had become a certainty. Two or three phrases cancelled, two or three lines erased, would have left us in *Lamia* one of the most faultless as surely as one of the most glorious jewels in the crown of English poetry. *Isabella*, feeble and awkward in narrative to a degree almost incredible in a student of Dryden and a pupil of Leigh Hunt, is overcharged with episodical effects of splendid and pathetic expression beyond the reach of either. *The Eve of St Agnes*, aiming at no doubtful success, succeeds in evading all casual difficulty in the line of narrative; with no shadow of pretence to such interest as may be derived from stress of incident or depth of sentiment, it stands out among all other famous poems as a perfect and unsurpassable study in pure colour and clear melody—a study in which the figure of Madeline brings back upon the mind's eye, if only as moonlight recalls a sense of sunshine, the nuptial picture of Marlowe's Hero and the sleeping presence of Shakespeare's Imogen. Beside this poem should always be placed the less famous but not less precious *Eve of St Mark*, a fragment unexcelled for the simple perfection of its perfect simplicity, exquisite alike in suggestion and in accomplishment. The triumph of *Hyperion* is as nearly complete as the failure of *Endymion*; yet Keats never gave such proof of a manly devotion and rational sense of duty to his art as in his resolution to leave this great poem unfinished; not, as we may gather from his correspondence on the subject, for the pitiful reason assigned by his publishers, that of discouragement at the reception given to his former work, but on the solid and reasonable ground that a Miltonic study had something in its very scheme and nature too artificial, too studious of a foreign influence, to be carried on and carried out at such length as was implied by his original design. Fortified and purified as it had been on a first revision, when much introductory allegory and much tentative effusion of sonorous and superfluous verse had been rigorously clipped down or pruned away, it could not long have retained spirit enough to support or inform the shadowy body of a subject so little charged with tangible significance. The faculty of assimilation as distinguished from imitation, than which there can be no surer or stronger sign of strong and sure original genius, is not more evident in the most Miltonic passages of the revised *Hyperion* than in the more Shakespearian passages of the unrevised tragedy which no radical correction could have left other than radically incorrigible. It is no conventional exaggeration, no hyperbolical phrase of flattery with more sound than sense in it, to say that in this chaotic and puerile play of *Otho the Great* there are such verses as Shakespeare might not without pride have signed at the age when he wrote and even at the age when he rewrote the tragedy of *Romeo and Juliet*. The dramatic fragment of *King Stephen* shows far more power of hand and gives far more promise of success than does that of Shelley's *Charles the First*. Yet we cannot say with any confidence that even this far from extravagant promise would certainly or probably have been kept; it is certain only that Keats in these attempts did at least succeed in showing a possibility of future excellence as a tragic or at least a romantic dramatist. In every other line of high and serious poetry his triumph was actual and consummate; here only was it no more than potential or incomplete. As a ballad of the more lyrical order, *La Belle dame sans merci* is not less absolutely excellent, less triumphantly perfect in force and clearness of impression, that as a narrative poem is *Lamia*. In his lines on Robin Hood, and in one or two other less noticeable studies of the kind, he has shown thorough and easy mastery of the beautiful metre inherited by Fletcher from Barnfield and by Milton from Fletcher. The simple force of spirit and style which distinguishes the genuine ballad manner from all spurious attempts at an artificial simplicity was once more at least

achieved in his verses on the crowning creation of Scott's humaner and manlier genius—Meg Merrilies. No little injustice has been done to Keats by such devotees as fix their mind's eye only on the more salient and distinctive notes of a genius which in fact was very much more various and tentative, less limited and peculiar, than would be inferred from an exclusive study of his more specially characteristic work. But within the limits of that work must we look of course for the genuine credentials of his fame; and highest among them we must rate his unequalled and unrivalled odes. Of these perhaps the two nearest to absolute perfection, to the triumphant achievement and accomplishment of the very utmost beauty possible to human words, may be that to Autumn and that on a Grecian Urn; the most radiant, fervent and musical is that to a Nightingale; the most pictorial and perhaps the tenderest in its ardour of passionate fancy is that to Psyche; the subtlest in sweetness of thought and feeling is that on Melancholy. Greater lyrical poetry the world may have seen than any that is in these; lovelier it surely has never seen, nor ever can it possibly see. From the divine fragment of an unfinished ode to Maia we can but guess that if completed it would have been worthy of a place beside the highest. His remaining lyrics have many beauties about them, but none perhaps can be called thoroughly beautiful. He has certainly left us one perfect sonnet of the first rank and as certainly he has left us but one.

Keats has been promoted by modern criticism to a place beside Shakespeare. The faultless force and the profound subtlety of his deep and cunning instinct for the absolute expression of absolute natural beauty can hardly be questioned or overlooked; and this is doubtless the one main distinctive gift or power which denotes him as a poet among all his equals, and gives him a right to rank for ever beside Coleridge and Shelley. As a man, the two admirers who did best service to his memory were Lord Houghton and Matthew Arnold. These alone, among all of their day who have written of him without the disadvantage or advantage of a personal acquaintance, have clearly seen and shown us the manhood of the man. That ridiculous and degrading legend which imposed so strangely on the generous tenderness of Shelley, while evoking the very natural and allowable laughter of Byron, fell to dust at once for ever on the appearance of Lord Houghton's biography, which gave perfect proof to all time that "men have died and worms have eaten them" but not for fear of critics or through suffering inflicted by reviews. Somewhat too sensually sensitive Keats may have been in either capacity, but the nature of the man was as far as was the quality of the poet above the pitiful level of a creature whose soul could "let itself be snuffed out by an article"; and, in fact, owing doubtless to the accident of a death which followed so fast on his early appearance and his dubious reception as a poet, the insolence and injustice of his reviewers in general have been comparatively and even considerably exaggerated. Except from the chief fountain-head of professional ribaldry then open in the world of literary journalism, no reek of personal insult arose to offend his nostrils; and the tactics of such unwashed malignants were inevitably suicidal; the references to his brief experiment of apprenticeship to a surgeon which are quoted from *Blackwood*, in the shorter as well as in the longer memoir by Lord Houghton, could leave no bad odour behind them save what might hang about men's yet briefer recollection of his assailant's unmemorable existence. The false Keats, therefore, whom Shelley pitied and Byron despised would have been, had he ever existed, a thing beneath compassion or contempt. That such a man could have had such a genius is almost evidently impossible; and yet more evident is the proof which remains on everlasting record that none was ever further from the chance of decline to such degradation than the real and actual man who made that name immortal. (A. C. S.)

Subjoined are the chief particulars of Keats's life.

He was the eldest son of Thomas Keats and his wife Frances Jennings, and was baptized at St Botolph's, Bishopsgate, on the 18th of December 1795. The entry of his baptism is supplemented by a marginal note stating that he was born on the 31st of October. Thomas Keats was employed in the Swan and Hoop livery stables, Finsbury Pavement, London. He had married his master's daughter, and managed the business on the retirement of his father-in-law. In April 1804 Thomas Keats was killed by a fall from his horse, and within a year of this event Mrs Keats married William Rawlings, a stable-keeper. The marriage proved an unhappy one, and in 1806 Mrs Rawlings, with her children John, George, Thomas and Frances Mary (afterwards Mrs Llanos, d. 1889), went to live at Edmonton with her mother, who had inherited a considerable competence from her husband. There is evidence that Keats's parents were by no means of the commonplace type that might be hastily inferred from these associations. They had desired to send their sons to Harrow, but John Keats and his two brothers were eventually sent to a school kept by John Clarke at Enfield, where he became intimate with his master's son, Charles Cowden Clarke. His vivacity of temperament showed itself at school in a love of fighting, but in the last year of his school life he developed a great appetite for reading of all sorts. In 1810 he left school to be apprenticed to Mr Thomas Hammond, a surgeon in Edmonton. He was still within easy reach of his old school, where he frequently borrowed books, especially the works of Spenser and the Elizabethans. With Hammond he quarrelled before the termination of his apprenticeship, and in 1814 the connexion was broken by mutual consent. His mother had died in 1810, and in 1814 Mrs Jennings. The children were left in the care of two guardians, one of whom, Richard Abbey, seems to have made himself solely responsible. John Keats went to London to study at Guy's and St Thomas's hospitals, living at first alone at 8 Dean Street, Borough, and later with two fellow students in St Thomas's Street. It does not appear that he neglected his medical studies, but his chief interest was turned to poetry. In March 1816 he became a dresser at Guy's, but about the same time his poetic gifts were stimulated by an acquaintance formed with Leigh Hunt. His friendship with Benjamin Haydon, the painter, dates from later in the same year. Hunt introduced him to Shelley, who showed the younger poet a constant kindness. In 1816 Keats moved to the Poultry to be with his brothers George and Tom, the former of whom was then employed in his guardian's counting-house, but much of the poet's time was spent at Leigh Hunt's cottage at Hampstead. In the winter of 1816–1817 he definitely abandoned medicine, and in the spring appeared *Poems by John Keats* dedicated to Leigh Hunt, and published by Charles and James Ollier. On the 14th of April he left London to find quiet for work. He spent some time at Shanklin, Isle of Wight, then at Margate and Canterbury, where he was joined by his brother Tom. In the summer the three brothers took lodgings in Well Walk, Hampstead, where Keats formed a fast friendship with Charles Wentworth Dilke and Charles Armitage Brown. In September of the same year (1817) he paid a visit to his friend, Benjamin Bailey, at Oxford, and in November he finished *Endymion* at Burford Bridge, near Dorking. His youngest brother had developed consumption, and in March John went to Teignmouth to nurse him in place of his brother George, who had decided to sail for America with his newly married wife, Georgiana Wylie. In May (1818) Keats returned to London, and soon after appeared *Endymion: A Poetic Romance* (1818), bearing on the title-page as motto "The stretched metre of an antique song." Late in June Keats and his friend Armitage Brown started on a walking tour in Scotland, vividly described in the poet's letters. The fatigue and hardship involved proved too great a strain for Keats, who was forbidden by an Inverness doctor to continue his tour. He returned to London by boat, arriving on the 18th of August. The autumn was spent in constant attendance on his brother Tom, who died at the beginning of December. There is no doubt that he resented the attacks on him in *Blackwood's Magazine* (August 1818), and the *Quarterly Review* (April 1818, published only in September), but his chief preoccupations were elsewhere. After his brother's death he went to live with his friend Brown. He had already made the acquaintance of Fanny Brawne, a girl of seventeen, who lived with her mother close by. For her Keats

quickly developed a consuming passion. He was in indifferent health, and, owing partly to Mr Abbey's mismanagement, in difficulties for money. Nevertheless his best work belongs to this period. In July 1819 he went to Shanklin, living with James Rice. They were soon joined by Brown. The next two months Keats spent with Brown at Winchester, enjoying an interval of calmness due to his absence from Fanny Brawne. At Winchester he completed *Lamia* and *Otho the Great*, which he had begun in conjunction with Brown, and began his historical tragedy of *King Stephen*. Before Christmas he had returned to London and his bondage to Fanny. In January 1820 his brother George paid a short visit to London, but received no confidence from him. The fatal nature of Keats's illness showed itself on the 3rd of February, but in March he recovered sufficiently to be present at the private view of Haydon's picture of "Christ's Entry into Jerusalem." In May he removed to a lodging in Wesleyan Place, Kentish Town, to be near Leigh Hunt who eventually took him into his house. In July appeared his third and last book, *Lamia, Isabella, The Eve of St Agnes and other Poems* (1820). Keats left the Hunts abruptly in August in consequence of a delay in receiving one of Fanny Brawne's letters which had been broken open by a servant. He went to Wentworth Place, where he was taken in by the Brawnes. The suggestion that he should spend the winter in Italy was followed up by an invitation from Shelley to Pisa. This, however, he refused. But on the 18th of September 1820 he set out for Naples in company with Joseph Severn, the artist, who had long been his friend. The travellers settled in the Piazza de Spagna, Rome. Keats was devotedly tended by Dr (afterwards Sir) James Clarke and Severn, and died on the 23rd of February 1821. He was buried on the 27th in the old Protestant cemetery, near the pyramid of Cestius.

BIBLIOGRAPHY.—Keats's friends provided the material for the authoritative biography of the poet by Richard Monckton Milnes (afterwards Lord Houghton) entitled *Life, Letters and Literary Remains of John Keats* (1848; revised ed., 1867). *The Poetical Works of John Keats* were issued with a memoir by R. M. Milnes in 1854, 1863, 1865, 1866, 1867, and in the Aldine edition, 1876. The standard edition of Keats is *The Poetical Works and other Writings of John Keats now first brought together, including Poems and numerous Letters not before published, edited with notes and appendices* by Harry Buxton Forman (4 vols., 1883; re-issue with corrections and additions, 1889). Of the many other editions of Keats's poems may be mentioned that in the Muses' Library, *The Poems of John Keats* (1896), edited by G. Thorn Drury with an introduction by Robert Bridges, and another by E. de Sélincourt, 1905. *The Letters of John Keats to Fanny Brawne* (1889) were edited with introduction and notes by H. Buxton Forman, and the *Letters of John Keats to his Family and Friends* (1891) by Sidney Colvin, who is also the author of the monograph, *Keats* (1887), in the English Men of Letters Series. See also *The Papers of a Critic. Selected from the Writings of the late Charles Wentworth Dilke* (1875), and for further bibliographical information and particulars of MS. sources the "Editor's Preface," &c. to a reprint edited by H. Buxton Forman (Glasgow, 1900). A facsimile of Keats's autograph MS. of "Hyperion," purchased by the British Museum in 1904, was published by E. de Sélincourt (Oxford, 1905). (M. BR.)

KEBLE, JOHN (1792–1866), English poet and divine, the author of the *Christian Year*, was born on St Mark's Day (April 25), 1792, at Fairford, Gloucestershire. He was the second child of the Rev. John Keble and his wife Sarah Maule. Descended from a family which had attained some legal eminence in the time of the Commonwealth, John Keble, the father of the poet, was vicar of Coln St Aldwyn, but lived at Fairford, about 3 m. distant from his cure. He was a clergyman of the old High Church school, whose adherents, untouched by the influence of the Wesleys, had moulded their piety on the doctrines on the non-jurors and the old Anglican divines. Himself a good scholar, he did not send his son to any school, but educated him and his brother at home so well that both obtained scholarships at Corpus Christi College, Oxford. John was elected scholar of Corpus in his fifteenth, and fellow of Oriel in his nineteenth year, April 1811. In Easter term 1810 he had obtained double first class honours, a distinction which had been obtained only once before, by Sir Robert Peel. After his election to the Oriel fellowship Keble gained the University prizes, both for the English essay and also for the Latin essay. But he was more remarkable for the rare beauty of his character than even for academic distinctions. Sir John Taylor Coleridge, his fellow scholar at Corpus and his life-long friend, says of him, after their friendship of five and fifty years had closed, "It was the singular happiness of his nature, remarkable even in his undergraduate days, that love for him was always sanctified by reverence—reverence that did not make the love less tender, and love that did but add intensity to the reverence." Oriel College was, at the time when Keble became a fellow, the centre of all the finest ability in Oxford. Copleston, Davison, Whately, were among the fellows who elected Keble; Arnold, Pusey, Newman, were soon after added to the society. In 1815 Keble was ordained deacon, and priest in 1816. His real bent and choice were towards a pastoral cure in a country parish; but he remained in Oxford, acting first as a public examiner in the schools, then as a tutor in Oriel, till 1823. In summer he sometimes took clerical work, sometimes made tours on foot through various English counties, during which he was composing poems, which afterwards took their place in the *Christian Year*. He had a rare power of attracting to himself the finest spirits, a power which lay not so much in his ability or his genius as in his character, so simple, so humble, so pure, so unworldly, yet wanting not that severity which can stand by principle and maintain what he holds to be the truth. In 1823 he returned to Fairford, there to assist his father, and with his brother to serve one or two small and poorly endowed curacies in the neighbourhood of Coln. He had made a quiet but deep impression on all who came within his influence in Oxford, and during his five years of college tutorship had won the affection of his pupils. But it was to pastoral work, and not to academic duty, that he thenceforth devoted himself, associating with it, and scarcely placing on a lower level, the affectionate discharge of his duties as a son and brother. Filial piety influenced in a quite unusual degree his feelings and his action all life through. It was in 1827, a few years after he settled at Fairford, that he published the *Christian Year*. The poems which make up that book had been the silent gathering of years. Keble had purposed in his own mind to keep them beside him, correcting and improving them, as long as he lived, and to leave them to be published only "when he was fairly out of the way." This resolution was at length overcome by the importunities of his friends, and above all by the strong desire of his father to see his son's poems in print before he died. Accordingly they were printed in two small volumes in Oxford, and given to the world in June 1827, but with no name on the title-page. The book continued to be published anonymously, but the name of the author soon transpired.

Between 1827 and 1872 one hundred and fifty-eight editions had issued from the press, and it has been largely reprinted since. The author, so far from taking pride in his widespread reputation, seemed all his life long to wish to disconnect his name with the book, and "as if he would rather it had been the work of some one else than himself." This feeling arose from no false modesty. It was because he knew that in these poems he had painted his own heart, the best part of it; and he doubted whether it was right thus to exhibit himself, and by the revelation of only his better self, to win the good opinion of the world.

Towards the close of 1831 Keble was elected to fill the chair of the poetry professorship in Oxford, as successor to his friend and admirer, Dean Milman. This chair he occupied for ten eventful years. He delivered a series of lectures, clothed in excellent idiomatic Latin (as was the rule), in which he expounded a theory of poetry which was original and suggestive. He looked on poetry as a vent for overcharged feeling, or a full imagination, or some imaginative regret, which had not found their natural outlet in life and action. This suggested to him a distinction between what he called primary and secondary poets—the first employing poetry to relieve their own hearts, the second, poetic artists, composing poetry from some other and less impulsive motive. Of the former kind were Homer, Lucretius, Burns, Scott; of the latter were Euripides, Dryden, Milton. This view was set forth in an article contributed to the *British*

Critic in 1838 on the life of Scott, and was more fully developed in two volumes of *Praelectiones Academicae.*

His regular visits to Oxford kept him in intercourse with his old friends in Oriel common room, and made him familiar with the currents of feeling which swayed the university. Catholic emancipation and the Reform Bill had deeply stirred, not only the political spirit of Oxford, but also the church feeling which had long been stagnant. Cardinal Newman writes, " On Sunday July 14, 1833, Mr Keble preached the assize sermon in the University pulpit. It was published under the title of *National Apostasy.* I have ever considered and kept the day as the start of the religious movement of 1833." The occasion of this sermon was the suppression, by Earl Grey's Reform ministry, of ten Irish bishoprics. Against the spirit which would treat the church as the mere creature of the state Keble had long chafed inwardly, and now he made his outward protest, asserting the claim of the church to a heavenly origin and a divine prerogative. About the same time, and partly stimulated by Keble's sermon, some leading spirits in Oxford and elsewhere began a concerted and systematic course of action to revive High Church principles and the ancient patristic theology, and by these means both to defend the church against the assaults of its enemies, and also to raise to a higher tone the standard of Christian life in England. This design embodied itself in the Tractarian movement, a name it received from the famous *Tracts for the Times,* which were the vehicle for promulgating the new doctrines. If Keble is to be reckoned, as Newman would have it, as the primary author of the movement, it was from Pusey that it received one of its best known names, and in Newman that it soon found its genuine leader. To the tracts Keble made only four contributions:—No. 4, containing an argument, in the manner of Bishop Butler, to show that adherence to apostolical succession is the safest course; No. 13, which explains the principle on which the Sunday lessons in the church service are selected; No. 40, on marriage with one who is unbaptized; No. 89, on the mysticism attributed to the early fathers of the church. Besides these contributions from his own pen, he did much for the series by suggesting subjects, by reviewing tracts written by others, and by lending to their circulation the weight of his personal influence.

In 1835 Keble's father died at the age of ninety, and soon after this his son married Miss Clarke, left Fairford, and settled at Hursley vicarage in Hampshire, a living to which he had been presented by his friend and attached pupil, Sir William Heathcote, and which continued to be Keble's home and cure for the remainder of his life.

In 1841 the tracts were brought to an abrupt termination by the publication of Newman's tract No. 90. All the Protestantism of England was in arms against the author of the obnoxious tract. Keble came forward at the time, desirous to share the responsibility and the blame, if there was any; for he had seen the tract before it was published, and approved it. The same year in which burst this ecclesiastical storm saw the close of Keble's tenure of the professorship of poetry, and thenceforward he was seen but rarely in Oxford. No other public event ever affected Keble so deeply as the secession of Newman to the Church of Rome in 1845. It was to him both a public and a private sorrow, which nothing could repair. But he did not lose heart; at once he threw himself into the double duty, which now devolved on himself and Pusey, of counselling the many who had hitherto followed the movement, and who, now in their perplexity, might be tempted to follow their leader's example, and at the same time of maintaining the rights of the church against what he held to be the encroachments of the state, as seen in such acts as the Gorham judgment, and the decision on *Essays and Reviews.* In all the ecclesiastical contests of the twenty years which followed 1845, Keble took a part, not loud or obtrusive, but firm and resolute, in maintaining those High Anglican principles with which his life had been identified. These absorbing duties, added to his parochial work, left little time for literature. But in 1846 he published the *Lyra Innocentium;* and in 1863 he completed a life of Bishop Wilson.

In the late autumn of the latter year, Keble left Hursley for the sake of his wife's health, and sought the milder climate of Bournemouth. There he had an attack of paralysis, from which he died on the 29th of March 1866. He was buried in his own churchyard at Hursley; and in little more than a month his wife was laid by her husband's side.

Keble also published *A Metrical Version of the Psalter* (1839), *Lyra Innocentium* (1846), and a volume of poems was published posthumously. But it is by the *Christian Year* that he won the ear of the religious world. It was a happy thought that dictated the plan of the book, to furnish a meditative religious lyric for each Sunday of the year, and for each saint's day and festival of the English Church. The subject of each poem is generally suggested by some part of the lessons or the gospel or the epistle for the day. One thing which gives these poems their strangely unique power is the sentiment to which they appeal, and the saintly character of the poet who makes the appeal, illumining more or less every poem.

The intimacy with the Bible which is manifest in the pages of the *Christian Year*; and the unobtrusive felicity with which Biblical sentiments and language are introduced have done much to endear these poems to all Bible readers. " The exactness of the descriptions of Palestine, which Keble had never visited, have been noted, and verified on the spot," by Dean Stanley. He points to features of the lake of Gennesareth, which were first touched in the *Christian Year*; and he observes that throughout the book " the Biblical scenery is treated graphically as real scenery, and the Biblical history and poetry as real history and poetry."

As to its style, the *Christian Year* is calm and grave in tone, and subdued in colour, as beseems its subjects and sentiments. The contemporary poets whom Keble most admired were Scott, Wordsworth and Southey; and of their influence traces are visible in his diction. Yet he has a style of language and a cadence of his own, which steal into the heart with strangely soothing power. Some of the poems are faultless, after their kind, flowing from the first stage to the last, lucid in thought, vivid in diction, harmonious in their pensive melody. In others there are imperfections in rhythm, conventionalities of language, obscurities or over-subtleties of thought, which mar the reader's enjoyment. Yet even the most defective poems commonly have, at least, a single verse, expressing some profound thought or tender shade of feeling, for which the sympathetic reader willingly pardons artistic imperfections in the rest.

Keble's life was written by his life-long friend Mr Justice J. T. Coleridge. The following is a complete list of his writings:—1. Works published in Keble's lifetime: *Christian Year* (1827); *Psalter* (1839); *Praelectiones Academicae* (1844); *Lyra Innocentium* (1846); *Sermons Academical* (1848); *Argument against Repeal of Marriage Law*, and *Sequel* (1857); *Eucharistical Adoration* (1857); *Life of Bishop Wilson* (1863); *Sermons Occasional and Parochial* (1867). 2. Posthumous publications: *Village Sermons on the Baptismal Service* (1868); *Miscellaneous Poems* (1869); *Letters of Spiritual Counsel* (1870); *Sermons for the Christian Year, &c.* (11 vols., 1875–1880); *Occasional Papers and Reviews* (1877); *Studia Sacra* (1877); *Outlines of Instruction or Meditation* (1880).

KECSKEMÉT, a town of Hungary, in the county of Pest-Pilis-Solt-Kiskun, 65 m. S.S.E. of Budapest by rail. Pop. (1900), 56,786. Kecskemét is a poorly built and straggling town, situated in the extensive Kecskemét plain. It contains monasteries belonging to the Piarist and Franciscan orders, a Catholic (founded in 1714), a Calvinistic and a Lutheran school. The manufacture of soap and leather are the principal industries. Besides the raising of cereals, fruit is extensively cultivated in the surrounding district; its apples and apricots are largely exported, large quantities of wine are produced, and cattle-rearing constitutes another great source of revenue. Kecskemét was the birthplace of the Hungarian dramatist József Katona (1792–1830), author of the historical drama, *Bánk-Bán* (1815).

KEDDAH (from Hindu *Khedna*, to chase), the term used in India for the enclosure constructed to entrap elephants. In Ceylon the word employed in the same meaning is *corral.*

KEDGEREE (Hindostani, *khichri*), an Indian dish, composed of boiled rice and various highly-flavoured ingredients. Kedgeree is of two kinds, white and yellow. The white is made with grain, onions, ghee (clarified butter), cloves, pepper and salt. Yellow kedgeree includes eggs, and is coloured by turmeric. Kedgeree is a favourite and universal dish in India; among the poorer classes it is frequently made of rice and pulse only, or rice and beans. In European cookery kedgeree is a similar dish usually made with fish.

KEEL, the bottom timber or combination of plates of a ship or boat, extending longitudinally from bow to stern, and supporting the framework (see SHIP-BUILDING). The origin of the word has been obscured by confusion of two words, the Old Norwegian *kjole* (cf. Swedish *köl*) and a Dutch and German *kiel*. The first had the meaning of the English "keel," the other of ship, boat. The modern usage in Dutch and German has approximated to the English. The word *kiel* is represented in old English by *céol*, a word applied to the long war galleys of the Vikings, in which sense "keel" or "keele" is still used by archaeologists. On the Tyne "keel" is the name given to a flat-bottomed vessel used to carry coals to the colliers. There is another word "keel," meaning to cool, familiar in Shakespeare (*Love's Labour Lost*, v. ii. 930), "while greasy Joan doth keel the pot," *i.e.* prevents a pot from boiling over by pouring in cold water, &c., stirring or skimming. This is from the Old English *célan*, to cool, a common Teutonic word, cf. German *kühlen*.

KEELEY, MARY ANNE (1806–1899), English actress, was born at Ipswich on the 22nd of November 1805 or 1806. Her maiden name was Goward, her father being a brazier and tinman. After some experience in the provinces, she first appeared on the stage in London on the 2nd of July 1825, in the opera *Rosina*. It was not long before she gave up "singing parts" in favour of the drama proper, where her powers of character-acting could have scope. In June 1829 she married Robert Keeley (1793–1869), an admirable comedian, with whom she had often appeared. Between 1832 and 1842 they acted at Covent Garden, at the Adelphi with Buckstone, at the Olympic with Charles Mathews, and at Drury Lane with Macready. In 1836 they visited America. In 1838 she made her first great success as Nydia, the blind girl, in a dramatized version of Bulwer Lytton's *The Last Days of Pompeii*, and followed this with an equally striking impersonation of Smike in *Nicholas Nickleby*. In 1839 came her decisive triumph with her picturesque and spirited acting as the hero of a play founded upon Harrison Ainsworth's *Jack Sheppard*. So dangerous was considered the popularity of the play, with its glorification of the prison-breaking felon, that the lord chamberlain ultimately forbade the performance of any piece upon the subject. It is perhaps mainly as Jack Sheppard that Mrs Keeley lived in the memory of playgoers, despite her long subsequent career in plays more worthy of her remarkable gifts. Under Macready's management she played Nerissa in *The Merchant of Venice*, and Audrey in *As You Like It*. She managed the Lyceum with her husband from 1844 to 1847; acted with Webster and Kean at the Haymarket; returned for five years to the Adelphi; and made her last regular public appearance at the Lyceum in 1859. A public reception was given her at this theatre on her 90th birthday. She died on the 12th of March 1899.

See Walter Goodman, *The Keeleys on the Stage and off* (London, 1895).

KEELING ISLANDS (often called Cocos and Cocos-KEELING ISLANDS), a group of coral islands in the Indian Ocean, between 12° 4′ and 12° 13′ S., and 96° 49′–57′ E., but including a smaller island in 11° 50′ N. and 96° 50′ E. The group furnished Charles Darwin with the typical example of an atoll or lagoon island. There are altogether twenty-three small islands, 9½ m. being the greatest width of the whole atoll. The lagoon is very shallow and the passages between many of the islands are fordable on foot. An opening on the northern side of the reef permits the entrance of vessels into the northern part of the lagoon, which forms a good harbour known as Port Refuge or Port Albion. The coco-nut (as the name Cocos Islands indicates) is the characteristic product and is cultivated on all the islands. The flora is scanty in species. One of the commonest living creatures is a monstrous crab which lives on the coco-nuts; and in some places also there are great colonies of the pomegranate crab. The group was visited by Dr H. O. Forbes in 1878, and later, at the expense of Sir John Murray, by Dr Guppy, Mr Ridley and Dr Andrews. The object of their visits was the investigation of the fauna and flora of the atoll, more especially of the formation of the coral reefs. Dr Guppy was fortunate in reaching North Keeling Island, where a landing is only possible during the calmest weather. The island he found to be about a mile long, with a shallow enclosed lagoon, less than 3 ft. deep at ordinary low water, with a single opening on its east or weather side. A dense vegetation of iron-wood (*Cordia*) and other trees and shrubs, together with a forest of coco-nut palms, covers its surface. It is tenanted by myriads of sea-fowl, frigate-birds, boobies, and terns (*Gygis candida*), which find here an excellent nesting-place, for the island is uninhabited, and is visited only once or twice a year. The excrement from this large colony has changed the carbonate of lime in the soil and the coral nodules on the surface into phosphates, to the extent in some cases of 60–70%, thus forming a valuable deposit, beneficial to the vegetation of the island itself and promising commercial value. The lagoon is slowly filling up and becoming cultivable land, but the rate of recovery from the sea has been specially marked since the eruption of Krakatoa, the pumice from which was washed on to it in enormous quantity, so that the lagoon advanced its shores from 20 to 30 yards. Forbes's and Guppy's investigations go to show that, contrary to Darwin's belief, there is no evidence of upheaval or of subsidence in either of the Keeling groups.

The atoll has an exceedingly healthy climate, and might well be used as a sanatorium for phthisical patients, the temperature never reaching extremes. The highest annual reading of the thermometer hardly ever exceeds 89° F. or falls beneath 70°. The mean temperature for the year is 78·5° F., and as the rainfall rarely exceeds 40 in. the atmosphere never becomes unpleasantly moist. The south-east trade blows almost ceaselessly for ten months of the year. Terrific storms sometimes break over the island; and it has been more than once visited by earthquakes. A profitable trade is done in coco-nuts, but there are few other exports. The imports are almost entirely foodstuffs and other necessaries for the inhabitants, who form a patriarchal colony under a private proprietor.

The islands were discovered in 1609 by Captain William Keeling on his voyage from Batavia to the Cape. In 1823 Alexander Hare, an English adventurer, settled on the southernmost island with a number of slaves. Some two or three years after, a Scotchman, J. Ross, who had commanded a brig during the English occupation of Java, settled with his family (who continued in the ownership) on Direction Island, and his little colony was soon strengthened by Hare's runaway slaves. The Dutch Government had in an informal way claimed the possession of the islands since 1829; but they refused to allow Ross to hoist the Dutch flag, and accordingly the group was taken under British protection in 1856. In 1878 it was attached to the government of Ceylon, and in 1882 placed under the authority of the governor of the Straits Settlements. The ownership and superintendency continued in the Ross family, of whom George Clunies Ross died in 1910, and was succeeded by his son Sydney.

See C. Darwin, *Journal of the Voyage of the "Beagle,"* and *Geological Observations on Coral Reefs*; also Henry O. Forbes, *A Naturalist's Wanderings in the Eastern Archipelago* (London, 1884); H. B. Guppy, "The Cocos-Keeling Islands," *Scottish Geographical Magazine* (vol. v., 1889).

KEEL-MOULDING, in architecture, a round on which there is a small fillet, somewhat like the keel of a ship. It is common in the Early English and Decorated styles.

KEENE, CHARLES SAMUEL (1823–1891), English black-and-white artist, the son of Samuel Browne Keene, a solicitor, was born at Hornsey on the 10th of August 1823. Educated at the Ipswich Grammar School until his sixteenth year, he early showed artistic leanings. Two years after the death of his father he was articled to a London solicitor, but, the occupation proving uncongenial, he was removed to the office of an architect, Mr Pilkington. His spare time was now spent in drawing historical and nautical subjects in water-colour. For these trifles his mother, to whose energy and common sense he was greatly indebted, soon found a purchaser, through whom he was brought to the notice of the Whympers, the wood-engravers. This led to his being bound to them as apprentice for five years. His earliest known

design is the frontispiece, signed "Chas. Keene," to *The Adventures of Dick Boldhero in Search of his Uncle*, &c. (Darton & Co., 1842). His term of apprenticeship over, he hired as studio an attic in the block of buildings standing, up to 1900, between the Strand and Holywell Street, and was soon hard at work for the *Illustrated London News*. At this time he was a member of the "Artists' Society" in Clipstone Street, afterwards removed to the Langham studios. In December 1851 he made his first appearance in *Punch* and, after nine years of steady work, was called to a seat at the famous table. It was during this period of probation that he first gave evidence of those transcendent qualities which make his work at once the joy and despair of his brother craftsmen. On the starting of *Once a Week*, in 1859, Keene's services were requisitioned, his most notable series in this periodical being the illustrations to Charles Reade's *A Good Fight* (afterwards rechristened *The Cloister and the Hearth*) and to George Meredith's *Evan Harrington*. There is a quality of conventionality in the earlier of these which completely disappears in the later. In 1858 Keene, who was endowed with a fine voice and was an enthusiastic admirer of old-fashioned music, joined the "Jermyn Band," afterwards better known as the "Moray Minstrels." He was also for many years a member of Leslie's Choir, the Sacred Harmonic Society, the Catch, Glee and Canon Club, and the Bach Choir. He was also an industrious performer on the bagpipes, of which instrument he brought together a considerable collection of specimens. About 1863 the Arts Club in Hanover Square was started, with Keene as one of the original members. In 1864 John Leech died, and Keene's work in *Punch* thenceforward found wider opportunities. It was about this time that the greatest of all modern artists of his class, Menzel, discovered Keene's existence, and became a subscriber to *Punch* solely for the sake of enjoying week by week the work of his brother craftsman. In 1872 Keene, who, though fully possessed of the humorous sense, was not within measurable distance of Leech as a jester, and whose drawings were consequently not sufficiently "funny" to appeal to the laughter-loving public, was fortunate enough to make the acquaintance of Mr Joseph Crawhall, who had been in the habit for many years of jotting down any humorous incidents he might hear of or observe, illustrating them at leisure for his own amusement. These were placed unreservedly at Keene's disposal, and to their inspiration we owe at least 250 of his most successful drawings in the last twenty years of his connexion with *Punch*. A list of more than 200 of these subjects is given at the end of *The Life and Letters of Charles Keene of "Punch."* In 1879 Keene removed to 239 King's Road, Chelsea, which he occupied until his last illness, walking daily to and from his house, 112 Hammersmith Road. In 1881 a volume of his *Punch* drawings was published by Messrs Bradbury & Agnew, with the title *Our People*. In 1883 Keene, who had hitherto been a strong man, developed symptoms of dyspepsia and rheumatism. By 1889 these had increased to an alarming degree, and the last two years of his life were passed in acute suffering borne with the greatest courage. He died unmarried, after a singularly uneventful life, on the 4th of January 1891, and his body lies in Hammersmith cemetery.

Keene, who never had any regular art training, was essentially an artists' artist. He holds the foremost place amongst English craftsmen in black and white, though his work has never been appreciated at its real value by the general public. No doubt the main reason for this lack of public recognition was his unconventionality. He drew his models exactly as he saw them, not as he knew the world wanted to see them. He found enough beauty and romance in all that was around him, and, in his *Punch* work, enough subtle humour in nature seized at her most humorous moments to satisfy him. He never required his models to grin through a horse collar, as Gillray did, or to put on their company manners, as was du Maurier's wont. But Keene was not only a brilliant worker in pen and ink. As an etcher he has also to be reckoned with, notwithstanding the fact that his plates numbered not more than fifty at the outside. Impressions of them are exceedingly rare, and hardly half a dozen of the plates are now known to be in existence. He himself regarded them only as experiments in a difficult but fascinating medium. But in the opinion of the expert they suffice to place him among the best etchers of the 19th century. Apart from the etched frontispieces to some of the *Punch* pocket-books, only three, and these by no means the best, have been published. Writing in *L'Artiste* for May 1891 of a few which he had seen, Bracquemond says: "By the freedom, the largeness of their drawing and execution, these plates must be classed amongst modern etchings of the first rank." A few impressions are in the British Museum, but in the main they were given away to friends and lie hidden in the albums of the collector.

AUTHORITIES.—G. S. Layard, *Life and Letters of Charles Keene of "Punch"*; *The Work of Charles Keene*, with an introduction and notes by Joseph Pennell, and a bibliography by W. H. Chesson; M. H. Spielmann, *The History of "Punch"*; M. Charpentier, *La Vie Moderne*, No. 14 (1880); M. H. Spielmann, *Magazine of Art* (March 1891); M. Bracquemond, *L'Artiste* (May 1891); G. S. Layard, *Scribner's* (April 1892); Joseph Pennell, *Century* (Oct. 1897); George du Maurier, *Harper's* (March 1898). (G. S. L.)

KEENE, LAURA (*c.* 1820–1873), Anglo-American actress and manager, whose real name was Mary Moss, was born in England. In 1851, in London, she was playing Pauline in *The Lady of Lyons*. She made her first appearance in New York on the 20th of September 1852, on her way to Australia. She returned in 1855 and till 1863 managed Laura Keene's theatre, in which was produced, in 1858, *Our American Cousin*. It was her company that was playing at Ford's theatre, Washington, on the night of Lincoln's assassination. Miss Keene was a successful melodramatic actress, and an admirable manager. She died at Montclair, New Jersey, on the 4th of November 1873.

See John Creahan's *Life of Laura Keene* (1897).

KEENE, a city and the county-seat of Cheshire county, New Hampshire, U.S.A., on the Ashuelot river, about 45 m. S.W. of Concord, N.H., and about 92 m. W.N.W. of Boston. Pop. (1900), 9165, of whom 1255 were foreign-born; (1910 census), 10,068. Area, 36·5 sq. m. It is served by the Boston & Maine railroad and by the Fitchburg railroad (leased by the Boston & Maine). The site is level, but is surrounded by ranges of lofty hills—Monadnock Mountain is about 10 m. S.E. Most of the streets are pleasantly shaded. There are three parks, with a total area of about 219 acres; and in Central Square stands a soldiers' and sailors' monument designed by Martin Milmore and erected in 1871. The principal buildings are the city hall, the county buildings and the city hospital. The Public Library had in 1908 about 16,300 volumes. There are repair shops of the Boston & Maine railroad here, and manufactures of boots and shoes, woollen goods, furniture (especially chairs), pottery, &c. The value of the factory product in 1905 was $2,690,967. The site of Keene was one of the Massachusetts grants made in 1733, but Canadian Indians made it untenable and it was abandoned from 1746 until 1750. In 1753 it was incorporated and was named Keene, in honour of Sir Benjamin Keene (1697–1757), the English diplomatist, who as agent for the South Sea Company and Minister in Madrid, and as responsible for the commerical treaty between England and Spain in 1750, was in high reputation at the time; it was chartered as a city in 1874.

KEEP, ROBERT PORTER (1844–1904), American scholar, was born in Farmington, Connecticut, on the 26th of April 1844. He graduated at Yale in 1865, was instructor there for two years, was United States consul at the Piraeus in Greece in 1869–1871, taught Greek in Williston Seminary, Easthampton, Massachusetts, in 1876–1885, and was principal of Norwich Free Academy, Norwich, Conn., from 1885 to 1903, the school owing its prosperity to him hardly less than to its founders. In 1903 he took charge of Miss Porter's school for girls at Farmington, Conn., founded in 1844 and long controlled by his aunt, Sarah Porter. He died in Farmington on the 3rd of June 1904.

KEEP (corresponding to the French *donjon*), in architecture the inmost and strongest part of a medieval castle, answering to the citadel of modern times. The arrangement is said to have originated with Gundulf, bishop of Rochester (d. 1108), architect of the White Tower. The Norman keep is generally a very massive square tower. There is generally a well in a medieval keep, ingeniously concealed in the thickness of a wall or in a pillar. The most celebrated keeps of Norman times in England are the White Tower in London, those at Rochester

Arundel and Newcastle, Castle Hedingham, &c. When the keep was circular, as at Conisborough and Windsor, it was called a "shell-keep" (see CASTLE). The verb "to keep," from which the noun with its particular meaning here treated was formed, appears in O.E. as *cēpan*, of which the derivation is unknown; no words related to it are found in cognate languages. The earliest meaning (*c.* 1000) appears to have been to lay hold of, to seize, from which its common uses of to guard, observe, retain possession of, have developed.

KEEWATIN, a district of Canada, bounded E. by Committee Bay, Fox Channel, and Hudson and James bays, S. and S.W. by the Albany and English rivers, Manitoba, Lake Winnipeg, and Nelson river, W. by the 100th meridian, and N. by Simpson and Rae straits and gulf and peninsula of Boothia; thus including an area of 445,000 sq. m. Its surface is in general barren and rocky, studded with innumerable lakes with intervening elevations, forest-clad below 60° N., but usually bare or covered with moss or lichens, forming the so-called "barren lands" of the north. With the exception of a strip of Silurian and Devonian rocks, 40 to 80 m. wide, extending from the vicinity of the Severn river to the Churchill, and several isolated areas of Cambrian and Huronian, the district is occupied by Laurentian rocks. The principal river is the Nelson, which, with its great tributary, the Saskatchewan, is 1450 m. long; other tributaries are the Berens, English, Winnipeg, Red and Assiniboine. The Hayes, Severn and Winisk also flow from the south-west into Hudson Bay, and the Ekwan, Attawapiskat and Albany, 500 m. long, into James Bay. The Churchill, 925 m., Thlewliaza, Maguse, and Ferguson rivers discharge into Hudson Bay on the west side; the Kazan, 500 m., and Dubawnt, 660 m., into Chesterfield Inlet; and Back's river, rising near Aylmer Lake, flows north-eastwards 560 m. to the Arctic Ocean. The principal lakes are St Joseph and Seul on the southern boundary; northern part of Lake Winnipeg, 710 ft. above the sea; Island; South Indian; Etawney; Nueltin; Yathkyed, at an altitude of 300 ft.; Maguse; Kaminuriak; Baker, 30 ft.; Aberdeen, 130 ft.; and Garry. The principal islands are Southampton, area 17,800 sq. m.; Marble Island, the usual wintering place for whaling vessels; and Bell and Coats Islands, in Hudson Bay; and Akimiski, in James Bay.

A few small communities at the posts of the Hudson Bay Company constitute practically the whole of the white population. In 1897 there were 852 Indians in the Churchill and Nelson rivers district, but no figures are available for the district as a whole. The principal posts in Keewatin are Norway House, near the outlet of Lake Winnipeg; Oxford House, on the lake of the same name; York Factory, at the mouth of Hayes river; and Forts Severn and Churchill, at the mouths of the Severn and Churchill rivers respectively. In 1905 the district of Keewatin was included in the North-West Territories and the whole placed under an administrator or acting governor. The derivation of the name is from the Cree—the "north wind."

KEF, more correctly El-Kef (the Rock), a town of Tunisia, 125 m. by rail S.S.W. of the capital, and 75 m. S.E. of Bona in Algeria. It occupies the site of the Roman colony of Sicca Veneria, and is built on the steep slope of a rock in a mountainous region through which flows the Mellegue, an affluent of the Mejerda. Situated at the intersection of main routes from the west and south, Kef occupies a position of strategic importance. Though distant some 22 m. from the Algerian frontier it was practically a border post, and its walls and citadel were kept in a state of defence by the Tunisians. The town with its half-dozen mosques and tortuous, dirty streets, is still partly walled. The southern part of the wall has however been destroyed by the French, and the remainder is being left to decay. Beyond the part of the wall destroyed is the French quarter. The *kasbah*, or citadel, occupies a rocky eminence on the west side of the town. It was built, or rebuilt, by the Turks, the material being Roman. It has been restored by the French, who maintain a garrison here.

The Roman remains include fragments of a large temple dedicated to Hercules, and of the baths. The ancient cisterns remain, but are empty, being used as part of the barracks. The town is however supplied by water from the same spring which filled the cisterns. The Christian cemetery is on the site of a basilica. There are ruins of another Christian basilica, excavated by the French, the apse being intact and the narthex serving as a church. Many stones with Roman inscriptions are built into the walls of Arab houses. The modern town is much smaller than the Roman colony. Pop. about 6000, including about 100 Europeans (chiefly Maltese).

The Roman colony of Sicca Veneria appears from the character of its worship of Venus (Val. Max. ii. 6, § 15) to have been a Phoenician settlement. It was afterwards a Numidian stronghold, and under the Caesars became a fashionable residential city and one of the chief centres of Christianity in North Africa. The Christian apologist Arnobius the Elder lived here.

See H. Barth, *Die Küstenländer des Mittelmeeres* (1849); *Corpus Inscript. Lat.*, vol. viii.; Sombrun in *Bull. de la soc. de géog. de Bordeaux* (1878). Also Cardinal Newman's *Callista: a Sketch of the Third Century* (1856), for a "reconstruction" of the manner of life of the early Christians and their oppressors.

KEHL, a town in the grand-duchy of Baden, on the right bank of the Rhine, opposite Strassburg, with which it is connected by a railway bridge and a bridge of boats. Pop. 4000. It has a considerable river trade in timber, tobacco and coal, which has been developed by the formation of a harbour with two basins. The chief importance of Kehl is its connexion with the military defence of Strassburg, to the strategic area of which it belongs. It is encircled by the strong forts Bose, Blumenthal and Kirchbach of that system. In 1678 Kehl was taken from the imperialists by the French, and in 1683 a new fortress, built by Vauban, was begun. In 1697 it was restored to the Empire and was given to Baden, but in 1703 and again in 1733 it was taken by the French, who did not however retain it for very long. In 1793 the French again took the town, which was retaken by the Austrians and was restored to Baden in 1803. In 1808 the French, again in possession, restored the fortifications, but these were dismantled in 1815, when Kehl was again restored to Baden. In August 1870, during the Franco-German War, the French shelled the defenceless town.

KEIGHLEY (locally KEITHLEY), a municipal borough in the Keighley parliamentary division of the West Riding of Yorkshire, England, 17 m. W.N.W. of Leeds, on branches of the Great Northern and Midland railways. Pop. (1901), 41,564. It is beautifully situated in a deep valley near the junction of the Worth with the Aire. A canal between Liverpool and Hull affords it water communication with both west and east coasts. The principal buildings are the parish church of St Andrew (dating from the time of Henry I., modernized in 1710, rebuilt with the exception of the tower in 1805, and again rebuilt in 1878), and the handsome Gothic mechanics' institute and technical school (1870). A grammar school was founded in 1713, the operations of which have been extended so as to embrace a trade school (1871) for boys, and a grammar school for girls. The principal industries are manufactures of woollen goods, spinning, sewing and washing machines, and tools. The town was incorporated in 1882, and the corporation consists of a mayor, 6 aldermen and 18 councillors.

KEI ISLANDS [*Ke, Key, Kii*, &c.; native, *Ewab*], a group in the Dutch East Indies, in the residency of Amboyna, between 5° and 6° 5′ S. and 131° 50′ and 133° 15′ E., and consisting of four parts: Nuhu-Iut or Great Kei, Roa or Little Kei, the Tayanda, and the Kur group. Great Kei differs physically in every respect from the other groups. It is of Tertiary formation (Miocene), and has a chain of volcanic elevations along the axis, reaching a height of 2600 ft. Its area is 290 sq. m., the total land area of the group being 572 sq. m. All the other islands are of post-Tertiary formation and of level surface. The group has submarine connexion, under relatively shallow sea, with the Timorlaut group to the south-west and the chain of islands extending north-west towards Ceram; deep water separates it on the east from the Aru Islands and on the west from the inner islands of the Banda Sea. Among the products are coco-nuts, sago, fish, trepang, timber, copra, maize, yams

and tobacco. The population is about 23,000, of whom 14,900 are pagans, and 8300 Mahommedans.

The inhabitants are of three types. There is the true Kei Islander, a Polynesian by his height and black or brown wavy hair, with a complexion between the Papuan black and the Malay yellow. There is the pure Papuan, who has been largely merged in the Kei type. Thirdly, there are the immigrant Malays. These (distinguished by the use of a special language and by the profession of Mohammedanism) are descendants of natives of the Banda islands who fled eastward before the encroachments of the Dutch. The pagans have rude statues of deities and places of sacrifice indicated by flat-topped cairns. The Kei Islanders are skilful in carving and celebrated boat-builders.

See C. M. Kan, "Onze geographische kennis der Keij-Eilanden," in *Tijdschrift Aardrijkskundig Genootschap* (1887); Martin, "Die Kei-inseln u. ihr Verhältniss zur Australisch-Asiatischen Grenzlinie," ibid. part vii. (1890); W. R. van Hoëvell, "De Kei-Eilanden," in *Tijdschr. Batavian. Gen.* (1889); "Verslagen van de wetenschappelijke opnemingen en onderzoekingen op de Keij-Eilanden" (1889–1890), by Planten and Wertheim (1893), with map and ethnographical atlas of the south-western and south-eastern islands by Pleyte; Langen, *Die Key- oder Kii-Inseln* (Vienna, 1902).

KEIM, KARL THEODOR (1825–1878), German Protestant theologian, was born at Stuttgart on the 17th of December 1825. His father, Johann Christian Keim, was headmaster of a gymnasium. Here Karl Theodor received his early education, and then proceeded to the Stuttgart Obergymnasium. In 1843 he went to the university of Tübingen, where he studied philosophy under J. F. Reiff, a follower of Hegel, and Oriental languages under Heinrich Ewald and Heinrich Meier. F. C. Baur, the leader of the new Tübingen school, was lecturing on the New Testament and on the history of the church and of dogma, and by him in particular Keim was greatly impressed. The special bent of Keim's mind is seen in his prize essay, *Verhältniss der Christen in den ersten drei Jahrhunderten bis Konstantin zum römischen Reiche* (1847). His first published work was *Die Reformation der Reichstadt Ulm* (1851). In 1850 he visited the university of Bonn, where he attended some of the lectures of Friedrich Bleek, Richard Rothe, C. M. Arndt and Isaak Dorner. He taught at Tübingen from June 1851 until 1856, when, having become a pastor, he was made deacon at Esslingen, Württemberg. In 1859 he was appointed archdeacon; but a few months later he was called to the university of Zürich as professor of theology (1859–1873), where he produced his important works. Before this he had written on church history (*e.g. Schwäbische Reformationsgeschichte bis zum Augsburger Reichstag*, 1855). His inaugural address at Zürich on the human development of Jesus, *Die menschliche Entwicklung Jesu Christi* (1861), and his *Die geschichtliche Würde Jesu* (1864) were preparatory to his chief work, *Die Geschichte Jesu von Nazara in ihrer Verkettung mit dem Gesamtleben seines Volkes* (3 vols., 1867–1872; Eng. trans., *Jesus of Nazareth, and the National Life of Israel*, 6 vols.), 1873–1882. In 1873 Keim was appointed professor of theology at Giessen. This post he resigned, through ill-health, shortly before his death on the 17th of November 1878. He belonged to the "mediation" school of theology.

Chief works, besides the above: *Reformationsblätter der Reichsstadt Esslingen* (1860); *Ambrosius Blarer, der Schwäbische Reformator* (1860); *Der Übertritt Konstantins d. Gr. zum Christenthum* (1862); his sermons, *Freundesworte zur Gemeinde* (2 vols., 1861–1862); and *Celsus' wahres Wort* (1873). In 1881 H. Ziegler published one of Keim's earliest works, *Rom und das Christenthum*, with a biographical sketch. See also Ziegler's article in Herzog-Hauck, *Realencyklopädie*.

KEITH, the name of an old Scottish family which derived its name from the barony of Keith in East Lothian, said to have been granted by Malcolm II., king of Scotland, to a member of the house for services against the Danes. The office of great marishal of Scotland, afterwards hereditary in the Keith family, may have been conferred at the same time; for it was confirmed, together with possession of the lands of Keith, to Sir Robert Keith by a charter of King Robert Bruce, and appears to have been held as annexed to the land by the tenure of grand serjeanty. Sir Robert Keith commanded the Scottish horse at Bannockburn, and was killed at the battle of Neville's Cross in 1346. At the close of the 14th century Sir William Keith, by exchange of lands with Lord Lindsay, obtained the crag of Dunnottar in Kincardineshire, where he built the castle of Dunnottar, which became the stronghold of his descendants. He died about 1407. In 1430 a later Sir William Keith was created Lord Keith, and a few years afterwards earl marishal, and these titles remained in the family till 1716. William, fourth earl marishal (d. 1581), was one of the guardians of Mary queen of Scots during her minority, and was a member of her privy council on her return to Scotland. While refraining from extreme partisanship, he was an adherent of the Reformation; he retired into private life at Dunnottar Castle about 1567, thereby gaining the sobriquet "William of the Tower." He was reputed to be the wealthiest man in Scotland. His eldest daughter Anne married the regent Murray. His grandson George, 5th earl marishal (c. 1553–1623), was one of the most cultured men of his time. He was educated at King's College, Aberdeen, where he became a proficient classical scholar, afterwards studying divinity under Theodore Beza at Geneva. He was a firm Protestant, and took an active part in the affairs of the kirk. His high character and abilities procured him the appointment of special ambassador to Denmark to arrange the marriage of James VI. with the Princess Anne. He was subsequently employed on a number of important commissions; but he preferred literature to public affairs, and about 1620 he retired to Dunnottar, where he died in 1623. He is chiefly remembered as the founder in 1593 of the Marischal College in the university of Aberdeen, which he richly endowed. From an uncle he inherited the title of Lord Altrie about 1590. William, 7th earl marishal (*c.* 1617–1661), took a prominent part in the Civil War, being at first a leader of the covenanting party in north-east Scotland, and the most powerful opponent of the marquess of Huntly. He co-operated with Montrose in Aberdeenshire and neighbouring counties against the Gordons. With Montrose he signed the Bond of Cumbernauld in August 1640, but took no active steps against the popular party till 1648, when he joined the duke of Hamilton in his invasion of England, escaping from the rout at Preston. In 1650 Charles II. was entertained by the marishal at Dunnottar; and in 1651 the Scottish regalia were left for safe keeping in his castle. Taken prisoner in the same year, he was committed to the Tower and was excluded from Cromwell's Act of Grace. He was made a privy councillor at the Restoration and died in 1661. Sir John Keith (d. 1714), brother of the 7th earl marishal, was, at the Restoration, given the hereditary office of knight marishal of Scotland, and in 1677 was created earl of Kintore, and Lord Keith of Inverurie and Keith-Hall, a reward for his share in preserving the regalia of Scotland, which were secretly conveyed from Dunnottar to another hiding-place, when the castle was besieged by Cromwell's troops, and which Sir John, perilously to himself, swore he had carried abroad and delivered to Charles II., thus preventing further search. From him are descended the earls of Kintore.

GEORGE, 10th earl marishal (*c.* 1693–1778), served under Marlborough, and like his brother Francis, Marshal Keith (*q.v.*), was a zealous Jacobite, taking part in the rising of 1715, after which he escaped to the continent. In the following year he was attainted, his estates and titles being forfeited to the Crown. He lived for many years in Spain, where he concerned himself with Jacobite intrigues, but he took no part in the rebellion of 1745, proceeding about that year to Prussia, where he became, like his brother, intimate with Frederick the Great. Frederick employed him in several diplomatic posts, and he is said to have conveyed valuable information to the earl of Chatham, as a reward for which he received a pardon from George II., and returned to Scotland in 1759. His heir male, on whom, but for the attainder of 1716, his titles would have devolved, was apparently his cousin Alexander Keith of Ravelston, to whom the attainted earl had sold the castle and lands of Dunnottar in 1766. From Alexander Keith was descended, through the female line, Sir Patrick Keith Murray of Ochtertyre, who sold the estates of Dunnottar and Ravelston. After the attainder

of 1716 the right of the Keiths of Ravelston to be recognized as the representatives of the earls marishal was disputed by Robert Keith (1681–1757), bishop of Fife, a member of another collateral branch of the family. The bishop was a writer of some repute, his chief work, *The History of the Affairs of the Church and State of Scotland* (Edinburgh, 1734), being of considerable value for the reigns of James V., James VI., and Mary Queen of Scots. He also published a *Catalogue of the Bishops of Scotland* (Edinburgh, 1755), and other less important historical and theological works.

ROBERT KEITH (d. 1774), descended from a younger son of the 2nd earl marishal, was British minister in Vienna in 1748, and subsequently held other important diplomatic appointments, being known to his numerous friends, among whom were the leading men of letters of his time, as "Ambassador Keith." His son, Sir Robert Murray Keith (1730–1795), was on Lord George Sackville's staff at the battle of Minden. He became colonel of a regiment (the 87th foot) known as Keith's Highlanders, who won distinction in the continental wars, but were disbanded in 1763; he was then employed in the diplomatic service, in which he achieved considerable success by his honesty, courage, and knowledge of languages. In 1781 he became lieutenant-general; in 1789 he was made a privy councillor.

From the Keith family through the female line was descended George Keith Elphinstone, Baron Keith of Stonehaven, Marishal and afterwards Viscount Keith (*q.v.*), whose titles became extinct at the death of his daughter Margaret, Baroness Keith, in 1867.

See *Calendar of Documents relating to Scotland*, edited by J. Bain (4 vols., Edinburgh, 1881–1888); Peter Buchan, *An Account of the Ancient and Noble Family of Keith* (Edinburgh, 1828); *Memoirs and Correspondence of Sir Robert Murray Keith*, edited by Mrs. Gillespie Smyth (London, 1849); John Spalding, *Memorialls of the Trubles in Scotland, 1624–1645* (2 vols., Spalding Club Publ. 21, 23, Aberdeen, 1850–1851); Sir Robert Douglas, *The Peerage of Scotland* (Edinburgh, 1813); G.E.C., *Complete Peerage*, vol. iv. (London, 1892). (R. J. M.)

KEITH, FRANCIS EDWARD JAMES (1696–1758), Scottish soldier and Prussian field marshal, was the second son of William, 9th earl marishal of Scotland, and was born on the 11th of June 1696 at the castle of Inverugie near Peterhead. Through his careful education under Robert Keith, bishop of Fife, and subsequently at Edinburgh University in preparation for the legal profession, he acquired that taste for literature which afterwards secured him the esteem of the most distinguished savants of Europe; but at an early period his preference for a soldier's career was decided. The rebellion of 1715, in which he displayed qualities that gave some augury of his future eminence, compelled him to seek safety on the Continent. After spending two years in Paris, chiefly at the university, he in 1719 took part in the ill-starred expedition of the Pretender to the Highlands of Scotland. He then passed some time at Paris and Madrid in obscurity and poverty, but eventually obtained a colonelcy in the Spanish army, and, it is said, took part in the siege of Gibraltar (1726–27). Finding his Protestantism a barrier to promotion, he obtained from the king of Spain a recommendation to Peter II. of Russia, from whom he received (1728) the command of a regiment of the guards. He displayed in numerous campaigns the calm, intelligent and watchful valour which was his chief characteristic, obtaining the rank of general of infantry and the reputation of being one of the ablest officers in the Russian service as well as a capable and liberal civil administrator. Judging, however, that his rewards were not commensurate with his merits, he in 1747 offered his services to Frederick II. of Prussia, who at once gave him the rank of field marshal, in 1749 made him governor of Berlin, and soon came to cherish towards him, as towards his brother, the 10th earl marishal, a strong personal regard. In 1756 the Seven Years' War broke out. Keith was employed in high command from the first, and added to his Russian reputation on every occasion by resolution and promptitude of action, not less than by care and skill. In 1756 he commanded the troops covering the investment of Pirna, and distinguished himself at Lobositz. In 1757 he commanded at the siege of Prague; later in this same campaign he defended Leipzig against a greatly superior force, was present at Rossbach, and, while the king was fighting the campaign of Leuthen, conducted a foray into Bohemia. In 1758 he took a prominent part in the unsuccessful Moravian campaign, after which he withdrew from the army to recruit his broken health. He returned in time for the autumn campaign in the Lausitz, and was killed on the 14th of October 1758 at the battle of Hochkirch. His body was honourably buried on the field by Marshal Daun and General Lacy, the son of his old commander in Russia, and was shortly afterwards transferred by Frederick to the garrison church of Berlin. Many memorials were erected to him by the king, Prince Henry, and others. Keith died unmarried, but had several children by his mistress, Eva Mertens, a Swedish prisoner captured by him in the war of 1741–43. In 1889 the 1st Silesian infantry regiment No. 22 of the German army received his name.

See K. A. Varnhagen von Ense, *Biographische Denkmale*, part 7 (1844); *Fragment of a Memoir of Field-Marshal James Keith, written by himself* (1714–1734; edited by Thomas Constable for the Spalding Club, 1843); T. Carlyle, *Frederick the Great, passim*; V. Paczynaski-Tenczyn, *Leben des G. F. M. Jakob Keith* (Berlin, 1889); Peter Buchan, *Account of the Family of Keith* (Edinburgh, 1878); Anon., *Memoir of Marshal Keith* (Peterhead, 1869); Pauli, *Leben grosser Helden*, part iv.

KEITH, GEORGE (*c.* 1639–1716), British divine, was born at Aberdeen about 1639 and was educated for the Presbyterian ministry at Marischal College in his native city. In 1662 he became a Quaker and worked with Robert Barclay (*q.v.*). After being imprisoned for preaching in 1676 he went to Holland and Germany on an evangelistic tour with George Fox and William Penn. Two further terms of imprisonment in England induced him (1684) to emigrate to America, where he was surveyor-general in East New Jersey and then a schoolmaster at Philadelphia. He travelled in New England defending Quakerism against the attacks of Increase and Cotton Mather, but after a time fell out with his own folk on the subject of the atonement, accused them of deistic views, and started a community of his own called "Christian Quakers" or "Keithians." He endeavoured to advance his views in London, but the Yearly Meeting of 1694 disowned him, and he established a society at Turner's Hall in Philpot Lane, where he so far departed from Quaker usage as to administer the two sacraments. In 1700 he conformed to the Anglican Church, and from 1702 to 1704 was an agent of the Society for the Propagation of the Gospel in America. He died on the 27th of March 1716 at Edburton in Sussex, of which parish he was rector. Among his writings were *The Deism of William Penn and his Brethren* (1699); *The Standard of the Quakers examined; or, an Answer to the Apology of Robert Barclay* (1702); *A Journal of Travels* (1706). Gilbert Burnet, bishop of Salisbury, a fellow-Aberdonian, speaks of him as "the most learned man that ever was in that sect, and well versed in the Oriental tongues, philosophy and mathematics."

KEITH, GEORGE KEITH ELPHINSTONE, VISCOUNT (1746–1823), British admiral, fifth son of the 10th Lord Elphinstone, was born in Elphinstone Tower, near Stirling, on the 7th of January 1746. Two of his brothers went to sea, and he followed their example by entering the navy in 1761, in the "Gosport," then commanded by Captain Jervis, afterwards Earl St Vincent. In 1767 he made a voyage to the East Indies in the Company's service, and put £2000 lent him by an uncle to such good purpose in a private trading venture that he laid the foundation of a handsome fortune. He became lieutenant in 1770, commander in 1772, and post captain in 1775. During the war in America he was employed against the privateers, and with a naval brigade at the occupation of Charleston, S.C. In January 1781, when in command of the "Warwick" (50), he captured a Dutch 50-gun ship which had beaten off an English vessel of equal strength a few days before. After peace was signed he remained on shore for ten years, serving in Parliament as member first for Dumbartonshire, and then for Stirlingshire. When war broke out again in 1793 he was appointed to the "Robust" (74), in which he took part in the occupation of Toulon by lord Hood. He

particularly distinguished himself by beating a body of the French ashore at the head of a naval brigade of English and Spaniards. He was entrusted with the duty of embarking the fugitives when the town was evacuated. In 1794 he was promoted rear-admiral, and in 1795 he was sent to occupy the Dutch colonies at the Cape of Good Hope and in India. He had a large share in the capture of the Cape in 1795, and in August 1796 captured a whole Dutch squadron in Saldanha Bay. In the interval he had gone on to India, where his health suffered, and the capture at Saldanha was effected on his way home. When the Mutiny at the Nore broke out in 1797 he was appointed to the command, and was soon able to restore order. He was equally successful at Plymouth, where the squadron was also in a state of effervescence. At the close of 1798 he was sent as second in command to St Vincent. It was for a long time a thankless post, for St Vincent was at once half incapacitated by ill-health and very arbitrary, while Nelson, who considered that Keith's appointment was a personal slight to himself, was peevish and insubordinate. The escape of a French squadron which entered the Mediterranean from Brest in May 1799 was mainly due to jarrings among the British naval commanders. Keith followed the enemy to Brest on their retreat, but was unable to bring them to action. He returned to the Mediterranean in November as commander-in-chief. He co-operated with the Austrians in the siege of Genoa, which surrendered on the 4th of June 1800. It was however immediately afterwards lost in consequence of the battle of Marengo, and the French made their re-entry so rapidly that the admiral had considerable difficulty in getting his ships out of the harbour. The close of 1801 and the beginning of the following year were spent in transporting the army sent to recover Egypt from the French. As the naval force of the enemy was completely driven into port, the British admiral had no opportunity of an action at sea, but his management of the convoy carrying the troops, and of the landing at Aboukir, was greatly admired. He was made a baron of the United Kingdom—an Irish barony having been conferred on him in 1797. On the renewal of the war in 1803 he was appointed commander-in-chief in the North Sea, which post he held till 1807. In February 1812 he was appointed commander-in-chief in the Channel, and in 1814 he was raised to a viscounty. During his last two commands he was engaged first in overlooking the measures taken to meet a threatened invasion, and then in directing the movements of the numerous small squadrons and private ships employed on the coasts of Spain and Portugal, and in protecting trade. He was at Plymouth when Napoleon surrendered and was brought to England in the "Bellerophon" by Captain Maitland (1777–1839). The decisions of the British government were expressed through him to the fallen Emperor. Lord Keith refused to be led into disputes, and confined himself to declaring steadily that he had his orders to obey. He was not much impressed by the appearance of his illustrious charge, and thought that the airs of Napoleon and his suite were ridiculous. Lord Keith died on the 10th of March 1823 at Tullyallan, his property in Scotland, and was buried in the parish church. A portrait of him by Owen is in the Painted Hall in Greenwich. He was twice married: in 1787 to Jane Mercer, daughter of Colonel William Mercer of Aldie; and in 1808 to Hester Maria Thrale, who is spoken of as "Queenie" in Boswell's *Life of Johnson* and Mme. D'Arblay's *Diary*. He had a daughter by each marriage, but no son. Thus the viscounty became extinct on his death, but the English and Irish baronies descended to his elder daughter Margaret (1788–1867), who married the Comte de Flahault de la Billarderie, only to become extinct on her death.

There is a panegyrical *Life of Lord Keith* by Alex. Allardyce (Edinburgh, 1882); and biographical notices will be found in John Marshall's *Royal Naval Biography*, i. 43 (1823–1835), and the *Naval Chronicle*, x. 1. (D. H.)

KEITH, a police burgh of Banffshire, Scotland, on the Isla, 53¼ m. N.W. of Aberdeen by the Great North of Scotland railway. Pop. (1901), 4753. A branch of the Highland railway also gives access to Elgin, and there is a line to Buckie and Portessie on the Moray Firth. The burgh includes Old Keith and New Keith on the east bank of the Isla, and Fife-Keith on the west bank. Though Old Keith has a charter dating from William the Lion it fell into gradual decay; New Keith, founded in the 18th century by the second earl of Seafield, being better situated for the growth of a town. Fife-Keith has sprung up since 1816. The principal public buildings include the Turner memorial hospital, the Longmore hall, and the Institute. In the Roman Catholic church there is a painting of the "Incredulity of St Thomas," presented by Charles X. of France. The industries include manufactures of tweeds, blankets, agricultural implements, and boots and shoes; there are also distilleries, breweries, flour mills, and lime and manure works. But the main importance of Keith lies in the fact that it is the centre of the agricultural trade of the shire. The "Summer Eve Fair" held in September is the largest cattle and horse fair in the north of Scotland; the town is also the headquarters of the dressed-meat trade in the north.

KEJ, or KECH, the chief place in a district of the province of Makran in Baluchistan, which has given its name to Kej-Makran, as distinguished from Persian Makran. There is no town, but a number of small villages dominated by a fort built upon a rock, on the eastern bank of the Kej River. This fort, like many others similarly placed throughout the country, is supposed to be impregnable, but is of no strength except against the matchlocks of the surrounding tribes. Kej (or Kiz) was an important trade centre in the days of Arab supremacy in Sind, and the rulers of Kalat at various times marched armies into the province with a view to maintaining their authority. At the beginning of the 19th century it had the reputation of a commercial centre, trading through Panjgur with Kandahar, with Karachi via Bela, and with Muscat and the Persian Gulf by the seaport of Gwadar, distant about 80 m. The present Khan of Kalat exercises but a feeble sway over this portion of his dominion, although he appoints a governor to the province. The principal tribe residing around Kej is that of the Gichki, who claim to be of Rajput origin, and to have settled in Makran during the 17th century, having been driven out of Rajputana. The climate during summer is too hot for Europeans. During winter, however, it is temperate. The principal exports consist of dates, which are considered of the finest quality. A local revolt against Kalat rendered an expedition against Kej necessary in 1898. Colonel Mayne reduced the fortress and restored order in the surrounding districts.

KEKULÉ, FRIEDRICH AUGUST (1829–1896), German chemist, was born at Darmstadt on the 7th of September 1829. While studying architecture at Giessen he came under the influence of Liebig and was induced to take up chemistry. From Giessen he went to Paris, and then, after a short sojourn in Switzerland, he visited England. Both in Paris and in England he enjoyed personal intercourse with the leading chemists of the period. On his return to Germany he started a small chemical laboratory at Heidelberg, where, with a very slender equipment, he carried out several important researches. In 1858 he was appointed professor of chemistry at Ghent, and in 1865 was called to Bonn to fill a similar position, which he held till his death in that town on the 13th of June 1896. Kekulé's main importance lies in the far-reaching contributions which he made to chemical theory, especially in regard to the constitution of the carbon compounds. The doctrine of atomicity had already been enunciated by E. Frankland, when in 1858 Kekulé published a paper in which, after giving reasons for regarding carbon as a tetravalent element, he set forth the essential features of his famous doctrine of the linking of atoms. He explained that in substances containing several carbon atoms it must be assumed that some of the affinities of each carbon atom are bound by the affinities of the atoms of other elements contained in the substance, and some by an equal number of the affinities of the other carbon atoms. The simplest case is when two carbon atoms are combined so that one affinity of the one is tied to one affinity of the other; two, therefore, of the affinities of the two atoms are occupied in keeping the two atoms together, and only the remaining six are available for atoms of other elements. The next simplest case consists in the mutual interchange of two affinity units, and so on. This conception led Kekulé to his "closed-chain" or "ring" theory of the constitution

of benzene which has been called the "most brilliant piece of prediction to be found in the whole range of organic chemistry," and this in turn led in particular to the elucidation of the constitution of the "aromatic compounds," and in general to new methods of chemical synthesis and decomposition, and to a deeper insight into the composition of numberless organic bodies and their mutual relations. Professor F. R. Japp, in the Kekulé memorial lecture he delivered before the London Chemical Society on the 15th of December 1897, declared that three-fourths of modern organic chemistry is directly or indirectly the product of Kekulé's benzene theory, and that without its guidance and inspiration the industries of the coal-tar colours and artificial therapeutic agents in their present form and extension would have been inconceivable.

Many of Kekulé's papers appeared in the *Annalen der Chemie*, of which he was editor, and he also published an important work, *Lehrbuch der organischen Chemie*, of which the first three volumes are dated 1861, 1866 and 1882, while of the fourth only one small section was issued in 1887.

KELLER, ALBERT (1845–), German painter, was born at Gais, in Switzerland; he studied at the Munich Academy under Lenbach and Ramberg, and must be counted among the leading colourists of the modern German school. Travels in Italy, France, England and Holland, and a prolonged sojourn in Paris, helped to develop his style, which is marked by a sense of elegance and refinement all too rare in German art. His scenes of society life, such as the famous "Dinner" (1890), are painted with thoroughly Parisian *esprit*, and his portraits are marked by the same elegant distinction. He is particularly successful in the rendering of rustling silk and satin dresses and draperies. His historical and imaginative works are as modern in spirit and as unacademical as his portraits. At the Munich Pinakothek is his painting "Jairi Töchterlein" (1886), whilst the Königsberg Museum contains his "Roman Bath," and the Liebieg collection in Reichenberg the "Audience with Louis XV.," the first picture that drew attention to his talent. Among other important works he painted "Faustina in the Temple of Juno at Praeneste," "The Witches' Sleep" (1888) "The Judgment of Paris," "The Happy Sister," "Temptation" (1892), "Autumn" (1893), "An Adventure" (1896), and "The Crucifixion."

KELLER, GOTTFRIED (1819–1890), German poet and novelist, was born at Zürich on the 19th of July 1819. His father, a master joiner, dying while Gottfried was young, his early education was neglected; he, however, was in 1835 apprenticed to a landscape painter, and subsequently spent two years (1840–1842) in Munich learning to paint. Interest in politics drew him into literature, and his talents were first disclosed in a volume of short poems, *Gedichte* (1846). This obtained him recognition from the government of his native canton, and he was in 1848 enabled to take a short course of philosophical study at the university of Heidelberg. From 1850 to 1855 he lived in Berlin, where he wrote his most important novel, *Der grüne Heinrich* (1851–1853; revised edition 1879–1880), remarkable for its delicate autographic portraiture and the beautiful episodes interwoven with the action. This was followed by *Die Leute von Seldwyla* (1856), studies of Swiss provincial life, including in *Romeo und Julia auf dem Dorfe* one of the most powerful short stories in the German language, and in *Die drei gerechten Kammmacher*, almost as great a masterpiece of humorous writing. Returning to his native city with a considerable reputation, he received in 1861 the appointment of secretary to the canton. For a time his creative faculty seemed paralysed by his public duties, but in 1872 appeared *Sieben Legenden*, and in 1874 a second series of *Die Leute von Seldwyla*, in both of which books he displayed no abatement of power and originality. He retired from the public service in 1876 and employed his leisure in the production of *Züricher Novellen* (1878), *Das Sinngedicht*, a collection of short stories (1881), and a novel, *Martin Salander* (Berlin, 1886). He died on the 15th of July 1890 at Hottingen. Keller's place among German novelists is very high. Few have united such fancy and imagination to such uncompromising realism, or such tragic earnestness to such abounding humour. As a lyric poet, his genius is no less original; he takes rank with the best German poets of this class in the second half of the 19th century.

Keller's *Gesammelte Werke* were published in 10 vols. (1889–1890), to which was added another volume, *Nachgelassene Schriften und Dichtungen*, containing the fragment of a tragedy (1893). In English appeared, *G. Keller: A Selection of his Tales translated with a Memoir by Kate Freiligrath-Kroeker* (1891). For a further estimate of Keller's life and works cf. O. Brahm (1883); E. Brenning, *G. Keller nach seinem Leben und Dichten* (1892); F. Baldensperger, *G. Keller; sa vie et ses oeuvres* (1893); A. Frey, *Erinnerungen an Gottfried Keller* (1893); J. Baechtold, *Kellers Leben. Seine Briefe und Tagebücher* (Berlin, 1894–1897); A. Köster, *G. Keller* (1900; 2nd ed., 1907); and for his work as a painter, H. E. von Berlepsch, *Gottfried Keller als Maler* (1895).

KELLER, HELEN ADAMS (1880–), American blind deaf-mute, was born at Tuscumbia, Alabama, in 1880. When barely two years old she was deprived of sight, smell and hearing, by an attack of scarlet fever. At the request of her parents, who were acquainted with the success attained in the case of Laura Bridgman (*q.v.*), one of the graduates of the Perkins Institution at Boston, Miss Anne M. Sullivan, who was familiar with the teachings of Dr S. G. Howe (*q.v.*), was sent to instruct her at home. Unfortunately an exact record of the steps in her education was not kept; but from 1888 onwards, at the Perkins Institution, Boston, and under Miss Sarah Fuller at the Horace Mann school in New York, and at the Wright Humason school, she not only learnt to read, write, and talk, but became proficient, to an exceptional degree, in the ordinary educational curriculum. In 1900 she entered Radcliffe College, and successfully passed the examinations in mathematics, &c. for her degree of A. B. in 1904. Miss Sullivan, whose ability as a teacher must be considered almost as marvellous as the talent of her pupil, was throughout her devoted companion. The case of Helen Keller is the most extraordinary ever known in the education of blind deaf-mutes (see DEAF AND DUMB *ad fin.*), her acquirements including several languages and her general culture being exceptionally wide. She wrote *The Story of My Life* (1902), and volumes on *Optimism* (1903), and *The World I Live in* (1908), which both in literary style and in outlook on life are a striking revelation of the results of modern methods of educating those who have been so handicapped by natural disabilities.

KELLERMANN, FRANÇOIS CHRISTOPHE DE (1735–1820), duke of Valmy and marshal of France, came of a Saxon family, long settled in Strassburg and ennobled, and was born there on the 28th of May 1735. He entered the French army as a volunteer, and served in the Seven Years' War and in Louis XV.'s Polish expedition of 1771, on returning from which he was made a lieutenant-colonel. He became brigadier in 1784, and in the following year *maréchal-de-camp*. In 1789 Kellermann enthusiastically embraced the cause of the Revolution, and in 1791 became general of the army in Alsace. In April 1792 he was made a lieutenant-general, and in August of the same year there came to him the opportunity of his lifetime. He rose to the occasion, and his victory of Valmy (see FRENCH REVOLUTIONARY WARS) over the Prussians, in Goethe's words, "opened a new era in the history of the world." Transferred to the army on the Moselle, Kellermann was accused by General Custine of neglecting to support his operations on the Rhine; but he was acquitted at the bar of the Convention in Paris, and placed at the head of the army of the Alps and of Italy, in which position he showed himself a careful commander and excellent administrator. Shortly afterwards he received instructions to reduce Lyons, then in revolt against the Convention, but shortly after the surrender he was imprisoned in Paris for thirteen months. Once more honourably acquitted, he was reinstated in his command, and did good service in maintaining the south-eastern border against the Austrians until his army was merged into that of General Bonaparte in Italy. He was then sixty-two years of age, still physically equal to his work, but the young generals who had come to the front in these two years represented the new spirit and the new art of war, and Kellermann's active career came to an end. But the hero of Valmy was never forgotten. When Napoleon came to power Kellermann was named

successively senator (1800), honorary marshal of France (1803), and duke of Valmy (1808). He was frequently employed in the administration of the army, the control of the line of communications, and the command of reserve troops, and his long and wide experience made him one of Napoleon's most valuable assistants. In 1814 he voted for the deposition of the emperor and became a peer under the royal government. After the "Hundred Days" he sat in the Chamber of Peers and voted with the Liberals. He died at Paris on the 23rd of September 1820.

See J. G. P. de Salve, *Fragments historiques sur M. le maréchal de Kellermann* (Paris, 1807), and De Botidoux, *Esquisse de la carrière militaire de F. C. Kellermann, duc de Valmy* (Paris, 1817).

His son, François Étienne de Kellermann, duke of Valmy (1770–1835), French cavalry general, was born at Metz and served for a short time in his father's regiment of Hussars previous to entering the diplomatic service in 1791. In 1793 he again joined the army, serving chiefly under his father's command in the Alps, and rising in 1796 to the rank of *chef de brigade*. In the latter part of Bonaparte's celebrated Italian campaign of 1796–97 the younger Kellermann attracted the future emperor's notice by his brilliant conduct at the forcing of the Tagliamento. He was made general of brigade at once, and continued in Italy after the peace of Campo Formio, being employed successively in the armies of Rome and Naples under Macdonald and Championnet. In the campaign of 1800 he commanded a cavalry brigade under the First Consul, and at Marengo (*q.v.*) he initiated and carried out one of the most famous cavalry charges of history, which, with Desaix's infantry attack, regained the lost battle and decided the issue of the war. He was promoted general of division at once, but as early as the evening of the battle he resented what he thought to be an attempt to belittle his exploit. A heated controversy followed as to the influence of Kellermann's charge on the course of the battle, and in this controversy he displayed neither tact nor forbearance. However, his merits were too great for his career to be ruined either by his conduct in the dispute or by the frequent scandals, and even by the frauds, of his private life. Unlike his father's, his title to fame did not rest on one fortunate opportunity. Though not the most famous, he was perhaps the ablest of all Napoleon's cavalry leaders, and distinguished himself at Austerlitz (*q.v.*), in Portugal under Junot (on this occasion as a skilful diplomatist), at the brilliant cavalry combat of Tormes (Nov. 28, 1809), and on many other occasions in the Peninsular War. His rapacity was more than ever notorious in Spain, yet Napoleon met his unconvincing excuses with the words, "General, whenever your name is brought before me, I think of nothing but Marengo." He was on sick leave during the Russian expedition of 1812, but in 1813 and 1814 his skill and leading were as conspicuous as ever. He retained his rank under the first Restoration, but joined Napoleon during the Hundred Days, and commanded a cavalry corps in the Waterloo campaign. At Quatre Bras he personally led his squadrons in the famous cavalry charge, and almost lost his life in the mêlée, and at Waterloo he was again wounded. He was disgraced at the second Restoration, and, on succeeding to his father's title and seat in the Chamber of Peers in 1820, at once took up and maintained till the fall of Charles X. in 1830 an attitude of determined opposition to the Bourbons. He died on the 2nd of June 1835.

His son François Christophe Edmond de Kellermann, duke of Valmy (1802–1868), was a distinguished statesman, political historian, and diplomatist under the July Monarchy.

KELLGREN, JOHAN HENRIK (1751–1795), Swedish poet and critic, was born at Floby in West Gothland, on the 1st of December 1751. He studied at the university of Åbo, and had already some reputation as a poet when in 1774 he there became a "docent" in aesthetics. Three years later he removed to Stockholm, where in conjunction with Assessor Carl Lenngren he began in 1778 the publication of the journal *Stockholmsposten*, of which he was sole editor from 1788 onwards. Kellgren was librarian to Gustavus III. from 1780, and from 1785 his private secretary. On the institution of the Swedish Academy in 1786 he was appointed one of its first members. He died at Stockholm on the 20th of April 1795. His strong satiric tendency led him into numerous controversies, the chief that with the critic Thomas Thorild, against whom he directed his satire *Nyt försök till orimmad vers*, where he sneers at the "raving of Shakespeare" and "the convulsions of Goethe," His lack of humour detracts from the interest of his polemical writings. His poetical works are partly lyrical, partly dramatic; of the plays the versification belongs to him, the plots being due to Gustavus III. The songs interspersed in the four operas which they produced in common, viz., *Gustaf Vasa*, *Gustaf Adolf och Ebba Brahe*, *Aeneas i Kartago*, and *Drottning Kristina*, are wholly the work of Kellgren. From about the year 1788 a higher and graver feeling pervades Kellgren's verses, partly owing to the influence of the works of Lessing and Goethe, but probably more directly due to his controversy with Thorild. Of his minor poems written before that date the most important are the charming spring-song *Vinterns välde lyktar*, and the satrical *Mina löjen* and *Man eger ej snille för det man är galen*. The best productions of what is called his later period are the satire *Ljusets fiender*, the comic poem *Dumboms lefverne*, the warmly patriotic *Kantat d. 1. jan.* 1789, the ode *Till Kristina*, the fragment *Sigwart och Hilma*, and the beautiful song *Nya skapelsen*, both in thought and form the finest of his works. Among his lyrics are the choicest fruits of the Gustavian age of Swedish letters. His earlier efforts, indeed, express the superficial doubt and pert frivolousness characteristic of his time; but in the works of his riper years he is no mere "poet of pleasure," as Thorild contemptuously styled him, but a worthy exponent of earnest moral feeling and wise human sympathies in felicitous and melodius verse.

His *Samlade skrifter* (3 vols., 1796; a later edition, 1884–1885) were revised by himself. His correspondence with Rosenstein and with Clewberg was edited by H. Schück (1886–1887 and 1894). See Wieselgren, *Sveriges sköna litteratur* (1833–1849); Atterbom, *Svenska siare och skalder* (1841–1855); C. W. Böttiger in *Transactions of the Swedish Academy*, xlv. 107 seq. (1870); and Gustaf Ljunggren's *Kellgren, Leopold, och Thorild*, and his *Svenska vitterhetens häfder* (1873-1877).

KELLOGG, CLARA LOUISE (1842–), American singer, was born at Sumterville, South Carolina, in July 1842, and was educated in New York for the musical profession, singing first in opera there in 1861. Her fine soprano voice and artistic gifts soon made her famous. She appeared as prima donna in Italian opera in London, and at concerts, in 1867 and 1868; and from that time till 1887 was one of the leading public singers. She appeared at intervals in London, but was principally engaged in America. In 1874 she organized an opera company which was widely known in the United States, and her enterprise and energy in directing it were remarkable. In 1887 she married Carl Strakosch, and retired from the profession.

KELLS, a market town of county Meath, Ireland, on the Blackwater, 9¾ m. N.W. of Navan on a branch of the Great Northern railway. Pop. of urban district (1901), 2428. The prosperity of the town depends chiefly upon its antiquarian remains. The most notable is St Columbkille's house, orginally an oratory, but afterwards converted into a church, the chancel of which was in existence in 1752. The present church is modern, with the exception of the bell-tower, rebuilt in 1578. Near the church there is a fine though imperfect specimen of the ancient round tower, 99 ft. in height; and there are several ancient crosses, the finest being that now erected in the market-place. Kells was originally a royal residence, whence its ancient name *Ceanannus*, meaning the *dun* or circular northern fort, in which the king resided, and the intermediate name *Kenlis*, meaning head fort. Here Conn of the Hundred Fights resided in the 2nd century; and here was a palace of Dermot, king of Ireland, in 544–565. The other places in Ireland named Kells are probably derived from *Cealla*, signifying church. In the 6th century Kells, it is said, was granted to St Columbkille. Of the monastery which he is reported to have founded there are no remains, and the town owes its chief ecclesiastical importance to the bishopric founded about 807, and united to Meath in the 13th century. The ecclesiastical establishment was noted as a seat of learning, and a monument of this remains in the *Book of Kells* an illuminated

copy of the Gospels in Latin, containing also local records, dating from the 8th century, and preserved in the library of Trinity College, Dublin. The illumination is executed with extraordinary delicacy, and the work is asserted to be the finest extant example of early Christian art of this kind. Neighbouring antiquities are the church of Dulane, with a fine doorway, and the *dun* or fortification of Dimor, the principal erection of a series of defences on the hills about 6 m. W. of Kells. Among several seats in the vicinity is that of the Marquess of Headfort. Kells returned two members to the Irish parliament before the Union.

KELLY, EDWARD (1854–1880), Australian bushranger, was born at Wallan Wallan, Victoria. His father was a transported Belfast convict, and his mother's family included several thieves. As boys he and his brothers were constantly in trouble for horse-stealing, and "Ned" served three years' imprisonment for this offence. In April 1878, an attempt was made to arrest his brother Daniel on a similar charge. The whole Kelly family resisted this and Ned wounded one of the constables. Mrs Kelly and some of the others were captured, but Ned and Daniel escaped to the hills, where they were joined by two other desperadoes, Byrne and Hart. For two years, despite a reward of £8000 offered jointly by the governments of Victoria and New South Wales for their arrest, the gang under the leadership of Kelly terrorized the country on the borderland of Victoria and New South Wales, "holding up" towns and plundering banks. Their intimate knowledge of the district, full of convenient hiding-places, and their elaborate system of well-paid spies, ensured the direct pecuniary interest of many persons and contributed to their long immunity from capture. They never ill-treated a woman, nor preyed upon the poor, thus surrounding themselves with an attractive atmosphere of romance. In June 1880, however, they were at last tracked to a wooden shanty at Glenrowan, near Benalla, which the police surrounded, riddled with bullets, and finally set on fire. Kelly himself, who was outside, could, he claimed, easily have escaped had he not refused to desert his companions, all of whom were killed. He was severely wounded, captured and taken to Beechworth, where he was tried, convicted and hanged in October 1880. The total cost of the capture of the Kelly gang was reckoned at £115,000.

See F. A. Hare, *The Last of the Bushrangers* (London, 1892).

KELLY, SIR FITZROY (1796–1880), English judge, was born in London in October 1796, the son of a captain in the Royal Navy. In 1824 he was called to the bar, where he gained a reputation as a skilled pleader. In 1834 he was made a king's counsel. A strong Tory, he was returned as member of parliament for Ipswich in 1835, but was unseated on petition. In 1837 however he again became member for that town. In 1843 he sat for Cambridge, and in 1852 was elected member for Harwich, but, a vacancy suddenly occurring in East Suffolk, he preferred to contest that seat and was elected. He was solicitor-general in 1845 (when he was knighted), and again in 1852. In 1858–1859 he was attorney-general in Lord Derby's second administration. In 1866 he was raised to the bench as chief baron of the exchequer and made a member of the Privy Council. He died at Brighton on the 18th of September 1880.

See E. Foss, *Lives of the Judges* (1870).

KELLY, HUGH (1739–1777), Irish dramatist and poet, son of a Dublin publican, was born in 1739 at Killarney. He was apprenticed to a staymaker, and in 1760 went to London. Here he worked at his trade for some time, and then became an attorney's clerk. He contributed to various newspapers, and wrote pamphlets for the booksellers. In 1767 he published *Memoirs of a Magdalen, or the History of Louisa Mildmay* (2 vols.), a novel which obtained considerable success. In 1766 he published anonymously *Thespis; or, A Critical Examination into the Merits of All the Principal Performers belonging to Drury Lane Theatre*, a poem in the heroic couplet containing violent attacks on the principal contemporary actors and actresses. The poem opens with a panegyric on David Garrick, however, and bestows foolish praise on friends of the writer. This satire was partly inspired by Churchill's *Rosciad*, but its criticism is obviously dictated chiefly by personal prejudice. In 1767 he produced a second part, less scurrilous in tone, dealing with the Covent Garden actors. His first comedy, *False Delicacy*, written in prose, was produced by Garrick at Drury Lane on the 23rd of January 1768, with the intention of rivalling Oliver Goldsmith's *Good-Natured Man*. It is a moral and sentimental comedy, described by Garrick in the prologue as a sermon preached in acts. Although Samuel Johnson described it as "totally void of character," it was very popular and had a great sale. In French and Portuguese versions it drew crowded houses in Paris and Lisbon. Kelly was a journalist in the pay of Lord North, and therefore hated by the party of John Wilkes, especially as being the editor of the *Public Ledger*. His *Thespis* had also made him many enemies; and Mrs Clive refused to act in his pieces. The production of his second comedy, *A Word to the Wise* (Drury Lane, 3rd of March 1770), occasioned a riot in the theatre, repeated at the second performance, and the piece had to be abandoned. His other plays are: *Clementina* (Covent Garden, 23rd of February 1771), a blank verse tragedy, given out to be the work of a "young American Clergyman" in order to escape the opposition of the Wilkites; *The School for Wives* (Drury Lane, 11th of December 1773), a prose comedy given out as the work of Major (afterwards Sir William) Addington; a two-act piece, *The Romance of an Hour* (Covent Garden, 2nd of December 1774), borrowed from Marmontel's tale *L'Amitié à l'épreuve*; and an unsuccessful comedy, *The Man of Reason* (Covent Garden, 9th of February 1776). He was called to the bar at the Middle Temple in 1774, and determined to give up literature. He failed in his new profession and died in poverty on the 3rd of February 1777.

See *The Works of Hugh Kelly, to which is prefixed the Life of the Author* (1778); Genest, *History of the Stage* (v. 163, 263–269, 308, 399, 457, 517). Pamphlets in reply to *Thespis* are: "Anti-Thespis . . ." (1767); "The Kellyad . . ." (1767), by Louis Stamma; and "The Rescue or Thespian Scourge . . ." (1767), by John Brown-Smith.

KELLY, MICHAEL (1762–1826), British actor, singer and composer, was the son of a Dublin wine-merchant and dancing-master. He had a musical education at home and in Italy, and for four years from 1783 was engaged to sing at the Court Theatre at Vienna, where he became a friend of Mozart. In 1786 he sang in the first performance of the *Nozze di Figaro*. Appearing in London, at Drury Lane in 1787, he had a great success, and thenceforth was the principal English tenor at that theatre. In 1793 he became acting-manager of the King's Theatre, and he was in great request at concerts. He wrote a number of songs (including "The Woodpecker"), and the music for many dramatic pieces, now fallen into oblivion. In 1826 he published his entertaining *Reminiscences*, in writing which he was helped by Theodore Hook. He combined his professional work with conducting a music-shop and a wine-shop, but with disastrous financial results. He died at Margate on the 9th of October 1826.

KELP (in M.E. *culp* or *culpe*, of unknown origin; the Fr. equivalent is *varech*), the ash produced by the incineration of various kinds of sea-weed (*Algae*) obtainable in great abundance on the west coasts of Ireland and Scotland, and the coast of Brittany. It is prepared from the deep-sea tangle (*Laminaria digitata*), sugar wrack (*L. saccharina*), knobbed wrack (*Fucus nodosus*), black wrack (*F. serratus*), and bladder wrack (*F. vesiculosus*). The Laminarias yield what is termed "drift-weed kelp," obtainable only when cast up on the coasts by storms or other causes. The species of *Fucus* growing within the tidal range are cut from the rocks at low water, and are therefore known as "cut-weeds." The weeds are first dried in the sun and are then collected into shallow pits and burned till they form a fused mass, which while still hot is sprinkled with water to break it up into convenient pieces. A ton of kelp is obtained from 20 to 22 tons of wet sea-weed. The average composition may vary as follows: potassium sulphate, 10 to 12%; potassium chloride, 20 to 25%; sodium carbonate, 5%; other sodium and magnesium salts, 15 to 20%; and insoluble ash from 40 to 50%. The relative richness in iodine of different samples varies largely, good drift kelp yielding as much as 10 to 15 lb per ton of 22½ cwts., whilst cut-weed kelp will not give more than 3 to

4 lb. The use of kelp in soap and glass manufacture has been rendered obsolete by the modern process of obtaining carbonate of soda cheaply from common salt (see IODINE).

KELSO, a police burgh and market town of Roxburghshire, Scotland, on the left bank of the Tweed, 52 m. (43 m. by road) S.E. of Edinburgh and 10¼ m. N.E. of Jedburgh by the North British railway. Pop. (1901), 4008. The name has been derived from the Old Welsh *calch*, or Anglo-Saxon *cealc*, "chalk", and the Scots *how*, "hollow," a derivation more evident in the earlier forms Calkon and Calchon, and illustrated in Chalkheugh, the name of a locality in the town. The ruined abbey, dedicated to the Virgin and St John the Evangelist, was founded in 1128 by David I. for monks from Tiron in Picardy, whom he transferred hither from Selkirk, where they had been installed fifteen years before. The abbey, the building of which was completed towards the middle of the 13th century, became one of the richest and most powerful establishments in Scotland, claiming precedence over the other monasteries and disputing for a time the supremacy with St Andrews. It suffered damage in numerous English forays, was pillaged by the 4th earl of Shrewsbury in 1522, and was reduced to ruins in 1545 by the earl of Hertford (afterwards the Protector Somerset). In 1602 the abbey lands passed into the hands of Sir Robert Ker of Cessford, 1st earl of Roxburghe. The ruins were disfigured by an attempt to render part of them available for public worship, and one vault was long utilized as the town gaol. All excrescences, however, were cleared away at the beginning of the 19th century, by the efforts of the Duke of Roxburghe. The late Norman and Early Pointed cruciform church has an unusual ground-plan, the west end of the cross forming the nave and being shorter than the chancel. The nave and transepts extend only 23 ft. from the central tower. The remains include most of the tower, nearly the whole of the walls of the south transept, less than half of the west front with a fragment of the richly moulded and deeply-set doorway, the north and west sides of the north transept, and a remnant of the chancel. The chancel alone had aisles, while its main circular arches were surmounted by two tiers of triforium galleries. The predominant feature is the great central tower, which, as seen from a distance, suggests the keep of a Norman castle. It rested on four Early Pointed arches, each 45 ft. high (of which the south and west yet exist) supported by piers of clustered columns. Over the Norman porch in the north transept is a small chamber with an interlaced arcade surmounted by a network gable.

The Tweed is crossed at Kelso by a bridge of five arches constructed in 1803 by John Rennie. The public buildings include a court house, the town hall, corn exchange, high school and grammar school (occupying the site of the school which Sir Walter Scott attended in 1783). The public park lies in the east of the town, and the race-course to the north of it. The leading industries are the making of fishing tackle, agricultural machinery and implements, and chemical manures, besides coach-building, cabinet-making and upholstery, corn and saw mills, iron founding, &c. James and John Ballantyne, friends of Scott, set up a press about the end of the 18th century, from which there issued, in 1802, the first two volumes of the *Minstrelsy of the Scottish Border*; but when the brothers transferred their business to Edinburgh printing languished. The *Kelso Mail*, founded by James Ballantyne in 1797, is now the oldest of the Border newspapers. The town is an important agricultural centre, there being weekly corn and fortnightly cattle markets, and, every September, a great sale of Border rams.

Kelso became a burgh of barony in 1634 and five years later received the Covenanters, under Sir Alexander Leslie, on their way to the encampment on Duns Law. On the 24th of October 1715 the Old Pretender was proclaimed James VIII. in the market square, but in 1745 Prince Charles Edward found no active adherents in the town.

About 1 m. W. of Kelso is Floors or Fleurs Castle, the principal seat of the duke of Roxburghe. The mansion as originally designed by Sir John Vanbrugh in 1718 was severely plain, but in 1849 William Henry Playfair converted it into a magnificent structure in the Tudor style.

On the peninsula formed by the junction of the Teviot and the Tweed stood the formidable castle and flourishing town of Roxburgh, from which the shire took its name. No trace exists of the town, and of the castle all that is left are a few ruins shaded by ancient ash trees. The castle was built by the Northumbrians, who called it Marchidum, or Marchmound, its present name apparently meaning Rawic's burgh, after some forgotten chief. After the consolidation of the kingdom of Scotland it became a favoured royal residence, and a town gradually sprang up beneath its protection, which reached its palmiest days under David I., and formed a member of the Court of Four Burghs with Edinburgh, Stirling and Berwick. It possessed a church, court of justice, mint, mills, and, what was remarkable for the 12th century, grammar school. Alexander II. was married and Alexander III. was born in the castle. During the long period of Border warfare, the town was repeatedly burned and the castle captured. After the defeat of Wallace at Falkirk the castle fell into the hands of the English, from whom it was delivered in 1314 by Sir James Douglas. Ceded to Edward III. in 1333, it was regained in 1342 by Sir Alexander Ramsay of Dalhousie, only to be lost again four years later. The castle was finally retaken and razed to the ground in 1460. It was at the siege that the king, James II., was killed by the explosion of a huge gun called "the Lion." On the fall of the castle the town languished and was finally abandoned in favour of the rising burgh of Kelso. The town, whose patron-saint was St James, is still commemorated by St James's Fair, which is held on the 5th of every August on the vacant site, and is the most popular of Border festivals.

Sandyknowe or Smailholm Tower, 6 m. W. of Kelso, dating from the 15th century, is considered the best example of a Border Peel and the most perfect relic of a feudal structure in the South of Scotland. Two m. N. by E. of Kelso is the pretty village of Ednam (Edenham, "The Village on the Eden"), the birthplace of the poet James Thomson, to whose memory an obelisk, 52 ft. high, was erected on Ferney Hill in 1820.

KELVIN, WILLIAM THOMSON, BARON (1824–1907), British physicist, the second son of James Thomson, LL.D., professor of mathematics in the university of Glasgow, was born at Belfast, Ireland, on the 26th of June 1824, his father being then teacher of mathematics in the Royal Academical Institution. In 1832 James Thomson accepted the chair of mathematics at Glasgow, and migrated thither with his two sons, James and William, who in 1834 matriculated in that university, William being then little more than ten years of age, and having acquired all his early education through his father's instruction. In 1841 William Thomson entered Peterhouse, Cambridge, and in 1845 took his degree as second wrangler, to which honour he added that of the first Smith's Prize. The senior wrangler in his year was Stephen Parkinson, a man of a very different type of mind, yet one who was a prominent figure in Cambridge for many years. In the same year Thomson was elected fellow of Peterhouse. At that time there were few facilities for the study of experimental science in Great Britain. At the Royal Institution Faraday held a unique position, and was feeling his way almost alone. In Cambridge science had progressed little since the days of Newton. Thomson therefore had recourse to Paris, and for a year worked in the laboratory of Regnault, who was then engaged in his classical researches on the thermal properties of steam. In 1846, when only twenty-two years of age, he accepted the chair of natural philosophy in the university of Glasgow, which he filled for fifty-three years, attaining universal recognition as one of the greatest physicists of his time. The Glasgow chair was a source of inspiration to scientific men for more than half a century, and many of the most advanced researches of other physicists grew out of the suggestions which Thomson scattered as sparks from his anvil. One of his earliest papers dealt with the age of the earth, and brought him into collision with the geologists of the Uniformitarian school, who were claiming thousands of millions of years for the formation of the stratified portions of the earth's crust. Thomson's calculations on the conduction of heat showed that at some time between twenty millions and four hundred millions, probably about one hundred millions, of years ago, the physical conditions of the earth must have been entirely different from those which now obtain. This led to a long controversy, in which the physical principles held their ground. In 1847 Thomson first met James Prescott Joule at the Oxford meeting of the British Association. A fortnight later they again met in Switzerland, and together measured the rise of the temperature of the water in a mountain torrent due to its fall. Joule's views of the nature of heat strongly influenced Thomson's mind, with the result that in 1848

Thomson proposed his absolute scale of temperature, which is independent of the properties of any particular thermometric substance, and in 1851 he presented to the Royal Society of Edinburgh a paper on the dynamical theory of heat, which reconciled the work of N. L. Sadi Carnot with the conclusions of Count Rumford, Sir H. Davy, J. R. Mayer and Joule, and placed the dynamical theory of heat and the fundamental principle of the conservation of energy in a position to command universal acceptance. It was in this paper that the principle of the dissipation of energy, briefly summarized in the second law of thermodynamics, was first stated.

Although his contributions to thermodynamics may properly be regarded as his most important scientific work, it is in the field of electricity, especially in its application to submarine telegraphy, that Lord Kelvin is best known to the world at large. From 1854 he is most prominent among telegraphists. The stranded form of conductor was due to his suggestion; but it was in the letters which he addressed in November and December of that year to Sir G. G. Stokes, and which were published in the *Proceedings of the Royal Society* for 1855, that he discussed the mathematical theory of signalling through submarine cables, and enunciated the conclusion that in long cables the retardation due to capacity must render the speed of signalling inversely proportional to the square of the cable's length. Some held that if this were true ocean telegraphy would be impossible, and sought in consequence to disprove Thomson's conclusion. Thomson, on the other hand, set to work to overcome the difficulty by improvement in the manufacture of cables, and first of all in the production of copper of high conductivity and the construction of apparatus which would readily respond to the slightest variation of the current in the cable. The mirror galvanometer and the siphon recorder, which was patented in 1867, were the outcome of these researches; but the scientific value of the mirror galvanometer is independent of its use in telegraphy, and the siphon recorder is the direct precursor of one form of galvanometer (d'Arsonval's) now commonly used in electrical laboratories. A mind like that of Thomson could not be content to deal with any physical quantity, however successfully from a practical point of view, without subjecting it to measurement. Thomson's work in connexion with telegraphy led to the production in rapid succession of instruments adapted to the requirements of the time for the measurement of every electrical quantity, and when electric lighting came to the front a new set of instruments was produced to meet the needs of the electrical engineer. Some account of Thomson's electrometer is given in the article on that subject, while every modern work of importance on electric lighting describes the instruments which he has specially designed for central station work; and it may be said that there is no quantity which the electrical engineer is ordinarily called upon to measure for which Lord Kelvin did not construct the suitable instrument. Currents from the ten-thousandth of an ampere to ten thousand amperes, electrical pressures from a minute fraction of a volt to 100,000 volts, come within the range of his instruments, while the private consumer of electric energy is provided with a meter recording Board of Trade units.

When W. Weber in 1851 proposed the extension of C. F. Gauss's system of absolute units to electromagnetism, Thomson took up the question, and, applying the principles of energy, calculated the absolute electromotive force of a Daniell cell, and determined the absolute measure of the resistance of a wire from the heat produced in it by a known current. In 1861 it was Thomson who induced the British Association to appoint its first famous committee for the determination of electrical standards, and it was he who suggested much of the work carried out by J. Clerk Maxwell, Balfour Stewart and Fleeming Jenkin as members of that committee. The oscillatory character of the discharge of the Leyden jar, the foundation of the work of H. R. Hertz and of wireless telegraphy were investigated by him in 1853.

It was in 1873 that he undertook to write a series of articles for *Good Words* on the mariner's compass. He wrote the first, but so many questions arose in his mind that it was five years before the second appeared. In the meanwhile the compass went through a process of complete reconstruction in his hands, a process which enabled both the permanent and the temporary magnetism of the ship to be readily compensated, while the weight of the 10-in. card was reduced to one-seventeenth of that of the standard card previously in use, although the time of swing was increased. Second only to the compass in its value to the sailor is Thomson's sounding apparatus, whereby soundings can be taken in 100 fathoms by a ship steaming at 16 knots; and by the employment of piano-wire of a breaking strength of 140 tons per square inch and an iron sinker weighing only 34 lb, with a self-registering pressure gauge, soundings can be rapidly taken in deep ocean. Thomson's tide gauge, tidal harmonic analyser and tide predicter are famous, and among his work in the interest of navigation must be mentioned his tables for the simplification of Sumner's method for determining the position of a ship at sea.

It is impossible within brief limits to convey more than a general idea of the work of a philosopher who published more than three hundred original papers bearing upon nearly every branch of physical science; who one day was working out the mathematics of a vortex theory of matter on hydrodynamical principles or discovering the limitations of the capabilities of the vortex atom, on another was applying the theory of elasticity to tides in the solid earth, or was calculating the size of water molecules, and later was designing an electricity meter, a dynamo or a domestic water-tap. It is only by reference to his published papers that any approximate conception can be formed of his life's work; but the student who had read all these knew comparatively little of Lord Kelvin if he had not talked with him face to face. Extreme modesty, almost amounting to diffidence, was combined with the utmost kindliness in Lord Kelvin's bearing to the most elementary student, and nothing seemed to give him so much pleasure as an opportunity to acknowledge the efforts of the humblest scientific worker. The progress of physical discovery during the last half of the 19th century was perhaps as much due to the kindly encouragement which he gave to his students and to others who came in contact with him as to his own researches and inventions; and it would be difficult to speak of his influence as a teacher in stronger terms than this.

One of his former pupils, Professor J. D. Cormack, wrote of him: "It is perhaps at the lecture table that Lord Kelvin displays most of his characteristics. . . . His master mind, soaring high, sees one vast connected whole, and, alive with enthusiasm, with smiling face and sparkling eye, he shows the panorama to his pupils, pointing out the similarities and differences of its parts, the boundaries of our knowledge, and the regions of doubt and speculation. To follow him in his flights is real mental exhilaration."

In 1852 Thomson married Margaret, daughter of Walter Crum of Thornliebank, who died in 1870; and in 1874 he married Frances Anna, daughter of Charles R. Blandy of Madeira. In 1866, perhaps chiefly in acknowledgment of his services to trans-Atlantic telegraphy, Thomson received the honour of knighthood, and in 1892 he was raised to the peerage with the title of Baron Kelvin of Largs. The Grand Cross of the Royal Victorian Order was conferred on him in 1896, the year of the jubilee of his professoriate. In 1890 he became president of the Royal Society, and he received the Order of Merit on its institution in 1902. A list of the degrees and other honours which he received during the fifty-three years he held his Glasgow chair would occupy as much space as this article; but any biographical sketch would be conspicuously incomplete if it failed to notice the celebration in 1896 of the jubilee of his professorship. Never before had such a gathering of rank and science assembled as that which filled the halls in the university of Glasgow on the 15th, 16th and 17th of June in that year. The city authorities joined with the university in honouring their most distinguished citizen. About 2500 guests were received in the university buildings, the library of which was devoted to an exhibition of the instruments invented by Lord Kelvin, together with his certificates, diplomas and medals. The Eastern, the Anglo-American and the Commercial

Cable companies united to celebrate the event, and from the university library a message was sent through Newfoundland, New York, Chicago, San Francisco, Los Angeles, New Orleans, Florida and Washington, and was received by Lord Kelvin seven and a half minutes after it had been despatched, having travelled about 20,000 miles and twice crossed the Atlantic during the interval. It was at the banquet in connexion with the jubilee celebration that the Lord Provost of Glasgow thus summarized Lord Kelvin's character: "His industry is unwearied; and he seems to take rest by turning from one difficulty to another—difficulties that would appal most men and be taken as enjoyment by no one else. . . . This life of unwearied industry, of universal honour, has left Lord Kelvin with a lovable nature that charms all with whom he comes in contact."

Three years after this celebration Lord Kelvin resigned his chair at Glasgow, though by formally matriculating as a student he maintained his connexion with the university, of which in 1904 he was elected chancellor. But his retirement did not mean cessation of active work or any slackening of interest in the scientific thought of the day. Much of his time was given to writing and revising the lectures on the wave theory of light which he had delivered at Johns Hopkins University, Baltimore, in 1884, but which were not finally published till 1904. He continued to take part in the proceedings of various learned societies; and only a few months before his death, at the Leicester meeting of the British Association, he attested the keenness with which he followed the current developments of scientific speculation by delivering a long and searching address on the electronic theory of matter. He died on the 17th of December 1907 at his residence, Netherhall, near Largs, Scotland; there was no heir to his title, which became extinct.

In addition to the Baltimore lectures, he published with Professor P. G. Tait a standard but unfinished *Treatise on Natural Philosophy* (1867). A number of his scientific papers were collected in his *Reprint of Papers on Electricity and Magnetism* (1872), and in his *Mathematical and Physical Papers* (1882, 1883 and 1890), and three volumes of his *Popular Lectures and Addresses* appeared in 1889–1894. He was also the author of the articles on "Heat" and "Elasticity" in the 9th edition of the *Encyclopaedia Britannica*.

See Andrew Gray, *Lord Kelvin* (1908); S. P. Thompson, *Life of Lord Kelvin* (1910), which contains a full bibliography of his writings. (W. G.; H. M. R.)

KEMBLE, the name of a family of English actors, of whom the most famous were Mrs Siddons (*q.v.*) and her brother John Philip Kemble, the eldest of the twelve children of ROGER KEMBLE (1721–1802), a strolling player and manager, who in 1753 married an actress, Sarah Wood.

JOHN PHILIP KEMBLE (1757–1823), the second child, was born at Prescot, Lancashire, on the 1st of February 1757. His mother was a Roman Catholic, and he was educated at Sedgeley Park Catholic seminary, near Wolverhampton, and the English college at Douai, with the view of becoming a priest. But at the conclusion of the four years' course he discovered that he had no vocation for the priesthood, and returning to England he joined the theatrical company of Crump & Chamberlain, his first appearance being as Theodosius in Lee's tragedy of that name at Wolverhampton on the 8th of January 1776. In 1778 he joined the York company of Tate Wilkinson, appearing at Wakefield as Captain Plume in Farquhar's *The Recruiting Officer*; in Hull for the first time as Macbeth on the 30th of October, and in York as Orestes in Ambrose Philips's *Distressed Mother*. In 1781 he obtained a "star" engagement at Dublin, making his first appearance there on the 2nd of November as Hamlet. He also achieved great success as Raymond in *The Count of Narbonne*, a play taken from Horace Walpole's *Castle of Otranto*. Gradually he won for himself a high reputation as a careful and finished actor, and this, combined with the greater fame of his sister, led to an engagement at Drury Lane, where he made his first appearance on the 30th of September 1783 as Hamlet. In this rôle he awakened interest and discussion among the critics rather than the enthusiastic approval of the public. But as Macbeth on the 31st of March 1785 he shared in the enthusiasm aroused by Mrs Siddons, and established a reputation among living actors second only to hers. Brother and sister had first appeared together at Drury Lane on the 22nd of November 1783, as Beverley and Mrs Beverley in Moore's *The Gamester*, and as King John and Constance in Shakespeare's tragedy. In the following year they played Montgomerie and Matilda in Cumberland's *The Carmelite*, and in 1785 Adorni and Camiola in Kemble's adaptation of Massinger's *A Maid of Honour*, and Othello and Desdemona. Between 1785 and 1787 Kemble appeared in a variety of rôles, his Mentevole in Jephson's *Julia* producing an overwhelming impression. On the 8th of December 1787 he married Priscilla Hopkins Brereton (1756–1845), the widow of an actor and herself an actress. Kemble's appointment as manager of Drury Lane in 1788 gave him full opportunity to dress the characters less according to tradition than in harmony with his own conception of what was suitable. He was also able to experiment with whatever parts might strike his fancy, and of this privilege he took advantage with greater courage than discretion. His activity was prodigious, the list of his parts including a large number of Shakespearian characters and also a great many in plays now forgotten. In his own version of *Coriolanus*, which was revived during his first season, the character of the "noble Roman" was so exactly suited to his powers that he not only played it with a perfection that has never been approached, but, it is said, unconsciously allowed its influence to colour his private manner and modes of speech. His tall and imposing person, noble countenance, and solemn and grave demeanour were uniquely adapted for the Roman characters in Shakespeare's plays; and, when in addition he had to depict the gradual growth and development of one absorbing passion, his representation gathered a momentum and majestic force that were irresistible. His defect was in flexibility, variety, rapidity; the characteristic of his style was method, regularity, precision, elaboration even of the minutest details, founded on a thorough psychological study of the special personality he had to represent. His elocutionary art, his fine sense of rhythm and emphasis, enabled him to excel in declamation, but physically he was incapable of giving expression to impetuous vehemence and searching pathos. In Coriolanus and Cato he was beyond praise, and possibly he may have been superior to both Garrick and Kean in Macbeth, although it must be remembered that in it part of his inspiration must have been caught from Mrs Siddons. In all the other great Shakespearian characters he was, according to the best critics, inferior to them, least so in Lear, Hamlet and Wolsey, and most so in Shylock and Richard III. On account of the eccentricities of Sheridan, the proprietor of Drury Lane, Kemble withdrew from the management, and, although he resumed his duties at the beginning of the season 1800–1801, he at the close of 1802 finally resigned connexion with it. In 1803 he became manager of Covent Garden, in which he had acquired a sixth share for £23,000. The theatre was burned down on the 20th of September 1808, and the raising of the prices after the opening of the new theatre, in 1809, led to riots, which practically suspended the performances for three months. Kemble had been nearly ruined by the fire, and was only saved by a generous loan, afterwards converted into a gift, of £10,000 from the duke of Northumberland. Kemble took his final leave of the stage in the part of Coriolanus on the 23rd of June 1817. His retirement was probably hastened by the rising popularity of Edmund Kean. The remaining years of his life were spent chiefly abroad, and he died at Lausanne on the 26th of February 1823.

See Boaden, *Life of John Philip Kemble* (1825); Fitzgerald, *The Kembles* (1871).

STEPHEN KEMBLE (1758–1822), the second son of Roger, was rather an indifferent actor, ever eclipsed by his wife and fellow player, Elizabeth Satchell Kemble (*c.* 1763–1841), and a man of such portly proportions that he played Falstaff without padding. He managed theatres in Edinburgh and elsewhere.

CHARLES KEMBLE (1775–1854), a younger brother of John Philip and Stephen, was born at Brecon, South Wales, on the 25th of November 1775. He, too, was educated at Douai.

After returning to England in 1792, he obtained a situation in the post-office, but this he soon resigned for the stage, making his first recorded appearance at Sheffield as Orlando in *As You Like It* in that year. During the early period of his career as an actor he made his way slowly to public favour. For a considerable time he played with his brother and sister, chiefly in secondary parts, and this with a grace and finish which received scant justice from the critics. His first London appearance was on the 21st of April 1794, as Malcolm to his brother's Macbeth. Ultimately he won independent fame, especially in such characters as Archer in George Farquhar's *Beaux' Stratagem*, Dorincourt in Mrs Cowley's *Belle's Stratagem*, Charles Surface and Ranger in Dr Benjamin Hoadley's *Suspicious Husband*. His Laertes and Macduff were hardly less interesting than his brother's Hamlet and Macbeth. In comedy he was ably supported by his wife, Marie Therèse De Camp (1774–1838), whom he married on the 2nd of July 1806. His visit, with his daughter Fanny, to America during 1832 and 1834, aroused much enthusiasm. The later period of his career was clouded by money embarrassments in connexion with his joint proprietorship in Covent Garden theatre. He formally retired from the stage in December 1836, but his final appearance was on the 10th of April 1840. For some time he held the office of examiner of plays. In 1844–1845 he gave readings from Shakespeare at Willis's Rooms. He died on the 12th of November 1854. Macready regarded his Cassio as incomparable, and summed him up as "a first-rate actor of second-rate parts."

See *Gentleman's Magazine*, January 1855; *Records of a Girlhood*, by Frances Anne Kemble.

Elizabeth Whitlock (1761–1836), who was a daughter of Roger Kemble, made her first appearance on the stage in 1783 at Drury Lane as Portia. In 1785 she married Charles E. Whitlock, went with him to America and played with much success there. She had the honour of appearing before President Washington. She seems to have retired about 1807, and she died on the 27th of February 1836. Her reputation as a tragic actress might have been greater had she not been Mrs Siddons's sister.

Frances Anne Kemble (Fanny Kemble) (1809–1893), the actress and author, was Charles Kemble's elder daughter; she was born in London on the 27th of November 1809, and educated chiefly in France. She first appeared on the stage on the 25th of October 1829 as Juliet at Covent Garden. Her attractive personality at once made her a great favourite, her popularity enabling her father to recoup his losses as a manager. She played all the principal women's parts, notably Portia, Beatrice and Lady Teazle, but Julia in Sheridan Knowles's *The Hunchback*, especially written for her, was perhaps her greatest success. In 1832 she went with her father to America, and in 1834 she married there a Southern planter, Pierce Butler. They were divorced in 1849. In 1847 she returned to the stage, from which she had retired on her marriage, and later, following her father's example, appeared with much success as a Shakespearian reader. In 1877 she returned to England, where she lived—using her maiden name—till her death in London on the 15th of January 1893. During this period Fanny Kemble was a prominent and popular figure in the social life of London. Besides her plays, *Francis the First*, unsuccessfully produced in 1832, *The Star of Seville* (1837), a volume of *Poems* (1844), and a book of Italian travel, *A Year of Consolation* (1847), she published a volume of her *Journal* in 1835, and in 1863 another (dealing with life on the Georgia plantation), and also a volume of *Plays*, including translations from Dumas and Schiller. These were followed by *Records of a Girlhood* (1878), *Records of Later Life* (1882), *Notes on some of Shakespeare's Plays* (1882), *Far Away and Long Ago* (1889), and *Further Records* (1891). Her various volumes of reminiscences contain much valuable material for the social and dramatic history of the period.

Adelaide Kemble (1814–1879), Charles Kemble's second daughter, was an opera singer of great promise, whose first London appearance was made in *Norma* on the 2nd of November 1841. In 1843 she married Edward John Sartoris, a rich Italian, and retired after a brief but brilliant career. She wrote *A Week in a French Country House* (1867), a bright and humorous story, and of a literary quality not shared by other tales that followed. Her son, Algernon Charles Sartoris, married General U. S. Grant's daughter.

Among more recent members of the Kemble family, mention may also be made of Charles Kemble's grandson, Henry Kemble (1848–1907), a sterling and popular London actor.

KEMBLE, JOHN MITCHELL (1807–1857), English scholar and historian, eldest son of Charles Kemble the actor, was born in 1807. He received his education partly from Dr Richardson, author of the *Dictionary of the English Language*, and partly at the grammar school of Bury St Edmunds, where he obtained in 1826 an exhibition to Trinity College, Cambridge. At the university his historical essays gained him high reputation. The bent of his studies was turned more especially towards the Anglo-Saxon period through the influence of the brothers Grimm, under whom he studied at Göttingen (1831). His thorough knowledge of the Teutonic languages and his critical faculty were shown in his *Beowulf* (1833–1837), *Über die Stammtafel der Westsachsen* (1836), *Codex Diplomaticus Aevi Saxonici* (1839–1848), and in many contributions to reviews; while his *History of the Saxons in England* (1849; new ed. 1876), though it must now be read with caution, was the first attempt at a thorough examination of the original sources of the early period of English history. He was editor of the *British and Foreign Review* from 1835 to 1844; and from 1840 to his death was examiner of plays. In 1857 he published *State Papers and Correspondence illustrative of the Social and Political State of Europe from the Revolution to the Accession of the House of Hanover*. He died at Dublin on the 26th of March 1857. His *Horae Ferales, or Studies in the Archaeology of Northern Nations*, was completed by Dr R. G. Latham, and published in 1864. He married the daughter of Professor Amadeus Wendt of Göttingen in 1836; and had two daughters and a son; the elder daughter was the wife of Sir Charles Santley, the singer.

KEMÉNY, ZSIGMOND, Baron (1816–1875), Hungarian author, came of a noble but reduced family. In 1837 he studied jurisprudence at Marosvásárhely, but soon devoted himself entirely to journalism and literature. His first unfinished work, *On the Causes of the Disaster of Mohacs* (1840), attracted much attention. In the same year he studied natural history and anatomy at Vienna University. In 1841, along with Lajos Kovács, he edited the Transylvanian newspaper *Erdélyi Híradó*. He also took an active part in provincial politics and warmly supported the principles of Count Stephen Széchenyi. In 1846 he moved to Pest, where his pamphlet, *Korteskedés és ellenszerei* (Partisanship and its Antidote), had already made him famous. Here he consorted with the most eminent of the moderate reformers, and for a time was on the staff of the *Pesti Hirlap*. The same year he brought out his first great novel, *Pál Gyulay*. He was elected a member of the revolutionary diet of 1848 and accompanied it through all its vicissitudes. After a brief exile he accepted the amnesty and returned to Hungary. Careless of his unpopularity, he took up his pen to defend the cause of justice and moderation, and in his two pamphlets, *Forradalom után* (After the Revolution) and *Még egysz ó a forradalom után* (One word more after the Revolution), he defended the point of view which was realized by Deák in 1867. He subsequently edited the *Pesti Napló*, which became virtually Deák's political organ. Kemény also published several political essays (*e.g. The Two Wesselényis*, and *Stephen Szechenyi*) which are among the best of their kind in any literature. His novels published during these years, such as *Férj és nö* (Husband and Wife), *Szivörvényei* (The Heart's Secrets), &c., also won for him a foremost rank among contemporary novelists. During the 'sixties Kemény took an active part in the political labours of Deák, whose right hand he continued to be, and popularized the Composition of 1867 which he had done so much to bring about. He was elected to the diet of 1867 for one of the divisions of Pest, but took no part in the debates. The last years of his life were passed in complete seclusion in Transylvania. To the works of Kemény already

mentioned should be added the fine historical novel *Rajongok* (The Fanatics) (Pest, 1858–1859), and *Collected Speeches* (Hung.) (Pest, 1889).

See L. Nogrady, *Baron Sigismund Kemény's Life and Writings* (Hung.) (Budapest, 1902); G. Beksics, *Sigismund Kemény, the Revolution and the Composition* (Hung.) (Budapest, 1888). (R. N. B.)

KEMP, WILLIAM (*fl.* 1600), English actor and dancer. He probably began his career as a member of the earl of Leicester's company, but his name first appears after the death of Leicester in a list of players authorized by an order of the privy council in 1593 to play 7 m. out of London. Ferdinand Stanley, Lord Strange, was the patron of the company of which Kemp was the leading member until 1598, and in 1594 was summoned with Burbage and Shakespeare to act before the queen at Greenwich. He was the successor, both in parts and reputation, of Richard Tarlton. But it was as a dancer of jigs that he won his greatest popularity, one or two actors dancing and singing with him, and the words doubtless often being improvised. Examples of the music may be seen in the MS. collection of John Dowland now in the Cambridge University library. At the same time Kemp was given parts like Dogberry, and Peter in *Romeo and Juliet*; indeed his name appears by accident in place of those of the characters in early copies. Kemp seems to have exhibited his dancing on the Continent, but in 1602 he was a member of the earl of Worcester's players, and Philip Henslowe's diary shows several payments made to him in that year.

KEMPE, JOHN (*c.* 1380–1454), English cardinal, archbishop of Canterbury, and chancellor, was son of Thomas Kempe, a gentleman of Ollantigh, in the parish of Wye near Ashford, Kent. He was born about 1380 and educated at Merton College, Oxford. He practised as an ecclesiastical lawyer, was an assessor at the trial of Oldcastle, and in 1415 was made dean of the Court of Arches. Then he passed into the royal service, and being employed in the administration of Normandy was eventually made chancellor of the duchy. Early in 1419 he was elected bishop of Rochester, and was consecrated at Rouen on the 3rd of December. In February 1421 he was translated to Chichester, and in November following to London. During the minority of Henry VI. Kempe had a prominent position in the English council as a supporter of Henry Beaufort, whom he succeeded as chancellor in March 1426. In this same year he was promoted to the archbishopric of York. Kempe held office as chancellor for six years; his main task in government was to keep Humphrey of Gloucester in check. His resignation on the 28th of February 1432 was a concession to Gloucester. He still enjoyed Beaufort's favour, and retaining his place in the council was employed on important missions, especially at the congress of Arras in 1435, and the conference at Calais in 1438. In December 1439 he was created cardinal, and during the next few years took less share in politics. He supported Suffolk over the king's marriage with Margaret of Anjou; but afterwards there arose some difference between them, due in part to a dispute about the nomination of the cardinal's nephew, Thomas Kempe, to the bishopric of London. At the time of Suffolk's fall in January 1450 Kempe once more became chancellor. His appointment may have been due to the fact that he was not committed entirely to either party. In spite of his age and infirmity he showed some vigour in dealing with Cade's rebellion, and by his official experience and skill did what he could for four years to sustain the king's authority. He was rewarded by his translation to Canterbury in July 1452, when Pope Nicholas added as a special honour the title of cardinal-bishop of Santa Rufina. As Richard of York gained influence, Kempe became unpopular; men called him "the cursed cardinal," and his fall seemed imminent when he died suddenly on the 22nd of March 1454. He was buried at Canterbury, in the choir. Kempe was a politician first, and hardly at all a bishop; and he was accused with some justice of neglecting his dioceses, especially at York. Still he was a capable official, and a faithful servant to Henry VI., who called him "one of the wisest lords of the land" (*Paston Letters*, i. 315). He founded a college at his native place at Wye, which was suppressed at the Reformation.

For contemporary authorities see under HENRY VI. See also J. Raine's *Historians of the Church of York*, vol. ii.; W. Dugdale's *Monasticon*, iii. 254, vi. 1430–1432; and W. F. Hook's *Lives of Archbishops of Canterbury*, v. 188–267. (C. L. K.)

KEMPEN, a town in the Prussian Rhine Province, 40 m. N. of Cologne by the railway to Zevenaar. Pop. (1900), 6319. It has a monument to Thomas à Kempis, who was born there. The industries are considerable, and include silk-weaving, glass-making and the manufacture of electrical plant. Kempen belonged in the middle ages to the archbishopric of Cologne and received civic rights in 1294. It is memorable as the scene of a victory gained, on the 17th of January 1642, by the French and Hessians over the Imperialists.

See Terwelp, *Die Stadt Kempen* (Kempen, 1894), and Niessen, *Heimatkunde des Kreises Kempen* (Crefeld, 1895).

KEMPENFELT, RICHARD (1718–1782), British rear-admiral, was born at Westminster in 1718. His father, a Swede, is said to have been in the service of James II., and subsequently to have entered the British army. Richard Kempenfelt went into the navy, and saw his first service in the West Indies, taking part in the capture of Portobello. In 1746 he returned to England, and from that date to 1780, when he was made rear-admiral, saw active service in the East Indies with Sir George Pocock and in various quarters of the world. In 1781 he gained, with a vastly inferior force, a brilliant victory, fifty leagues south-west of Ushant, over the French fleet under De Guichen, capturing twenty prizes. In 1782 he hoisted his flag on the "Royal George," which formed part of the fleet under Lord Howe. In August this fleet was ordered to refit at top speed at Portsmouth, and proceed to the relief of Gibraltar. A leak having been located below the waterline of the "Royal George," the vessel was careened to allow of the defect being repaired. According to the version of the disaster favoured by the Admiralty, she was overturned by a breeze. But the general opinion of the navy was that the shifting of her weights was more than the old and rotten timbers of the "Royal George" could stand. A large piece of her bottom fell out, and she went down at once. It is estimated that not fewer than 800 persons went down with her, for besides the crew there were a large number of tradesmen, women and children on board. Kempenfelt, who was in his cabin, perished with the rest. Cowper's poem, the "Loss of the Royal George," commemorates this disaster. Kempenfelt effected radical alterations and improvements in the signalling system then existing in the British navy. A painting of the loss of the "Royal George" is in the Royal United Service Institution, London.

See Charnock's *Biog. Nav.*, vi. 246, and Ralfe's *Naval Biographies*, i. 215.

KEMPT, SIR JAMES (1764–1854), British soldier, was gazetted to the 101st Foot in India in 1783, but on its disbandment two years later was placed on half-pay. It is said that he took a clerkship in Greenwood's, the army agents (afterwards Cox & Co.). He attracted the notice of the Duke of York, through whom he obtained a captaincy (very soon followed by a majority) in the newly raised 113th Foot. But it was not long before his regiment experienced the fate of the old 101st; this time however Kempt was retained on full pay in the recruiting service. In 1799 he accompanied Sir Ralph Abercromby to Holland, and later to Egypt as an aide-de-camp. After Abercromby's death Kempt remained on his successor's staff until the end of the campaign in Egypt. In April 1803 he joined the staff of Sir David Dundas, but next month returned to regimental duty, and a little later received a lieutenant-colonelcy in the 81st Foot. With his new regiment he went, under Craig, to the Mediterranean theatre of operations, and at Maida the light brigade led by him bore the heaviest share of the battle. Employed from 1807 to 1811 on the staff in North America, Brevet-Colonel Kempt at the end of 1811 joined Wellington's army in Spain with the local rank of major-general, which was, on the 1st of January 1812, made substantive. As one of Picton's brigadiers, Kempt took part in the great assault on Badajoz and was severely wounded. On rejoining for duty, he was posted to the command of a brigade of the Light Division (43rd, 52nd and 95th Rifles),

which he led at Vera, the Nivelle (where he was again wounded), Bayonne, Orthez and Toulouse. Early in 1815 he was made K.C.B., and in July for his services at Waterloo, G.C.B. At that battle he commanded the 28th, 32nd and 79th as a brigadier under his old chief, Picton, and on Picton's death succeeded to the command of his division. From 1828 to 1830 he was Governor-General of Canada, and at a critical time displayed firmness and moderation. He was afterwards Master-General of the Ordnance. At the time of his death in 1854 he had been for some years a full General.

KEMPTEN, a town in the kingdom of Bavaria on the Iller, 81 m. S.W. of Munich by rail. Pop. (1905), 20,663. The town is well built, has many spacious squares and attractive public grounds, and contains a castle, a handsome town-hall, a gymnasium, &c. The old palace of the abbots of Kempten, dating from the end of the 17th century, is now partly used as barracks, and near to it is the fine abbey church. The industries include wool-spinning and weaving and the manufacture of paper, beer, machines, hosiery and matches. As the commercial centre of the Algäu, Kempten carries on active trade in timber and dairy produce. Numerous remains have been discovered on the Lindenberg, a hill in the vicinity.

Kempten, identified with the Roman Cambodunum, consisted in early times of two towns, the old and the new. The continual hostility that existed between these was intensified by the welcome given by the old town, a free imperial city since 1289, to the Reformed doctrines, the new town keeping to the older faith. The Benedictine abbey of Kempten, said to have been founded in 773 by Hildegarde, the wife of Charlemagne, was an important house. In 1360 its abbot was promoted to the dignity of a prince of the Empire by the emperor Charles IV.; the town and abbey passed to Bavaria in 1803. Here the Austrians defeated the French on the 17th of September 1796.

See Förderreuther, *Die Stadt Kempten und ihre Umgebung* (Kempten, 1901); Haggenmüller, *Geschichte der Stadt und der gefürsteten Grafschaft Kempten*, vol. i. (Kempten, 1840); and Meirhofer, *Geschichtliche Darstellung der dinkwürdigsten Schicksale der Stadt Kempten* (Kempten, 1856).

KEN, THOMAS (1637–1711), the most eminent of the English non-juring bishops, and one of the fathers of modern English hymnology, was born at Little Berkhampstead, Herts, in 1637. He was the son of Thomas Ken of Furnival's Inn, who belonged to an ancient stock,—that of the Kens of Ken Place, in Somersetshire; his mother was a daughter of the now forgotten poet, John Chalkhill, who is called by Walton an "acquaintant and friend of Edmund Spenser." Ken's step-sister, Anne, was married to Izaak Walton in 1646, a connexion which brought Ken from his boyhood under the refining influence of this gentle and devout man. In 1652 Ken entered Winchester College, and in 1656 became a student of Hart Hall, Oxford. He gained a fellowship at New College in 1657, and proceeded B.A. in 1661 and M.A. in 1664. He was for some time tutor of his college; but the most characteristic reminiscence of his university life is the mention made by Anthony Wood that in the musical gatherings of the time "Thomas Ken of New College, a junior, would be sometimes among them, and sing his part." Ordained in 1662, he successively held the livings of Little Easton in Essex, Brighstone (sometimes called Brixton) in the Isle of Wight, and East Woodhay in Hampshire; in 1672 he resigned the last of these, and returned to Winchester, being by this time a prebendary of the cathedral, and chaplain to the bishop, as well as a fellow of Winchester College. He remained there for several years, acting as curate in one of the lowest districts, preparing his *Manual of Prayers for the use of the Scholars of Winchester College* (first published in 1674), and composing hymns. It was at this time that he wrote, primarily for the same body as his prayers, his morning, evening and midnight hymns, the first two of which, beginning "Awake, my soul, and with the sun" and "Glory to Thee, my God, this night," are now household words wherever the English tongue is spoken. The latter is often made to begin with the line "All praise to Thee, my God, this night," but in the earlier editions over which Ken had control, the line is as first given.[1] In 1674 Ken paid a visit to Rome in company with young Izaak Walton, and this journey seems mainly to have resulted in confirming his regard for the Anglican communion. In 1679 he was appointed by Charles II. chaplain to the Princess Mary, wife of William of Orange. While with the court at the Hague, he incurred the displeasure of William by insisting that a promise of marriage, made to an English lady of high birth by a relative of the prince, should be kept; and he therefore gladly returned to England in 1680, when he was immediately appointed one of the king's chaplains. He was once more residing at Winchester in 1683 when Charles came to the city with his doubtfully composed court, and his residence was chosen as the home of Nell Gwynne; but Ken stoutly objected to this arrangement, and succeeded in making the favourite find quarters elsewhere. In August of this same year he accompanied Lord Dartmouth to Tangier as chaplain to the fleet, and Pepys, who was one of the company, has left on record some quaint and kindly reminiscences of him and of his services on board. The fleet returned in April 1684, and a few months after, upon a vacancy occurring in the see of Bath and Wells, Ken, now Dr Ken, was appointed bishop. It is said that, upon the occurrence of the vacancy, Charles, mindful of the spirit he had shown at Winchester, exclaimed, "Where is the good little man that refused his lodging to poor Nell?" and determined that no other should be bishop. The consecration took place at Lambeth on the 25th of January 1685; and one of Ken's first duties was to attend the death-bed of Charles, where his wise and faithful ministrations won the admiration of everybody except Bishop Burnet. In this year he published his *Exposition on the Church Catechism*, perhaps better known by its sub-title, *The Practice of Divine Love*. In 1688, when James reissued his "Declaration of Indulgence," Ken was one of the "seven bishops" who refused to publish it. He was probably influenced by two considerations: first, by his profound aversion from Roman Catholicism, to which he felt he would be giving some episcopal recognition by compliance; but, second and more especially, by the feeling that James was compromising the spiritual freedom of the church. Along with his six brethren, Ken was committed to the Tower on the 8th of June 1688, on a charge of high misdemeanour; the trial, which took place on the 29th and 30th of the month, and which resulted in a verdict of acquittal, is matter of history. With the revolution which speedily followed this impolitic trial, new troubles encountered Ken; for, having sworn allegiance to James, he thought himself thereby precluded from taking the oath to William of Orange. Accordingly, he took his place among the non-jurors, and, as he stood firm to his refusal, he was, in August 1691, superseded in his bishopric by Dr Kidder, dean of Peterborough. From this time he lived mostly in retirement, finding a congenial home with Lord Weymouth, his friend from college days, at Longleat in Wiltshire; and though pressed to resume his diocese in 1703, upon the death of Bishop Kidder, he declined, partly on the ground of growing weakness, but partly no doubt from his love for the quiet life of devotion which he was able to lead at Longleat. His death took place there on the 19th of March 1711.

Although Ken wrote much poetry, besides his hymns, he cannot be called a great poet; but he had that fine combination of spiritual insight and feeling with poetic taste which marks all great hymn-writers. As a hymn-writer he has had few equals in England; it can scarcely be said that even Keble, though possessed of much rarer poetic gifts, surpassed him in his own sphere (see Hymns). In his own day he took high rank as a pulpit orator, and even royalty had to beg for a seat amongst his audiences; but his sermons are now forgotten. He lives in history, apart from his three hymns, mainly as a man of unstained purity and invincible fidelity to conscience, weak only in a certain narrowness of view which is a frequent attribute of the intense character which he possessed. As an ecclesiastic he was a High Churchman of the old school.

Ken's poetical works were published in collected form in four volumes by W. Hawkins, his relative and executor, in 1721; his prose

[1] The fact, however, that in 1712—only a year after Ken's death—his publisher, Brome, published the hymn with the opening words "All praise," has been deemed by such a high authority as the 1st earl of Selborne sufficient evidence that the alteration had Ken's authority.

works were issued in 1838 in one volume, under the editorship of J. T. Round. A brief memoir was prefixed by Hawkins to a selection from Ken's works which he published in 1713; and a life, in two volumes, by the Rev. W. L. Bowles, appeared in 1830. But the standard biographies of Ken are those of J. Lavicount Anderdon (*The Life of Thomas Ken, Bishop of Bath and Wells, by a Layman*, 1851; 2nd ed., 1854) and of Dean Plumptre (2 vols., 1888; revised, 1890). See also the Rev. W. Hunt's article in the *Dict. Nat. Biog.*

KEN, a river of Northern India, tributary to the Jumna on its right bank, flowing through Bundelkhand. An important reservoir in its upper basin, which impounds about 180 million cubic feet of water, irrigates about 374,000 acres in a region specially liable to drought.

KENA, or KENEH (sometimes written *Qina*), a town of Upper Egypt on a canal about a mile E. of the Nile and 380 m. S.S.E. of Cairo by rail. Pop. (1907), 20,069. Kena, the capital of a province of the same name, was called by the Greeks Caene or Caenepolis (probably the Νέη πόλις of Herodotus; see AKHMIM) in distinction from Coptos (*q.v.*), 15 m. S., to whose trade it eventually succeeded. It is a remarkable fact that its modern name should be derived from a purely Greek word, like Iskenderia from Alexandria, and Nekrāsh from Naucratis; in the absence of any known Egyptian name it seems to point to Kena having originated in a foreign settlement in connexion with the Red Sea trade. It is a flourishing town, specially noted for the manufacture of the porous water jars and bottles used throughout Egypt. The clay for making them is obtained from a valley north of Kena. The pottery is sent down the Nile in specially constructed boats. Kena is also known for the excellence of the dates sold in its bazaars and for the large colony of dancing girls who live there. It carries on a trade in grain and dates with Arabia, via Kosseir on the Red Sea, 100 m. E. in a direct line. This inconsiderable traffic is all that is left of the extensive commerce formerly maintained—chiefly via Berenice and Coptos—between Upper Egypt and India and Arabia. The road to Kosseir is one of great antiquity. It leads through the valley of Hammāmāt, celebrated for its ancient breccia quarries and deserted gold mines. During the British operations in Egypt in 1801 Sir David Baird and his force marched along this road to Kena, taking sixteen days on the journey from Kosseir.

KENDAL, DUKEDOM OF. The English title of duke of Kendal was first bestowed in May 1667 upon Charles (d. 1667), the infant son of the duke of York, afterwards James II. Several persons have been created earl of Kendal, among them being John, duke of Bedford, son of Henry IV.; John Beaufort, duke of Somerset (d. 1444); and Queen Anne's husband, George, prince of Denmark.

In 1719 Ehrengarde Melusina (1667–1743), mistress of the English king George I., was created duchess of Kendal. This lady was the daughter of Gustavus Adolphus, count of Schulenburg (d. 1691), and was born at Emden on the 25th of December 1667. Her father held important positions under the elector of Brandenburg; her brother Matthias John (1661–1747) won great fame as a soldier in Germany and was afterwards commander-in-chief of the army of the republic of Venice. Having entered the household of Sophia, electress of Hanover, Melusina attracted the notice of her son, the future king, whose mistress she became about 1690. When George crossed over to England in 1714, the "Schulenburgin," as Sophia called her, followed him and soon supplanted her principal rival, Charlotte Sophia, Baroness von Kilmannsegge (*c.* 1673–1725), afterwards countess of Darlington, as his first favourite. In 1716 she was created duchess of Munster; then duchess of Kendal; and in 1723 the emperor Charles VI. made her a princess of the Empire. The duchess was very avaricious and obtained large sums of money by selling public offices and titles; she also sold patent rights, one of these being the privilege of supplying Ireland with a new copper coinage. This she sold to a Wolverhampton iron merchant named William Wood (1671–1730), who flooded the country with coins known as "Wood's halfpence," thus giving occasion for the publication of Swift's famous *Drapier's Letters*. In political matters she had much influence with the king, and she received £10,000 for procuring the recall of Bolingbroke from exile. After George's death in 1727 she lived at Kendal House, Isleworth, Middlesex, until her death on the 10th of May 1743. The duchess was by no means a beautiful woman, and her thin figure caused the populace to refer to her as the "maypole." By the king she had two daughters: Petronilla Melusina (*c.* 1693–1778), who was created countess of Walsingham in 1722, and who married the great earl of Chesterfield; and Margaret Gertrude, countess of Lippe (1703–1773).

KENDAL, WILLIAM HUNTER (1843–), English actor, whose family name was Grimston, was born in London on the 16th of December 1843, the son of a painter. He made his first stage appearance at Glasgow in 1862 as Louis XIV., in *A Life's Revenge*, billed as "Mr Kendall." After some experience at Birmingham and elsewhere, he joined the Haymarket company in London in 1866, acting everything from burlesque to Romeo. In 1869 he married Margaret (Madge) Shafto Robertson (b. 1849), sister of the dramatist, T. W. Robertson. As "Mr and Mrs Kendal" their professional careers then became inseparable. Mrs Kendal's first stage appearance was as Marie, "a child," in *The Orphan of the Frozen Sea* in 1854 in London. She soon showed such talent both as actress and singer that she secured numerous engagements, and by 1865 was playing Ophelia and Desdemona. She was Mary Meredith in *Our American Cousin* with Sothern, and Pauline to his Claud Melnotte. But her real triumphs were at the Haymarket in Shakespearian revivals and the old English comedies. While Mr Kendal played Orlando, Charles Surface, Jack Absolute and Young Marlowe, his wife made the combination perfect with her Rosalind, Lady Teazle, Lydia Languish and Kate Hardcastle; and she created Galatea in Gilbert's *Pygmalion and Galatea* (1871). Short seasons followed at the Court theatre and at the Prince of Wales's, at the latter of which they joined the Bancrofts in *Diplomacy* and other plays. Then in 1879 began a long association with Mr (afterwards Sir John) Hare as joint-managers of the St James's theatre, some of their notable successes being in *The Squire*, *Impulse*, *The Ironmaster* and *A Scrap of Paper*. In 1888, however, the Hare and Kendal régime came to an end. From that time Mr and Mrs Kendal chiefly toured in the provinces and in America, with an occasional season at rare intervals in London.

KENDAL, a market town and municipal borough in the Kendal parliamentary division of Westmorland, England, 251 m. N.N.W. from London on the Windermere branch of the London & North-Western railway. Pop. (1901), 14,183. The town, the full name of which is Kirkby-Kendal or Kirkby-in-Kendal, is the largest in the county. It is picturesquely placed on the river Kent, and is irregularly built. The white-walled houses with their blue-slated roofs, and the numerous trees, give it an attractive appearance. To the S.W. rises an abrupt limestone eminence, Scout Scar, which commands an extensive view towards Windermere and the southern mountains of the Lake District. The church of the Holy Trinity, the oldest part of which dates from about 1200, is a Gothic building with five aisles and a square tower. In it is the helmet of Major Robert Philipson, who rode into the church during service in search of one of Cromwell's officers, Colonel Briggs, to do vengeance on him. This major was notorious as "Robin the Devil," and his story is told in Scott's *Rokeby*. Among the public buildings are the town hall, classic in style; the market house, and literary and scientific institution, with a museum containing a fossil collection from the limestone of the locality. Educational establishments include a free grammar school, in modern buildings, founded in 1525 and well endowed; a blue-coat school, science and art school, and green-coat Sunday school (1813). On an eminence east of the town are the ruins of Kendal castle, attributed to the first barons of Kendal. It was the birthplace of Catherine Parr, Henry VIII.'s last queen. On the Castlebrow Hill, an artificial mound probably of pre-Norman origin, an obelisk was raised in 1788 in memory of the revolution of 1688. The woollen manufactures of Kendal have been noted since 1331, when Edward III. is said to have granted letters of protection to John Kemp, a Flemish weaver who settled in the town; and, although the coarse cloth

known to Shakespeare as "Kendal green" is no longer made, its place is more than supplied by active manufactures of tweeds, railway rugs, horse clothing, knitted woollen caps and jackets, worsted and woollen yarns, and similar goods. Other manufactures of Kendal are machine-made boots and shoes, cards for wool and cotton, agricultural and other machinery, paper, and, in the neighbourhood, gunpowder. There is a large weekly market for grain, and annual horse and cattle fairs. The town is governed by a mayor, 6 aldermen and 18 councillors. Area, 2622 acres.

The outline of a Roman fort is traceable at Watercrook near Kendal. The barony and castle of Kendal or Kirkby-in-Kendal, held by Turold before the Conquest, were granted by William I. to Ivo de Taillebois, but the barony was divided into three parts in the reign of Richard II., one part with the castle passing to Sir William Parr, knight, ancestor of Catherine Parr. After the death of her brother William Parr, marquess of Northampton, his share of the barony called Marquis Fee reverted to Queen Elizabeth. The castle, being evidently deserted, was in ruins in 1586. Kendal was plundered by the Scots in 1210, and was visited by the rebels in 1715 and again in 1745 when the Pretender was proclaimed king there. Burgesses in Kendal are mentioned in 1345, and the borough with "court housez" and the fee-farm of free tenants is included in a confirmation charter to Sir William Parr in 1472. Richard III. in 1484 granted the inhabitants of the barony freedom from toll, passage and pontage, and the town was incorporated in 1576 by Queen Elizabeth under the title of an alderman and 12 burgesses, but Charles I. in 1635 appointed a mayor, 12 aldermen and 20 capital burgesses. Under the Municipal Reform Act of 1835 the corporation was again altered. From 1832 to 1885 Kendal sent one member to parliament, but since the last date its representation has been merged in that of the southern division of the county. A weekly market on Saturday granted by Richard I. to Roger Fitz Reinfred was purchased by the corporation from the earl of Lonsdale and Captain Bagot, lords of the manor, in 1885 and 1886. Of the five fairs which are now held three are ancient, that now held on the 29th of April being granted to Marmaduke de Tweng and William de Ros in 1307, and those on the 8th and 9th of November to Christiana, widow of Ingelram de Gynes, in 1333.

See *Victoria County History, Westmorland*; Cornelius Nicholson, *The Annals of Kendal* (1861).

KENDALL, HENRY CLARENCE (1841–1882), Australian poet, son of a missionary, was born in New South Wales on the 18th of April 1841. He received only a slight education, and in 1860 he entered a lawyer's office in Sydney. He had always had literary tastes, and sent some of his verses in 1862 to London to be published in the *Athenaeum*. Next year he obtained a clerkship in the Lands Department at Sydney, being afterwards transferred to the Colonial Secretary's office; and he combined this work with the writing of poetry and with journalism. His principal volumes of verse were *Leaves from an Australian Forest* (1869) and *Songs from the Mountains* (1880), his feeling for nature, as embodied in Australian landscape and bush-life, being very true and full of charm. In 1869 he resigned his post in the public service, and for some little while was in business with his brothers. Sir Henry Parkes took an interest in him, and eventually appointed him to an inspectorship of forests. He died on the 1st of August 1882. In 1886 a memorial edition of his poems was published at Melbourne.

KENEALY, EDWARD VAUGHAN HYDE (1819–1880), Irish barrister and author, was born at Cork on the 2nd of July 1819, the son of a local merchant. He was educated at Trinity College, Dublin; was called to the Irish bar in 1840 and to the English bar in 1847; and obtained a fair practice in criminal cases. In 1868 he became a Q.C. and a bencher of Gray's Inn. It was not, however, till 1873, when he became leading counsel for the Tichborne claimant, that he came into any great prominence. His violent conduct of the case became a public scandal, and after the verdict against his client he started a paper to plead his cause and to attack the judges. His behaviour was so extreme that in 1874 he was disbenched and disbarred by his Inn. He then started an agitation throughout the country to ventilate his grievances, and in 1875 was elected to parliament for Stoke; but no member would introduce him when he took his seat. Dr Kenealy, as he was always called, gradually ceased to attract attention, and on the 16th of April 1880 he died in London. He published a great quantity of verse, and also of somewhat mystical theology. His second daughter, Dr Arabella Kenealy, besides practising as a physician, wrote some clever novels.

KĒNG TŪNG, the most extensive of the Shan States in the province of Burma. It is in the southern Shan States' charge and lies almost entirely east of the Salween river. The area of the state is rather over 12,000 sq. m. It is bounded N. by the states of Mang Lön, Möng Lem and Kēng Hūng (Hsip Hsawng Pannā), the two latter under Chinese control; E. by the Mekong river, on the farther side of which is French Lao territory; S. by the Siamese Shan States, and W. in a general way by the Salween river, though it overlaps it in some places. The state is known to the Chinese as Mêng Kêng, and was frequently called by the Burmese "the 32 cities of the Gôn" (Hkön). Kēng Tūng has expanded very considerably since the establishment of British control, by the inclusion of the districts of Hsen Yawt, Hsen Mawng, Möng Hsat, Möng Pu, and the cis-Mekong portions of Kēng Cheng, which in Burmese times were separate charges. The "classical" name of the state is Khemarata or Khemarata Tungkapuri. About 63% of the area lies in the basin of the Mekong river and 37% in the Salween drainage area. The watershed is a high and generally continuous range. Some of its peaks rise to over 7000 ft., and the elevation is nowhere much below 5000 ft. Parallel to this successive hill ranges run north and south. Mountainous country so greatly predominates that the scattered valleys are but as islands in a sea of rugged hills. The chief rivers, tributaries of the Salween, are the Nam Hka, the Hwe Lông, Nam Pu, and the Nam Hsīm. The first and last are very considerable rivers. The Nam Hka rises in the Wa or Vü states, the Nam Hsīm on the watershed range in the centre of the state. Rocks and rapids make both unnavigable, but much timber goes down the Nam Hsīm. The lower part of both rivers forms the boundary of Kēng Tūng state. The chief tributaries of the Mekong are the Nam Nga, the Nam Lwe, the Nam Yawng, Nam Līn, Nam Hôk and Nam Kôk. Of these the chief is the Nam Lwe, which is navigable in the interior of the state, but enters the Mekong by a gorge broken up by rocks. The Nam Līn and the Nam Kôk are also considerable streams. The lower course of the latter passes by Chieng Rai in Siamese territory. The lower Nam Hôk or Mē Huak forms the boundary with Siam.

The existence of minerals was reported by the sawbwa, or chief, to Francis Garnier in 1867, but none is worked or located. Gold is washed in most of the streams. Teak forests exist in Möng Pu and Möng Hsat, and the sawbwa works them as government contracts. One-third of the price realized from the sale of the logs at Moulmein is retained as the government royalty. There are teak forests also in the Mekong drainage area in the south of the state, but there is only a local market for the timber. Rice, as elsewhere in the Shan States, is the chief crop. Next to it is sugar-cane, grown both as a field crop and in gardens. Earth-nuts and tobacco are the only other field crops in the valleys. On the hills, besides rice, cotton, poppy and tea are the chief crops. The tea is carelessly grown, badly prepared, and only consumed locally. A great deal of garden produce is raised in the valleys, especially near the capital. The state is rich in cattle, and exports them to the country west of the Salween. Cotton and opium are exported in large quantities, the former entirely to China, a good deal of the latter to northern Siam, which also takes shoes and sandals. Tea is carried through westwards from Kēng Hūng, and silk from the Siamese Shan States. Cotton and silk weaving are dying out as industries. Large quantities of shoes and sandals are made of buffalo and bullock hide, with Chinese felt uppers and soft iron hobnails. There is a good deal of pottery work. The chief work in iron is the manufacture of guns, which has been carried on for many years in certain villages of the Sam Tao district. The gun barrels and springs are rude but effective, though not very durable. The revenue of the state is collected as the Burmese *thathameda*, a rude system of income-tax. From 1890, when the state made its submission, the annual tributary offerings made in Burmese times were continued to the British government, but in 1894 these offerings were converted into tribute. For the quinquennial period 1903–1908 the state paid Rs. 30,000 (£2000) annually.

The population of the state was enumerated for the first time in 1901, giving a total of 190,698. According to an estimate made by Mr G. C. Stirling, the political officer in charge of the state, in 1897–1898, of the various tribes of Shans, the Hkün and Lü contribute about 36,000 each, the western Shans 32,000, the Lem and Lao Shans about 7000, and the Chinese Shans about 5000. Of the hill tribes, the Kaw or Aka are the most homogeneous with 22,000, but probably the Wa (or Vü), disguised under various tribal names, are at least equally numerous. Nominal Buddhists make up a total of 133,400, and the remainder are classed as animists. Spirit-worship is, however, very conspicuously prevalent amongst all classes even of the Shans. The present sawbwa or chief received his patent from the British government on the 9th of February 1897. The early history of Kēng Tūng is very obscure, but Burmese influence seems to have been maintained since the latter half, at any rate, of the 16th century. The Chinese made several attempts to subdue the state, and appear to have taken the capital in 1765–66, but were driven out by the united Shan and Burmese troops. The same fate seems to have attended the first Siamese invasion of 1804. The second and third Siamese invasions, in 1852 and 1854, resulted in great disaster to the invaders, though the capital was invested for a time.

Kēng Tūng, the capital, is situated towards the southern end of a valley about 12 m. long and with an average breadth of 7 m. The town is surrounded by a brick wall and moat about 5 m. round. Only the central and northern portions are much built over. Pop. (1901), 5695. It is the most considerable town in the British Shan States. In the dry season crowds attend the market held according to Shan custom every five days, and numerous caravans come from China. The military post formerly was 7 m. west of the town, at the foot of the watershed range. At first the headquarters of a regiment was stationed there; this was reduced to a wing, and recently to military police. The site was badly chosen and proved very unhealthy, and the headquarters both military and civil have been transferred to Loi Ngwe Lông, a ridge 6500 ft. above sea-level 12 m. south of the capital. The rainfall probably averages between 50 and 60 in. for the year. The temperature seems to rise to nearly 100° F. during the hot weather, falling 30° or more during the night. In the cold weather a temperature of 40° or a few degrees more or less appears to be the lowest experienced. The plain in which the capital stands has an altitude of 3000 ft. (J. G. Sc.)

KENILWORTH, a market town in the Rugby parliamentary division of Warwickshire, England; pleasantly situated on a tributary of the Avon, on a branch of the London & North-Western railway, 99 m. N.W. from London. Pop. of urban district (1901), 4544. The town is only of importance from its antiquarian interest and the magnificent ruins of its old castle. The walls originally enclosed an area of 7 acres. The principal portions of the building remaining are the gatehouse, now used as a dwelling-house; Caesar's tower, the only portion built by Geoffrey de Clinton now extant, with massive walls 16 ft. thick; the Merwyn's tower of Scott's *Kenilworth*; the great hall built by John of Gaunt with windows of very beautiful design; and the Leicester buildings, which are in a very ruinous condition. Not far from the castle are the remains of an Augustinian monastery founded in 1122, and afterwards made an abbey. Adjoining the abbey is the parish church of St Nicholas, restored in 1865, a structure of mixed architecture, containing a fine Norman doorway, which is supposed to have been the entrance of the former abbey church.

Kenilworth (*Chinewrde, Kenillewurda, Kinelingworthe, Kenilord, Killingworth*) is said to have been a member of Stoneleigh before the Norman Conquest and a possession of the Saxon kings, whose royal residence there was destroyed in the wars between Edward and Canute. The town was granted by Henry I. to Geoffrey de Clinton, a Norman who built the castle round which the whole history of Kenilworth centres. He also founded a monastery here about 1122. Geoffrey's grandson released his right to King John, and the castle remained with the crown until Henry III. granted it to Simon de Montfort, earl of Leicester. The famous "Dictum de Kenilworth" was proclaimed here in 1266. After the battle of Evesham the rebel forces rallied at the castle, which, after a siege of six months, was surrendered by Henry de Hastings, the governor, on account of the scarceness of food and of the "pestilent disease" which raged there. The king then granted it to his son Edmund. Through John of Gaunt it came to Henry IV. and was granted by Elizabeth in 1562 to Robert Dudley, afterwards earl of Leicester, but on his death in 1588 again merged in the possessions of the Crown. The earl spent large sums on restoring the castle and grounds, and here in July 1575 he entertained Queen Elizabeth at "excessive cost," as described in Scott's *Kenilworth*. On the queen's first entry "a small floating island illuminated by a great variety of torches . . . made its appearance upon the lake," upon which, clad in silks, were the Lady of the Lake and two nymphs waiting on her, and for the several days of her stay "rare shews and sports were there exercised." During the civil wars the castle was dismantled by the soldiers of Cromwell and was from that time abandoned to decay. The only mention of Kenilworth as a borough occurs in a charter of Henry I. to Geoffrey de Clinton and in the charters of Henry I. and Henry II. to the church of St Mary of Kenilworth confirming the grant of lands made by Geoffrey to this church, and mentioning that he kept the land in which his castle was situated and also land for making his borough, park and fishpond. The town possesses large tanneries.

KENITES, in the Bible a tribe or clan of the south of Palestine, closely associated with the Amalekites, whose hostility towards Israel, however, it did not share. On this account Saul spared them when bidden by Yahweh to destroy Amalek; David, too, whilst living in Judah, appears to have been on friendly terms with them (1 Sam. xv. 6; xxx. 29). Moses himself married into a Kenite family (Judges i. 16), and the variant tradition would seem to show that the Kenites were only a branch of the Midianites (see JETHRO, MIDIAN). Jael, the slayer of Sisera (see DEBORAH), was the wife of Heber the Kenite, who lived near Kadesh in Naphtali; and the appearance of the clan in this locality may be explained from the nomadic habits of the tribe, or else as a result of the northward movement in which at least one other clan or tribe took part (see DAN). There is an obscure allusion to their destruction in an appendage to the oracles of Balaam (Num. xxiv. 21 seq., see G. B. Gray, *Intern. Crit. Comm.* p. 376); and with this, the only unfavourable reference to them, may perhaps be associated the curse of Cain. Although some connexion with the name of Cain is probable, it is difficult, however, to explain the curse (for one view, see LEVITES). More important is the prominent part played by the Kenite (or Midianite) father-in-law of Moses, whose help and counsel are related in Exod. xviii.; and if, as seems probable, the Rechabites (*q.v.*) were likewise of Kenite origin (1 Chron. ii. 55), this obscure tribe had evidently an important part in shaping the religion of Israel.

See on this question, HEBREW RELIGION, and Budde, *Religion of Israel to the Exile*, vol. i.; G. A. Barton, *Semitic Origins*, pp. 272 sqq.; L. B. Paton, *Biblical World* (1906, July and August). On the migration of the Kenites into Palestine (cf. Num. x. 29 with Judges i. 16), see CALEB, GENESIS, JERAHMEEL, JUDAH. (S. A. C.)

KENMORE, a village and parish of Perthshire, Scotland, 6 m. W. of Aberfeldy. Pop. of parish (1901), 1271. It is situated at the foot of Loch Tay, near the point where the river Tay leaves the lake. Taymouth Castle, the seat of the Marquess of Breadalbane, stands near the base of Drummond Hill in a princely park through which flows the Tay. It is a stately four-storeyed edifice with corner towers and a central pavilion, and was built in 1801 (the west wing being added in 1842) on the site of the mansion erected in 1580 for Sir Colin Campbell of Glenorchy. The old house was called Balloch (Gaelic, *bealach*, "the outlet of a lake"). Two miles S.W. of Kenmore are the Falls of the Acharn, 80 ft. high. When Wordsworth and his sister visited them in 1803 the grotto at the cascade was fitted up to represent a "hermit's mossy cell." At the village of Fortingall, on the north side of Loch Tay, are the shell of a yew conjectured to be 3000 years old and the remains of a Roman camp. Glenlyon House was the home of Campbell of Glenlyon, chief agent in the massacre of Glencoe. At Garth, 2½ m. N.E., are the ruins of an ancient castle, said to have been a stronghold of Alexander Stewart, the Wolf of Badenoch (1343–1405), in close proximity to the modern mansion built for Sir Donald Currie.

KENMURE, WILLIAM GORDON, 6th viscount (d. 1716), Jacobite leader, son of Alexander, 5th viscount (d. 1698), was descended from the same family as Sir John Gordon of Lochinvar (d. 1604), whose grandson, Sir John Gordon (d. 1634), was

created Viscount Kenmure in 1633. The family had generally adhered to the Presbyterian cause, but Robert, the 4th viscount, had been excepted from the amnesty granted to the Scottish royalists in 1654, and the 5th viscount, who had succeeded his kinsman Robert in 1663, after some vacillation, had joined the court of the exiled Stuarts. The 6th viscount's adherence to the Pretender in 1715 is said to have been due to his wife Mary Dalzell (d. 1776), sister of Robert, 6th earl of Carnwath. He raised the royal standard of Scotland at Lochmaben on the 12th of October 1715, and was joined by about two hundred gentlemen, with Carnwath, William Maxwell, 5th earl of Nithsdale, and George Seton, 5th earl of Wintoun. This small force received some additions before Kenmure reached Hawick, where he learnt the news of the English rising. He effected a junction with Thomas Forster and James Radclyffe, 3rd earl of Derwentwater, at Rothbury. Their united forces of some fourteen hundred men, after a series of rather aimless marches, halted at Kelso, where they were reinforced by a brigade under William Mackintosh. Threatened by an English army under General George Carpenter, they eventually crossed the English border to join the Lancashire Jacobites, and the command was taken over by Forster. Kenmure was taken prisoner at Preston on the 13th of November, and was sent to the Tower. In the following January he was tried with other Jacobite noblemen before the House of Lords, when he pleaded guilty, and appealed to the king's mercy. Immediately before his execution on Tower Hill on the 24th of February he reiterated his belief in the claims of the Pretender. His estates and titles were forfeited, but in 1824 an act of parliament repealed the forfeiture, and his direct descendant, John Gordon (1750–1840), became Viscount Kenmure. On the death of the succeeding peer, Adam, 8th viscount, without issue in 1847, the title became dormant.

KENNEDY, the name of a famous and powerful Scottish family long settled in Ayrshire, derived probably from the name Kenneth. Its chief seat is at Culzean, or Colzean, near Maybole in Ayrshire.

A certain Duncan who became earl of Carrick early in the 13th century is possibly an ancestor of the Kennedys, but a more certain ancestor is John Kennedy of Dunure, who obtained Cassillis and other lands in Ayrshire about 1350. John's descendant, Sir James Kennedy, married Mary, a daughter of King Robert III. and their son, Sir Gilbert Kennedy, was created Lord Kennedy before 1458. Another son was James Kennedy (*c.* 1406–1465), bishop of St Andrews from 1441 until his death in July 1465. The bishop founded and endowed St Salvator's college at St Andrews and built a large and famous ship called the "St Salvator." Andrew Lang (*History of Scotland*, vol. i.) says of him, "The chapel which he built for his college is still thronged by the scarlet gowns of his students; his arms endure on the oaken doors; the beautiful silver mace of his gift, wrought in Paris, and representing all orders of spirits in the universe, is one of the few remaining relics of ancient Scottish plate." Before the bishop had begun to assist in ruling Scotland, a kinsman, Sir Hugh Kennedy, had helped Joan of Arc to drive the English from France.

One of Gilbert Kennedy's sons was the poet, Walter Kennedy (*q.v.*), and his grandson David, third Lord Kennedy (killed at Flodden, 1513), was created earl of Cassillis before 1510; David's sister Janet Kennedy was one of the mistresses of James IV. The earl was succeeded by his son Gilbert, a prominent figure in the history of Scotland from 1513 until he was killed at Prestwick on the 22nd of December 1527. His son Gilbert, the 3rd earl (*c.* 1517–1558), was educated by George Buchanan, and was a prisoner in England after the rout of Solway Moss in 1542. He was soon released and was lord high treasurer of Scotland from 1554 to 1558, although he had been intriguing with the English and had offered to kill Cardinal Beaton in the interests of Henry VIII. He died somewhat mysteriously at Dieppe late in 1558 when returning from Paris, where he had attended the marriage of Mary Queen of Scots, and the dauphin of France. He was the father of the "king of Carrick" and the brother of Quintin Kennedy (1520–1564), abbot of Crossraguel. The abbot wrote several works defending the doctrines of the Roman Catholic Church, and in 1562 had a public discussion on these questions with John Knox, which took place at Maybole and lasted for three days. He died on the 22nd of August 1564.

Gilbert Kennedy, 4th earl of Cassillis (*c.* 1541–1576), called the "king of Carrick," became a protestant, but fought for Queen Mary at Langside in 1568. He is better known through his cruel treatment of Allan Stewart, the commendator abbot of Crossraguel, Stewart being badly burned by the earl's orders at Dunure in 1570 in order to compel him to renounce his title to the abbey lands which had been seized by Cassillis. This "ane werry greedy man" died at Edinburgh in December 1576. His son John (*c.* 1567–1615), who became the 5th earl, was lord high treasurer of Scotland in 1599 and his lifetime witnessed the culmination of a great feud between the senior and a younger branch of the Kennedy family. He was succeeded as 6th earl by his nephew John (*c.* 1595–1668), called "the grave and solemn earl." A strong presbyterian, John was one of the leaders of the Scots in their resistance to Charles I. In 1643 he went to the Westminster Assembly of Divines and several times he was sent on missions to Charles I. and to Charles II.; for a time he was lord justice general and he was a member of Cromwell's House of Lords. His son, John, became the 7th earl, and one of his daughters, Margaret, married Gilbert Burnet, afterwards bishop of Salisbury. His first wife, Jean (1607–1642), daughter of Thomas Hamilton, 1st earl of Haddington, has been regarded as the heroine of the ballad "The Gypsie Laddie," but this identity is now completely disproved. John, the 7th earl, "the heir," says Burnet, "to his father's stiffness, but not to his other virtues," supported the revolution of 1688 and died on the 23rd of July 1701; his grandson John, the 8th earl, died without sons in August 1759.

The titles and estates of the Kennedys were now claimed by William Douglas, afterwards duke of Queensberry, a great-grandson in the female line of the 7th earl and also by Sir Thomas Kennedy, Bart., of Culzean, a descendant of the 3rd earl, *i.e.* by the heir general and the heir male. In January 1762 the House of Lords decided in favour of the heir male, and Sir Thomas became the 9th earl of Cassillis. He died unmarried on the 30th of November 1775, and his brother David, the 10th earl, also died unmarried on the 18th of December 1792, when the baronetcy became extinct. The earldom of Cassillis now passed to a cousin, Archibald Kennedy, a captain in the royal navy, whose father, Archibald Kennedy (d. 1763), had migrated to America in 1722 and had become collector of customs in New York. His son, the 11th earl, had estates in New Jersey and married an American heiress; in 1765 he was said to own more houses in New York than any one else. He died in London on the 30th of December 1794, and was succeeded by his son Archibald (1770–1846), who was created Baron Ailsa in 1806 and marquess of Ailsa in 1831. His great-grandson Archibald (b. 1847) became 3rd marquess.

See the article in vol. ii. of Sir R. Douglas's *Peerage of Scotland*, edited by Sir J. B. Paul (1905). This is written by Lord Ailsa's son and heir, Archibald Kennedy, earl of Cassillis (b. 1872).

KENNEDY, BENJAMIN HALL (1804–1889), English scholar, was born at Summer Hill, near Birmingham, on the 6th of November 1804, the eldest son of Rann Kennedy (1772–1851), who came of a branch of the Ayrshire family which had settled in Staffordshire. Rann Kennedy was a scholar and man of letters, several of whose sons rose to distinction. B. H. Kennedy was educated at Birmingham and Shrewsbury schools, and St John's College, Cambridge. After a brilliant university career he was elected fellow and classical lecturer of St John's College in 1828. Two years later he became an assistant master at Harrow, whence he went to Shrewsbury as headmaster in 1836. He retained this post until 1866, the thirty years of his rule being marked by a long series of successes won by his pupils, chiefly in classics. When he retired from Shrewsbury a large sum was collected as a testimonial to him, and was devoted partly to the new school buildings and partly to the founding of a Latin professorship at Cambridge. The first two occupants of the chair were both Kennedy's old pupils, H. A. J.

Munro and J. E. B. Mayor. In 1867 he was elected regius professor of Greek at Cambridge and canon of Ely. From 1870 to 1880 he was a member of the committee for the revision of the New Testament. He was an enthusiastic advocate for the admission of women to a university education, and took a prominent part in the establishment of Newnham and Girton colleges. He was also a keen politician of liberal sympathies. He died near Torquay on the 6th of April 1889. Among a number of classical school-books published by him are two, a *Public School Latin Primer* and *Public School Latin Grammar*, which were for long in use in nearly all English schools.

His other chief works are: Sophocles, *Oedipus Tyrannus* (2nd ed., 1885), Aristophanes, *Birds* (1874); Aeschylus, *Agamemnon* (2nd ed., 1882), with introduction, metrical translation and notes; a commentary on Virgil (3rd ed., 1881); and a translation of Plato, *Theaetetus* (1881). He contributed largely to the collection known as *Sabrinae Corolla*, and published a collection of verse in Greek, Latin and English under the title of *Between Whiles* (2nd ed., 1882), with many autobiographical details.

His brother, CHARLES RANN KENNEDY (1808–1867), was educated at Shrewsbury school and Trinity College, Cambridge, where he graduated as senior classic (1831). He then became a barrister. From 1849–1856 he was professor of law at Queen's College, Birmingham. As adviser to Mrs Swinfen, the plaintiff in the celebrated will case Swinfen *v.* Swinfen (1856), he brought an action for remuneration for professional services, but the verdict given in his favour at Warwick assizes was set aside by the court of Common Pleas, on the ground that a barrister could not sue for the recovery of his fees. The excellence of Kennedy's scholarship is abundantly proved by his translation of the orations of Demosthenes (1852–1863, in Bohn's *Classical Library*), and his blank verse translation of the works of Virgil (1861). He was also the author of *New Rules for Pleading* (2nd ed., 1841) and *A Treatise on Annuities* (1846). He died in Birmingham on the 17th of December 1867.

Another brother, Rev. WILLIAM JAMES KENNEDY (1814–1891), was a prominent educationalist, and the father of Lord Justice Sir William Rann Kennedy (b. 1846), himself a distinguished Cambridge scholar.

KENNEDY, THOMAS FRANCIS (1788–1879), Scottish politician, was born near Ayr in 1788. He studied for the bar and became advocate in 1811. Having been elected M.P. for the Ayr burghs in 1818, he devoted the greater part of his life to the promotion of Liberal reforms. In 1820 he married the only daughter of Sir Samuel Romilly. He was greatly assisted by Lord Cockburn, then Mr Henry Cockburn, and a volume of correspondence published by Kennedy in 1874 forms a curious and interesting record of the consultations of the two friends on measures which they regarded as requisite for the political regeneration of their native country. One of the first measures to which he directed his attention was the withdrawal of the power of nominating juries from the judges, and the imparting of a right of peremptory challenge to prisoners. Among other subjects were the improvement of the parish schools, of pauper administration, and of several of the corrupt forms of legal procedure which then prevailed. In the construction of the Scottish Reform Act Kennedy took a prominent part; indeed he and Lord Cockburn may almost be regarded as its authors. After the accession of the Whigs to office in 1832 he held various important offices in the ministry, and most of the measures of reform for Scotland, such as burgh reform, the improvements in the law of entail, and the reform of the sheriff courts, owed much to his sagacity and energy. In 1837 he went to Ireland as paymaster of civil services, and set himself to the promotion of various measures of reform. Kennedy retired from office in 1854, but continued to take keen interest in political affairs, and up to his death in 1879 took a great part in both county and parish business. He had a stern love of justice, and a determined hatred of everything savouring of jobbery or dishonesty.

KENNEDY, WALTER (*c.* 1460–*c.* 1508), Scottish poet, was the third son of Gilbert, 1st Lord Kennedy. He matriculated at Glasgow University in 1475 and took his M.A. degree in 1478. In 1481 he was one of four examiners in his university, and in 1492 he acted as depute for his nephew, the hereditary bailie of Carrick. He is best known for his share in the *Flyting* with Dunbar (*q.v.*). In this coarse combat of wits Dunbar taunts his rival with his Highland speech (the poem is an expression of Gaelic and "Inglis," *i.e.* English, antagonism); and implies that he had been involved in treason, and had disguised himself as a beggar in Galloway. With the exception of this share in the *Flyting* Kennedy's poems are chiefly religious in character. They include *The Praise of Aige, Ane Agit Manis Invective against Mouth Thankless, Ane Ballat in Praise of Our Lady, The Passion of Christ* and *Pious Counsale.* They are printed in the rare supplement to David Laing's edition of *William Dunbar* (1834), and they have been re-edited by Dr J. Schipper in the proceedings of the Kais. Akad. der Wissenschaften (Vienna).

See also the prolegomena in the Scottish Text Society's edition of Dunbar; and (for the life) Pitcairn's edition of the *Historie of the Kennedies* (1830).

KENNEL, a small hut or shelter for a dog, also extended to a group of buildings for a pack of hounds (see DOG). The word is apparently from a Norman-French *kenil* (this form does not occur, but is seen in the Norman *kinet*, a little dog), modern French *chenil*, from popular Latin *canile*, place for a dog, *canis*, cf. *ovile*, sheep-cote. The word "kennel," a gutter, a drain in a street or road, is a corruption of the Middle English *cancl*, *cannel*, in modern English "channel," from Latin *canalis*, canal.

KENNETH, the name of two kings of the Scots.

KENNETH I., MacAlpin (d. *c.* 860), often described as the first king of Scotland (kingdom of Scone), was the son of the Alpin, called king of the Scots, who had been slain by the Picts in 832 or 834, whilst endeavouring to assert his claim to the Pictish throne. On the death of his father, Kenneth is said to have succeeded him in the kingdom of the Scots. The region of his rule is matter of conjecture, though Galloway seems the most probable suggestion, in which case he probably led a piratic host against the Picts. On the father's side he was descended from the Conall Gabhrain of the old Dalriadic Scottish kingdom, and the claims of father and son to the Pictish throne were probably through female descent. Their chief support seems to have been found in Fife. In the seventh year of his reign (839 or 841) he took advantage of the effects of a Danish invasion of the Pictish kingdom to attack the remaining Picts, whom he finally subdued in 844 or 846. In 846 or 848 he transported the relics of St Columba to a church which he had constructed at Scone. He is said also to have carried out six invasions of Northumbria, in the course of which he burnt Dunbar and took Melrose. According to the *Scalacronica* of Sir Thomas Gray he drove the Angles and Britons over the Tweed, reduced the land as far as that river, and first called his kingdom Scotland. In his reign there appears to have been a serious invasion by Danish pirates, in which Cluny and Dunkeld were burnt. He died in 860 or 862, after a reign of twenty-eight years, at Forteviot and was buried at Iona. The double dates are due to a contest of authorities. Twenty-eight years is the accepted length of his reign, and according to the chronicle of Henry of Huntingdon it began in 832. The Pictish Chronicle, however, gives Tuesday, the 13th of February as the day, and this suits 862 only, in which case his reign would begin in 834.

KENNETH II. (d. 995), son of Malcolm I., king of Alban, succeeded Cuilean, son of Indulph, who had been slain by the Britons of Strathclyde in 971 in Lothian. Kenneth began his reign by ravaging the British kingdom, but he lost a large part of his force on the river Cornag. Soon afterwards he attacked Eadulf, earl of the northern half of Northumbria, and ravaged the whole of his territory. He fortified the fords of the Forth as a defence against the Britons and again invaded Northumbria, carrying off the earl's son. About this time he gave the city of Brechin to the church. In 977 he is said to have slain Amlaiph or Olaf, son of Indulph, king of Alban, perhaps a rival claimant

to the throne. According to the English chroniclers, Kenneth paid homage to King Edgar for the cession of Lothian, but these statements are probably due to the controversy as to the position of Scotland. The *mormaers*, or chiefs, of Kenneth were engaged throughout his reign in a contest with Sigurd the Norwegian, earl of Orkney, for the possession of Caithness and the northern district of Scotland as far south as the Spey. In this struggle the Scots attained no permanent success. In 995 Kenneth, whose strength like that of the other kings of his branch of the house of Kenneth MacAlpin lay chiefly north of the Tay, was slain treacherously by his own subjects, according to the later chroniclers at Fettercairn in the Mearns through an intrigue of Einvela, daughter of the earl of Angus. He was buried at Iona.

See *Chronicles of the Picts and Scots*, ed. W. F. Skene (Edinburgh, 1867), and W. F. Skene, *Celtic Scotland* (Edinburgh, 1876).

KENNETT, WHITE (1660–1728), English bishop and antiquary, was born at Dover in August 1660. He was educated at Westminster school and at St Edmund's Hall, Oxford, where, while an undergraduate, he published several translations of Latin works, including Erasmus *In Praise of Folly*. In 1685 he became vicar of Ambrosden, Oxfordshire. A few years afterwards he returned to Oxford as tutor and vice-principal of St Edmund's Hall, where he gave considerable impetus to the study of antiquities. George Hickes gave him lessons in Old English. In 1695 he published *Parochial Antiquities*. In 1700 he became rector of St Botolph's, Aldgate, London, and in 1701 archdeacon of Huntingdon. For a eulogistic sermon on the first duke of Devonshire he was in 1707 recommended to the deanery of Peterborough. He afterwards joined the Low Church party, strenuously opposed the Sacheverel movement, and in the Bangorian controversy supported with great zeal and considerable bitterness the side of Bishop Hoadly. His intimacy with Charles Trimnell, bishop of Norwich, who was high in favour with the king, secured for him in 1718 the bishopric of Peterborough. He died at Westminster in December 1728.

Kennett published in 1698 an edition of Sir Henry Spelman's *History of Sacrilege*, and he was the author of fifty-seven printed works, chiefly tracts and sermons. He wrote the third volume (Charles I.–Anne) of the composite *Compleat History of England* (1706), and a more detailed and valuable *Register and Chronicle* of the Restoration. He was much interested in the Society for the Propagation of the Gospel.

The *Life of Bishop White Kennett*, by the Rev. William Newton (anonymous), appeared in 1730. See also Nichols's *Literary Anecdotes*, and I. Disraeli's *Calamities of Authors*.

KENNEY, JAMES (1780–1849), English dramatist, was the son of James Kenney, one of the founders of Boodles' Club in London. His first play, a farce called *Raising the Wind* (1803), was a success owing to the popularity of the character of "Jeremy Diddler." Kenney produced more than forty dramas and operas between 1803 and 1845, and many of his pieces, in which Mrs Siddons, Madame Vestris, Foote, Lewis, Liston and other leading players appeared from time to time, enjoyed a considerable vogue. His most popular play was *Sweethearts and Wives*, produced at the Haymarket theatre in 1823, and several times afterwards revived; and among the most successful of his other works were: *False Alarms* (1807), a comic opera with music by Braham; *Love, Law and Physic* (1812); *Spring and Autumn* (1827); *The Illustrious Stranger, or Married and Buried* (1827); *Masaniello* (1829); *The Sicilian Vespers*, a tragedy (1840). Kenney, who numbered Charles Lamb and Samuel Rogers among his friends, died in London on the 25th of July 1849. He married the widow of the dramatist Thomas Holcroft, by whom he had two sons and two daughters.

His second son, CHARLES LAMB KENNEY (1823–1881), made a name as a journalist, dramatist and miscellaneous writer. Commencing life as a clerk in the General Post Office in London, he joined the staff of *The Times*, to which paper he contributed dramatic criticism. In 1856, having been called to the bar, he became secretary to Ferdinand de Lesseps, and in 1857 he published *The Gates of the East* in support of the projected construction of the Suez Canal. Kenney wrote the words for a number of light operas, and was the author of several popular songs, the best known of which were "Soft and Low" (1865) and "The Vagabond" (1871). He also published a *Memoir of M. W. Balfe* (1875), and translated the *Correspondence* of Balzac. He included Thackeray and Dickens among his friends in a literary coterie in which he enjoyed the reputation of a wit and an accomplished writer of *vers de société*. He died in London on the 25th of August 1881.

See John Genest, *Some Account of the English Stage, 1660–1830*, vols. vii. and viii. (10 vols., London, 1832); P. W. Clayden, *Rogers and his Contemporaries* (2 vols., London, 1889); *Dict. National Biog.*

KENNGOTT, GUSTAV ADOLPH (1818–1897), German mineralogist, was born at Breslau on the 6th of January 1818. After being employed in the Hofmineralien Cabinet at Vienna, he became professor of mineralogy in the university of Zürich. He was distinguished for his researches on mineralogy, crystallography and petrology. He died at Lugano, on the 7th of March 1897.

PUBLICATIONS.—*Lehrbuch der reinen Krystallographie* (1846); *Lehrbuch der Mineralogie* (1852 and 1857; 5th ed., 1880); *Übersicht der Resultate mineralogischer Forschungen in den Jahren 1844–1865* (7 vols., 1852–1868); *Die Minerale der Schweiz* (1866); *Elemente der Petrographie* (1868).

KENNICOTT, BENJAMIN (1718–1783), English divine and Hebrew scholar, was born at Totnes, Devonshire, on the 4th of April 1718. He succeeded his father as master of a charity school, but by the liberality of friends he was enabled to go to Wadham College, Oxford, in 1744, where he distinguished himself in Hebrew and divinity. While an undergraduate he published two dissertations, *On the Tree of Life in Paradise, with some Observations on the Fall of Man*, and *On the Oblations of Cain and Abel* (2nd ed., 1747), which procured him the honour of a bachelor's degree before the statutory time. In 1747 he was elected fellow of Exeter College, and in 1750 he took his degree of M.A. In 1764 he was made a fellow of the Royal Society, and in 1767 keeper of the Radcliffe Library. He was also canon of Christ Church (1770) and rector of Culham (1753), in Oxfordshire, and was subsequently presented to the living of Menheniot, Cornwall, which he was unable to visit and resigned two years before his death. He died at Oxford, on the 18th of September 1783.

His chief work is the *Vetus Testamentum hebraicum cum variis lectionibus* (2 vols. fol., Oxford, 1776–1780). Before this appeared he had written two dissertations entitled *The State of the Printed Hebrew Text of the Old Testament considered*, published respectively in 1753 and 1759, which were designed to combat the then current ideas as to the "absolute integrity" of the received Hebrew text. The first contains "a comparison of 1 Chron. xi. with 2 Sam. v. and xxiii. and observations on seventy MSS., with an extract of mistakes and various readings"; the second defends the claims of the Samaritan Pentateuch, assails the correctness of the printed copies of the Chaldee paraphrase, gives an account of Hebrew MSS. of the Bible known to be extant, and catalogues one hundred MSS. preserved in the British Museum and in the libraries of Oxford and Cambridge. In 1760 he issued his proposals for collating all Hebrew MSS. of date prior to the invention of printing. Subscriptions to the amount of nearly £10,000 were obtained, and many learned men addressed themselves to the work of collation, Bruns of Helmstadt making himself specially useful as regarded MSS. in Germany, Switzerland and Italy. Between 1760 and 1769 ten "annual accounts" of the progress of the work were given; in its course 615 Hebrew MSS. and 52 printed editions of the Bible were either wholly or partially collated, and use was also made (but often very perfunctorily) of the quotations in the Talmud. The materials thus collected, when properly arranged and made ready for the press, extended to 30 vols. fol. The text finally followed in printing was that of Van der Hooght—unpointed however, the points having been disregarded in collation—and the various readings were printed at the foot of the page. The Samaritan Pentateuch stands alongside the Hebrew in parallel columns. The *Dissertatio generalis*, appended to the second volume, contains an account of the MSS. and other authorities collated, and also a review of the Hebrew text, divided into periods, and beginning with the formation of the Hebrew canon after the return of the Jews from the exile. Kennicott's great work was in one sense a failure. It yielded no materials of value for the emendation of the received text, and by disregarding the vowel points overlooked the one thing in which some result (grammatical if not critical) might have been derived from collation of Massoretic MSS. But the negative result of the publication and of the *Variæ*

lectiones of De Rossi, published some years later, was important. It showed that the Hebrew text can be emended only by the use of the versions aided by conjecture.

Kennicott's work was perpetuated by his widow, who founded two university scholarships at Oxford for the study of Hebrew. The fund yields an income of £200 per annum.

KENNINGTON, a district in the south of London, England, within the municipal borough of Lambeth. There was a royal palace here until the reign of Henry VII. Kennington Common, now represented by Kennington Park, was the site of a gallows until the end of the 18th century, and was the meeting-place appointed for the great Chartist demonstration of the 10th of April 1848. Kennington Oval is the ground of the Surrey County Cricket Club. (See LAMBETH.)

KENORA (formerly RAT PORTAGE), a town and port of entry in Ontario, Canada, and the chief town of Rainy River district, situated at an altitude of 1087 ft. above the sea. Pop. (1891), 1806; (1901) 5222. It is 133 m. by rail east of Winnipeg, on the Canadian Pacific railway, and at the outlet of the Lake of the Woods. The Winnipeg river has at this point a fall of 16 ft., which, with the lake as a reservoir, furnishes an abundant and unfailing water-power. The industrial establishments comprise reduction works, saw-mills and flour-mills, one of the latter being the largest in Canada. It is the distributing point for the gold mines of the district, and during the summer months steamboat communication is maintained on the lake. There is important sturgeon fishing.

KENOSHA, a city and the county-seat of Kenosha county, Wisconsin, U.S.A., on the S.W. shore of Lake Michigan, 35 m. S. of Milwaukee and 50 m. N. of Chicago. Pop. (1900), 11,606, of whom 3333 were foreign-born; (1910), 21,371. It is served by the Chicago & North-Western railway, by inter-urban electric lines connecting with Chicago and Milwaukee, and by freight and passenger steamship lines on Lake Michigan. It has a good harbour and a considerable lake commerce. The city is finely situated on high bluffs above the lake, and is widely known for its healthiness. At Kenosha is the Gilbert M. Simmons library, with 19,300 volumes in 1908. Just south of the city is Kemper Hall, a Protestant Episcopal school for girls, under the charge of the Sisters of St Mary, opened in 1870 as a memorial to Jackson Kemper (1789–1870), the first missionary bishop (1835–1859), and the first bishop of Wisconsin (1854–1870) of the Protestant Episcopal Church. Among Kenosha's manufactures are brass and iron beds (the Simmons Manufacturing Co.), mattresses, typewriters, leather and brass goods, wagons, and automobiles—the "Rambler" automobile being made at Kenosha by Thomas B. Jeffery and Co. There is an extensive sole-leather tannery. The total value of the factory product in 1905 was $12,362,600, the city ranking third in product value among the cities of the state. Kenosha, originally known as Southport, was settled about 1832, organized as the village of Southport in 1842, and chartered in 1850 as a city under its present name.

KENSETT, JOHN FREDERICK (1818–1872), American artist, was born in Cheshire, Connecticut, on the 22nd of March 1818. After studying engraving he went abroad, took up painting, and exhibited at the Royal Academy, London, in 1845. In 1849 he was elected to the National Academy of Design, New York, and in 1859 he was appointed a member of the committee to superintend the decoration of the United States Capitol at Washington, D.C. After his death the contents of his studio realized at public auction over $150,000. He painted landscapes more or less in the manner of the Hudson River School.

KENSINGTON, a western metropolitan borough of London, England, bounded N.E. by Paddington, and the city of Westminster, S.E. by Chelsea, S.W. by Fulham, N.W. by Hammersmith, and extending N. to the boundary of the county of London. Pop. (1901), 176,628. It includes the districts of Kensal Green (partly) in the north, Notting Hill in the north-central portion, Earl's Court in the south-west, and Brompton in the south-east. A considerable but indefinite area adjoining Brompton is commonly called South Kensington; but the area known as West Kensington is within the borough of Fulham.

The name appears in early forms as *Chenesitun* and *Kenesitune*. Its origin is obscure, and has been variously connected with a Saxon royal residence (King's town), a family of the name of Chenesi, and the word *caen*, meaning wood, from the forest which originally covered the district and was still traceable in Tudor times. The most probable derivation, however, finds in the name a connection with the Saxon tribe or family of Kensings. The history of the manor is traceable from the time of Edward the Confessor, and after the Conquest it was held of the Bishop of Coutances by Aubrey de Vere. Soon after this it became the absolute property of the de Veres, who were subsequently created Earls of Oxford. The place of the manorial courts is preserved in the name of the modern district of Earl's Court. With a few short intervals the manor continued in the direct line until Tudor times. There were also three sub-manors, one given by the first Aubrey de Vere early in the 12th century to the Abbot of Abingdon, whence the present parish church is called St Mary Abbots; while in another, Knotting Barnes, the origin of the name Notting Hill is found.

The brilliant period of history for which Kensington is famous may be dated from the settlement of the Court here by William III. The village, as it was then, had a reputation for healthiness through its gravel soil and pure atmosphere. A mansion standing on the western flank of the present Kensington Gardens had been the seat of Heneage Finch, Lord Chancellor and afterwards Earl of Nottingham. It was known as Nottingham House, but when bought from the second earl by William, who was desirous of avoiding residence in London as he suffered from asthma, it became known as Kensington Palace. The extensive additions and alterations made by Wren according to the taste of the King resulted in a severely plain edifice of brick; the orangery, added in Queen Anne's time, is a better example of the same architect's work. In the palace died Mary, William's consort, William himself, Anne and George II., whose wife Caroline did much to beautify Kensington Gardens, and formed the beautiful lake called the Serpentine (1733). But a higher interest attaches to the palace as the birthplace of Queen Victoria in 1819; and here her accession was announced to her. By her order, towards the close of her life, the palace became open to the public.

Modern influences, one of the most marked of which is the widespread erection of vast blocks of residential flats, have swept away much that was reminiscent of the historical connexions of the "old court suburb." Kensington Square, however, lying south of High Street in the vicinity of St Mary Abbots church, still preserves some of its picturesque houses, nearly all of which were formerly inhabited by those attached to the court; it numbered among its residents Addison, Talleyrand, John Stuart Mill, and Green the historian. In Young Street, opening from the Square, Thackeray lived for many years. His house here, still standing, is most commonly associated with his work, though he subsequently moved to Onslow Square and to Palace Green. Another link with the past is found in Holland House, hidden in its beautiful park north of Kensington Road. It was built by Sir Walter Cope, lord of the manor, in 1607, and obtained its present name on coming into the possession of Henry Rich, earl of Holland, through his marriage with Cope's daughter. He extended and beautified the mansion. General Fairfax and General Lambert are mentioned as occupants after his death, and later the property was let, William Penn of Pennsylvania being among those who leased it. Addison, marrying the widow of the 6th earl, lived here until his death in 1719. During the tenancy of Henry Fox, third Lord Holland (1773–1840), the house gained a European reputation as a meeting-place of statesmen and men of letters. The formal gardens of Holland House are finely laid out, and the rooms of the house are both beautiful in themselves and enriched with collections of pictures, china and tapestries. Famous houses no longer standing were Campden House, in the district north-west of the parish church, formerly known as the Gravel Pits; and Gore House, on the site

of the present Albert Hall, the residence of William Wilberforce, and later of the countess of Blessington.

The parish church of St Mary Abbots, High Street, occupies an ancient site, but was built from the designs of Sir Gilbert Scott in 1869. It is in Decorated style, and has one of the loftiest spires in England. In the north the borough includes the cemetery of Kensal Green (with the exception of the Roman Catholic portion, which is in the borough of Hammersmith); it was opened in 1838, and great numbers of eminent persons are buried here. The Roman Catholic church of Our Lady of Victories lies close to Kensington Road, and in Brompton Road is the Oratory of St Philip Neri, a fine building with richly decorated interior, noted for the beauty of its musical services, as is the Carmelite Church in Church Street. St Charles's Roman Catholic College (for boys), near the north end of Ladbroke Grove, was founded by Cardinal Manning in 1863; the buildings are now used as a training centre for Catholic school mistresses. Of secular institutions the principal are the museums in South Kensington. The Victoria and Albert, commonly called the South Kensington, Museum contains various exhibits divided into sections, and includes the buildings of the Royal College of Science. Close by is the Natural History Museum, in a great building by Alfred Waterhouse, opened as a branch of the British Museum in 1880. Near this stood Cromwell House, erroneously considered to have been the residence of Oliver Cromwell, the name of which survives in the adjacent Cromwell Road. In Kensington Gardens, near the upper end of Exhibition Road, which separates the two museums, was held the Great Exhibition of 1851, the hall of which is preserved as the Crystal Palace at Sydenham. The greater part of the gardens, however, with the Albert Memorial, erected by Queen Victoria in memory of Albert, prince consort, the Albert Hall, opposite to it, one of the principal concert-halls in London, and the Imperial Institute to the south, are actually within the city of Westminster, though commonly connected with Kensington. The gardens (275 acres) were laid out in the time of Queen Anne, and have always been a popular and fashionable place of recreation. Extensive grounds at Earl's Court are open from time to time for various exhibitions. Further notable buildings in Kensington are the town-hall and free library in High Street, which is also much frequented for its excellent shops, and the Brompton Consumption Hospital, Fulham Road. In Holland Park Road is the house of Lord Leighton (d. 1896), given to the nation, and open, with its art collection, to the public.

Kensington is a suffragan bishopric in the diocese of London. The parliamentary borough of Kensington has north and south divisions, each returning one member. The borough council consists of a mayor, 10 aldermen and 60 councillors. Area, 2291·1 acres.

KENT, EARLS AND DUKES OF. The first holder of the English earldom of Kent was probably Odo, bishop of Bayeux, and the second a certain William de Ypres (d. 1162), both of whom were deprived of the dignity. The regent Hubert de Burgh obtained this honour in 1227, and in 1321 it was granted to Edmund Plantagenet, the youngest brother of Edward II. Edmund (1301–1330), who was born at Woodstock on the 5th of August 1301, received many marks of favour from his brother the king, whom he steadily supported until the last act in Edward's life opened in 1326. He fought in Scotland and then in France, and was a member of the council when Edward III. became king in 1327. Soon at variance with Queen Isabella and her lover, Roger Mortimer, Edmund was involved in a conspiracy to restore Edward II., who he was led to believe was still alive; he was arrested, and beheaded on the 19th of March 1330. Although he had been condemned as a traitor his elder son Edmund (*c.* 1327–1333) was recognized as earl of Kent, the title passing on his death to his brother John (*c.* 1330–1352).

After John's childless death the earldom appears to have been held by his sister Joan, "the fair maid of Kent," and in 1360 Joan's husband, Sir Thomas de Holand, or Holland, was summoned to parliament as earl of Kent. Holand, who was a soldier of some repute, died in Normandy on the 28th of December 1360, and his widow married Edward the Black Prince, by whom she was the mother of Richard II. The next earl was Holand's eldest son Thomas (1350–1397), who was marshal of England from 1380 to 1385, and was in high favour with his half-brother, Richard II. The 3rd earl of Kent of the Holand family was his son Thomas (1374–1400). In September 1397, a few months after becoming earl of Kent, Thomas was made duke of Surrey as a reward for assisting Richard II. against the lords appellant; but he was degraded from his dukedom in 1399, and was beheaded in January of the following year for conspiring against Henry IV. However, his brother Edmund (1384–1408) was allowed to succeed to the earldom, which became extinct on his death in Brittany in September 1408.

In the same century the title was revived in favour of William, a younger son of Ralph Neville, 1st earl of Westmorland, and through his mother Joan Beaufort a grandson of John of Gaunt, duke of Lancaster. William (*c.* 1405–1463), who held the barony of Fauconberg in right of his wife, Joan, gained fame during the wars in France and fought for the Yorkists during the Wars of the Roses. His prowess is said to have been chiefly responsible for the victory of Edward IV. at Towton in March 1461, and soon after this event he was created earl of Kent and admiral of England. He died in January 1463, and, as his only legitimate issue were three daughters, the title of earl of Kent again became extinct. Neville's natural son Thomas, "the bastard of Fauconberg" (d. 1471), was a follower of Warwick, the "Kingmaker."

The long connexion of the family of Grey with this title began in 1465, when Edmund, Lord Grey of Ruthin, was created earl of Kent. Edmund (*c.* 1420–1489) was the eldest son of Sir John Grey, while his mother, Constance, was a daughter of John Holand, duke of Exeter. During the earlier part of the Wars of the Roses Grey fought for Henry VI.; but by deserting the Lancastrians during the battle of Northampton in 1460 he gave the victory to the Yorkists. He was treasurer of England and held other high offices under Edward IV. and Richard III. His son and successor, George, 2nd earl of Kent (*c.* 1455–1503), also a soldier, married Anne Woodville, a sister of Edward IV.'s queen, Elizabeth, and was succeeded by his son Richard (1481–1524). After Richard's death without issue, his half-brother and heir, Henry (*c.* 1495–1562), did not assume the title of earl of Kent on account of his poverty; but in 1572 Henry's grandson Reginald (d. 1573), who had been member of parliament for Weymouth, was recognized as earl; he was followed by his brother Henry (1541–1615), and then by another brother, Charles (*c.* 1545–1623). Charles's son, Henry, the 8th earl (*c.* 1583–1639), married Elizabeth (1581–1651), daughter of Gilbert Talbot, 7th earl of Shrewsbury. This lady, who was an authoress, took for her second husband the jurist John Selden. Henry died without children in November 1639, when the earldom of Kent, separated from the barony of Ruthin, passed to his cousin Anthony (1557–1643), a clergyman, who was succeeded by his son Henry (1594–1651), Lord Grey of Ruthin. Henry had been a member of parliament from 1640 to 1643, and as a supporter of the popular party was speaker of the House of Lords until its abolition. The 11th earl was his son Anthony (1645–1702), whose son Henry became 12th earl in August 1702, lord chamberlain of the royal household from 1704 to 1710, and in 1706 was created earl of Harold and marquess of Kent, becoming duke of Kent four years later. All his sons predeceased their father, and when the duke died in June 1740, his titles of earl, marquess and duke of Kent became extinct.

In 1799 Edward Augustus, fourth son of George III., was created duke of Kent and Strathearn by his father. Born on the 2nd of November 1767, Edward served in the British army in North America and elsewhere, becoming a field marshal in 1805. To quote Sir Spencer Walpole, Kent, a stern disciplinarian, "was unpopular among his troops; and the storm which was created by his well-intentioned effort at Gibraltar to check the licentiousness and drunkenness of the garrison compelled him finally to retire from the governorship of this colony." Owing to pecuniary difficulties his later years were mainly passed on the continent of Europe. He died at Sidmouth on the 23rd

of January 1820. In 1818 the duke married Maria Louisa Victoria (1786–1861), widow of Emich Charles, prince of Leiningen (d. 1814), and sister of Leopold I., king of the Belgians; and his only child was Queen Victoria (*q.v.*).

KENT, JAMES (1763–1847), American jurist, was born at Philippi in New York State on the 31st of July 1763. He graduated at Yale College in 1781, and began to practise law at Poughkeepsie, in 1785 as an attorney, and in 1787 at the bar. In 1791 and 1792–93 Kent was a representative of Dutchess county in the state Assembly. In 1793 he removed to New York, where Governor Jay, to whom the young lawyer's Federalist sympathies were a strong recommendation, appointed him a master in chancery for the city. He was professor of law in Columbia College in 1793–98 and again served in the Assembly in 1796–97. In 1797 he became recorder of New York, in 1798 judge of the supreme court of the state, in 1804 chief justice, and in 1814 chancellor of New York. In 1822 he became a member of the convention to revise the state constitution. Next year, Chancellor Kent resigned his office and was re-elected to his former chair. Out of the lectures he now delivered grew the *Commentaries on American Law* (4 vols., 1826–1830), which by their learning, range and lucidity of style won for him a high and permanent place in the estimation of both English and American jurists. Kent rendered most essential service to American jurisprudence while serving as chancellor. Chancery law had been very unpopular during the colonial period, and had received little development, and no decisions had been published. His judgments of this class (see Johnson's *Chancery Reports*, 7 vols., 1816–1824) cover a wide range of topics, and are so thoroughly considered and developed as unquestionably to form the basis of American equity jurisprudence. Kent was a man of great purity of character and of singular simplicity and guilelessness. He died in New York on the 12th of December 1847.

To Kent we owe several other works (including a *Commentary on International Law*) of less importance than the *Commentaries*. See J. Duer's *Discourse on the Life, Character and Public Services of James Kent* (1848); *The National Portrait Gallery of Distinguished Americans*, vol. ii. (1852); W. Kent, *Memoirs and Letters of Chancellor Kent* (Boston, 1898).

KENT, WILLIAM (1685–1748), English "painter, architect, and the father of modern gardening," as Horace Walpole in his *Anecdotes of Painting* describes him, was born in Yorkshire in 1685. Apprenticed to a coach-painter, his ambition soon led him to London, where he began life as a portrait and historical painter. He found patrons, who sent him in 1710 to study in Italy; and at Rome he made other friends, among them Lord Burlington, with whom he returned to England in 1719. Under that nobleman's roof Kent chiefly resided till his death on the 12th of April 1748—obtaining abundant commissions in all departments of his art, as well as various court appointments which brought him an income of £600 a year. Walpole says that Kent was below mediocrity in painting. He had some little taste and skill in architecture, of which Holkham palace is perhaps the most favourable example. The mediocre statue of Shakespeare in Westminster Abbey sufficiently stamps his powers as a sculptor. His merit in landscape gardening is greater. In Walpole's language, Kent "was painter enough to taste the charms of landscape, bold and opinionative enough to dare and to dictate, and born with a genius to strike out a great system from the twilight of imperfect essays." In short, he was the first in English gardening to vindicate the natural against the artificial. Banishing all the clipped monstrosities of the topiary art in yew, box or holly, releasing the streams from the conventional canal and marble basin, and rejecting the mathematical symmetry of ground plan then in vogue for gardens, Kent endeavoured to imitate the variety of nature, with due regard to the principles of light and shade and perspective. Sometimes he carried his imitation too far, as when he planted dead trees in Kensington gardens to give a greater air of truth to the scene, though he himself was one of the first to detect the folly of such an extreme. Kent's plans were designed rather with a view to immediate effect over a comparatively small area than with regard to any broader or subsequent results.

KENT, one of the kingdoms of Anglo-Saxon Britain, the dimensions of which seem to have corresponded with those of the present county (see below). According to tradition it was the first part of the country occupied by the invaders, its founders, Hengest and Horsa, having been employed by the British king Vortigern against the Picts and Scots. Their landing, according to English tradition, took place between 450–455, though in the Welsh accounts the Saxons are said to have arrived in 428 (cf. *Hist. Britt.* 66). According to *The Anglo-Saxon Chronicle*, which probably used some lost list of Kentish kings, Hengest reigned 455–488, and was succeeded by his son Aesc (Oisc), who reigned till 512; but little value can be attached to these dates. Documentary history begins with Aethelberht, the great-grandson of Aesc, who reigned probably 560–616. He married Berhta, daughter of the Frankish king Haribert, or Charibert, an event which no doubt was partly responsible for the success of the mission of Augustine, who landed in 597. Aethelberht was at this time supreme over all the English kings south of the Humber. On his death in 616 he was succeeded by his son Eadbald, who renounced Christianity and married his stepmother, but was shortly afterwards converted by Laurentius, the successor of Augustine. Eadbald was succeeded in 640 by his son Erconberht, who enforced the acceptance of Christianity throughout his kingdom, and was succeeded in 664 by his son Ecgbert, the latter again by his brother Hlothhere in 673. The early part of Hlothhere's reign was disturbed by an invasion of Aethelred of Mercia. He issued a code of laws, which is still extant, together with his nephew Eadric, the son of Ecgbert, but in 685 a quarrel broke out between them in which Eadric called in the South Saxons. Hlothhere died of his wounds, and was succeeded by Eadric, who, however, reigned under two years.

The death of Eadric was followed by a disturbed period, in which Kent was under kings whom Bede calls "*dubii vel externi.*" An unsuccessful attempt at conquest seems to have been made by the West Saxons, one of whose princes, Mul, brother of Ceadwalla, is said to have been killed in 687. There is some evidence for a successful invasion by the East Saxon king Sigehere during the same year. A king named Oswine, who apparently belonged to the native dynasty, seems to have obtained part of the kingdom in 688. The other part came in 689 into the hands of Swefheard, probably a son of the East Saxon king Sebbe. Wihtred, a son of Ecgbert, succeeded Oswine about 690, and obtained possession of the whole kingdom before 694. From him also we have a code of laws. At Wihtred's death in 725 the kingdom was divided between his sons Aethelberht, Eadberht and Alric, the last of whom appears to have died soon afterwards. Aethelberht reigned till 762; Eadberht, according to the *Chronicle*, died in 748, but some doubtful charters speak of him as alive in 761–762. Eadberht was succeeded by his son Eardwulf, and he again by Eanmund, while Aethelberht was succeeded by a king named Sigered. From 764–779 we find a king named Ecgbert, who in the early part of his reign had a colleague named Heaberht. At this period Kentish history is very obscure. Another king named Aethelberht appears in 781, and a king Ealhmund in 784, but there is some reason for suspecting that Offa annexed Kent about this time. On his death (796) Eadberht Praen made himself king, but in 798 he was defeated and captured by Coenwulf, who made his own brother Cuthred king in his place. On Cuthred's death in 807 Coenwulf seems to have kept Kent in his own possession. His successors Ceolwulf and Beornwulf likewise appear to have held Kent, but in 825 we hear of a king Baldred who was expelled by Ecgbert king of Wessex. Under the West Saxon dynasty Kent, together with Essex, Sussex and Surrey, was sometimes given as a dependent kingdom to one of the royal family. During Ecgbert's reign it was entrusted to his son Aethelwulf, on whose accession to the throne of Wessex, in 839, it was given to Aethelstan, probably his son, who lived at least till 851. From 855 to 860 it was governed by Aethelberht son of Aethelwulf. During the last years of Alfred's reign it seems to have been entrusted by him to his son Edward. Throughout the 9th century we hear also of two earls, whose spheres of authority may have corresponded to those of the two

kings whom we find in the 8th century. The last earls of whom we have any record were the two brothers Sigehelm and Sigewulf, who fell at the Holm in 905 when the Kentish army was cut off by the Danes, on Edward the Elder's return from his expedition into East Anglia. At a later period Kent appears to have been held, together with Sussex, by a single earl.

The internal organization of the kingdom of Kent seems to have been somewhat peculiar. Besides the division into West Kent and East Kent, which probably corresponds with the kingdoms of the 8th century, we find a number of lathes, apparently administrative districts under reeves, attached to royal villages. In East Kent there were four of these, namely, Canterbury, Eastry, Wye and Lymne, which can be traced back to the 9th century or earlier. In the 11th century we hear of two lathes in West Kent, those of Sutton and Aylesford.

The social organization of the Kentish nation was wholly different from that of Mercia and Wessex. Instead of two "noble" classes we find only one, called at first eorlcund, later as in Wessex, gesithcund. Again below the ordinary freeman we find three varieties of persons called *laetas*, probably freedmen, to whom we have nothing analogous in the other kingdoms. Moreover the wergeld of the ceorl, or ordinary freeman, was two or three times as great as that of the same class in Wessex and Mercia, and the same difference of treatment is found in all the compensations and fines relating to them. It is not unlikely that the peculiarities of Kentish custom observable in later times, especially with reference to the tenure of land, are connected with these characteristics. An explanation is probably to be obtained from a statement of Bede—that the settlers in Kent belonged to a different nationality from those who founded the other kingdoms, namely the Jutes (*q.v.*).

See Bede, *Historiae ecclesiasticae*, edited by C. Plummer (Oxford, 1896); *Two of the Saxon Chronicles*, edited by J. Earle and C. Plummer (Oxford, 1892–1899); W. de G. Birch, *Cartularium Saxonicum* (London, 1885–1889); B. Seebohm, *Tribal Custom in Anglo-Saxon Law* (London, 1902); H. M. Chadwick, *Studies on Anglo-Saxon Institutions* (Cambridge, 1905); and T. W. Shore, *Origin of the Anglo-Saxon Race* (London, 1906). (F. G. M. B.)

KENT, a south-eastern county of England, bounded N. by the Thames estuary, E. and S.E. by the English Channel, S.W. by Sussex, and W. by Surrey. In the north-west the administrative county of London encroaches upon the ancient county of Kent, the area of which is 1554·7 sq. m. The county is roughly triangular in form, London lying at the apex of the western angle, the North Foreland at that of the eastern and Dungeness at that of the southern. The county is divided centrally, from west to east, by the well-marked range of hills known as the North Downs, entering Kent from Surrey. In the west above Westerham these hills exceed 800 ft.; to the east the height is much less, but even in Kent (for in Surrey they are higher) the North Downs form a more striking physical feature than their height would indicate. They are intersected, especially on the north, by many deep valleys, well wooded. At three points such valleys cut completely through the main line of the hills. In the west the Darent, flowing north to the Thames below Dartford, pierces the hills north of Sevenoaks, but its waters are collected chiefly from a subsidiary ridge of the Downs running parallel to the main line and south of it, and known as the Ragstone Ridge, from 600 to 800 ft. in height. The Medway, however, cuts through the entire hill system, rising in the Forest Ridges of Sussex, flowing N.E. and E. past Tonbridge, collecting feeders from south and east (the Teise, Beult and others) near Yalding, and then flowing N.E. and N. through the hills, past Maidstone, joining the Thames at its mouth through a broad estuary. The rich lowlands, between the Downs and the Forest Ridges to the south (which themselves extend into Kent), watered by the upper Medway and its feeders, are called the Vale of Kent, and fall within the district well known under the name of the Weald. The easternmost penetration of the Downs is that effected by the Stour (Great Stour) which rises on their southern face, flows S.E. to Ashford, where it receives the East Stour, then turns N.E. past Wye and Canterbury, to meander through the lowlands representing the former channel which isolated the Isle of Thanet from the mainland. The channel was called the Wantsume, and its extent may be gathered from the position of the village of Fordwich near Canterbury, which had formerly a tidal harbour, and is a member of the Cinque Port of Sandwich. The Little Stour joins the Great Stour in these lowlands from a deep vale among the Downs.

About two-thirds of the boundary line of Kent is formed by tidal water. The estuary of the Thames may be said to stretch from London Bridge to Sheerness in the Isle of Sheppey, which is divided from the mainland by the narrow channel (bridged at Queensbridge) of the Swale. Sheerness lies at the mouth of the Medway, a narrow branch of which cuts off a tongue of land termed the Isle of Grain lying opposite Sheerness. Along the banks of the Thames the coast is generally low and marshy, embankments being in several places necessary to prevent inundation. At a few points, however, as at Gravesend, spurs of the North Downs descend directly upon the shore. In the estuary of the Medway there are a number of low marshy islands, but Sheppey presents to the sea a range of slight cliffs from 80 to 90 ft. in height. The marshes extend along the Swale to Whitstable, whence stretches a low line of clay and sandstone cliffs towards the Isle of Thanet, when they become lofty and grand, extending round the Foreland southward to Pegwell Bay. The coast from Sheppey round to the South Foreland is skirted by numerous flats and sands, the most extensive of which are the Goodwin Sands off Deal. From Pegwell Bay south to a point near Deal the coast is flat, and the drained marshes or levels of the lower Stour extend to the west; but thence the coast rises again into chalk cliffs, the eastward termination of the North Downs, the famous white cliffs which form the nearest point of England to continental Europe, overlooking the Strait of Dover. These cliffs continue round the South Foreland to Folkestone, where they fall away, and are succeeded west of Sandgate by a flat shingly shore. To the south of Hythe this shore borders the wide expanse of Romney Marsh, which, immediately west of Hythe, is overlooked by a line of abrupt hills, but for the rest is divided on the north from the drainage system of the Stour only by a slight uplift. The marsh, drained by many channels, seldom rises over a dozen feet above sea-level. At its south-eastern extremity, and at the extreme south of the county, is the shingly promontory of Dungeness. Within historic times much of this marsh was covered by the sea, and the valley of the river Rother, which forms part of the boundary of Kent with Sussex, entering the sea at Rye harbour, was represented by a tidal estuary for a considerable distance inland.

Geology.—The northern part of the county lies on the southern rim of the London basin; here the beds are dipping northwards. The southern part of the county is occupied by a portion of the Wealden anticline. The London Clay occupies the tongue of land between the estuaries of the Thames and Medway, as well as Sheppey and a district about 8 m. wide stretching southwards from Whitstable to Canterbury, and extending eastwards to the Isle of Thanet. It reappears at Pegwell Bay, and in the neighbourhood of London it rises above the plastic clay into the elevation of Shooter's Hill, with a height of about 450 ft. and a number of smaller eminences. The thickness of the formation near London is about 400 ft., and at Sheppey it reaches 480 ft. At Sheppey it is rich in various kinds of fossil fish and shells. The plastic clay, which rests chiefly on chalk, occupies the remainder of the estuary of the Thames, but at several places it is broken through by outcrops of chalk, which in some instances run northwards to the banks of the river. The Lower Tertiaries are represented by three different formations known as the Thanet beds, the Woolwich and Reading beds, and the Oldhaven and Blackheath beds. The Thanet beds resting on chalk form a narrow outcrop rising into cliffs at Pegwell Bay and Reculver, and consist (1) of a constant base bed of clayey greenish sand, seldom more than 5 ft. in thickness; (2) of a thin and local bed composed of alternations of brown clay and loam; (3) of a bed of fine light buff sand, which in west Kent attains a thickness of more than 60 ft.; (4) of bluish grey sandy marl containing fossils, and almost entirely confined to east Kent, the thickness of the formation being more than 60 ft.; and (5) of fine light grey sand of an equal thickness, also fossiliferous. The middle series of the Lower Tertiaries, known as the Woolwich and Reading beds, rests either on the Thanet beds or on chalk, and consists chiefly of irregular alternations of clay and sand of very various colours, the former often containing estuarine and oyster shells and the latter flint pebbles. The thickness of the formation varies from 15 to 80 ft., but most commonly it is from 25 to 40 ft. The highest and most local series of the Lower Tertiaries is the Oldhaven and Blackheath beds lying between the London Clay and the Woolwich beds. They consist chiefly of flint pebbles or of light-coloured quartzose sand, the thickness being from 20 to 30 ft, and. are best seen at Oldhaven and Blackheath. To the south the London

basin is succeeded by the North Downs, an elevated ridge of country consisting of an outcrop of chalk which extends from Westerham to Folkestone with an irregular breadth generally of 3 to 6 miles, but expanding to nearly 12 miles at Dartford and Gravesend and also to the north of Folkestone. After dipping below the London Clay at Canterbury, it sends out an outcrop which forms the greater part of Thanet. Below the chalk is a thin crop of Upper Greensand between Otford and Westerham. To the south of the Downs there is a narrow valley formed by the Gault, a fossiliferous blue clay. This is succeeded by an outcrop of the Lower Greensand—including the Folkestone, Sandgate and Hythe beds with the thin Atherfield Clay at the base—which extends across the country from west to east with a breadth of from 2 to 7 m., and rises into the picturesque elevations of the Ragstone hills. The remains of *Iguanodon* occur in the Hythe beds. The valley, which extends from the borders of Sussex to Hythe, is occupied chiefly by the Weald clays, which contain a considerable number of marine and freshwater fossils. Along the borders of Sussex there is a narrow strip of country consisting of picturesque sandy hills, formed by the Hastings beds, whose highest elevation is nearly 400 ft. and the south-west corner of the county is occupied by Romney Marsh, which within a comparatively recent period has been recovered from the sea. Valley gravels border the Thames, and Pleistocene mammalia have been found in fissures in the Hythe beds at Ightham, where ancient stone implements are common. Remains of crag deposits lie in pipes in the chalk near Lenham. Coal-measures, as will be seen, have been found near Dover.

The London Clay is much used for bricks, coarse pottery and Roman cement. Lime is obtained from the Chalk and Greensand formations. Ironstone is found in the Wadhurst Clay, a subdivision of the Hastings beds, clays and calcareous ironstone in the Ashdown sand, but the industry has long been discontinued. The last Wealden furnace was put out in 1828.

Climate and Agriculture.—The unhealthiness of certain portions of the county caused by the marshes is practically removed by draining. In the north-eastern districts the climate is somewhat uncertain, and damage is often done to early fruit-blossoms and vegetation by cold easterly winds and late frosts. In the large portion of the county sheltered by the Downs the climate is milder and more equable, and vegetation is somewhat earlier. The average temperature for January is 37·9° F. at Canterbury, and 39·8° at Dover; for July 63·3° and 61·6° respectively, and the mean annual 50° and 50·2° respectively. Rainfall is light, the mean annual being 27·72 in. at Dover, and 23·31 at Margate, compared with 23·16 at Greenwich. The soil is varied in character, but on the whole rich and under high cultivation. The methods of culture and the kinds of crop produced are perhaps more widely diversified than those of any other county in England. Upon the London Clay the land is generally heavy and stiff, but very fruitful when properly manured and cultivated. The marsh lands along the banks of the Thames, Medway, Stour and Swale consist chiefly of rich chalk alluvium. In the Isle of Thanet a light mould predominates, which has been much enriched by fish manure. The valley of the Medway, especially the district round Maidstone, is the most fertile part of the county, the soil being a deep loam with a subsoil of brick-earth. On the ragstone the soil is occasionally thin and much mixed with small portions of sand and stone; but in some situations the ragstone has a thick covering of clay loam, which is most suitable for the production of hops and fruits. In the district of the Weald marl prevails, with a substratum of clay. The soil of Romney Marsh is a clay alluvium.

No part of England surpasses the more fertile portions of this county in the peculiar richness of its rural scenery. About three-quarters of the total area is under cultivation. Oats and wheat are grown in almost equal quantities, barley being of rather less importance. A considerable acreage is nnder beans, and in Thanet mustard, spinach, canary seed and a variety of other seeds are raised. But the county is specially noted for the cultivation of fruit and hops. Market gardens are very numerous in the neighbourhood of London. The principal orchard districts are the valleys of the Darent and Medway, and the tertiary soils overlying the chalk, between Rochester and Canterbury. The county is specially famed for cherries and filberts, but apples, pears, plums, gooseberries, strawberries, raspberries and currants are also largely cultivated. In some cases apples, cherries, filberts and hops are grown in alternate rows. The principal hop districts are the country between Canterbury and Faversham, the valley of the Medway in mid Kent, and the district of the Weald. Much of the Weald, which originally was occupied by a forest, is still densely wooded, and woods are specially extensive in the valley of the Medway. Fine oaks and beeches are numerous, and yew trees of great size and age are seen in some Kentish churchyards, as at Stansted, while the fine oak at Headcorn is also famous. A large extent of woodland consists of ash and chestnut plantations, maintained for the growth of hop poles. Cattle are grazed in considerable numbers on the marsh lands, and dairy farms are numerous in the neighbourhood of London. For the rearing of sheep Kent is one of the chief counties in England. A breed peculiar to the district, known as Kents, is grazed on Romney Marsh, but Southdowns are the principal breed raised on the uplands. Bee-keeping is extensively practised. Dairy schools are maintained by the technical education committee of the county council. The South-eastern Agricultural College at Wye is under the control of the county councils of Kent and Surrey.

Other Industries.—There were formerly extensive ironworks in the Weald. Another industry now practically extinct was the manufacture of woollen cloth. The neighbourhood of Lamberhurst and Cranbrook was the special seat of these trades. Among the principal modern industries are paper-making, carried on on the banks of the Darent, Medway, Cray and neighbouring streams; engineering, chemical and other works along the Thames; manufactures of bricks, tiles, pottery and cement, especially by the lower Medway and the Swale. A variety of industries is connected with the Government establishments at Chatham and Sheerness. Shipbuilding is prosecuted here and at Gravesend, Dover and other ports. Gunpowder is manufactured near Erith and Faversham and elsewhere.

Deep-sea fishing is largely prosecuted all round the coast. Shrimps, soles and flounders are taken in great numbers in the estuaries of the Thames and Medway, along the north coast and off Ramsgate. The history of the Kentish oyster fisheries goes back to the time of the Roman occupation, when the fame of the oyster beds off *Rutupiae* (Richborough) extended even to Rome. The principal beds are near Whitstable, Faversham, Milton, Queenborough and Rochester, some being worked by ancient companies or gilds of fishermen.

After the cessation in 1882 of works in connexion with the Channel tunnel, to connect England and France, coal-boring was attempted in the disused shaft, west of the Shakespeare Cliff railway tunnel near Dover. In 1890 coal was struck at a depth of 1190 ft., and further seams were discovered later. The company which took up the mining was unsuccessful, and boring ceased in 1901, but the work was resumed by the Consolidated Kent Collieries Corporation, and an extension of borings revealed in 1905 the probability of a successful development of the mining industry in Kent.

Communications.—Railway communications are practically monopolized by the South Eastern & Chatham Company, a monopoly which has not infrequently been the cause of complaint on the part of farmers, traders and others. This system includes some of the principal channels of communication with the continent, through the ports of Dover, Folkestone and Queenborough. The county contains four of the Cinque Ports, namely, Dover, Hythe, New Romney and Sandwich. Seaside resorts are numerous and populous—on the north coast are Minster (Sheppey), Whitstable and Herne Bay; there is a ring of watering-places round the Isle of Thanet—Birchington, Westgate, Margate, Broadstairs, Ramsgate; while to the south are Sandwich, Deal, Walmer, St Margaret's-at-Cliffe, Dover, Folkestone, Sandgate and Hythe. Tunbridge Wells is a favourite inland watering-place. The influence of London in converting villages into outer residential suburbs is to be observed at many points, whether seaside, along the Thames or inland. The county is practically without inland water communications, excluding the Thames. The Royal military canal which runs along the inland border of Romney Marsh, and connects the Rother with Hythe, was constructed in 1807 as part of a scheme of defence in connexion with the martello towers or small forts along the coast.

Population and Administration.—The area of the ancient county is 995,014 acres, with a population in 1901 of 1,348,841. In 1801 the population was 308,667. Excluding the portion which falls within the administrative county of London the area is 974,950 acres, with a population in 1891 of 807,269 and in 1901 of 935,855. The area of the administrative county is 976,881 acres. The county contains 5 lathes, a partition peculiar to the county. The municipal boroughs are Bromley (pop. 27,354), Canterbury, a city and county borough (24,889), Chatham (37,057), Deal (10,581), Dover (41,794), Faversham (11,290), Folkestone (30,650), Gillingham (42,530), Gravesend (27,196), Hythe (5557), Lydd (2675), Maidstone (33,516), Margate (23,118), New Romney (1328), Queenborough (1544), Ramsgate (27,733), Rochester, a city (30,590), Sandwich (3170), Tenterden (3243), Tunbridge Wells (33,373). The urban districts are Ashford (12,808), Beckenham (26,331), Bexley (12,918), Broadstairs and St Peter's (6466), Cheriton (7091), Chislehurst (7429), Dartford (18,644), Erith (25,296), Foots Cray (5817), Herne Bay (6726), Milton (7086), Northfleet (12,906), Penge (22,465), Sandgate (2294), Sevenoaks (8106), Sheerness (18,179), Sittingbourne (8943), Southborough (6977), Tonbridge (12,736), Walmer (5614), Whitstable (7086), Wrotham (3571). Other small towns are Rainham (3693) near Chatham, Aylesford (2678), East Malling (2391) and West Malling (2312) in the Maidstone district; Edenbridge (2546) and Westerham (2905) on the western border of the county; Cranbrook (3949), Goudhurst (2725) and Hawkhurst (3136) in the south-west. Among villages which have grown into residential towns through their

proximity to London, beyond those included among the boroughs and urban districts, there should be mentioned Orpington (4259). The county is in the south-eastern circuit, and assizes are held at Maidstone. It has two courts of quarter sessions, and is divided into 17 petty sessional divisions. The boroughs having separate commissions of the peace and courts of quarter sessions are Canterbury, Deal, Dover, Faversham, Folkestone, Gravesend, Hythe, Maidstone, Margate, Rochester, Sandwich and Tenterden; while those of Lydd, New Romney, Ramsgate and Tunbridge Wells have separate commissions of the peace. The liberty of Romney Marsh has petty and general sessions. The justices of the Cinque Ports exercise certain jurisdiction, the non-corporate members of the Cinque Ports of Dover and Sandwich having separate commissions of the peace and courts of quarter sessions. The central criminal court has jurisdiction over certain parishes adjacent to London. All those civil parishes within the county of Kent of which any part is within twelve miles of, or of which no part is more than fifteen miles from, Charing Cross are within the metropolitan police district. The total number of civil parishes is 427. Kent is mainly in the diocese of Canterbury, but has parts in those of Rochester, Southwark and Chichester. It contains 476 ecclesiastical parishes or districts, wholly or in part. The county (extra-metropolitan) is divided into 8 parliamentary divisions, namely, North-western or Dartford, Western or Sevenoaks, South-western or Tunbridge, Mid or Medway, North-eastern or Faversham, Southern or Ashford, Eastern or St Augustine's and the Isle of Thanet, each returning one member; while the boroughs of Canterbury, Chatham, Dover, Gravesend, Hythe, Maidstone and Rochester each return one member.

History.—For the ancient kingdom of Kent see the preceding article. The shire organization of Kent dates from the time of Aethelstan, the name as well as the boundary being that of the ancient kingdom, though at first probably with the addition of the suffix " shire," the form " Kentshire " occurring in a record of the folkmoot at this date. The inland shire-boundary has varied with the altered course of the Rother. In 1888 the county was diminished by the formation of the county of London.

At the time of the Domesday Survey Kent comprised sixty hundreds, and there was a further division into six lests, probably representing the shires of the ancient kingdom, of which two, Sutton and Aylesford, correspond with the present-day lathes. The remaining four, Borowast Lest, Estre Lest, Limowast Lest and Wiwart Lest, existed at least as early as the 9th century, and were apparently named from their administrative centres, Burgwara (the burg being Canterbury), Eastre, Lymne and Wye, all of which were meeting places of the Kentish Council. The five modern lathes (Aylesford, St Augustine, Scray, Sheppey and Sutton-at-Hone) all existed in the time of Edward I., with the additional lathe of Hedeling, which was absorbed before the next reign in that of St Augustine. The *Nomina Villarum* of the reign of Edward II. mentions all the sixty-six modern hundreds, more than two-thirds of which were at that date in the hands of the church.

Sheriffs of Kent are mentioned in the time of Æthelred II., and in Saxon times the shiremoot met three times a year on Penenden Heath near Maidstone. After the Conquest the great ecclesiastical landholders claimed exemption from the jurisdiction of the shire, and in 1279 the abbot of Battle claimed to have his own coroner in the hundred of Wye. In the 13th century twelve liberties in Kent claimed to have separate bailiffs. The assizes for the county were held in the reign of Henry III. at Canterbury and Rochester, and also at the Lowey of Tonbridge under a mandate from the Crown as a distinct liberty; afterwards at different intervals at East Greenwich, Dartford, Maidstone, Milton-next-Gravesend and Sevenoaks; from the Restoration to the present day they have been held at Maidstone. The liberty of Romney Marsh has petty and quarter sessions under its charters.

Kent is remarkable as the only English county which comprises two entire bishoprics, Canterbury, the see for East Kent, having been founded in 597, and Rochester, the see for West Kent, in 600. In 1291 the archdeaconry of Canterbury was co-extensive with that diocese and included the deaneries of Westhere, Bridge, Sandwich, Dover, Elham, Lympne, Charing, Sutton, Sittingbourne, Ospringe and Canterbury; the archdeaconry of Rochester, also co-extensive with its diocese, included the deaneries of Rochester, Dartford, Malling and Shoreham. In 1845 the deaneries of Charing, Sittingbourne and Sutton were comprised in the new archdeaconry of Maidstone, which in 1846 received in addition the deaneries of Dartford, Malling and Shoreham from the archdeaconry of Rochester. In 1853 the deaneries of Malling and Charing were subdivided into North and South Malling and East and West Charing. Lympne was subdivided into North and South Lympne in 1857 and Dartford into East and West Dartford in 1864. Gravesend and Cobham deaneries were created in 1862 and Greenwich and Woolwich in 1868, all in the archdeaconry of Rochester. In 1873 East and West Bridge deaneries were created in the archdeaconry of Canterbury, and Croydon in the archdeaconry of Maidstone. In 1889 Tunbridge deanery was created in the archdeaconry of Maidstone. In 1906 the deaneries of East and West Dartford, North and South Malling, Greenwich and Woolwich were abolished, and Shoreham and Tunbridge were transferred from Maidstone to Rochester archdeaconry.

Between the Conquest and the 14th century the earldom of Kent was held successively by Odo, bishop of Bayeux, William of Ypres and Hubert de Burgh (sheriff of the county in the reign of Henry III.), none of whom, however, transmitted the honour, which was bestowed by Edward I. on his youngest son Edmund of Woodstock, and subsequently passed to the families of Holland and Neville (see KENT, EARLS AND DUKES OF). In the Domesday Survey only five lay tenants-in-chief are mentioned, all the chief estates being held by the church, and the fact that the Kentish gentry are less ancient than in some remoter shires is further explained by the constant implantation of new stocks from London. Greenwich is illustrious as the birthplace of Henry VIII., Mary and Elizabeth. Sir Philip Sidney was born at Penshurst, being descended from William de Sidney, chamberlain to Henry II. Bocton Malherbe was the seat of the Wottons, from whom descended Nicholas Wotton, privy councillor to Henry VIII., Edward VI., Mary and Elizabeth. The family of Leiborne of Leiborne Castle, of whom Sir Roger Leiborne took an active part in the barons' wars, became extinct in the 14th century. Sir Francis Walsingham was born at Chislehurst, where his family had long flourished; Hever Castle was the seat of the Boleyns and the scene of the courtship of Anne Boleyn by Henry VIII. Allington Castle was the birthplace of Sir Thomas Wyat.

Kent, from its proximity to London, has been intimately concerned in every great historical movement which has agitated the country, while its busy industrial population has steadily resisted any infringement of its rights and liberties. The chief events connected with the county under the Norman kings were the capture of Rochester by William Rufus during the rebellion of Odo of Bayeux; the capture of Dover and Leeds castles by Stephen; the murder of Thomas à Becket at Canterbury in 1170; the submission of John to the pope's legate at Dover in 1213, and the capture of Rochester Castle by the king in the same year. Rochester Castle was in 1216 captured by the dauphin of France, to whom nearly all Kent submitted, and during the wars of Henry III. with his barons was captured by Gilbert de Clare. In the peasants' rising of 1381 the rebels plundered the archbishop's palace at Canterbury, and 100,000 Kentishmen gathered round Wat Tyler of Essex. In 1450 Kent took a leading part in Jack Cade's rebellion; and in 1554 the insurrection of Sir Thomas Wyat began at Maidstone. On the outbreak of the Great Rebellion feeling was much divided, but after capturing Dover Castle the parliament soon subdued the whole county. In 1648, however, a widespread insurrection was organized on behalf of Charles, and was suppressed by Fairfax. The county was among the first to welcome back Charles II. In 1667 the Dutch fleet under De Ruyter advanced up the Medway, levelling the fort at Sheerness and burning the ships at Chatham. In

the Kentish petition of 1701 drawn up at Maidstone the county protested against the peace policy of the Tory party.

Among the earliest industries of Kent were the iron-mining in the Weald, traceable at least to Roman times, and the salt industry, which flourished along the coast in the 10th century. The Domesday Survey, besides testifying to the agricultural activity of the country, mentions over one hundred salt-works and numerous valuable fisheries, vines at Chart Sutton and Leeds, and cheese at Milton. The Hundred Rolls of the reign of Edward I. frequently refer to wool, and Flemish weavers settled in the Weald in the time of Edward III. Tiles were manufactured at Wye in the 14th century. Valuable timber was afforded by the vast forest of the Weald, but the restrictions imposed on the felling of wood for fuel did serious detriment to the iron-trade, and after the statute of 1558 forbidding the felling of timber for iron-smelting within fourteen miles of the coast the industry steadily declined. The discovery of coal in the northern counties dealt the final blow to its prosperity. Cherries are said to have been imported from Flanders and first planted in Kent by Henry VIII., and from this period the culture of fruits (especially apples and cherries) and of hops spread rapidly over the county. Thread-making at Maidstone and silk-weaving at Canterbury existed in the 16th century, and before 1590 one of the first paper-mills in England was set up at Dartford. The statute of 1630 forbidding the exportation of wool, followed by the Plague of 1665, led to a serious trade depression, while the former enactment resulted in the vast smuggling trade which spread along the coast, 40,000 packs of wool being smuggled to Calais from Kent and Sussex in two years.

In 1290 Kent returned two members to parliament for the county, and in 1295 Canterbury, Rochester and Tunbridge were also represented; Tunbridge however made no returns after this date. In 1552 Maidstone acquired representation, and in 1572 Queenborough. Under the act of 1832 the county returned four members in two divisions, Chatham was represented by one member and Greenwich by two, while Queenborough was disfranchised. Under the act of 1868 the county returned six members in three divisions and Gravesend returned one member. By the act of 1885 the county returned eight members in eight divisions, and the representation of Canterbury, Maidstone and Rochester was reduced to one member each. By the London Government Act of 1892 the borough of Greenwich was taken out of Kent and made one of the twenty-eight metropolitan boroughs of the county of London.

Antiquities.—As was to be expected from its connexion with the early history of England, and from its beauty and fertility, Kent possessed a larger than average number of monastic foundations. The earliest were the priory of Christ's Church and the abbey of St Peter and St Paul, now called St Augustine's, both at Canterbury, founded by Augustine and the monks who accompanied him to England. Other Saxon foundations were the nunneries at Folkestone (630), Lyminge (633; nunnery and monastery), Reculver (669), Minster-in-Thanet (670), Minster-in-Sheppey (675), and the priory of St Martin at Dover (696), all belonging to the Benedictine order. Some of these were refounded, and the principal monastic remains now existing are those of the Benedictine priories at Rochester (1089), Folkestone (1095), Dover (1140); the Benedictine nunneries at Malling (time of William Rufus), Minster-in-Sheppey (1130), Higham (founded by King Stephen), and Davington (1153); the Cistercian Abbey at Boxley (1146); the Cluniac abbey at Faversham (1147) and priory at Monks Horton (time of Henry II.), the preceptory of Knights Templars at Swingfield (time of Henry II.); the Premonstratensian abbey of St Radigund's, near Dover (1191); the first house of Dominicans in England at Canterbury (1221); the first Carmelite house in England, at Aylesford (1240); and the priory of Augustinian nuns at Dartford (1355). Other houses of which there are slight remains are Lesnes abbey, near Erith, and Bilsington priory near Ashford, established in 1178 and 1253 respectively, and both belonging to the Augustinian canons; and the house of Franciscans at Canterbury (1225). But no remains exist of the priories of Augustinian canons at Canterbury (St Gregory's; 1084), Leeds, near Maidstone (1119), Tunbridge (middle of 12th century), Combwell, near Cranbrook (time of Henry II.); the nunnery of St Sepulchre at Canterbury (about 1100) and Langdon abbey, near Walmer (1192), both belonging to the Benedictines; the Trinitarian priory of Mottenden near Headcorn, the first house of Crutched Friars in England (1224), where miracle plays were presented in the church by the friars on Trinity Sunday; the Carmelite priories at Sandwich (1272) and Losenham near Tenterden (1241); and the preceptory of Knights of St John of Jerusalem at West Peckham, near Tunbridge (1408).

Even apart from the cathedral churches of Canterbury and Rochester, the county is unsurpassed in the number of churches it possesses of the highest interest. For remains of a date before the Conquest the church of Lyminge is of first importance. Here, apart from the monastic remains, there may be seen portions of the church founded by Æthelburga, wife of Edwin, king of Northumberland, and rebuilt, with considerable use of Roman material, in 965 by St Dunstan. There is similar early work in the church of Paddlesworth, not far distant. Among numerous Norman examples the first in interest is the small church at Barfreston, one of the most perfect specimens of its kind in England, with a profusion of ornament, especially round the south doorway and east window. The churches of St Margaret-at-Cliff, Patrixbourne and Darenth are hardly less noteworthy, while the tower of New Romney church should also be mentioned. Among several remarkable Early English examples none is finer than Hythe church, but the churches of SS. Mary and Eanswith, Folkestone, Minster-in-Thanet, Chalk, with its curious porch, Faversham and Westwell, with fine contemporary glass, are also worthy of notice. Stone church, near Dartford, a late example of this style, transitional to Decorated, is very fine; and among Decorated buildings Chartham church exhibits in some of its windows the peculiar tracery known as Kentish Decorated. Perpendicular churches, though numerous, are less remarkable, but the fine glass of this period in Nettlestead church may be noticed. The church of Cobham contains one of the richest collections of ancient brasses in England.

Kent is also rich in examples of ancient architecture other than ecclesiastical. The castles of Rochester and Dover are famous; those of Canterbury and Chilham are notable among others. Ancient mansions are very numerous; among these are the castellated Leeds Castle in the Maidstone district, Penshurst Place, Hever Castle near Edenbridge, Saltwood and Westenhanger near Hythe, the Mote House at Ightham near Wrotham, Knole House near Sevenoaks, and Cobham Hall. Minor examples of early domestic architecture abound throughout the county.

AUTHORITIES.—A full bibliography of the many earlier works on the county and its towns is given in J. R. Smith's *Bibliotheca Cantiana* (London, 1837). There may be mentioned here W. Lambarde, *Perambulation of Kent* (London, 1576, 1826); R. Kilburne, *Topographie or Survey of the County of Kent* (London, 1659); J. and T. Philipot, *Villare Cantianum* (London, 1659, 1776); J. Harris, *History of Kent* (London, 1719); E. Hasted, *History and Topographical Survey of Kent* (4 vols. folio, Canterbury, 1778–1799; 2nd ed., 12 vols. 8vo, Canterbury, 1797–1801); W. H. Ireland, *History of the County of Kent* (London, 1828–1830); C. Sandys, *Consuetudines Kantiae* (London, 1851); A. Hussey, *Notes on the Churches of Kent* (London, 1852); L. B. Larking, *The Domesday Book of Kent* (1869); R. Furley, *History of the Weald of Kent* (Ashford, 1871–1874); W. A. Scott Robertson, *Kentish Archaeology* (London, 1876–1884); Sir S. R. Glynne, *Notes on Churches of Kent*, ed. W. H. Gladstone (London, 1877); J. Hutchinson, *Men of Kent and Kentish Men* (London, 1892); *Victoria County History*, "Kent." See also *Archaeologia Cantiana* (translations of the Kent Archaeological Society, London, from 1858).

KENTIGERN, ST, or MUNGO ("dear friend," a name given to him, according to Jocelyn, by St Servanus), a Briton of Strathclyde, called by the Goidels *In Glaschu*, "the Grey Hound," was, according to the legends preserved in the lives which remain, of royal descent. His mother when with child was thrown down from a hill called Dunpelder (Traprain Law, Haddingtonshire), but survived the fall and escaped by sea to Culross on the farther side of the Firth of Forth, where Kentigern was born. It is possible that she may have been a nun, as a convent had been founded in earlier times on Traprain Law. The life then describes the training of the boy by Servanus, but the date of the latter renders this impossible. Returning to Strathclyde Kentigern lived for some time at Glasgow, near a cemetery ascribed to St Ninian, and was eventually made bishop of that region by the king and clergy. This story is partially attested by Welsh documents, in which Kentigern appears as the bishop of Garthmwl, apparently the ruler of the region about Glasgow. Subsequently he was opposed by a pagan king called Morken, whose relatives after his death succeeded in forcing the saint to retire from Strathclyde. He thereupon took refuge with St David at Menevia (St David's), and eventually founded a monastery at Llanelwy (St Asaph's), for which purpose he received grants from Maelgwn, prince of Gwynedd. After the battle of Ardderyd in 573 in which King Rhydderch, leader of the Christian party in Strathclyde, was victorious, Kentigern was recalled. He fixed his see first at Hoddam in Dumfriesshire, but afterwards

returned to Glasgow. He is credited with missionary work in Galloway and north of the Firth of Forth, but most of the dedications to him which survive are north of the Mounth in the upper valley of the Dee. The meeting of Kentigern and Columba probably took place soon after 584, when the latter began to preach in the neighbourhood of the Tay.

AUTHORITIES.—*Lives* of St Kentigern; Fragment used by John of Fordun, and complete "Life" by Jocelyn of Furness in Forbes's *Historians of Scotland* (Edinburgh, 1874), vol. v.; *Four Ancient Books of Wales* (Edinburgh, ed. W. F. Skene, 1868), ii. 457; *Myvyrian Archaeology* (London, 1801), ii. 34; D. R. Thomas, *History of Diocese of St Asaph* (London, 1874), p. 5; Index of Llyfr Coch Asaph, *Archaeologia Cambrensis*, 3rd series, 1868, vol. xiv. p. 151; W. F. Skene, *Celtic Scotland* (Edinburgh, 1877), ii. 179 ff.; John Rhys, *Celtic Britain* (London, 1904), pp. 145, 146, 174, 199, 250.

KENTON, a city and the county seat of Hardin county, Ohio, U.S.A., on the Scioto river, 60 m. N.W. of Columbus. Pop. (1900), 6852, including 493 foreign-born and 271 negroes; (1910), 7185. It is served by the Erie, the Cleveland, Cincinnati, Chicago & St Louis, and the Ohio Central railways. It is built on the water-parting between Lake Erie and the Gulf of Mexico, here about 1,000 ft. above sea-level. There are shops of the Ohio Central railway here, and manufactories of hardware. The municipality owns and operates its waterworks. Kenton was named in honour of Simon Kenton (1755–1836) a famous scout and Indian fighter, who took part in the border warfare, particularly in Kentucky and Ohio, during the War of American Independence and afterwards. It was platted and became the county seat in 1833, and was chartered as a city in 1885.

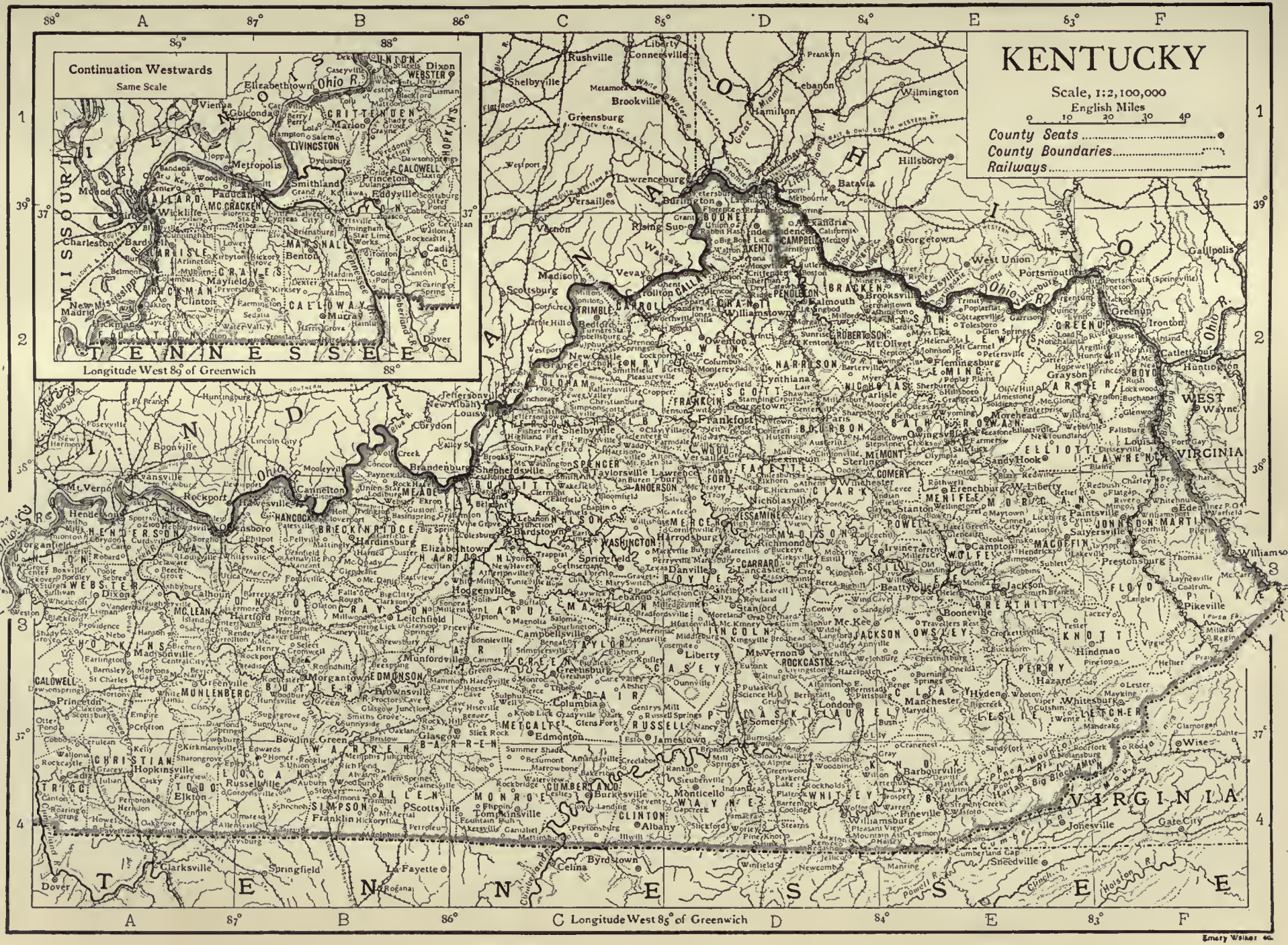
KENT'S CAVERN, or KENT'S HOLE, the largest of English bone caves, famous as affording evidence of the existence of Man in Devon (England) contemporaneously with animals now extinct or no longer indigenous. It is about a mile east of Torquay harbour and is of a sinuous nature, running deeply into a hill of Devonian limestone. Although long known locally, it was not until 1825 that it was scientifically examined by Rev. J. McEnery, who found worked flints in intimate association with the bones of extinct mammals. He recognized the fact that they proved the existence of man in Devonshire while those animals were alive, but the idea was too novel to be accepted by his contemporaries. His discoveries were afterwards verified by Godwin Austen, and ultimately by the Committee of the British Association, whose explorations were carried on under the guidance of Wm. Pengelly from 1865 to 1880. There are four distinct strata in the cave. (1) The surface is composed of dark earth and contains medieval remains, Roman pottery and articles which prove that it was in use during the Iron, Bronze and Neolithic Ages. (2) Below this is a stalagmite floor, varying in thickness from 1 to 3 ft., and covering (3) the red earth which contained bones of the hyaena, lion, mammoth, rhinoceros and other animals, in association with flint implements and an engraved antler, which proved man to have been an inhabitant of the cavern during its deposition. Above this and below the stalagmite there is in one part of the cave a black band from 2 to 6 in. thick, formed of soil like No. 2, containing charcoal, numerous flint implements, and the bones and teeth of animals, the latter occasionally perforated as if used for ornament. (4) Filling the bottom of the cave was a hard breccia, with the remains of bears and flint implements, the latter in the main ruder than those found above; in some places it was no less than 12 ft. thick. The most remarkable animal remains found in Kent's Cavern are those of the Sabre-toothed tiger, *Machairodus latidens* of Sir Richard Owen. While the value of McEnery's discoveries was in dispute the exploration of the cave of Brixham near Torquay in 1858 proved that man was coeval with the extinct mammalia, and in the following year additional proof was offered by the implements that were found in Wookey Hole, Somerset. Similar remains have been met with in the caves of Wales, and in England as far north as Derbyshire (Cresswell), proving that over the whole of southern and middle England men, in precisely the same stage of rude civilization, hunted the rhinoceros, the mammoth and other extinct animals.

See Sir John Evans, *Ancient Stone Implements of Great Britain* (London, 1897); Lord Avebury's *Prehistoric Times* (1900); W. Pengelly, *Address to the British Association* (1883) and Life of him by his daughter (1897); Godwin Austen, *Proc. Geo. Soc. London*, 111. 286; Pengelly, "Literature of Kent's Cavern" in *Trans. Devonshire Association* (1868); William Boyd Dawkins, *Cave-hunting* and *Early Man in Britain.*

KENTUCKY, a South Central State of the United States of America, situated between 36° 30′ and 39° 6′ N., and 82° and 89° 38′ W. It is bounded N., N.W., and N.E. by Illinois, Indiana and Ohio; E. by the Big Sandy river and its E. fork, the Tug, which separates it from West Virginia, and by Virginia; S.E. and S. by Virginia and Tennessee; and W. by the Mississippi river, which separates it from Missouri. It has an area of 40,598 sq. m.; of this, 417 sq. m., including the entire breadth of the Ohio river, over which it has jurisdiction, are water surface.

Physiography.—From mountain heights along its eastern border the surface of Kentucky is a north-western slope across two much dissected plateaus to a gracefully undulating lowland in the north central part and a longer western slope across the same plateaus to a lower and more level lowland at the western extremity. The narrow mountain belt is part of the western edge of the Appalachian Mountain Province in which parallel ridges of folded mountains, the Cumberland and the Pine, have crests 2000–3000 ft. high, and the Big Black Mountain rises to 4000 ft. The highest point in the state is The Double on the Virginia state line, in the eastern part of Harlan county with an altitude of over 4100 ft. The entire eastern quarter of the state, coterminous with the Eastern Kentucky coal-field, is commonly known as the region of the "mountains," but with the exception of the narrow area just described it properly belongs to the Alleghany Plateau Province. This plateau belt is exceedingly rugged with sharp ridges alternating with narrow valleys which have steep sides but are seldom more than 1500 ft. above the sea. The remainder of the state which lies east of the Tennessee river is divided into the Highland Rim Plateau and a lowland basin, eroded in the Highland Rim Plateau and known as the Blue Grass Region; this region is separated from the Highland Rim Plateau by a semicircular escarpment extending from Portsmouth, Ohio, at the mouth of the Scioto river, to the mouth of the Salt river below Louisville; it is bounded north by the Ohio river. The Highland Rim Plateau, lying to the south, east and west of the escarpment, embraces fully one-half of the state, slopes from elevations of 1000–1200 ft. or more in the east to about 500 ft. in the north-west, and is generally much less rugged than the Alleghany Plateau; a peculiar feature of the southern portion of it is the numerous circular depressions (sink holes) in the surface and the cavernous region beneath. Kentucky is noted for its caves, the best-known of which are Mammoth Cave and Colossal Cavern (*qq.v.*). The caves are cut in the beds of limestone (lying immediately below the coal-bearing series) by streams that pass beneath the surface in the "sink holes," and according to Professor N. S. Shaler there are altogether "doubtless a hundred thousand miles of ways large enough to permit the easy passage of man." Down the steep slopes of the escarpment the Highland Rim Plateau drops 200 ft. or more to the famous Blue Grass Region, in which erosion has developed on limestone a gracefully undulating surface. This Blue Grass Region is like a beautiful park, without ragged cliffs, precipitous slopes, or flat marshy bottoms, but marked by rounded hills and dales. Especially within a radius of 20 m. around Lexington, the country is clothed with an unusually luxuriant vegetation. During spring, autumn, and winter in particular, the blue-grass (*Poa compressa* and *Poa pratensis*) spreads a mat, green, thick, fine and soft, over much of the country, and it is a good winter pasture; about the middle of June it blooms, and, owing to the hue of its seed vessels, gives the landscape a bluish hue. Another lowland area embraces that small part of the state in the extreme south-east which lies west of the Tennessee river; this belongs to that part of the Coastal Plain Region which extends north along the Mississippi river; it has in Kentucky an average elevation of less than 500 ft. Most of the larger rivers of the state have their sources among the mountains or on the Alleghany Plateau and flow more or less circuitously in a general north-western direction into the Ohio. Although deep river channels are common, falls or impassable rapids are rare west of the Alleghany Plateau, and the state has an extensive mileage of navigable waters. The Licking, Kentucky, Green and Tradewater are the principal rivers wholly within the state. The Cumberland, after flowing for a considerable distance in the south-east and south central part of the state, passes into Tennessee at a point nearly south of Louisville, and in the extreme south-west the Cumberland and the Tennessee, with only a short distance between them, cross Kentucky and enter the Mississippi at Smithland and Paducah respectively. The drainage of the region under which the caverns lie is mostly underground.

Fauna and Flora.—The first white settlers found great numbers of buffaloes, deer, elks, geese, ducks, turkeys and partridges, also many bears, panthers, lynx, wolves, foxes, beavers, otters, minks, musk-rats, rabbits, squirrels, raccoons, woodchucks, opossums and


KENTUCKY
Scale, 1:2,100,000
English Miles
0 10 20 30 40
County Seats
County Boundaries
Railways
Continuation Westwards
Same Scale
Longitude West 89° of Greenwich
Longitude West 85° of Greenwich
Ohio R.
Mississippi R.
Tennessee R.
Cumberland R.
Big Sandy R.
Kentucky R.
Green R.
Barren R.
Licking R.
Rockcastle R.
Cumberland Gap
Louisville
Frankfort
Lexington
Bowling Green
Owensboro
Paducah
Hopkinsville
Madisonville
Elizabethtown
Henderson
Maysville
Covington
Newport
Ashland
Pikeville
Harlan
Middlesboro
Somerset
Jamestown
Columbia
Campbellsville
Danville
Richmond
Winchester
Nicholasville
Versailles
Georgetown
Paris
Cynthiana
Williamstown
Falmouth
Brooksville
Flemingsburg
Morehead
Grayson
Olive Hill
Catlettsburg
Ashland
Greenup
Portsmouth
Maysville
Augusta
Vanceburg
Carlisle
Millersburg
Harrodsburg
Shelbyville
Lawrenceburg
Frankfort
Versailles
Nicholasville
Lancaster
Stanford
Somerset
Monticello
Burkesville
Albany
Clinton
Scottsville
Glasgow
Edmonton
Russellville
Hopkinsville
Madisonville
Greenville
Morgantown
Hartford
Owensboro
Henderson
Madisonville
Princeton
Eddyville
Kuttawa
Smithland
Marion
Salem
Golconda
Elizabethtown
Dixon
Caseyville
Metropolis
Paducah
Wickliffe
Mayfield
Clinton
Hickman
Fulton
Dyersburg
Union City
Obion
Troy
Tiptonville
Ripley
Covington
Memphis
Jackson
Trenton
Gleason
Martin
Dresden
Huntingdon
Parsons
Lexington
Jackson
Corinth
Iuka
Florence
Tuscumbia
Sheffield
Decatur
Huntsville
Athens
Pulaski
Fayetteville
Lewisburg
Shelbyville
Murfreesboro
Nashville
Gallatin
Hartsville
Springfield
Clarksville
Dover
Cumberland City
Dickson
Centerville
Columbia
Lawrenceburg
Pulaski
Fayetteville
Huntsville
Decatur
Florence
Tuscumbia
Sheffield
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Jackson
Lexington
Parsons
Huntingdon
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Smithland
Princeton
Dawson Springs
Madisonville
Hopkinsville
Greenville
Morgantown
Hartford
Owensboro
Henderson

skunks, and the streams were inhabited by trout, perch, buffalo-fish, sun-fish, mullet, eels, and suckers. Of the larger game there remain only a few deer, bears and lynx in the mountain districts, and the numbers of small game and fish have been greatly reduced. In its primeval state Kentucky was generally well timbered, but most of the middle section has been cleared and here the blue grass is now the dominant feature of the flora. Extensive forest areas still remain both in the east and the west, In the east oak, maple, beech, chestnut, elm, tulip-tree (locally "yellow poplar"), walnut, pine and cedar trees are the most numerous; in the west the forests are composed largely of cypress, ash, oak, hickory, chestnut, walnut, beech, tulip-tree, gum and sycamore trees. Locust, pawpaw, cucumber, buck-eye, black mulberry and wild cherry trees also abound, and the grape, raspberry and strawberry are native fruits.

Climate.—The climate is somewhat more mild and even than that of the neighbouring states. The mean annual temperature, about 50° F. on the mountains in the S. E., and 60° W. of the Tennessee, is about 55° F. for the entire state; the thermometer seldom registers as high as 100° or as low as −10°. The mean annual precipitation ranges from about 38 in. in the north-east to 50 in. in the south, and is about 46 in. for the entire state; it is usually distributed evenly throughout the year and very little is in the form of snow. The prevailing winds blow from the west or south-west; rain-bearing winds blow mostly from the south; and the cold waves come from the north or north-west.

Soil.—The best soils are the alluvium in the bottom-lands along some of the larger rivers and that of the Blue Grass Region, which is derived from a limestone rich in organic matter (containing phosphorus) and rapidly decomposing. The soil within a radius of some 20 m. around Lexington is especially rich; outside of this area the Blue Grass soil is less rich in phosphorus and contains a larger mixture of sand. The soils of the Highland Rim Plateau as well as of the lowland west of the Tennessee river vary greatly, but the most common are a clay, containing more or less carbonate of lime, and a sandy loam. On the escarpment around the Blue Grass Region the soils are for the most part either cherty or stiff with clay and of inferior quality. On the mountains and on the Alleghany Plateau, also, much of the soil is very light and thin.

Agriculture.—Kentucky is chiefly an agricultural state. Of the 752,531 of its inhabitants who, in 1900, were engaged in some gainful occupation, 408,185 or 54·2%, were agriculturists, and of its total land surface 21,979,422 acres, or 85·9%, were included in farms. The percentage of improved farm land increased from 35·2 in 1850 to 49·9 in 1880 and to 62·5 in 1900. The number of farms increased from 74,777 in 1850 to 166,453 in 1880 and to 234,667 in 1900; and their average size decreased from 226·7 acres in 1850 to 129·1 acres in 1880 and to 93·7 acres in 1900, these changes being largely due to the breaking up of slave estates, the introduction of a considerable number of negro farmers, and the increased cultivation of tobacco and market-garden produce. In the best stock-raising country, *e.g.* in Fayette county, the opposite tendency prevailed during the latter part of this period and old farms of a few hundred acres were combined to form some vast estates of from 2000 to 4000 acres. Of the 234,667 farms in 1900, 155,189 contained less than 100 acres, 76,450 contained between 100 and 500 acres, and 558 contained more than 1000 acres; 152,216 or 64·86%, were operated by owners or part owners, of whom 5320 were negroes; 16,776 by cash tenants, of whom 789 were negroes; and 60,289 by share tenants, of whom 4984 were negroes. In 1900 the value of farm land and improvements was $291,117,430; of buildings on farms, $90,887,460; of live-stock, $73,739,106. In the year 1899 the value of all farm products was $123,266,785 (of which $21,128,530 was the value of products fed to livestock), including the following items: crops, $74,783,365; animal products, $44,303,940; and forest products, $4,179,840. The total acreage of all crops in 1899 was 6,582,696. Indian corn is the largest and most valuable crop. As late as 1849, when it produced 58,672,591 bu., Kentucky was the second largest Indian-corn producing state in the Union. In 1899 the crop had increased to 73,974,220 bu. and the acreage was 3,319,257 (more than half the acreage of all crops in the state), but the rank had fallen to ninth in product and eleventh in acreage; in 1909 (according to the *Yearbook* of the United States Department of Agriculture) the crop was 103,472,000 bu. (ninth among the states of the United States), and the acreage was 3,568,000 (twelfth among the states). Among the cereals wheat is the next largest crop; it increased from 2,142,822 bu. in 1849 to 11,356,113 bu. in 1879, and to 14,264,500 bu. in 1899; in 1909 it was only 7,906,000 bu. The crop of each of the other cereals is small and in each case was less in 1899 than in 1849. The culture of tobacco, which is the second most valuable crop in the state, was begun in the north part about 1780 and in the west and south early in the 19th century, but it was late in that century before it was introduced to any considerable extent in the Blue Grass Region, where it was then in a measure substituted for the culture of hemp. By 1849 Kentucky ranked second only to Virginia in the production of tobacco, and in 1899 it was far ahead of any other state in both acreage and yield, there being in that year 384,805 acres, which was 34·9% of the total acreage in the continental United States, yielding 314,288,050 lb. As compared with the state's Indian corn crop of that year, the acreage was only a little more than one-ninth, but the value ($18,541,982) was about 63%. In 1909 the tobacco acreage in Kentucky was 420,000, the crop was 350,700,000 lb, valued at $37,174,200; the average price per pound had increased from 5·9 cents in 1899 to 10·6 cents in 1909. The two most important tobacco-growing districts are: the Black Patch, in the extreme south-west corner of the state, which with the adjacent counties in Tennessee grows a black heavy leaf bought almost entirely by the agents of foreign governments (especially Austria, Spain and Italy) and called "regie" tobacco; and the Blue Grass Region, as far east as Maysville, and the hill country south and east, whose product, the red and white Burley, is a fine-fibred light leaf, peculiarly absorbent of licorice and other adulterants used in the manufacture of sweet chewing tobacco, and hence a peculiarly valuable crop, which formerly averaged 22 cents a pound for all grades.[1] The high price received by the hill growers of the Burley induced farmers in the Blue Grass to plant Burley tobacco there, where the crop proved a great success, more than twice as much (sometimes 2000 lb) being grown to the acre in the Blue Grass as in the hills and twice as large patches being easily managed. In the hill country the share tenant could usually plant and cultivate only four acres of tobacco, had to spend 120 days working the crop, and could use the same land for tobacco only once in six years. So, although a price of 6·5 cents a pound covered expenses of the planter of Burley in the Blue Grass, who could use the same land for tobacco once in four years, this price did not repay the hill planter. The additional production of the Blue Grass Region sent the price of Burley tobacco down to this figure and below it. The planters in the Black Patch had met a combination of the buyers by forming a pool, the Planters' Protective Association, into which 40,000 growers were forced by "night-riding" and other forms of coercion and persuasion, and had thus secured an advance to 11 cents a pound from the "regie" buyers and had shown the efficacy of pooling methods in securing better prices for the tobacco crop. Following their example, the planters of the Burley formed the Burley Tobacco Society, a Burley pool, with headquarters at Winchester and associated with the American Society of Equity, which promoted in general the pooling of different crops throughout the country. The tobacco planters secured legislation favourable to the formation of crop pools. The Burley Tobacco Society attempted to pool the entire crop and thus force the buyers of the American Tobacco Company of New Jersey (which usually bought more than three-fourths of the crop of Burley) to pay a much higher price for it. In 1906 and in 1907 the crop was very large; the pool sold its lower grades of the 1906 crop at 16 cents a pound to the American Tobacco Company and forced the independent buyers out of business; and the Burley Society decided in 1907 to grow no more tobacco until the 1906 and 1907 crops were sold, making the price high enough to pay for this period of idleness. Members of the pool had used force to bring planters into the pool; and now some tobacco growers, especially in the hills, planted new crops in the hope of immediate return, and a new "night-riding" war was begun on them. Bands of masked men rode about the country both in the Black Patch and in the Burley, burning tobacco houses of the independent planters, scraping their newly-planted tobacco patches, demanding that planters join their organization or leave the country, and whipping or shooting the recalcitrants. Governor Willson, immediately after his inauguration, took measures to suppress disorder. In general the Planters' Protective Association in the Black Patch was more successful in its pool than the Burley Tobacco Society in its, and there was more violence in the "regie" than in the "Burley" district. In November 1908 the lawlessness subsided in the Burley after the agreement of the American Tobacco Company to purchase the remainder of the 1906 crop at a "round" price of 20½ cents and a part of the 1907 crop at an average price of 17 cents, thus making it profitable to raise a full crop in 1909.

Kentucky is the principal hemp-growing state of the Union; the crop of 1899, which was grown on 14,107 acres and amounted to 10,303,560 lb, valued at $468,454, was 87·7% of the hemp crop of the whole country. But the competition of cheaper labour in other countries reduced the profits on this plant and the product of 1899 was a decrease from 78,818,000 lb in 1859. Hay and forage, the fourth in value of the state's crops in 1899, were grown on 683,139 acres and amounted to 776,534 tons, valued at $6,100,647; in 1909 the acreage of hay was 480,000 and the crop of 653,000 tons was valued at $7,771,000. In 1899 the total value of fruit grown in Kentucky was $2,491,457 (making the state rank thirteenth among the states of the Union in the value of this product), of which $1,943,645 was the value of orchard fruits and $435,462 that of small fruits. Among fruits, apples are produced in greatest abundance, 6,053,717 bu. in 1899, an amount exceeded in only nine states; in 1889 the crop had been 10,679,389 bu. and was exceeded only by the crop of Ohio and by that of Michigan. Kentucky also grows considerable quantities of cherries, pears, plums and peaches, and, for its size, ranks high in its crops of strawberries, blackberries and raspberries. Indian corn is grown in all parts of the state but most largely in the western portion. Wheat is grown both in the Blue Grass Region and farther west; and the best country for fruit is along the Ohio river between Cincinnati and Louisville and in the hilly land surrounding the Blue Grass Region. In the eastern part of the state

[1] North of the Black Patch is a district in which is grown a heavy-leaf tobacco, a large part of which is shipped to Great Britain; and farther north and east a dark tobacco is grown for the American market.

where crops are generally light, Indian corn, oats and potatoes are the principal products, but tobacco, flax and cotton are grown. The thoroughbred Kentucky horse has long had a world-wide reputation for speed; and the Blue Grass Region, especially Fayette, Bourbon and Woodford counties, is probably the finest horse-breeding region in America and has large breeding farms. In Fayette county, in 1900, the average value of colts between the ages of one and two years was $377·78. In the Blue Grass Region many thoroughbred shorthorn cattle and fine mules are raised. The numbers of horses, mules, cattle and sheep increased quite steadily from 1850 to 1900, but the number of swine in 1880 and in 1900 was nearly one-third less than in 1850. In 1900 the state had 497,245 horses, 198,110 mules, 364,025 dairy cows, 755,714 other neat cattle, 1,300,832 sheep and 2,008,989 swine; in 1910 there were in Kentucky 407,000 horses, 207,000 mules, 394,000 milch cows, 665,000 other neat cattle, 1,060,000 sheep and 989,000 swine. The principal sheep-raising counties in 1905 were Bourbon, Scott and Harrison, and the principal hog-raising counties were Graves, Hardin, Ohio, Union and Hickman.

Forests and Timber.—More than one-half of the state (about 22,200 sq. m.) was in 1900 still wooded. In 1900 of the total cut of 777,218 M. ft., B.M., 392,804 were white oak and 279,740 M. ft. were tulip-tree. Logging is the principal industry of several localities, especially in the east, and the lumber product of the state increased in value from $1,502,434 in 1850 to $4,064,361 in 1880, and to $13,774,911 in 1900. The factory product in 1900 was valued at $13,338,533 and in 1905 at $14,539,000. In 1905 of a total of 586,371 M. ft., B.M., of sawed lumber, 295,776 M. ft. were oak and 153,057 M. ft. were "poplar."

The planing mill industry is increasing rapidly, as it is found cheaper to erect mills near the forests; between 1900 and 1905 the capital of planing mills in the state increased 117·2% and the value of products increased 142·8%.

Manufactures.—Kentucky's manufactures are principally those for which the products of her farms and forests furnish the raw material. The most distinctive of these is probably distilled liquors, the state's whisky being famous. A colony of Roman Catholic immigrants from Maryland settled in 1787 along the Salt river about 50 m. S.S.E. of Louisville and with the surplus of their Indian corn crop made whisky, a part of which they sold at settlements on the Ohio and the Mississippi. The industry was rapidly developed by distillers, who immediately after the suppression of the Whisky Insurrection, in 1794, removed from Pennsylvania and settled in what is now Mason county and was then a part of Bourbon county—the product is still known as "Bourbon" whisky. During the first half of the 19th century the industry became of considerable local importance in all parts of the state, but since the Civil War the heavy tax imposed has caused its concentration in large establishments. In 1900 nearly 40% and in 1905 more than one-third of the state's product was distilled in Louisville. Good whisky is made in Maryland and in parts of Pennsylvania from rye, but all efforts in other states to produce from Indian corn a whisky equal to the Bourbon have failed, and it is probable that the quality of the Bourbon is largely due to the character of the Kentucky lime water and the Kentucky yeast germs. The average annual product of the state from 1880 to 1900 was about 20,000,000 gallons; in 1900 the product was valued at $9,786,527; in 1905 at $11,204,649. In 1900 and in 1905 Kentucky ranked fourth among the states in the value of distilled liquors.

The total value of all manufactured products of the state increased from $126,719,857 in 1890 to $154,166,365 in 1900, or 21·7%, and from 1900 to 1905 the value of factory-made products alone increased from $126,508,660 to $159,753,968, or 26·3%.[1] Measured by the value of the product, flour and grist mill products rose from third in rank in 1900 to first in rank in 1905, from $13,017,043 to $18,007,786, or 38·3%; and chewing and smoking tobacco and snuff fell during the same period from first to third in rank, from $14,948,192 to $13,117,000, or 12·3%; in 1900 Kentucky was second, in 1905 third, among the states in the value of this product. Lumber and timber products held second rank both in 1900 ($13,338,533) and in 1905 ($14,539,000). Distilled liquors were fourth in rank in 1900 and in 1905. Men's clothing rose from tenth in rank in 1900 to fifth in rank in 1905, from $3,420,365 to $6,279,078, or 83·6%. Other important manufactures, with their product values in 1900 and in 1905, are iron and steel ($5,004,572 in 1900; $6,167,542 in 1905); railway cars ($4,248,029 in 1900; $5,739,071 in 1905); packed meats ($5,177,167 in 1900; $5,693,731 in 1905); foundry and machine shop products ($4,434,610 in 1900; $4,699,559 in 1905); planing mill products, including sash, doors and blinds ($1,891,517 in 1900; $4,593,251 in 1905—an increase already remarked); carriages and wagons ($2,849,713 in 1900; $4,059,438 in 1905); tanned and curried leather ($3,757,016 in 1900; $3,952,277 in 1905); and malt liquors ($3,186,627 in 1900; $3,673,678 in 1905). Other important manufactures (each with a product value in 1905 of more than one million dollars) were cotton-seed oil and cake (in 1900 Kentucky was fifth and in 1905 sixth among the states in the value of cotton-seed oil and cake), cooperage, agricultural implements, boots and shoes, cigars and cigarettes, saddlery and harness, patent medicines and compounds, cotton goods, furniture, confectionery, carriage and wagon materials, wooden packing boxes, woollen goods, pottery and terra cotta ware, structural iron-work, and turned and carved wood. Louisville is the great manufacturing centre, the value of its products amounting in 1905 to $83,204,125, 52·1% of the product of the entire state, and showing an increase of 25·9% over the value of the city's factory products in 1900. Ashland is the principal centre of the iron industry.

[1] In the census of 1905 statistics for other than factory-made products, such as those of the hand trades, were not included.

Minerals.—The mineral resources of Kentucky are important and valuable, though very little developed. The value of all manufactures in 1900 was $154,166,365, and the value of manufactures based upon products of mines or quarries in the same year was $25,204,788; the total value of mineral products was $19,294,341 in 1907. Bituminous coal is the principal mineral, and in 1907 Kentucky ranked eighth among the coal-producing states of the Union; the output in 1907 amounted to 10,753,124 short tons, and in 1902 to 6,766,984 short tons as compared with 2,399,755 tons produced in 1889. In 1902 the amount was about equally divided between the eastern coalfield, which is for the most part in Greenup, Boyd, Carter, Lawrence, Johnson, Lee, Breathitt, Rockcastle, Pulaski, Laurel, Knox, Bell and Whitley counties, and has an area of about 11,180 sq. m., and the western coalfield, which is in Henderson, Union, Webster, Daviess, Hancock, McLean, Ohio, Hopkins, Butler, Muhlenberg and Christian counties, and has an area of 5800 sq. m. In 1907 the output of the western district was 6,295,397 tons; that of the eastern, 4,457,727. The largest coal-producing counties in 1907 were Hopkins (2,064,154 short tons) and Muhlenberg (1,882,913 short tons) in the western coalfield, and Bell (1,437,886 short tons) and Whitley (762,923 short tons) in the south-western part of the eastern coalfield. All Kentucky coal is either bituminous or semi-bituminous, but of several varieties. Of cannel coal Kentucky is the largest producer in the Union, its output for 1902 being 65,317 short tons, and, according to state reports, for 1903, 72,856 tons (of which 46,314 tons were from Morgan county), and for 1904, 68,400 tons (of which 52,492 tons were from Morgan county); according to the *Mineral Resources of the United States* for 1907 (published by the United States Geological Survey) the production of Kentucky in 1907 of cannel coal (including 4650 tons of semi-cannel coal) was 77,733 tons, and exclusive of semi-cannel coal the output of Kentucky was much larger than that of any other state. Some of the coal mined in eastern Kentucky is an excellent steam producer, especially the Jellico coal of Whitley county, Kentucky, and of Campbell county, Tennessee. But with the exception of that mined in Hopkins and Bell counties, very little is fit for making coke; in 1880 the product was 4250 tons of coke (value $12,250), in 1890, 12,343 tons ($22,191); in 1900, 95,532 tons ($235,505); in 1902, 126,879 tons ($317,875), the maximum product up to 1906; and in 1907, 67,068 tons ($157,288). Coal was first mined in Kentucky in Laurel or Pulaski county in 1827; between 1829 and 1835 the annual output was from 2000 to 6000 tons; in 1840 it was 23,527 tons and in 1860 it was 285,760 tons.

Petroleum was discovered on Little Rennick's Creek, near Burkesville, in Cumberland county, in 1829, when a flowing oil well (the "American well," whose product was sold as "American oil" to heal rheumatism, burns, &c.) was struck by men boring for a "salt well," and after a second discovery in the 'sixties at the mouth of Crocus Creek a small but steady amount of oil was got each year. Great pipe lines from Parkersburg, West Virginia, to Somerset, Pulaski county, and with branches to the Ragland, Barbourville and Prestonburg fields, had in 1902 a mileage of 275 m. The principal fields are in the "southern tier," from Wayne to Allen county, including Barren county; farther east, Knox county, and Floyd and Knott counties; to the north-east the Ragland field in Bath and Rowan counties on the Licking river. In 1902 the petroleum produced in the state amounted to 248,950 barrels, valued at $172,837, a gain in quantity of 81·4% over 1901. Kentucky is the S.W. extreme of the natural gas region of the west flank of the Appalachian system; the greatest amount is found in Martin county in the east, and Breckinridge county in the north-west. The value of the state's natural gas output increased from $38,993 in 1891 to $99,000 in 1896, $286,243 in 1900, $365,611 in 1902, and $380,176 in 1907.

Iron ore has been found in several counties, and an iron furnace was built in Bath county, in the N. E. part of the state, as early as 1791, but since 1860 this mineral has received little attention. In 1902 it was mined only in Bath, Lyon and Trigg counties, of which the total product was 71,006 long tons, valued at only $86,169; in 1904 only 35,000 tons were mined, valued at the mines at $35,000.

In 1898 there began an increased activity in the mining of fluorspar, and Crittenden, Fayette and Livingston counties produced in 1902, 29,030 tons (valued at $143,410) of this mineral, in 1903 30,835 tons (valued at $153,960) and in 1904 19,096 tons (valued at $111,499), amounts (and values) exceeding those produced in any other state for these years; but in 1907 the quantity (21,058 tons) was less than the output of Illinois. Lead and zinc are mined in small quantities near Marion in Crittenden county and elsewhere in connexion with mining for fluorspar; in 1907 the output was 75 tons of lead valued at $7950 and 358 tons of zinc valued at $42,244. Jefferson, Jessamine, Warren, Grayson and Caldwell counties have valuable quarries of an excellent light-coloured

oölitic limestone, resembling the Bedford limestone of Indiana, and best known under the name of the finest variety, the "Bowling Green stone" of Warren county; and sandstones good for structural purposes are found in both coal regions, and especially in Rowan county. In 1907 the total value of limestone quarried in the state was $891,500, and of all stone, $1,002,450. Fire and pottery clay and cement rock also abound within the state. The value of clay products was $2,406,350 in 1905 (when Kentucky was tenth among the states) and was $2,611,364 in 1907 (when Kentucky was eleventh among the states). The manufacture of cement was begun in 1829 at Shippingport, a suburb of Louisville, whence the natural cement of Kentucky and Indiana, produced within a radius of 15 m. from Louisville, is called "Louisville cement." In 1905 the value of natural cement manufactured in the state (according to the United States Geological Survey) was only $83,000. The manufacture of Portland cement is of greater importance.

There are mineral springs, especially salt springs, in various parts of the state, particularly in the Blue Grass Region; these are now of comparatively little economic importance; no salt was reported among the state's manufactures for 1905, and in 1907 only 736,920 gallons of mineral waters were bottled for sale. Historically and geologically, however, these springs are of considerable interest. According to Professor N. S. Shaler, state geologist in 1873–1880, "When the rocks whence they flow were formed on the Silurian sea-floors, a good deal of the sea-water was imprisoned in the strata, between the grains of sand or mud and in the cavities of the shells that make up a large part of these rocks. This confined sea-water is gradually being displaced by the downward sinking of the rain-water through the rifts of the strata, and thus finds its way to the surface: so that these springs offer to us a share of the ancient seas, in which perhaps a hundred million of years ago the rocks of Kentucky were laid down." To these springs in prehistoric and historic times came annually great numbers of animals for salt, and in the marshes and swamps around some of them, especially Big Bone Lick (in Boone county, about 20 m. S.W. of Cincinnati) have been found many bones of extinct mammals, such as the mastodon and the long-legged bison.[1] The early settlers and the Indians came to the springs to shoot large game for food, and by boiling the waters the settlers obtained valuable supplies of salt. Several of the Kentucky springs have been somewhat frequented as summer resorts; among these are the Blue Lick in Nicholas county (about 48 m. N.E. of Lexington), Harrodsburg, Crab Orchard in Lincoln county (about 115 m. S.E. of Louisville), Rock Castle springs in Pulaski county (about 23 m. E. of Somerset) and Paroquet Springs (near Shepherdsville, Bullitt county), which was a well-known resort before the Civil War, and near which, at Bullitt Lick, the first salt works in Kentucky are said to have been erected.

Pearls are found in the state, especially in the Cumberland River, and it is supposed that there are diamonds in the kimberlite deposits in Elliott county.

Transportation.—Kentucky in 1909 had 3,503.98 m. of railway. Railway building was begun in the state in 1830, and in 1835 the first train drawn by a steam locomotive ran from Lexington to Franklin, a distance of 27 m. Not until 1851 was the line completed to Louisville. Kentucky's trade during the greater part of the 19th century was very largely with the South, and with the facilities which river navigation afforded for this the development of a railway system was retarded. Up to 1880 the railway mileage had increased to only 1,530; but during the next ten years it increased to 2,942, and railways were in considerable measure substituted for water craft. The principal lines are the Louisville & Nashville, the Chesapeake & Ohio, the Illinois Central, and the Cincinnati Southern (Queen & Crescent route). Most of the lines run south or south-west from Cincinnati and Louisville, and the east border of the state still has a small railway mileage and practically no wagon roads, most of the travel being on horseback. The wagon roads of the Blue Grass Region are excellent, because of the plentiful and cheap supply of stone for road building. The assessment of railway property, and in some measure the regulation of railway rates, are entrusted to a state railway commission.

Population.—The population of Kentucky in 1880[2] was 1,648,690; in 1890, 1,858,635, an increase within the decade of 12·7%; in 1900 it was 2,147,174; and in 1910 it had reached 2,289,905. Of the total population of 1900, 284,865 were coloured and 50,249 were foreign-born; of the coloured, 284,706 were negroes, 102 were Indians, and 57 were Chinese; of the foreign-born, 27,555 were natives of Germany, 9874 were natives of Ireland, and 3256 were natives of England. Of the foreign-born, 21,427, or 42·6%, were inhabitants of the city of Louisville, leaving a population outside of this city of which 98·4% were native born. The rugged east section of the state, a part of Appalachian America, is inhabited by a people of marked characteristics, portrayed in the fiction of Miss Murfree ("Charles Egbert Craddock") and John Fox, Jr. They are nearly all of British—English and Scotch-Irish—descent, with a trace of Huguenot. They have good native ability, but through lack of communication with the outside world their progress has been retarded. Before the Civil War they were owners of land, but for the most part not owners of slaves, so that a social and political barrier, as well as the barriers of nature, separated them from the other inhabitants of the state. In their speech several hundred words persist which elsewhere have been obsolete for three centuries or occur only in dialects in England. Their life is still in many respects very primitive; their houses are generally built of logs, their clothes are often of homespun, Indian corn and ham form a large part of their diet, and their means of transportation are the saddle-horse and sleds and wheeled carts drawn by oxen or mules. In instincts and in character, also, the typical "mountaineers" are to a marked degree primitive; they are, for the most part, very ignorant; they are primitively hospitable and are warm-hearted to friends and strangers, but are implacable in their enmities and are prone to vendettas and family feuds, which often result in the killing in open fight or from ambush of members of one faction by members of another; and their relative seclusion and isolation has brought them, especially in some districts, to a disregard for law, or to a belief that they must execute justice with their own hands. This appears particularly in their attitude toward revenue officers sent to discover and close illicit stills for the distilling from Indian corn of so-called "moon-shine" whisky (consisting largely of pure alcohol). The taking of life and "moon-shining," however, have become less and less frequent among them, and Berea College, at Berea, the Lincoln Memorial University, and other schools in Kentucky and adjoining states have done much to educate them and bring them more in harmony with the outside community.

The population of Kentucky is largely rural. However, in the decade between 1890 and 1900 the percentage of urban population (*i.e.* population of places of 4000 inhabitants or more) to the total population increased from 17·5 to 19·7 and the percentage of semi-urban (*i.e.* population of incorporated places with a population of less than 4000) to the total increased from 8·86 to 9·86%; but 48·3% of the urban population of 1900 was in the city of Louisville. In 1910 the following cities each had a population of more than 5000. Louisville (223,928), Covington (53,270), Lexington (35,099), Newport (30,309), Paducah (22,760), Owensboro (16,011), Henderson (11,452), Frankfort, the capital (10,465), Hopkinsville (9419), Bowling Green (9173), Ashland (8688), Middlesboro (7305), Winchester (7156), Dayton (6979), Bellevue (6683), Maysville (6141), Mayfield (5916), Paris (5859), Danville (5420), Richmond (5340). Of historical interest are Harrodsburg (*q.v.*), the first permanent settlement in the state, and Bardstown (pop. in 1900, 1711), the county-seat of Nelson county. Bardstown was settled about 1775, largely by Roman Catholics from Maryland. It was the see of a Roman Catholic bishop from 1810 to 1841, and the seat of St Joseph's College (Roman Catholic) from 1824 to 1890; and was for some time the home of John Fitch (1743–1798), the inventor, who built his first boat here. The Nazareth Literary and Benevolent Institution, at Nazareth (2 m. N. of Bardstown), was founded in 1829 and is a well-known Roman Catholic school for girls. Boonesborough, founded by Daniel Boone in 1775, in what is now Madison county, long ago ceased to exist, though a railway station named Boone, on the Louisville & Nashville railroad, is near the site of the old settlement.

In 1906 there were 858,324 communicants of different religious denominations in the state, including 311,583 Baptists, 165,908 Roman Catholics, 156,007 Methodists, 136,110 Disciples of Christ, 47,822 Presbyterians and 8091 Protestant Episcopalians.

Administration.—Kentucky is governed under a constitution adopted in 1891.[3] A convention to revise the constitution or to draft a new one meets on the call of two successive legislatures, ratified by a majority of the popular vote, provided that majority be at least one-fourth of the total number of votes cast at the preceding general election. Ordinary amendments are proposed by a three-fifths majority in each house, and are also subject to popular approval. With the usual exceptions of criminals,

[1] For a full account of the "licks," see vol. i. pt. ii. of the *Memoirs of the Kentucky Geological Survey* (1876).

[2] The population of the state at the previous censuses was: 73,677 in 1790; 220,955 in 1800; 406,511 in 1810; 564,317 in 1820; 687,917 in 1830; 779,828 in 1840; 982,405 in 1850; 1,155,684 in 1860 and 1,321,011 in 1870.

[3] There were three previous constitutions—those of 1792, 1799 and 1850.

idiots and insane persons, all male citizens of the United States, who are at least 21 years of age, and have lived in the state one year, in the county six months, and in the voting precinct sixty days next preceding the election, are entitled to vote. The legislature provides by law for registration in cities of the first, second, third and fourth classes—the minimum population for a city of the fourth class being 3000. Corporations are forbidden to contribute money for campaign purposes on penalty of forfeiting their charters, or, if not chartered in the state, their right to carry on business in the state. The executive is composed of a governor, a lieutenant-governor, a treasurer, an auditor of public accounts, a register of the land office, a commissioner of agriculture, labour, and statistics, a secretary of state, an attorney-general and a superintendent of public instruction. All are chosen by popular vote for four years and are ineligible for immediate re-election, and each must be at least 30 years of age and must have been a resident citizen of the state for two years next preceding his election. If a vacancy occurs in the office of governor during the first two years a new election is held; if it occurs during the last two years the lieutenant-governor serves out the term. Lieutenant-governor Beckham, elected in 1900 to fill out the unexpired term of Governor Goebel (assassinated in 1900), was re-elected in 1903, the leading lawyers of the state holding that the constitutional inhibition on successive terms did not apply in such a case.

The governor is commander-in-chief of the militia when it is not called into the service of the United States; he may remit fines and forfeitures, commute sentences, and grant reprieves and pardons, except in cases of impeachment; and he calls extraordinary sessions of the legislature. His control of patronage, however, is not extensive and his veto power is very weak. He may veto any measure, including items in appropriation bills, but the legislature can repass such a measure by a simple majority of the total membership in each house. Among the various state administrative boards are the board of equalization of five members, the board of health of nine members, a board of control of state institutions with four members (bipartisan), and the railroad commission, the prison commission, the state election commission and the sinking fund commission of three members each. Legislative power is vested in a General Assembly, which consists of a Senate and a House of Representatives. Senators are elected for four years, one-half retiring every two years; representatives are elected for two years. The minimum age for a representative is 24 years, for a senator 30 years. There are thirty-eight senators and one hundred representatives. The Senate sits as a court for the trial of impeachment cases. A majority of either house constitutes a quorum, but as regards ordinary bills, on the third reading, not only must they receive a majority of the quorum, but that majority must be at least two-fifths of the total membership of the house. For the enactment of appropriation bills and bills creating a debt a majority of the total membership in each house is required. All revenue measures must originate in the House of Representatives, but the Senate may introduce amendments. There are many detailed restrictions on local and special legislation. The constitution provides for local option elections on the liquor question in counties, cities, towns and precincts; in 1907, out of 119 counties 87 had voted for prohibition.

The judiciary consists of a court of appeals, circuit courts, quarterly courts, county courts, justice of the peace courts, police courts and fiscal courts. The court of appeals is composed of from five to seven judges (seven in 1909), elected, one from each appellate district, for a term of eight years. The senior judge presides as chief justice and in case two or more have served the same length of time one of them is chosen by lot. The governor may for any reasonable cause remove judges on the address of two-thirds of each house of the legislature. The counties are grouped into judicial circuits, those containing a population of more than 150,000 constituting separate districts; each district has a judge and a commonwealth's attorney. The county officials are the judge, clerk, attorney, sheriff, jailor, coroner, surveyor and assessor, elected for four years. Each county contains from three to eight justice of the peace districts. The financial board of the county is composed of the county judge and the justices of the peace, or of the county judge and three commissioners elected on a general ticket.

The municipalities are divided into six classes according to population, a classification which permits considerable special local legislation in spite of the constitutional inhibition. Marriages between whites and persons of negro descent are prohibited by law, and a marriage of insane persons is legally void. Among causes for absolute divorce are adultery, desertion for one year, habitual drunkenness for one year, cruelty, ungovernable temper, physical incapacity at time of marriage, and the joining by either party of any religious sect which regards marriage as unlawful. A homestead law declares exempt from execution an unmortgaged dwelling-house (with appurtenances) not to exceed $1000 in value, and certain property, such as tools of one's trade, libraries (to the value of $500) of ministers and lawyers, and provisions for one year for each member of a family. Child labour is regulated by an act passed by the General Assembly in 1908; this act prohibits the employment of children less than 14 years of age in any gainful occupation during the session of school or in stores, factories, mines, offices, hotels or messenger service during vacations, and prohibits the employment of children between 14 and 16 unless they have employment certificates issued by a superintendent of schools or some other properly authorized person, showing the child's ability to read and write English, giving information as to the child's age (based upon a birth certificate if possible), and identifying the child by giving height and weight and colour of eyes and hair. These certificates must be kept on file and lists of children employed must be posted by employers; labour inspectors receive monthly lists from local school boards of children receiving certificates; and children under 16 are not to work more than 10 hours a day or 60 hours a week, or between 7 p.m. and 7 a.m.

Charitable and Penal Institutions.—The charitable and penal institutions are managed by separate boards of trustees appointed by the governor. There are a deaf and dumb institution at Danville (1823), an institution for the blind at Louisville (1842), and an institution for the education of feeble-minded children at Frankfort (1860). The Eastern Lunatic Asylum at Lexington, established in 1815 as a private institution, came under the control of the state in 1824. The Central Lunatic Asylum at Anchorage, founded in 1869 as a house of refuge for young criminals, became an asylum in 1873. The Western Lunatic Asylum at Hopkinsville was founded in 1848. The main penitentiary at Frankfort was completed in 1799 and a branch was established at Eddyville in 1891. Under an act of 1898 two houses of reform for juvenile offenders, one for boys, the other for girls, were established near Lexington.

Education.—The early history of the schools of Kentucky shows that the rural school conditions have been very unsatisfactory. A system of five trustees, with a sixty-day term of school, was replaced by a three trustee system, first with a one-hundred-day term of school, and subsequently with a one-hundred-and-twenty-day term of school annually. The state fund has not been supplemented locally for the payment of teachers, who have consequently been underpaid. The rural teachers, however, have been paid from the state fund, so that the poorer districts receive aid from the richer districts of the commonwealth. The rural schools are supervised by a superintendent in each county. Throughout the state white and negro children are taught in separate schools. The state makes provision for revenue for school purposes as follows: (1) the interest on the Bond of the Commonwealth for $1,327,000 00; (2) dividends on 798 shares of the capital stock of the Bank of Kentucky—representing a par value of $79,800.00; (3) the interest at 6% on the Bond of the Commonwealth for $381,986.08, which is a perpetual obligation in favour of the several counties; (4) the interest at 6% on $606,641.03, which was received from the United States; (5) the annual tax of 26½ cents on each $100 of value of all real and personal estate and corporate franchises directed to be assessed for taxation; (6) a certain portion of fines, forfeitures and licences realized by the state; and (7) a portion of the dog taxes of each county. The present school system of Kentucky may be summarized under three heads: the rural schools, the graded schools, and the high schools (which are further classified as city and county high schools). The 1908 session of the General Assembly passed an act providing: that each county of the state be the unit for taxation; that the county tax be mandatory; that there be a local subdistrict tax; and that each county be divided into four, six or eight educational divisions, that one trustee be elected for each subdistrict, that the trustees of the subdistricts form division Boards of Education, and that the chairmen of these various division boards form a County Board of Education together with the county superintendent, who is *ex officio* chairman. This system of taxation and supervision is a great advance in the administration of public schools. Any subdistrict, town or city of the fifth or sixth class may provide for a graded school by voting for an *ad valorem* and poll tax which is limited as to amount. There were in 1909 135 districts which had complied with this act, and were known as Graded Common School districts. By special charters the General Assembly has also established 25 special graded schools. Statutes provide that all children between the ages of 7 and 14 years living in such districts must attend school annually for at least eight consecutive weeks. In each city of the first, second and third class there must be, and of the fourth class there may be, maintained under control of a city Board of Education a system of public schools, in which all children between the ages of 6 and 20 residing in the city may be taught at public expense. There were in 1909 62 city public high schools whose graduates are admitted to the State University without examination. A truancy act (1908) provides that every child between the ages of 7 and 14 years living in a city of the first, second, third or fourth class must attend school regularly for the full term of said school. It was provided by statute that before June 1910,

there should have been established in each county of the state at least one County High School to which all common school graduates of the county should be admitted without charge. Separate institutes for white and coloured teachers are conducted annually in each county. These institutes are held for a five or ten day session and attendance is required of every teacher. The state provides for the issuance of three kinds of certificates. A state diploma issued by the State Board of Examiners is good for life. A state certificate issued by the State Board of Examiners is good for eight years with one renewal. County certificates issued by the County Board of Examiners are of three classes, valid for one, two and four years respectively.

According to a school census there was in 1908–1909 a school population of 739,352, of which 587,051 were reported from the rural districts. In the school year 1907–1908 the school population was 734,617, the actual enrolment in public schools was 441,377, the average attendance was 260,843; there were approximately 3392 male and 5257 female white teachers and 1274 negro teachers; and the total revenue for school purposes was $3,805,997, of which sum $2,437,942.56 came from the state treasury.

What was formerly the State Agricultural and Mechanical College at Lexington became the State University by legislative enactment (1908); there is no tuition fee except in the School of Law. The State University has a Department of Education. The state maintains for the whites two State Normal Schools, which were established in 1906—one, for the eastern district, at Richmond, and the other, for the western district, at Bowling Green. Under the law establishing State Normal Schools, each county is entitled to one or more appointments of scholarships, one annually for every 500 white school children listed in the last school census. A Kentucky Normal and Industrial School (1886) for negroes is maintained at Frankfort. Among the private and denominational colleges in Kentucky are Central University (Presbyterian), at Danville; Transylvania University, at Lexington; Georgetown College (Baptist) at Georgetown; Kentucky Wesleyan College (M.E. South), at Winchester; and Berea College(non-sectarian) at Berea.

Finance.—Kentucky, in common with other states in this part of the country, suffered from over-speculation in land and railways during 1830–1850. The funded debt of the state amounted to four and one-half millions of dollars in 1850, when the new constitution limited the power of the legislature to contract further obligations or to decrease or misapply the sinking funds. From 1850 to 1880 there was a gradual reduction except during the years of the war. The system of classifying the revenue into separate funds has frequently produced annual deficits, which are, as a rule only nominal, since the total receipts exceed the total expenditures. In 1902 the net bonded debt, exclusive of about two millions of dollars held for educational purposes, was $1,171,394, but this debt was paid in full in the years immediately following. The sinking fund commission is composed of the governor, attorney-general, secretary of state, auditor and treasurer. The first banking currency in Kentucky was issued in 1802 by a co-operative insurance company established by Mississippi Valley traders. The Bank of Kentucky, established at Frankfort in 1806, had a monopoly for several years. In 1818–1819 the legislature chartered 46 banks, nearly all of which went into liquidation during the panic of 1819. The Bank of the Commonwealth was chartered in 1820 as a state institution and the charter of the Bank of Kentucky was revoked in 1822. A court decision denying the legal tender quality of the notes issued by the Bank of the Commonwealth gave rise to a bitter controversy which had considerable influence upon the political history of the state. This bank failed in 1829. In 1834 the legislature chartered the Bank of Kentucky, the Bank of Louisville and the Northern Bank of Kentucky. These institutions survived the panic of 1837 and soon came to be recognized as among the most prosperous and the most conservative banks west of the Alleghanies. The state banking laws are stringent and most of the business is still controlled by banks operating under state charters.

History.—The settlement and the development of that part of the United States west of the Alleghany Mountains has probably been the most notable feature of American history since the close of the Seven Years' War (1763). Kentucky was the first settlement in this movement, the first state west of the Alleghany Mountains admitted into the Union. In 1763 the Kentucky country was claimed by the Cherokees as a part of their hunting grounds, by the Six Nations (Iroquois) as a part of their western conquests, and by Virginia as a part of the territory granted to her by her charter of 1609, although it was actually inhabited only by a few Chickasaws near the Mississippi river and by a small tribe of Shawnees in the north, opposite what is now Portsmouth, Ohio. The early settlers were often attacked by Indian raiders from what is now Tennessee or from the country north of the Ohio, but the work of colonization would have been far more difficult if those Indians had lived in the Kentucky region itself. Dr Thomas Walker (1715–1794), as an agent and surveyor of the Loyal Land Company, made an exploration in 1750 into the present state from the Cumberland Gap, in search of a suitable place for settlement but did not get beyond the mountain region. In the next year Christopher Gist, while on a similar mission for the Ohio Company, explored the country westward from the mouth of the Scioto river. In 1752 John Finley, an Indian trader, descended the Ohio river in a canoe to the site of Louisville. It was Finley's descriptions that attracted Daniel Boone, and soon after Boone's first visit, in 1767, travellers through the Kentucky region became numerous. The first permanent English settlement was established at Harrodsburg in 1774 by James Harrod, and in October of the same year the Ohio Indians, having been defeated by Virginia troops in the battle of Point Pleasant (in what is now West Virginia), signed a treaty by which they surrendered their claims south of the Ohio river. In March 1775 Richard Henderson and some North Carolina land speculators met about 1200 Cherokee Indians in council on the Watauga river and concluded a treaty with them for the purchase of all the territory south of the Ohio river and between the Kentucky and Cumberland rivers. The purchase was named Transylvania, and within less than a month after the treaty was signed, Boone, under its auspices, founded a settlement at Boonesborough which became the headquarters of the colony. The title was declared void by the Virginia government in 1778, but Henderson and his associates received 200,000 acres in compensation, and all sales made to actual settlers were confirmed. During the War of Independence the colonists were almost entirely neglected by Virginia and were compelled to defend themselves against the Indians who were often under British leadership. Boonesborough was attacked in April and in July 1777 and in August 1778. Bryant's (or Bryan's) Station, near Lexington, was besieged in August 1782 by about 600 Indians under the notorious Simon Girty, who after raising the siege drew the defenders, numbering fewer than 200, into an ambush and in the battle of Blue Licks which ensued the Kentuckians lost about 67 killed and 7 prisoners. Kentucky county, practically coterminous with the present state of Kentucky and embracing all the territory claimed by Virginia south of the Ohio river and west of Big Sandy Creek and the ridge of the Cumberland Mountains, was one of three counties which was formed out of Fincastle county in 1776. Four years later, this in turn was divided into three counties, Jefferson, Lincoln and Fayette, but the name Kentucky was revived in 1782 and was given to the judicial district which was then organized for these three counties. The War of Independence was followed by an extensive immigration from Virginia, Maryland and North Carolina[1] of a population of which fully 95%, excluding negro slaves, were of pure English, Scotch or Scotch-Irish descent. The manners, customs and institutions of Virginia were transplanted beyond the mountains. There was the same political rivalry between the slave-holding farmers of the Blue Grass Region and the "poor whites" of the mountain districts that there was in Virginia between the tide-water planters and the mountaineers. Between these extremes were the small farmers of the "Barrens"[2] in Kentucky and of the Piedmont Region in Virginia. The aristocratic influences in both states have always been on the Southern and Democratic side, but while they were strong enough in Virginia to lead the state into secession they were unable to do so in Kentucky.

[1] Most of the early settlers of Kentucky made their way thither either by the Ohio river (from Fort Pitt) or—the far larger number—by way of the Cumberland Gap and the "Wilderness Road." This latter route began at Inglis's Ferry, on the New river, in what is now West Virginia, and proceeded west by south to the Cumberland Gap. The "Wilderness Road," as marked by Daniel Boone in 1775, was a mere trail, running from the Watauga settlement in east Tennessee to the Cumberland Gap, and thence by way of what are now Crab Orchard, Danville and Bardstown, to the Falls of the Ohio, and was passable only for men and horses until 1795, when the state made it a wagon road. Consult Thomas Speed, *The Wilderness Road* (Louisville, Ky., 1886), and Archer B. Hulbert, *Boone's Wilderness Road* (Cleveland, O., 1903).

[2] The "Barrens" were in the north part of the state west of the Blue Grass Region, and were so called merely because the Indians had burned most of the forests here in order to provide better pasturage for buffaloes and other game.

At the close of the War of Independence the Kentuckians complained because the mother state did not protect them against their enemies and did not give them an adequate system of local government. Nine conventions were held at Danville from 1784 to 1790 to demand separation from Virginia. The Virginia authorities expressed a willingness to grant the demand provided Congress would admit the new district into the Union as a state. The delay, together with the proposal of John Jay, the Secretary for Foreign Affairs and commissioner to negotiate a commercial treaty with the Spanish envoy, to surrender navigation rights on the lower Mississippi for twenty-five years in order to remove the one obstacle to the negotiations, aroused so much feeling that General James Wilkinson and a few other leaders began to intrigue not only for a separation from Virginia, but also from the United States, and for the formation of a close alliance with the Spanish at New Orleans. Although most of the settlers were too loyal to be led into any such plot they generally agreed that it might have a good effect by bringing pressure to bear upon the Federal government. Congress passed a preliminary act in February 1791, and the state was formally admitted into the Union on the 1st of June 1792. In the Act of 1776 for dividing Fincastle county, Virginia, the ridge of the Cumberland Mountains was named as a part of the east boundary of Kentucky; and now that this ridge had become a part of the boundary between the states of Virginia and Kentucky they, in 1799, appointed a joint commission to run the boundary line on this ridge. A dispute with Tennessee over the southern boundary was settled in a similar manner in 1820.[1] The constitution of 1792 provided for manhood suffrage and for the election of the governor and of senators by an electoral college. General Isaac Shelby was the first governor. The people still continued to have troubles with the Indians and with the Spanish at New Orleans. The Federal government was slow to act, but its action when taken was effective. The power of the Indians was overthrown by General Anthony Wayne's victory in the battle of Fallen Timbers, fought the 20th of August 1794 near the rapids of the Maumee river a few miles above the site of Toledo, Ohio; and the Mississippi question was settled temporarily by the treaty of 1795 and permanently by the purchase of Louisiana in 1803. In 1798–1799 the legislature passed the famous Kentucky Resolutions in protest against the alien and sedition acts.

For several years the Anti-Federalists or Republicans had contended that the administration at Washington had been exercising powers not warranted by the constitution, and when Congress had passed the alien and sedition laws the leaders of that party seized upon the event as a proper occasion for a spirited public protest which took shape principally in resolutions passed by the legislatures of Kentucky and Virginia. The original draft of the Kentucky Resolutions of 1798 was prepared by Vice-President Thomas Jefferson, although the fact that he was the author of them was kept from the public until he acknowledged it in 1821. They were introduced in the House of Representatives by John Breckinridge on the 8th of November, were passed by that body with some amendments but with only one dissenting vote on the 10th, were unanimously concurred in by the Senate on the 13th, and were approved by Governor James Garrard on the 16th. The first resolution was a statement of the ultra states'-rights view of the relation of the states to the Federal government[2] and subsequent resolutions declare the alien and sedition laws unconstitutional and therefore "void and of no force," principally on the ground that they provided for an exercise of powers which were reserved to the state. The resolutions further declare that "this Commonwealth is determined, as it doubts not its co-states are, tamely to submit to undelegated and therefore unlimited powers in no man or body of men on earth," and that "these and successive acts of the same character, unless arrested on the threshold, may tend to drive these states into revolution and blood." Copies of the resolutions were sent to the governors of the various states, to be laid before the different state legislatures, and replies were received from Connecticut, Delaware, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Virginia, but all except that from Virginia were unfavourable. Nevertheless the Kentucky legislature on the 22nd of November 1799 reaffirmed in a new resolution the principles it had laid down in the first series, asserting in this new resolution that the state "does now unequivocally declare its attachment to the Union, and to that compact [the Constitution], agreeably to its obvious and real intention, and will be among the last to seek its dissolution," but that "the principle and construction contended for by sundry of the state legislatures, that the General Government is the exclusive judge of the extent of the powers delegated to it, stop nothing [short] of *despotism*—since the discretion of those who administer the government, and not the *Constitution*, would be the measure of their powers," "that the several states who formed that instrument, being sovereign and independent, have the unquestionable right to judge of the infraction," and "that a *nullification by those sovereignties of all unauthorized acts done under color of that instrument is the rightful remedy.*" These measures show that the state was Democratic-Republican in its politics and pro-French in its sympathies, and that it was inclined to follow the leadership of that state from which most of its people had come.

The constitution of 1799 adopted the system of choosing the governor and senators by popular vote and deprived the supreme court of its original jurisdiction in land cases. The Burr conspiracy (1804–1806) aroused some excitement in the state. Many would have followed Burr in a filibustering attack upon the Spanish in the South-West, but scarcely any would have approved of a separation of Kentucky from the Federal Union. No battles were fought in Kentucky during the War of 1812, but her troops constituted the greater part of the forces under General William Henry Harrison. They took part in the operations at Fort Wayne, Fort Meigs, the river Raisin and the Thames.

The Democratic-Republicans controlled the politics of the state without any serious opposition until the conflict in 1820–1826, arising from the demands for a more adequate system of currency and other measures for the relief of delinquent debtors divided the state into what were known as the relief and anti-relief parties. After nearly all the forty-six banks chartered by the legislature in 1818 had been wrecked in the financial panic of 1819, the legislature in 1820 passed a series of laws designed for the benefit of the debtor class, among them one making state bank notes a legal tender for all debts. A decision of the Clark county district court declaring this measure unconstitutional was affirmed by the court of appeals. The legislature in 1824 repealed all of the laws creating the existing court of appeals and then established a new one. This precipitated a bitter campaign

[1] The southern boundary to the Tennessee river was surveyed in 1779–1780 by commissioners representing Virginia and North Carolina, and was supposed to be run along the parallel of latitude 36° 30′, but by mistake was actually run north of that parallel. By a treaty of 1819 the Indian title to the territory west of the Tennessee was extinguished, and commissioners then ran a line along the parallel of 36° 30′ from the Mississippi to the Tennessee. In 1820 commissioners representing Kentucky and Tennessee formally adopted the line of 1779–1780 and the line of 1819 as the boundary between the two states.

[2] This resolution read as follows: Resolved, that the several states composing the United States of America are not united on the principle of unlimited submission to their general government; but that by compact under the style of a Constitution for the United States and of amendments thereto, they constituted a general government for special purposes, delegated to that government certain definite powers, reserving each state to itself the residuary mass of right to their own self-government; and that whensoever the general government assumes undelegated powers its acts are unauthoritative, void, and of no force: That to this compact each state acceded as a state, and is an integral party, its co-states forming, as to itself, the other party: That the government created by this compact was not made the exclusive or final judge of the extent of the powers delegated to itself, since that would have made its discretion, and not the Constitution, the measure of its powers; but that, as in all other cases of compact among parties having no common judge, each party has an equal right to judge for itself as well of infractions as of the mode and measure of redress.

between the anti-relief or "old court" party and the relief or "new court" party, in which the former was successful. The old court party followed the lead of Henry Clay and John Quincy Adams in national politics, and became National Republicans and later Whigs. The new court party followed Andrew Jackson and Martin Van Buren and became Democrats. The electoral vote of the state was cast for Jackson in 1828 and for Clay in 1832. During the next thirty years Clay's conservative influence dominated the politics of the state.[1] Kentucky voted the Whig ticket in every presidential election from 1832 until the party made its last campaign in 1852. When the Whigs were destroyed by the slavery issue some of them immediately became Democrats, but the majority became Americans, or Know-Nothings. They elected the governor in 1855 and almost succeeded in carrying the state for their presidential ticket in 1856. In 1860 the people of Kentucky were drawn toward the South by their interest in slavery and by their social relations, and toward the North by business ties and by a national sentiment which was fostered by the Clay traditions. They naturally assumed the leadership in the Constitutional Union movement of 1860, casting the vote of the state for Bell and Everett. After the election of President Lincoln they also led in the movement to secure the adoption of the Crittenden Compromise or some other peaceful solution of the difficulties between the North and the South.

A large majority of the state legislature, however, were Democrats, and in his message to this body, in January 1861, Governor Magoffin, also a Democrat, proposed that a convention be called to determine "the future of Federal and inter-state relations of Kentucky;" later too, in reply to the president's call for volunteers, he declared, "Kentucky will furnish no troops for the wicked purpose of subduing her sister Southern States." Under these conditions the Unionists asked only for the maintenance of neutrality, and a resolution to this effect was carried by a bare majority—48 to 47. Some of the secessionists took this as a defeat and left the state immediately to join the Confederate ranks. In the next month there was an election of congressmen, and an anti-secession candidate was chosen in nine out of ten districts. An election in August of one-half the Senate and all of the House of Representatives resulted in a Unionist majority in the new legislature of 103 to 35, and in September, after Confederate troops had begun to invade the state, Kentucky formally declared its allegiance to the Union. From September 1861 to the fall of Fort Donelson in February 1862 that part of Kentucky which is south and west of the Green River was occupied by the Confederate army under General A. S. Johnston, and at Russellville in that district a so-called "sovereignty convention" assembled on the 18th of November. This body, composed mostly of Kentucky men who had joined the Confederate army, passed an ordinance of secession, elected state officers, and sent commissioners to the Confederate Congress, which body voted on the 9th of December to admit Kentucky into the Confederacy. Throughout the war Kentucky was represented in the Confederate Congress—representatives and senators being elected by Confederate soldiers from the state. The officers of this "provisional government," headed by G. W. Johnson, who had been elected "governor," left the state when General A. S. Johnston withdrew; Johnson himself was killed at Shiloh, but an attempt was subsequently made by General Bragg to install this government at Frankfort. General Felix K. Zollicoffer (1812–1862) had entered the south-east part of the state through Cumberland Gap in September, and later with a Confederate force of about 7000 men attempted the invasion of central Kentucky, but in October 1861 he met with a slight repulse at Wild Cat Mountain, near London, Laurel county, and on the 19th of January 1862, in an engagement near Mill Springs, Wayne county, with about an equal force under General George H. Thomas, he was killed and his force was utterly routed. In 1862 General Braxton Bragg in command of the Confederates in eastern Tennessee, eluded General Don Carlos Buell, in command of the Federal Army of the Ohio stationed there, and entering Kentucky in August 1862 proceeded slowly toward Louisville, hoping to win the state to the Confederate cause and gain recruits for the Confederacy in the state. His main army was preceded by a division of about 15,000 men under General Edmund Kirby Smith, who on the 30th of August defeated a Federal force under General Wm. Nelson near Richmond and threatened Cincinnati. Bragg met with little opposition on his march, but Buell, also marching from eastern Tennessee, reached Louisville first (Sept. 24), turned on Bragg, and forced him to withdraw. On his retreat, Bragg attempted to set up a Confederate government at Frankfort, and Richard J. Hawes, who had been chosen as G. W. Johnson's successor, was actually "inaugurated," but naturally this state "government" immediately collapsed. On the 8th of October Buell and Bragg fought an engagement at Perryville which, though tactically indecisive, was a strategic victory for Buell; and thereafter Bragg withdrew entirely from the state into Tennessee. This was the last serious attempt on a large scale by the Confederates to win Kentucky; but in February 1863 one of General John H. Morgan's brigades made a raid on Mount Sterling and captured it; in March General Pegram made a raid into Pulaski county; in March 1864 General N. B. Forrest assaulted Fort Anderson at Paducah but failed to capture it; and in June General Morgan made an unsuccessful attempt to take Lexington.

Although the majority of the people sympathized with the Union, the emancipation of the slaves without compensation even to loyal owners, the arming of negro troops, the arbitrary imprisonment of citizens and the interference of Federal military officials in purely civil affairs aroused so much feeling that the state became strongly Democratic, and has remained so almost uniformly since the war. Owing to the panic of 1893, distrust of the free silver movement and the expenditure of large campaign funds, the Republicans were successful in the gubernational election of 1895 and the presidential election of 1896. The election of 1899 was disputed. William S. Taylor, Republican, was inaugurated governor on the 12th of December, but the legislative committee on contests decided in favour of the Democrats. Governor-elect Goebel was shot by an assassin on the 30th of January 1900, was sworn into office on his deathbed, and died on the 3rd of February. Taylor fled the state to escape trial on the charge of murder. Lieutenant-Governor Beckham filled out the unexpired term and was re-elected in 1903. In 1907 the Republicans again elected their candidate for governor.

GOVERNORS OF KENTUCKY

Isaac Shelby	Democratic-Republican		1792–1796
James Garrard	,,	,,	1796–1804
Christopher Greenup	,,	,,	1804–1808
Charles Scott	,,	,,	1808–1812
Isaac Shelby	,,	,,	1812–1816
George Madison*	,,	,	1816
Gabriel Slaughter (acting)	,,	,,	1816–1820
John Adair	,,	,,	1820–1824
Joseph Desha	,,	,,	1824–1828
Thomas Metcalfe	National	,,	1828–1832
John Breathitt*		Democrat	1832–1834
James T. Morehead (acting)		,,	1834–1836
James Clark*		Whig	1836
Charles A. Wickliffe (acting)		,,	1836–1840
Robert P. Letcher		,,	1840–1844
William Owsley		,,	1844–1848
John J. Crittenden†		,,	1848–1850
John L. Helm†		Democrat	1850–1851
Lazarus W. Powell		,,	1851–1855
Charles S. Morehead		American	1855–1859
Beriah Magoffin		Democrat	1859–1862
James F. Robinson		,,	1862–1863
Thomas E. Bramlette		,,	1863–1867
John L. Helm*		,,	1867
John W. Stevenson‡		,,	1867–1871
Preston H. Leslie‡		,,	1871–1875
James B. McCreary		,,	1875–1879
Luke P. Blackburn		,,	1879–1883
J. Proctor Knott		,,	1883–1887
Simon B. Buckner		,,	1887–1891
John Y. Brown		,,	1891–1895

[1] He died in 1852, but the traditions which he represented survived.

GOVERNORS OF KENTUCKY—*continued*

William O. Bradley	Republican	1895–1899
William S. Taylor §	,,	1899–1900
William Goebel*	Democrat	1900
J. C. W. Beckham	,,	1900–1907
Augustus E. Willson	Republican	1907–

* Died in office.

† Governor Crittenden resigned on the 31st of July to become Attorney-General of the United States and John L. Helm served out the unexpired term.

‡ Governor Stevenson resigned on the 13th of February 1871 to become U.S. Senator from Kentucky. P. H. Leslie filled out the remainder of the term and was elected in 1871 for a full term.

§ Taylor's election was contested by Goebel, who received the certificate of election.

BIBLIOGRAPHY.—For descriptions of physical features and accounts of natural resources see *Reports of the Kentucky Geological Survey*, the *Biennial Reports of the Bureau of Agriculture, Labor and Statistics*, the *Reports* of the United States Census and various publications of the U.S. Geological Survey, and other publications listed in Bulletin 301 (*Bibliography and Index of North American Geology* for 1901–1905) and other bibliographies of the Survey. For an early description, see Gilbert Imlay, *A Topographical Description of the Western Territory of North America* (London, 3rd ed., 1797), in which John Filson's "Discovery, Settlement and Present State of Kentucke" (1784) is reprinted. For a brief description of the Blue Grass Region, see James Lane Allen's *The Blue Grass Region of Kentucky and other Kentucky Articles* (New York, 1900). An account of the social and industrial life of the people in the "mountain" districts is given in William H. Haney's *The Mountain People of Kentucky* (Cincinnati, 1906). For administration, see the *Official Manual for the Use of the Courts, State and County Officials and General Assembly of the State of Kentucky* (Lexington), which contains the Constitution of 1891; *The Report of the Debates and Proceedings of the Convention . . . of 1849* (Frankfort, 1849); *The Official Report of the Proceedings and Debates of the Constitutional Convention of 1890* (4 vols., Frankfort, 1890); B. H. Young, *History and Texts of Three Constitutions of Kentucky* (Louisville, 1890); J. F. Bullitt and John Feland, *The General Statutes of Kentucky* (Frankfort and Louisville, 1877, revised editions, 1881, 1887); and the *Annual Reports* of state officers and boards. For history see R. M. McElroy's *Kentucky in the Nation's History* (New York, 1909, with bibliography); or (more briefly) N. S. Shaler's *Kentucky* (Boston, 1885), in the American Commonwealths Series. John M. Brown's *The Political Beginnings of Kentucky* (Louisville, 1889) is a good monograph dealing with the period before 1792; it should be compared with Thomas M. Green's *The Spanish Conspiracy: A Review of Early Spanish Movements in the Southwest* (Cincinnati, 1891), written in reply to it. Among older histories are Humphrey Marshall, *The History of Kentucky . . . and the Present State of the Country* (2 vols., Frankfort, 1812, 1824), extremely Federalistic in tone; Mann Butler, *History of Kentucky from its Exploration and Settlement by the Whites to the close of the Southwestern Campaign of 1813* (Louisville, 1834; 2nd ed., Cincinnati, 1836), and Lewis Collins, *The History of Kentucky* (2 vols., revised edition, Covington, Ky., 1874), a valuable store-house of facts, the basis of Shaler's work. E. D. Warfield's *The Kentucky Resolutions of 1798* (New York, 2nd ed., 1887) is an excellent monograph. For the Civil War history see "Campaigns in Kentucky and Tennessee," in the 7th volume of *Papers of the Military Historical Society of Massachusetts* (Boston, 1908); Thomas Speed, *The Union Cause in Kentucky* (New York, 1907); Basil W. Duke, *History of Morgan's Cavalry* (Cincinnati, 1867), and general works on the history of the war. See also Alvin F. Lewis, *History of Higher Education in Kentucky*, in Circulars of Information of the U.S. Bureau of Education (Washington, 1899), and R. G. Thwaites, *Daniel Boone* (New York, 1902). There is much valuable material in the *Register* (Frankfort, 1903 seq.) of the Kentucky State Historical Society, and especially in the publications of the Filson Club of Louisville. Among the latter are R. T. Durrett's *John Filson, the first Historian of Kentucky* (1884); Thomas Speed, *The Wilderness Road* (1886); W. H. Perrin, *The Pioneer Press of Kentucky* (1888); G. W. Ranck, *Boonesborough: Its Founding, Pioneer Struggles, Indian Experiences, Transylvania Days and Revolutionary Annals* (1901), and *The Centenary of Kentucky* (1892), containing an address, "The State of Kentucky: Its Discovery, Settlement, Autonomy and Progress in a Hundred Years," by Reuben T. Durrett.

KENYA, a great volcanic mountain in British East Africa, situated just south of the equator in 37° 20′ E. It is one of the highest mountains of Africa, its highest peak reaching an altitude of 17,007 ft. (with a possible error of 30 ft. either way). The central core, which consists of several steep pyramids, is that of a very denuded old volcano, which when its crater was complete may have reached 2000 ft. above the present summit. Lavas dip in all directions from the central crystalline core, pointing to the conclusion that the main portion of the mountain represents a single volcanic mass. From the central peaks, of which the axis runs from W.N.W. to S.S.E., ridges radiate outwards, separated by broad valleys, ending upwards in vast cirques. The most important ridges centre in the peak Lenana (16,300 ft.) at the eastern end of the central group, and through it runs the chief water-parting of the mountain, in a generally north to south direction. Three main valleys, known respectively as Hinde, Gorges and Hobley valleys, run down from this to the east, and four—Mackinder, Hausberg, Teleki and Höhnel—to the west. From the central peaks fifteen glaciers, all lying west of the main divide, descend to the north and south, the two largest being the Lewis and Gregory glaciers, each about 1 m. long, which, with the smaller Kolb glacier, lie immediately west of the main divide. Most of the glaciers terminate at an altitude of 14,800–14,900 ft., but the small César glacier, drained to the Hausberg valley, reaches to 14,450. Glaciation was formerly much more extensive, old moraines being observed down to 12,000 ft. In the upper parts of the valleys a number of lakes occur, occupying hollows and rock basins in the agglomerates and ashes, fed by springs, and feeding many of the streams that drain the mountain slopes. The largest of these are Lake Höhnel, lying at an altitude of 14,000 ft., at the head of the valley of the same name, and measuring 600 by 400 yds.; and Lake Michaelson (12,700 ft.?) in the Gorges Valley. At a distance from the central core the radiating ridges become less abrupt and descend with a gentle gradient, finally passing somewhat abruptly, at a height of some 7000 ft., into the level plateau. These outer slopes are clothed with dense forest and jungle, composed chiefly of junipers and *Podocarpus*, and between 8000 and 9800 ft. of huge bamboos. The forest zone extends to about 10,500 ft., above which is the steeper alpine zone, in which pasturages alternate with rocks and crags. This extends to a general height of about 15,000 ft., but in damp, sheltered valleys the pasturages extend some distance higher. The only trees or shrubs in this zone are the giant *Senecio* (groundsel) and *Lobelia*, and tree-heaths, the *Senecio* forming groves in the upper valleys. Of the fauna of the lower slopes, tracks of elephant, leopard and buffalo have been seen, between 11,500 and 14,500 ft. That of the alpine zone includes two species of dassy (*Procavia*), a coney (*Hyrax*), and a rat (*Olomys*). The bird fauna is of considerable interest, the finest species of the upper zone being an eagle-owl, met with at 14,000 ft. At 11,000 ft. was found a brown chat, with a good deal of white in the tail. Both the fauna and flora of the higher levels present close affinities with those of Mount Elgon, of other mountains of East Africa and of Cameroon Mountain. The true native names of the mountain are said to be Kilinyaga, Doenyo Ebor (white mountain) and Doenyo Egeri (spotted mountain). It was first seen, from a distance, by the missionary Ludwig Krapf in 1849; approached from the west by Joseph Thomson in 1883; partially ascended by Count S. Teleki (1889), J. W. Gregory (1893) and Georg Kolb (1896); and its summit reached by H. J. Mackinder in 1899.

See J. W. Gregory, *The Great Rift-Valley* (London, 1896); H. J. Mackinder, "Journey to the Summit of Mount Kenya," *Geog. Jnl.*, May 1900. (E. HE.)

KENYON, LLOYD KENYON, 1ST BARON (1732–1802), lord chief-justice of England, was descended by his father's side from an old Lancashire family; his mother was the daughter of a small proprietor in Wales. He was born at Gredington, Flintshire, on the 5th of October 1732. Educated at Ruthin grammar school, he was in his fifteenth year articled to an attorney at Nantwich, Cheshire. In 1750 he entered at Lincoln's Inn, London, and in 1756 was called to the bar. As for several years he was almost unemployed, he utilized his leisure in taking notes of the cases argued in the court of King's Bench, which he afterwards published. Through answering the cases of his friend John Dunning, afterwards Lord Ashburton, he gradually became known to the attorneys, after which his success was so rapid that in 1780 he was made king's counsel. He showed conspicuous ability in the cross-examination of the witnesses at the trial of Lord George Gordon, but his speech was so tactless that the verdict of acquittal was really due to the brilliant effort of Erskine, the junior counsel. This want of tact, indeed, often betrayed Kenyon into striking blunders; as an advocate he was,

moreover, deficient in ability of statement; and his position was achieved chiefly by hard work, a good knowledge of law and several lucky friendships. Through the influence of Lord Thurlow, Kenyon in 1780 entered the House of Commons as member for Hindon, and in 1782 he was, through the same friendship, appointed attorney-general in Lord Buckingham's administration, an office which he continued to hold under Pitt. In 1784 he received the mastership of the rolls, and was created a baronet. In 1788 he was appointed lord chief justice as successor to Lord Mansfield, and the same year was raised to the peerage as Baron Kenyon of Gredington. As he had made many enemies, his elevation was by no means popular with the bar; but on the bench, in spite of his capricious and choleric temper, he proved himself not only an able lawyer, but a judge of rare and inflexible impartiality. He died at Bath, on the 4th of April 1802. Kenyon was succeeded as 2nd baron by his son George (1776–1855), whose great-grandson, Lloyd (b. 1864), became the 4th baron in 1869.

See *Life* by Hon. G. T. Kenyon, 1873.

KEOKUK, a city of Lee county, Iowa, U.S.A., on the Mississippi river, at the mouth of the Des Moines, in the S.E. corner of the state, about 200 m. above St Louis. Pop. (1900), 14,641; (1905), 14,604, including 1534 foreign-born; (1910), 14,008. It is served by the Chicago, Burlington & Quincy, the Chicago, Rock Island & Pacific, the Wabash, and the Toledo, Peoria & Western railways. There is a bridge (about 2200 ft. long) across the Mississippi, and another (about 1200 ft. long) across the Des Moines. The city has a public library and St Joseph and Graham hospitals, and is the seat of the Keokuk Medical College (1849). There is a national cemetery here. Much of the city is built on bluffs along the Mississippi. Keokuk is at the foot of the Des Moines Rapids, round which the Federal Government has constructed a navigable canal (opened 1877) about 9 m. long, with a draft at extreme low water of 5 ft.; at the foot a great dam, 1½ m. long and 38 ft. high, has been constructed. Keokuk has various manufactures; its factory product in 1905 was valued at $4,225,915, 38·6% more than in 1900. The city was named after Keokuk, a chief of the Sauk and Foxes (1780–1848), whose name meant "the watchful" or "he who moves alertly." In spite of Black Hawk's war policy in 1832 Keokuk was passive and neutral, and with a portion of his nation remained peaceful while Black Hawk and his warriors fought. His grave, surmounted by a monument, is in Rand Park. The first house on the site of the city was built about 1820, but further settlement did not begin until 1836. Keokuk was laid out as a town in 1837, was chartered as a city in 1848, and in 1907 was one of five cities of the state governed by a special charter.

KEONJHAR, a tributary state of India, within the Orissa division of Bengal; area, 3096 sq. m.; pop. (1901), 285,758; estimated revenue, £20,000. The state is an offshoot from Mayurbhanj. Part of it consists of rugged hills, rising to more than 3000 ft. above sea-level. The residence of the raja is at Keonjhar (pop. 4532).

KEONTHAL, a petty hill state in the Punjab, India, with an area of 116 sq. m.; pop. (1901), 22,499; estimated revenue, £4400. The chief, a Rajput, received the title of raja in 1857. After the Gurkha War in 1815, a portion of Keonthal, which had been occupied by the Gurkhas, was sold to the maharaja of Patiala, the remainder being restored to its hereditary chief. In 1823 the district of Punar was added to the Keonthal state. The raja exercises rights of lordship over the petty states of Kothi, Theog, Madhan and Ratesh.

KEPLER, JOHANN (1571–1630), German astronomer, was born on the 27th of December 1571, at Weil, in the duchy of Württemberg, of which town his grandfather was burgomaster. He was the eldest child of an ill-assorted union. His father, Henry Kepler, was a reckless soldier of fortune; his mother, Catherine Guldenmann, the daughter of the burgomaster of Eltingen, was undisciplined and ill-educated. Her husband found campaigning in Flanders under Alva a welcome relief from domestic life; and, after having lost all he possessed by a forfeited security and tried without success the trade of tavern-keeping in the village of Elmendingen, he finally, in 1589, deserted his family. The misfortune and misconduct of his parents were not the only troubles of Kepler's childhood. He recovered from small-pox in his fourth year with crippled hands and eyesight permanently impaired; and a constitution enfeebled by premature birth had to withstand successive shocks of severe illness. His schooling began at Leonberg in 1577—the year, as he himself tells us, of a great comet; but domestic bankruptcy occasioned his transference to field-work, in which he was exclusively employed for several years. Bodily infirmity, combined with mental aptitude, were eventually considered to indicate a theological vocation; he was, in 1584, placed at the seminary of Adelberg, and thence removed, two years later, to that of Maulbronn. A brilliant examination for the degree of bachelor procured him, in 1588, admittance on the foundation to the university of Tübingen, where he laid up a copious store of classical erudition, and imbibed Copernican principles from the private instructions of his teacher and life-long friend, Michael Maestlin. As yet, however, he had little knowledge of, and less inclination for, astronomy; and it was with extreme reluctance that he turned aside from the more promising career of the ministry to accept, early in 1594, the vacant chair of that science at Gratz, placed at the disposal of the Tübingen professors by the Lutheran states of Styria.

The best recognized function of German astronomers in that day was the construction of prophesying almanacs, greedily bought by a credulous public. Kepler thus found that the first duties required of him were of an astrological nature, and set himself with characteristic alacrity to master the rules of the art as laid down by Ptolemy and Cardan. He, moreover, sought in the events of his own life a verification of the theory of planetary influences; and it is to this practice that we owe the summary record of each year's occurrences which, continued almost to his death, affords for his biography a slight but sure foundation. But his thoughts were already working in a higher sphere. He early attained to the settled conviction that for the actual disposition of the solar system some abstract intelligible reason must exist, and this, after much meditation, he believed himself to have found in an imaginary relation between the "five regular solids" and the number and distances of the planets. He notes with exultation the 9th of July 1595, as the date of the pseudo-discovery, the publication of which in *Prodromus Dissertationum Cosmographicarum seu Mysterium Cosmographicum* (Tübingen, 1596) procured him much fame, and a friendly correspondence with the two most eminent astronomers of the time, Tycho Brahe and Galileo.

Soon after his arrival at Gratz, Kepler contracted an engagement with Barbara von Mühleck, a wealthy Styrian heiress, who, at the age of twenty-three, had already survived one husband and been divorced from another. Before her relatives could be brought to countenance his pretensions, Kepler was obliged to undertake a journey to Württemberg to obtain documentary evidence of the somewhat obscure nobility of his family, and it was thus not until the 27th of April 1597 that the marriage was celebrated. In the following year the archduke Ferdinand, on assuming the government of his hereditary dominions, issued an edict of banishment against Protestant preachers and professors. Kepler immediately fled to the Hungarian frontier, but, by the favour of the Jesuits, was recalled and reinstated in his post. The gymnasium, however, was deserted; the nobles of Styria began to murmur at subsidizing a teacher without pupils; and he found it prudent to look elsewhere for employment. His refusal to subscribe unconditionally to the rigid formula of belief adopted by the theologians of Tübingen permanently closed against him the gates of his *alma mater*. His embarrassment was relieved however by an offer from Tycho Brahe of the position of assistant in his observatory near Prague, which, after a preliminary visit of four months, he accepted. The arrangement was made just in time; for in August 1600 he received definitive notice to leave Gratz, and, having leased his wife's property, he departed with his family for Prague.

By Tycho's unexpected death (Oct. 24, 1601) a brilliant career seemed to be thrown open to Kepler. The emperor Rudolph II.

immediately appointed him to succeed his patron as imperial mathematician, although at a reduced salary of 500 florins; the invaluable treasure of Tycho's observations was placed at his disposal; and the laborious but congenial task was entrusted to him of completing the tables to which the grateful Dane had already affixed the title of *Rudolphine*. The first works executed by him at Prague were, nevertheless, a homage to the astrological proclivities of the emperor. In *De fundamentis astrologiae certioribus* (Prague, 1602) he declared his purpose of preserving and purifying the grain of truth which he believed the science to contain. Indeed, the doctrine of "aspects" and "influences" fitted excellently with his mystical conception of the universe, and enabled him to discharge with a semblance of sincerity the most lucrative part of his professional duties. Although he strictly limited his prophetic pretensions to the estimate of tendencies and probabilities, his forecasts were none the less in demand. Shrewd sense and considerable knowledge of the world came to the aid of stellar lore in the preparation of "prognostics" which, not unfrequently hitting off the event, earned him as much credit with the vulgar as his cosmical speculations with the learned. He drew the horoscopes of the emperor and Wallenstein, as well as of a host of lesser magnates; but, though keenly alive to the unworthy character of such a trade, he made necessity his excuse for a compromise with superstition. "Nature," he wrote, "which has conferred upon every animal the means of subsistence, has given astrology as an adjunct and ally to astronomy." He dedicated to the emperor in 1603 a treatise on the "great conjunction" of that year (*Judicium de trigono igneo*); and he published his observations on a brilliant star which appeared suddenly (Sept. 30, 1604), and remained visible for seventeen months, in *De stella nova in pede Serpentarii* (Prague, 1606). While sharing the opinion of Tycho as to the origin of such bodies by condensation of nebulous matter from the Milky Way, he attached a mystical signification to the coincidence in time and place of the sidereal apparition with a triple conjunction of Mars, Jupiter and Saturn.

The main task of his life was not meanwhile neglected. This was nothing less than the foundation of a new astronomy, in which physical cause should replace arbitrary hypothesis. A preliminary study of optics led to the publication, in 1604, of his *Astronomiae pars optica*, containing important discoveries in the theory of vision, and a notable approximation towards the true law of refraction. But it was not until 1609 that, the "great Martian labour" being at length completed, he was able, in his own figurative language, to lead the captive planet to the foot of the imperial throne. From the time of his first introduction to Tycho he had devoted himself to the investigation of the orbit of Mars, which, on account of its relatively large eccentricity, had always been especially recalcitrant to theory, and the results appeared in *Astronomia nova αἰτιολογητός, seu Physica coelestis tradita commentariis de motibus stellae Martis* (Prague, 1609). In this, the most memorable of Kepler's multifarious writings, two of the cardinal principles of modern astronomy—the laws of elliptical orbits and of equal areas—were established (see ASTRONOMY: *History*); important truths relating to gravity were enunciated, and the tides ascribed to the influence of lunar attraction; while an attempt to explain the planetary revolutions in the then backward condition of mechanical knowledge produced a theory of vortices closely resembling that afterwards adopted by Descartes. Having been provided, in August 1610, by Ernest, archbishop of Cologne, with one of the new Galilean instruments, Kepler began, with unspeakable delight, to observe the wonders revealed by it. He had welcomed with a little essay called *Dissertatio cum Nuncio Sidereo* Galileo's first announcement of celestial novelties; he now, in his *Dioptrice* (Augsburg, 1611), expounded the theory of refraction by lenses, and suggested the principle of the "astronomical" or inverting telescope. Indeed the work may be said to have founded the branch of science to which it gave its name.

The year 1611 was marked by Kepler as the most disastrous of his life. The death by small-pox of his favourite child was followed by that of his wife, who, long a prey to melancholy, was on the 3rd of July carried off by typhus. Public calamity was added to private bereavement. On the 23rd of May 1611 Matthias, brother of the emperor, assumed the Bohemian crown in Prague, compelling Rudolph to take refuge in the citadel, where he died on the 20th of January following. Kepler's fidelity in remaining with him to the last did not deprive him of the favour of his successor. Payments of arrears, now amounting to upwards of 4000 florins, was not, however, in the desperate condition of the imperial finances, to be hoped for; and he was glad, while retaining his position as court astronomer, to accept (in 1612) the office of mathematician to the states of Upper Austria. His residence at Linz was troubled by the harsh conduct of the pastor Hitzler, in excluding him from the rites of his church on the ground of supposed Calvinistic leanings—a decision confirmed, with the addition of an insulting reprimand, on his appeal to Württemberg. In 1613 he appeared with the emperor Matthias before the diet of Ratisbon as the advocate of the introduction into Germany of the Gregorian calendar; but the attempt was for the time frustrated by anti-papal prejudice. The attention devoted by him to chronological subjects is evidenced by the publication about this period of several essays in which he sought to prove that the birth of Christ took place five years earlier than the commonly accepted date.

Kepler's second courtship forms the subject of a highly characteristic letter addressed by him to Baron Stralendorf, in which he reviews the qualifications of eleven candidates for his hand, and explains the reasons which decided his choice in favour of a portionless orphan girl named Susanna Reutlinger. The marriage was celebrated at Linz, on the 30th of October 1613, and seems to have proved a happy and suitable one. The abundant vintage of that year drew his attention to the defective methods in use for estimating the cubical contents of vessels, and his essay on the subject (*Nova Stereometria Doliorum*, Linz, 1615) entitles him to rank among those who prepared the discovery of the infinitesimal calculus. His observations on the three comets of 1618 were published in *De Cometis*, contemporaneously with *De Harmonice Mundi* (Augsburg, 1619), of which the first lineaments had been traced twenty years previously at Gratz. This extraordinary production is memorable as having announced the discovery of the "third law"—that of the sesquiplicate ratio between the planetary periods and distances. But the main purport of the treatise was the exposition of an elaborate system of celestial harmonies depending on the various and varying velocities of the several planets, of which the sentient soul animating the sun was the solitary auditor. The work exhibiting this fantastic emulation of extravagance with genius was dedicated to James I. of England, and the compliment was acknowledged with an invitation to that island, conveyed through Sir Henry Wotton. Notwithstanding the distracted state of his own country, he refused to abandon it, as he had previously, in 1617, declined the post of successor to G. A. Magini in the mathematical chair of Bologna.

The insurmountable difficulties presented by the lunar theory forced Kepler, after an enormous amount of fruitless labour, to abandon his design of comprehending the whole scheme of the heavens in one great work to be called *Hipparchus*, and he then threw a portion of his materials into the form of a dialogue intended for the instruction of general readers. The *Epitome Astronomiae Copernicanae* (Linz and Frankfort, 1618–1621), a lucid and attractive textbook of Copernican science, was remarkable for the prominence given to "physical astronomy," as well as for the extension to the Jovian system of the laws recently discovered to regulate the motions of the planets. The first of a series of ephemerides, calculated on these principles, was published by him at Linz in 1617; and in that for 1620, dedicated to Baron Napier, he for the first time employed logarithms. This important invention was eagerly welcomed by him, and its theory formed the subject of a treatise entitled *Chilias Logarithmorum*, printed in 1624, but circulated in manuscript three years earlier, which largely contributed to bring the new method into general use in Germany.

His studies were interrupted by family trouble. The restless

disposition and unbridled tongue of Catherine Kepler, his mother, created for her numerous enemies in the little town of Leonberg; while her unguarded conduct exposed her to a species of calumny at that time readily circulated and believed. As early as 1615 suspicions of sorcery began to be spread against her, which she, with more spirit than prudence, met with an action for libel. The suit was purposely protracted, and at length, in 1620, the unhappy woman, then in her seventy-fourth year, was arrested on a formal charge of witchcraft. Kepler immediately hastened to Württemberg, and owing to his indefatigable exertions she was acquitted after having suffered thirteen month's imprisonment, and endured with undaunted courage the formidable ordeal of "territion," or examination under the imminent threat of torture. She survived her release only a few months, dying on the 13th of April 1622.

Kepler's whole attention was now devoted to the production of the new tables. "Germany," he wrote, "does not long for peace more anxiously than I do for their publication." But financial difficulties, combined with civil and religious convulsions, long delayed the accomplishment of his desires. From the 24th of June to the 29th of August 1626, Linz was besieged, and its inhabitants reduced to the utmost straits by bands of insurgent peasants. The pursuit of science needed a more tranquil shelter; and on the raising of the blockade, Kepler obtained permission to transfer his types to Ulm, where, in September 1627, the *Rudolphine Tables* were at length given to the world. Although by no means free from errors, their value appears from the fact that they ranked for a century as the best aid to astronomy. Appended were tables of logarithms and of refraction, together with Tycho's catalogue of 777 stars, enlarged by Kepler to 1005.

Kepler's claims upon the insolvent imperial exchequer amounted by this time to 12,000 florins. The emperor Ferdinand II., too happy to transfer the burden, countenanced an arrangement by which Kepler entered the service of the duke of Friedland (Wallenstein), who assumed the full responsibility of the debt. In July 1628 Kepler accordingly arrived with his family at Sagan in Silesia, where he applied himself to the printing of his ephemerides up to the year 1636, and whence he issued, in 1629, a *Notice to the Curious in Things Celestial*, warning astronomers of approaching transits. That of Mercury was actually seen by Gassendi in Paris on the 7th of November 1631 (being the first passage of a planet across the sun ever observed); that of Venus, predicted for the 6th of December following, was invisible in western Europe. Wallenstein's promises to Kepler were but imperfectly fulfilled. In lieu of the sums due, he offered him a professorship at Rostock, which Kepler declined. An expedition to Ratisbon, undertaken for the purpose of representing his case to the diet, terminated his life. Shaken by the journey, which he had performed entirely on horseback, he was attacked with fever, and died at Ratisbon, on the 15th of November (N.S.), 1630, in the fifty-ninth year of his age. An inventory of his effects showed him to have been possessed of no inconsiderable property at the time of his death. By his first wife he had five, and by his second seven children, of whom only two, a son and a daughter, reached maturity.

The character of Kepler's genius is especially difficult to estimate. His tendency towards mystical speculation formed a not less fundamental quality of his mind than its strong grasp of positive scientific truth. Without assigning to each element its due value, no sound comprehension of his modes of thought can be attained. His idea of the universe was essentially Pythagorean and Platonic. He started with the conviction that the arrangement of its parts must correspond with certain abstract conceptions of the beautiful and harmonious. His imagination, thus kindled, animated him to those severe labours of which his great discoveries were the fruit. His demonstration that the planes of all the planetary orbits pass through the centre of the sun, coupled with his clear recognition of the sun as the moving power of the system, entitles him to rank as the founder of physical astronomy. But the fantastic relations imagined by him of planetary movements and distances to musical intervals and geometrical constructions seemed to himself discoveries no less admirable than the achievements which have secured his lasting fame. Outside the boundaries of the solar system, the metaphysical side of his genius, no longer held in check by experience, fully asserted itself. The Keplerian like the Pythagorean cosmos was threefold, consisting of the centre, or sun, the surface, represented by the sphere of the fixed stars, and the intermediate space, filled with ethereal matter. It is a mistake to suppose that he regarded the stars as so many suns. He quotes indeed the opinion of Giordano Bruno to that effect, but with dissent. Among his happy conjectures may be mentioned that of the sun's axial rotation, postulated by him as the physical cause of the revolutions of the planets, and soon after confirmed by the discovery of sun-spots; the suggestion of a periodical variation in the obliquity of the ecliptic; and the explanation as a solar atmospheric effect of the radiance observed to surround the totally eclipsed sun.

It is impossible to consider without surprise the colossal amount of work accomplished by Kepler under numerous disadvantages. But his iron industry counted no obstacles, and secured for him the highest triumph of genius, that of having given to mankind the best that was in him. In private character he was amiable and affectionate; his generosity in recognizing the merits of others secured him against the worst shafts of envy; and a life marked by numerous disquietudes was cheered and ennobled by sentiments of sincere piety.

Kepler's extensive literary remains, purchased by the empress Catherine II. in 1724 from some Frankfort merchants, and long inaccessibly deposited in the observatory of Pulkowa, were fully brought to light, under the able editorship of Dr Ch. Frisch, in the first complete edition of his works. This important publication (*Joannis Kepleri opera omnia*, Frankfort, 1858–1871, 8 vols. 8vo) contains, besides the works already enumerated and several minor treatises, a posthumous scientific satire entitled *Joh. Keppleri Somnium* (first printed in 1634) and a vast mass of his correspondence. A careful biography is appended, founded mainly on his private notes and other authentic documents. His correspondence with Herwart von Hohenburg, unearthed by C. Anschütz at Munich, was printed at Prague in 1886.

AUTHORITIES—C. G. Reuschle, *Kepler und die Astronomie* (Frankfort, 1871); Karl Goebel, *Über Keplers astronomische Anschauungen* (Halle, 1871); E. F. Apelt, *Johann Keplers astronomische Weltansicht* (Leipzig, 1849); J. L. C. Breitschwert, *Johann Keplers Leben und Wirken* (Stuttgart, 1831); W. Förster, *Johann Kepler und die Harmonie der Sphären* (Berlin, 1862); R. Wolf, *Geschichte der Astronomie* (Munich, 1877); J. von Hasner, *Tycho Brahe und J. Kepler in Prag* (1872); H. Brocard, *Essai sur la Météorologie de Kepler* (Grenoble, 1879, 1881); Siegmund Günther, *Johannes Kepler und der tellurisch-kosmische Magnetismus* (Wien, 1888); N. Herz, *Keplers Astrologie* (1895); Ludwig Günther, Keplers *Traum vom Mond* (1898; an annotated translation of the *Somnium*); A. Müller, *Johann Keppler, der Gesetzgeber der neueren Astronomie* (1903); *Allgemeine Deutsche Biographie*, Bd. XV. (1882). (A. M. C.)

KEPPEL, AUGUSTUS KEPPEL, VISCOUNT (1725–1786), British admiral, second son of the second earl of Albemarle, was born on the 25th of April 1725. He went to sea at the age of ten, and had already five years of service to his credit when he was appointed to the "Centurion," and was sent with Anson round the world in 1740. He had a narrow escape of being killed in the capture of Paita (Nov. 13, 1741), and was named acting lieutenant in 1742. In 1744 he was promoted to be commander and post captain. Until the peace of 1748 he was actively employed. In 1747 he ran his ship the "Maidstone" (50) ashore near Belleisle while chasing a French vessel, but was honourably acquitted by a court martial, and reappointed to another command. After peace had been signed he was sent into the Mediterranean to persuade the dey of Algiers to restrain the piratical operations of his subjects. The dey is said to have complained that the king of England should have sent a beardless boy to treat with him, and to have been told that if the beard was the necessary qualification for an ambassador it would have been easy to send a "Billy goat." After trying the effect of bullying without success, the dey made a treaty, and Keppel returned in 1751. During the Seven Years' War he saw constant service. He was in North America in 1755, on the coast of France in 1756, was detached on a cruise to reduce the French settlements on the west coast of Africa in 1758, and his ship the "Torbay" (74) was the first to get into action in the battle of Quiberon in 1759. In 1757 he had formed part of the court martial which had condemned Admiral Byng, and had been active among those who had endeavoured to secure a pardon for him; but neither he nor those who had acted with him could produce any serious reason why the sentence should not be carried out. When Spain joined France in 1762 he was sent as second in command with Sir George Pocock in the expedition which took Havannah. His health suffered from the fever which carried off an immense proportion of the soldiers and sailors, but the

£25,000 of prize money which he received freed him from the unpleasant position of younger son of a family ruined by the extravagance of his father. He became rear-admiral in October 1762, was one of the Admiralty Board from July 1765 to November 1766, and was promoted vice-admiral on the 24th of October 1770. When the Falkland Island dispute occurred in 1770 he was to have commanded the fleet to be sent against Spain, but a settlement was reached, and he had no occasion to hoist his flag. The most important and the most debated period of his life belongs to the opening years of the war of American Independence. Keppel was by family connexion and personal preference a strong supporter of the Whig connexion, led by the Marquess of Rockingham and the Duke of Richmond. He shared in all the passions of his party, then excluded from power by the resolute will of George III. As a member of Parliament, in which he had a seat for Windsor from 1761 till 1780, and then for Surrey, he was a steady partisan, and was in constant hostility with the "King's Friends." In common with them he was prepared to believe that the king's ministers, and in particular Lord Sandwich, then First Lord of the Admiralty, were capable of any villany. When therefore he was appointed to command the Western Squadron, the main fleet prepared against France in 1778, he went to sea predisposed to think that the First Lord would be glad to cause him to be defeated. It was a further misfortune that when Keppel hoisted his flag one of his subordinate admirals should have been Sir Hugh Palliser (1723–1796), who was a member of the Admiralty Board, a member of parliament, and in Keppel's opinion, which was generally shared, jointly responsible with his colleagues for the bad state of the navy. When, therefore, the battle which Keppel fought with the French on the 27th of July 1778 ended in a highly unsatisfactory manner, owing mainly to his own unintelligent management, but partly through the failure of Sir Hugh Palliser to obey orders, he became convinced that he had been deliberately betrayed. Though he praised Sir Hugh in his public despatch he attacked him in private, and the Whig press, with the unquestionable aid of Keppel's friends, began a campaign of calumny to which the ministerial papers answered in the same style, each side accusing the other of deliberate treason. The result was a scandalous series of scenes in parliament and of courts martial. Keppel was first tried and acquitted in 1779, and then Palliser was also tried and acquitted. Keppel was ordered to strike his flag in March 1779. Until the fall of Lord North's ministry he acted as an opposition member of parliament. When it fell in 1782 be became First Lord, and was created Viscount Keppel and Baron Elden. His career in office was not distinguished, and he broke with his old political associates by resigning as a protest against the Peace of Paris. He finally discredited himself by joining the Coalition ministry formed by North and Fox, and with its fall disappeared from public life. He died unmarried on the 2nd of October 1786. Burke, who regarded him with great affection, said that he had "something high" in his nature, and that it was "a wild stock of pride on which the tenderest of all hearts had grafted the milder virtues." His popularity disappeared entirely in his later years. His portrait was six times painted by Sir Joshua Reynolds. The copy which belonged originally to Burke is now in the National Gallery.

There is a full *Life of Keppel* (1842), by his grand-nephew, the Rev. Thomas Keppel. (D. H.)

KEPPEL, SIR HENRY (1809–1904), British admiral, son of the 4th earl of Albemarle and of his wife Elizabeth, daughter of Lord de Clifford, was born on the 14th of June 1809, and entered the navy from the old naval academy of Portsmouth in 1822. His family connexions secured him rapid promotion, at a time when the rise of less fortunate officers was very slow. He became lieutenant in 1829 and commander in 1833. His first command in the "Childers" brig (16) was largely passed on the coast of Spain, which was then in the midst of the convulsions of the Carlist war. Captain Keppel had already made himself known as a good seaman. He was engaged with the squadron stationed on the west coast of Africa to suppress the slave trade. In 1837 he was promoted post captain, and appointed in 1841 to the "Dido" for service in China and against the Malay pirates, a service which he repeated in 1847, when in command of H.M.S. "Maeander." The story of his two commands was told by himself in two publications, *The Expedition to Borneo of H.M.S. "Dido" for the Suppression of Piracy* (1846), and in *A Visit to the Indian Archipelago in H.M.S. "Maeander"* (1853). The substance of these books was afterwards incorporated into his autobiography, which was published in 1899 under the title *A Sailor's Life under four Sovereigns*. In 1853 he was appointed to the command of the "St Jean d'Acre" of 101 guns for service in the Crimean War. But he had no opportunity to distinguish himself at sea in that struggle. As commander of the naval brigade landed to co-operate in the siege of Sevastopol, he was more fortunate, and he had an honourable share in the latter days of the siege and reduction of the fortress. After the Crimean War he was again sent out to China, this time in command of the "Raleigh," as commodore to serve under Sir M. Seymour. The "Raleigh" was lost on an uncharted rock near Hong-Kong, but three small vessels were named to act as her tenders, and Commodore Keppel commanded in them, and with the crew of the "Raleigh," in the action with the Chinese at Fatshan Creek (June 1, 1857). He was honourably acquitted for the loss of the "Raleigh," and was named to the command of the "Alligator," which he held till his promotion to rear-admiral. For his share in the action at Fatshan Creek he was made K.C.B. The prevalence of peace gave Sir Henry Keppel no further chance of active service, but he held successive commands till his retirement from the active list in 1879, two years after he attained the rank of Admiral of the Fleet. He died at the age of 95 on the 17th of January 1904.

KER, JOHN (1673–1726), Scottish spy, was born in Ayrshire on the 8th of August 1673. His true name was Crawfurd, his father being Alexander Crawfurd of Crawfurdland; but having married Anna, younger daughter of Robert Ker, of Kersland, Ayrshire, whose only son Daniel Ker was killed at the battle of Steinkirk in 1692, he assumed the name and arms of Ker in 1697, after buying the family estates from his wife's elder sister. Having become a leader among the extreme Covenanters, he made use of his influence to relieve his pecuniary embarrassments, selling his support at one time to the Jacobites, at another to the government, and whenever possible to both parties at the same time. He held a licence from the government in 1707 permitting him to associate with those whose disloyalty was known or suspected, proving that he was at that date the government's paid spy; and in his *Memoirs* Ker asserts that he had a number of other spies and agents working under his orders in different parts of the country. He entered into correspondence with Catholic priests and Jacobite conspirators, whose schemes, so far as he could make himself cognisant of them, he betrayed to the government. But he was known to be a man of the worst character, and it is improbable that he succeeded in gaining the confidence of people of any importance. The duchess of Gordon was for a time, it is true, one of his correspondents, but in 1707 she had discovered him to be "a knave." He went to London in 1709, where he seems to have extracted considerable sums of money from politicians of both parties by promising or threatening, as the case might be, to expose Godolphin's relations with the Jacobites. In 1713, if his own story is to be believed, business of a semi-diplomatic nature took Ker to Vienna, where, although he failed in the principal object of his errand, the emperor made him a present of his portrait set in jewels. Ker also occupied his time in Vienna, he says, by gathering information which he forwarded to the electress Sophia; and in the following year on his way home he stopped at Hanover to give some advice to the future king of England as to the best way to govern the English. Although in his own opinion Ker materially assisted in placing George I. on the English throne, his services were unrewarded, owing, he would have us believe, to the incorruptibility of his character. Similar ingratitude was the recompense for his revelations of the Jacobite intentions in 1715;

and as he was no more successful in making money out of the East India Company, nor in certain commercial schemes which engaged his ingenuity during the next few years, he died in a debtors' prison, on the 8th of July 1726. While in the King's Bench he sold to Edmund Curll the bookseller, a fellow-prisoner, who was serving a sentence of five months for publishing obscene books, the manuscript of (or possibly only the materials on which were based) the *Memoirs of John Ker of Kersland*, which Curll published in 1726 in three parts, the last of which appeared after Ker's death. For issuing the first part of the *Memoirs*, which purported to make disclosures damaging to the government, but which Curll in self-justification described as "vindicating the memory of Queen Anne," the publisher was sentenced to the pillory at Charing Cross; and he added to the third part of the *Memoirs* the indictment on which he had been convicted.

See the above-mentioned *Memoirs* (London, 1726–1727), and in particular the "preface" to part i.; George Lockhart, *The Lockhart Papers* (2 vols., London, 1817); Nathaniel Hooke, *Correspondence*, edited by W. D. Macray (Roxburghe Club, 2 vols., London, 1870), in which Ker is referred to under several pseudonyms, such as "Wicks," "Trustie," "The Cameronian Mealmonger," &c.

KERAK, a town in eastern Palestine, 10 m. E. of the southern angle of the Lisan promontory of the Dead Sea, on the top of a rocky hill about 3000 ft. above sea-level. It stands on a platform forming an irregular triangle with sides about 3000 ft. in length, and separated by deep ravines from the ranges around on all sides but one. The population is estimated at 6000 Moslems and 1800 Orthodox Greek Christians. Kerak is identified with the Moabite town of Kir-Hareseth (destroyed by the Hebrew-Edomite coalition, 2 Kings iii. 25), and denounced by Isaiah under the name Kir of Moab (xv. 1), Kir-Hareseth (xvi. 7) or Kir-Heres (xvi. 11): Jeremiah also refers to it by the last name (xxxix. 31, 36). The modern name, in the form Χάραξ, appears in 2 Macc. xii. 17. Later, Kerak was the seat of the archbishop of Petra. The Latin kings of Jerusalem, recognizing its importance as the key of the E. Jordan region, fortified it in 1142: from 1183 it was attacked desperately by Saladin, to whom at last it yielded in 1188. The Arabian Ayyubite princes fortified the town, as did the Egyptian Mameluke sultans. The fortifications were repaired by Bibars in the 13th century. For a long time after the Turkish occupation of Palestine and Egypt it enjoyed a semi-independence, but in 1893 a Turkish governor with a strong garrison was established there, which has greatly contributed to secure the safety of travellers and the general quiet of the district. The town is an irregular congeries of flat mud-roofed houses. In the Christian quarter is the church of St George; the mosque also is a building of Christian origin. The town is surrounded by a wall with five towers; entrance now is obtained through breaches in the wall, but formerly it was accessible only by means of tunnels cut in the rocky substratum. The castle, now used as the headquarters of the garrison and closed to visitors, is a remarkably fine example of a crusaders' fortress.

(R. A. S. M.)

KERALA, or CHERA, the name of one of the three ancient Dravidian kingdoms of the Tamil country of southern India, the other two being the Chola and the Pandya. Its original territory comprised the country now contained in the Malabar district, with Travancore and Cochin, and later the country included in the Coimbatore district and a part of Salem. The boundaries, however, naturally varied much from time to time. The earliest references to this kingdom appear in the edicts of Asoka, where it is called *Keralaputra* (*i.e.* son of Kerala), a name which in a slightly corrupt form is known to Pliny and the author of the *Periplus*. There is evidence of a lively trade carried on by sea with the Roman empire in the early centuries of the Christian era, but of the political history of the Kerala kingdom nothing is known beyond a list of rajas compiled from inscriptions, until in the 10th century the struggle began with the Cholas, by whom it was conquered and held till their overthrow by the Mahommedans in 1310. These in their turn were driven out by a Hindu confederation headed by the chiefs of Vijayanagar, and Kerala was absorbed in the Vijayanagar empire until its destruction by the Mahommedans in 1565. For about 80 years it seems to have preserved a precarious independence under the naiks of Madura, but in 1640 was conquered by the Adil Shah dynasty of Bijapur and in 1652 seized by the king of Mysore.

See V. A. Smith, *Early Hist. of India*, chap. xvi. (2nd ed., Oxford, 1908).

KERASUND (anc. *Choerades*, *Pharnacia*, *Cerasus*), a town on the N. coast of Asia Minor, in the Trebizond vilayet, and the port—an exposed roadstead—of Kara-Hissar Sharki, with which it is connected by a carriage road. Pop. just under 10,000, Moslems being in a slight minority. The town is situated on a rocky promontory, crowned by a Byzantine fortress, and has a growing trade. It exports filberts (for which product it is the centre), walnuts, hides and timber. Cerasus was the place from which the wild cherry was introduced into Italy by Lucullus and so to Europe (hence Fr. *cerise*, "cherry").

KÉRATRY, AUGUSTE HILARION, COMTE DE (1769–1859), French writer and politician, was born at Rennes on the 28th of December 1769. Coming to Paris in 1790, he associated himself with Bernardin de St Pierre. After being twice imprisoned during the Terror he retired to Brittany, where he devoted himself to literature till 1814. In 1818 he returned to Paris as deputy for Finistère, and sat in the Chamber till 1824, becoming one of the recognized liberal leaders. He was re-elected in 1827, took an active part in the establishment of the July monarchy, was appointed a councillor of state (1830), and in 1837 was made a peer of France. After the *coup d'état* of 1851 he retired from public life. Among his publications were *Contes et Idylles* (1791); *Lysus et Cydippe*, a poem (1801); *Inductions morales et physiologiques* (1817); *Documents pour servir à l'histoire de France* (1820); *Du Beau dans les arts d'imitation* (1822); *Le Dernier des Beaumanoir* (1824). His last work, *Clarisse* (1854), a novel, was written when he was eighty-five. He died at Port-Marly on the 7th of November 1859.

His son, comte Emile de Kératry (1832–), became deputy for Finistère in 1869, and strongly supported the war with Germany in 1870. He was in Paris during part of the siege, but escaped in a balloon, and joined Gambetta. In 1871 Thiers appointed him to the prefecture, first of the Haute-Garonne, and subsequently of the Bouches-du-Rhône, but he resigned in the following year. He is the author of *La Contre-guérilla française au Mexique* (1868); *L'Élévation et la chute de l'empereur Maximilien* (1867); *Le Quatre-septembre et le gouvernement de la défense nationale* (1872); *Mourad V.* (1878), and some volumes of memories.

KERBELA, or MESHED-ḤOSAIN, a town of Asiatic Turkey, the capital of a sanjak of the Bagdad vilayet, situated on the extreme western edge of the alluvial river plain, about 60 m. S.S.W. of Bagdad and 20 m. W. of the Euphrates, from which a canal extends almost to the town. The surrounding territory is fertile and well cultivated, especially in fruit gardens and palm-groves. The newer parts of the city are built with broad streets and sidewalks, presenting an almost European appearance. The inner town, surrounded by a dilapidated brick wall, at the gates of which octroi duties are still levied, is a dirty Oriental city, with the usual narrow streets. Kerbela owes its existence to the fact that Ḥosain, a son of 'Ali, the fourth caliph, was slain here by the soldiers of Yazid, the rival aspirant to the caliphate, on the 10th of October A.D. 680 (see CALIPHATE, sec. B, § 2). The most important feature of the town is the great shrine of Ḥosain, containing the tomb of the martyr, with its golden dome and triple minarets, two of which are gilded. Kerbela is a place of pilgrimage of the Shi'ite Moslems, and is only less sacred to them than Meshed 'Ali and Mecca. Some 200,000 pilgrims from the Shi'ite portions of Islam are said to journey annually to Kerbela, many of them carrying the bones of their relatives to be buried in its sacred soil, or bringing their sick and aged to die there in the odour of sanctity. The mullahs, who fix the burial fees, derive an enormous revenue from the faithful. Formerly Kerbela was a self-governing hierarchy and constituted an inviolable sanctuary for criminals; but in 1843 the Turkish

government undertook to deprive the city of some of these liberties and to enforce conscription. The Kerbelese resisted, and Kerbela was bombarded (hence the ruined condition of the old walls) and reduced with great slaughter. Since then it has formed an integral part of the Turkish administration of Irak. The enormous influx of pilgrims naturally creates a brisk trade in Kerbela and the towns along the route from Persia to that place and beyond to Nejef. The population of Kerbela, necessarily fluctuating, is estimated at something over 60,000, of whom the principal part are Shi'ites, chiefly Persians, with a goodly mixture of British Indians. No Jews or Christians are allowed to reside there.

See Chodzko, *Théâtre persan* (Paris, 1878); J. P. Peters, *Nippur* (1897). (J. P. Pe.)

KERCH, or Kertch, a seaport of S. Russia, in the government of Taurida, on the Strait of Kerch or Yenikale, 60 m. E.N.E. of Theodosia, in 45° 21′ N. and 36° 30′ E. Pop. (1897), 31,702. It stands on the site of the ancient *Panticapaeum*, and, like most towns built by the ancient Greek colonists in this part of the world, occupies a beautiful situation, clustering round the foot and climbing up the sides of the hill (called after Mithradates) on which stood the ancient citadel or acropolis. The church of St John the Baptist, founded in 717, is a good example of the early Byzantine style. That of Alexander Nevsky was formerly the Kerch museum of antiquities, founded in 1825. The more valuable objects were subsequently removed to the Hermitage at St Petersburg, while those that remained at Kerch were scattered during the English occupation in the Crimean War. The existing museum is a small collection in a private house. Among the products of local industry are leather, tobacco, cement, beer, aerated waters, lime, candles and soap. Fishing is carried on, and there are steam saw-mills and flour-mills. A rich deposit of iron ore was discovered close to Kerch in 1895, and since then mining and blasting have been actively prosecuted. The mineral mud-baths, one of which is in the town itself and the other beside Lake Chokrak (9 m. distant), are much frequented. Notwithstanding the deepening of the strait, so that ships are now able to enter the Sea of Azov, Kerch retains its importance for the export trade in wheat, brought thither by coasting vessels. Grain, fish, linseed, rapeseed, wool and hides are also exported. About 6 m. N.E. are the town and old Turkish fortress of Yenikale, administratively united with Kerch. Two and a half miles to the south are strong fortified works defending the entrance to the Sea of Azov.

The Greek colony of Panticapaeum was founded about the middle of the 6th century B.C., by the town of Miletus. From about 438 B.C. till the conquest of this region by Mithradates the Great, king of Pontus, about 100 B.C., the town and territory formed the kingdom of the Bosporus, ruled over by an independent dynasty. Phanaces, the son of Mithradates, became the founder of a new line under the protection of the Romans, which continued to exist till the middle of the 4th century A.D., and extended its power over the maritime parts of Tauris. After that the town—which had already begun to be known as Bospora—passed successively into the hands of the Eastern empire, of the Khazars, and of various barbarian tribes. In 1318, the Tatars, who had come into possession in the previous century, ceded the town to the Genoese, who soon raised it into new importance as a commercial centre. They usually called the place Cerchio, a corruption of the Russian name K'rtchev (whence Kerch), which appears in the 11th century inscription of Tmutarakan (a Russian principality at the north foot of the Caucasus). Under the Turks, whose rule dates from the end of the 15th century, Kerch was a military port; and as such it plays a part in the Russo-Turkish wars. Captured by the Russians under Dolgorukov in 1771, it was ceded to them along with Yenikale by the peace of Kuchuk-Kainarji, and it became a centre of Russian naval activity. Its importance was greatly impaired by the rise of Odessa and Taganrog; and in 1820 the fortress was dismantled. Kerch suffered severely during the Crimean War.

Archaeologically Kerch is of particular interest, the *kurgans* or sepulchral mounds of the town and vicinity having yielded a rich variety of the most beautiful works of art. Since 1825 a large number of tombs have been opened. In the Altun or Zolotai-oba (Golden Mound) was found a great stone vault similar in style to an Egyptian pyramid; and within, among many objects of minor note, were golden dishes adorned with griffins and beautiful arabesques. In the Kul-oba, or Mound of Cinders (opened in 1830–1831), was a similar tomb, in which were found what would appear to be the remains of one of the kings of Bosporus, of his queen, his horse and his groom. The ornaments and furniture were of the most costly kind; the king's bow and buckler were of gold; his very whip intertwined with gold; the queen had golden diadems, necklace and breast-jewels, and at her feet lay a golden vase. In the Pavlovskoi kurgan (opened in 1858) was the tomb of a Greek lady, containing among other articles of dress and decoration a pair of fine leather boots (a unique discovery) and a beautiful vase on which is painted the return of Persephone from Hades and the setting out of Triptolemus for Attica. In a neighbouring tomb was what is believed to be "the oldest Greek mural painting which has come down to us," dating probably from the 4th century B.C. Among the minor objects discovered in the kurgans perhaps the most noteworthy are the fragments of engraved boxwood, the only examples known of the art taught by the Sicyonian painter Pamphilus.

Very important finds of old Greek art continue to be made in the neighbourhood, as well as at Tamañ, on the east side of the Strait of Kerch. The catacombs on the northern slope of Mithradates Hill, of which nearly 200 have been explored since 1859, possess considerable interest, not only for the relics of old Greek art which some of them contain (although most were plundered in earlier times), but especially as material for the history and ethnography of the Cimmerian Bosporus. In 1890 the first Christian catacomb bearing a distinct date (491) was discovered. Its walls were covered with Greek inscriptions and crosses.

See H. D. Seymour's *Russia on the Black Sea and Sea of Azoff* London, 1855); J. B. Telfer, *The Crimea* (London, 1876); P. Bruhn, *Tchernomore, 1852–1877* (Odessa, 1878); Gilles, *Antiquités du Bosphore Cimmérien* (1854); D. Macpherson, *Antiquities of Kertch* (London, 1857); *Compte rendu de la Commission Imp. Archéologique* (St Petersburg); L. Stephani, *Die Alterthümer vom Kertsch* (St Petersburg, 1880); C. T. Newton, *Essays on Art and Archaeology* (London, 1880); *Reports* of the [Russian] Imp. Archaeological Commission; *Izvestia* (Bulletin) of the Archives Commission for Taurida; *Antiquités du Bosphore Cimmérien, conservées au Musée Impérial de l'Ermitage* (St Petersburg, 1854); *Inscriptiones antiquae orae septentrionalis Ponti Euxini graecae et latinae*, with a preface by V. V. Latyshev (St Petersburg, 1890); *Materials for the Archaeology of Russia*, published by the Imp. Arch. Commission (No. 6, St Petersburg, 1891). (P. A. K.; J. T. Be.)

KERCKHOVEN, JAN POLYANDER VAN DEN (1568–1646), Dutch Protestant divine, was born at Metz, in 1568. He became French preacher at Dort in 1591, and afterwards succeeded Franz Gomarus as professor of theology at Leiden. He was invited by the States General of Holland to revise the Dutch translation of the Bible, and it was he who edited the canons of the synod of Dort (1618–1619).

His many published works include *Responsio ad sophismata A. Cocheletii doctoris surbonnistae* (1610), *Dispute contre l'adoration des reliques des Saincts trespassés* (1611), *Explicatio somae prophetae* (1625).

KERGUELEN ISLAND, Kerguelen's Land, or Desolation Island, an island in the Southern Ocean, to the S.E. of the Cape of Good Hope, and S.W. of Australia, and nearly half-way between them. Kerguelen lies between 48° 39′ and 49° 44′ S. and 68° 42′ and 70° 35′ E. Its extreme length is about 85 m., but the area is only about 1400 sq. m. The island is throughout mountainous, presenting from the sea in some directions the appearance of a series of jagged peaks. The various ridges and mountain masses are separated by steep-sided valleys, which run down to the sea, forming deep fjords, so that no part of the interior is more than 12 m. from the sea. The chief summits are Mounts Ross (6120 ft.), Richards (4000), Crozier (3251), Wyville Thomson (3160), Hooker (2600), Moseley (2400). The coast-line is extremely irregular, and the fjords, at least on the north, east and south, form a series of well-sheltered harbours. As the prevailing winds are westerly, the safest anchorage is on the north-east. Christmas Harbour on the north and Royal Sound on the south are noble harbours, the latter with a labyrinth of islets interspersed over upwards of 20 m. of land-locked waters. The scenery is generally magnificent. A district of considerable extent in the centre of the island is occupied

by snowfields, whence glaciers descend east and west to the sea. The whole island, exclusive of the snowfields, abounds in fresh-water lakes and pools in the hills and lower ground. Hidden deep mudholes are frequent.

Kerguelen Island is of undoubted volcanic origin, the prevailing rock being basaltic lavas, intersected occasionally by dikes, and an active volcano and hot springs are said to exist in the south-west of the island. Judging from the abundant fossil remains of trees, the island must have been thickly clothed with woods and other vegetation of which it has no doubt been denuded by volcanic action and submergence, and possibly by changes of climate. It presents evidences of having been subjected to powerful glaciation, and to subsequent immersion and immense denudation. The soundings made by the "Challenger" and "Gazelle" and the affinities which in certain respects exist between the islands, seem to point to the existence at one time of an extensive land area in this quarter, of which Kerguelen, Prince Edward's Islands, the Crozets, St Paul and Amsterdam are the remains. The Kerguelen plateau rises in many parts to within 1500 fathoms of the surface of the sea. Beds of coal and of red earth are found in some places. The summits of the flat-topped hills about Betsy Cove, in the south-east of the island, are formed of caps of basalt.

According to Sir J. D. Hooker the vegetation of Kerguelen Island is of great antiquity; and may have originally reached it from the American continent; it has no affinities with Africa. The present climate is not favourable to permanent vegetation; the island lies within the belt of rain at all seasons of the year, and is reached by no drying winds; its temperature is kept down by the surrounding vast expanse of sea, and it lies within the line of the cold Antarctic drift. The temperature, however, is equable. The mean annual temperature is about 39° F., while the summer temperature has been observed to approach 70°. Tempests and squalls are frequent, and the weather is rarely calm. On the lower slopes of the mountains a rank vegetation exists, which, from the conditions mentioned, is constantly saturated with moisture. A rank grass, *Festuca Cookii*, grows thickly in places up to 300 ft., with *Azorella*, *Cotula plumosa*, &c. Sir J. D. Hooker enumerated twenty-one species of flowering plants, and seven of ferns, lycopods, and *Characeae*; at least seventy-four species of mosses, twenty-five of *Hepaticae*, and sixty-one of lichens are known, and there are probably many more. Several of the marine and many species of freshwater algae are peculiar to the island. The characteristic feature of the vegetation, the Kerguelen's Land cabbage, was formerly abundant, but has been greatly reduced by rabbits introduced on to the island. Fur-seals are still found in Kerguelen, though their numbers have been reduced by reckless slaughter. The sea-elephant and sea-leopard are characteristic. Penguins of various kinds are abundant; a teal (*Querquedula Eatoni*) peculiar to Kerguelen and the Crozets is also found in considerable numbers, and petrels, especially the giant petrel (*Ossifraga gigantea*), skuas, gulls, sheath-bills (*Chionis minor*), albatross, terns, cormorants and Cape pigeons frequent the island. There is a considerable variety of insects, many of them with remarkable peculiarities of structure, and with a predominance of forms incapable of flying.

The island was discovered by the French navigator, Yves Joseph de Kerguelen-Trémarec, a Breton noble (1745–1797), on the 13th of February 1772, and partly surveyed by him in the following year. He was one of those explorers who had been attracted by the belief in a rich southern land, and this island, the South France of his first discovery, was afterwards called by him Desolation Land in his disappointment. Captain Cook visited the island in 1776, and, among other expeditions, the "Challenger" spent some time here, and its staff visited and surveyed various parts of it in January 1874. It was occupied from October 1874 to February 1875 by the expeditions sent from England, Germany and the United States to observe the transit of Venus. The German South Polar expedition in 1901–1902 established a meteorological and magnetic station at Royal Sound, under Dr Enzensperger, who died there. In January 1893 Kerguelen was annexed by France, and its commercial exploitation was assigned to a private company.

See Y. J. de Kerguelen-Trémarec, *Relation de deux voyages dans les mers australes* (Paris, 1782); Narratives of the Voyages of Captain Cook and the "Challenger" Expedition; *Phil. Trans.*, vol. 168, containing account of the collections made in Kerguelen by the British transit of Venus expedition in 1874–1875; Lieutard, "Mission aux îles Kerguelen," &c., *Annales hydrographiques* (Paris, 1893).

KERGUELEN'S LAND CABBAGE, in botany, *Pringlea antiscorbutica* (natural order Cruciferae), a plant resembling in habit, and belonging to the same family as, the common cabbage (*Brassica oleracea*). The cabbage-like heads of leaves abound in a pale yellow highly pungent essential oil, which gives the plant a peculiar flavour but renders it extremely wholesome. It was discovered by Captain Cook during his first voyage, but the first account of it was published by (Sir) Joseph Hooker in *The Botany of the Antarctic Voyage* of the "Erebus" and "Terror" in 1839–1843. During the stay of the latter expedition on the island, daily use was made of this vegetable either cooked by itself or boiled with the ship's beef, pork or pea-soup. Hooker observes of it, "This is perhaps the most interesting plant procured during the whole of the voyage performed in the Antarctic Sea, growing as it does upon an island the remotest of any from a continent, and yielding, besides this esculent, only seventeen other flowering plants."

KERKUK, or QERQŪQ, the chief town of a sanjak in the Mosul vilayet of Asiatic Turkey, situated among the foot hills of the Kurdistan Mountains at an elevation of about 1100 ft. on both banks of the Khassa Chai, a tributary of the Tigris, known in its lower course as Adhem. Pop. estimated at 12,000 to 15,000, chiefly Mahommedan Kurds. Owing to its position at the junction of several routes, Kerkuk has a brisk transit trade in hides, Persian silks and cottons, colouring materials, fruit and timber; but it owes its principal importance to its petroleum and naphtha springs. There are also natural warm springs at Kerkuk, used to supply baths and reputed to have valuable medical properties. In the neighbourhood of the city is a burning mountain, locally famous for many centuries. Kerkuk is evidently an ancient site, the citadel standing upon an artificial mound 130 ft. high. It was a metropolitan see of the Chaldean Christians. There is a Jewish quarter beneath the citadel, and the reputed sarcophagi of Daniel and the Hebrew children are shown in one of the mosques. (J. P. Pe.)

KERMADEC, a small group of hilly islands in the Pacific, about 30° S., 178° W., named from D'Entrecasteaux's captain, Huon Kermadec, in 1791. They are British possessions. The largest of the group is Raoul or Sunday Island, 20 m. in circumference, 1600 ft. high, and thickly wooded. The flora and fauna belong for the most part to those of New Zealand, on which colony the islands are also politically dependent, having been annexed in 1887.

KERMAN (the ancient *Karmania*), a province of Persia, bounded E. by Seistan and Baluchistan, S. by Baluchistan and Fars, W. by Fars, and N. by Yezd and Khorasan. It is of very irregular shape, expanding in the north to Khorasan and gradually contracting in the south to a narrow wedge between Fars and Baluchistan; the extreme length between Seistan and Fars (E. and W.) is about 400 m., the greatest breadth (N. and S.) from south of Yezd to the neighbourhood of Bander Abbasi about 300 m., and the area is estimated at about 60,000 sq. m. Kerman is generally described as consisting of two parts, an uninhabitable desert region in the north and a habitable mountainous region in the south, but recent explorations require this view to be considerably modified. There are mountains and desert tracts in all parts, while much of what appears on maps as forming the western portion of the great Kerman desert consists of the fertile uplands of Kuhbanan, Raver and others stretching along the eastern base of the lofty range which runs from Yezd south-east to Khabis. West of and parallel to this range are two others, one culminating north-west of Bam in the Kuh Hazar (14,700 ft.), the other continued at about the same elevation under the name of the Jamal Bariz (also Jebel Bariz) south-eastward to Makran. These chains traverse fertile districts dividing them into several longitudinal valleys of considerable length, but not averaging more than 12 m. in width. Snow lies on them for a considerable part of the year, feeding the springs and canals by means of which large tracts in this almost rainless region in summer are kept under cultivation. Still farther west the Kuh Dina range is continued from Fars, also in a south-easterly direction to Bashakird beyond Bander Abbasi. Between the south-western highlands and the Jamal Bariz there is some arid and unproductive land, but the true desert of Kerman lies mainly in the north and north-east, where it merges northwards in the great desert "Lut," which stretches into

Khorasan.[1] These southern deserts differ from the kavir of central Persia mainly in three respects: they are far less saline, are more sandy and drier, and present in some places tracts of 80 to 100 miles almost absolutely destitute of vegetation. Yet they are crossed by well-known tracks running from Kerman eastwards and north-eastwards to Seistan and Khorasan and frequently traversed by caravans. It appears that these sandy wastes are continually encroaching on the fertile districts, and this is the case even in Narmashir, which is being invaded by the sands of the desolate plains extending thence north-westwards to Bam. There are also some *kefeh* or salt swamps answering to the kavir in the north, but occurring only in isolated depressions and nowhere of any great extent. The desert of Kerman lies about 1000 ft., or less, above the sea, apparently on nearly the same level as the Lut, from which it cannot be geographically separated. The climate, which varies much with the relief of the land, has the reputation of being unhealthy, because the cool air from the hills is usually attended by chills and agues. Still many of the upland valleys enjoy a genial and healthy climate. The chief products are cotton, gums, dates of unrivalled flavour from the southern parts, and wool, noted for its extreme softness, and the soft underhair of goats (*kurk*), which latter are used in the manufacture of the Kerman shawls, which in delicacy of texture yield only to those of Kashmir, while often surpassing them in design, colour and finish. Besides woollen goods (shawls, carpets, &c.) Kerman exports mainly cotton, grain and dates, receiving in return from India cotton goods, tea, indigo, china, glass, sugar, &c. Wheat and barley are scarce. Bander Abbasi is the natural outport; but, since shipping has shown a preference for Bushire farther west, the trade of Kerman has greatly fallen off.

For administrative purposes the province is divided into nineteen districts, one being the capital of the same name with its immediate neighbourhood (*humeh*); the others are Akta and Urzu; Anar; Bam and Narmashir; Bardsir; Jiruft; Khabis; Khinaman; Kubenan (Kuhbanan); Kuhpayeh; Pariz; Rafsinjan; Rahbur; Raver; Rayin; Rudbar and Bashakird; Sardu; Sirjan; Zerend. The inhabitants number about 700,000, nearly one-third being nomads. (A. H.-S.)

KERMAN, capital of the above province, situated in 30° 17′ N., 56° 59′ E., at an elevation of 6100 ft. Its population is estimated at 60,000, including about 2000 Zoroastrians, 100 Jews, and a few Shikarpuri Indians. Kerman has post and telegraph offices (Indo-European Telegraph Department), British and Russian consulates, and an agency of the Imperial bank of Persia. The neighbouring districts produce little grain and have to get their supplies for four or five months of the year from districts far away. A traveller has stated that it was easier to get a mann (6½ lb) of saffron at Kerman than a mann of barley for his horse, and in 1879 Sir A. Houtum-Schindler was ordered by the authorities to curtail his excursions in the province "because his horses and mules ate up all the stock." Kerman manufactures great quantities of carpets and felts, and its carpets are almost unsurpassed for richness of texture and durability. The old name of the city was Guvashir. Adjoining the city on hills rising 400 to 500 ft. above the plain in the east are the ruins of two ancient forts with walls built of sun-dried bricks on stone foundations. Some of the walls are in perfect condition. Among the mosques in the city two deserve special notice, one the Masjid i Jama, a foundation of the Muzaffarid ruler Mubariz ed din Mahommed dating from A.H. 1349, the other the Masjid i Malik built by Malik Kaverd Seljuk (1041–1072).

KERMANSHAH, or KERMANSHAHAN, an important province of Persia, situated W. of Hamadan, N. of Luristan, and S. of Kurdistan, and extending in the west to the Turkish frontier. Its population is about 400,000, and it pays a yearly revenue of over £20,000. Many of its inhabitants are nomadic Kurds and Lurs who pay little taxes. The plains are well watered and very fertile, while the hills are covered with rich pastures which support large flocks of sheep and goats. The sheep provide a great part of the meat supply of Teheran. The province also produces much wheat and barley, and could supply great quantities for export if the means of transport were better.

KERMANSHAH (*Kermisin* of Arab geographers), the capital of the province, is situated at an elevation of 5100 ft., in 34° 19′ N., and 46° 59′ E., about 220 m. from Bagdad, and 250 m. from Teheran. Although surrounded by fortifications with five gates and three miles in circuit, it is now practically an open town, for the walls are in ruins and the moat is choked with rubbish. It has a population of about 40,000. The town is situated on the high road between Teheran and Bagdad, and carries on a transit trade estimated in value at £750,000 per annum.

KERMES (Arab. *qirmiz*; see CRIMSON), a crimson dye-stuff, now superseded by cochineal, obtained from *Kermes ilicis* (=*Coccus ilicis*, Lat.=*C. vermilio*, G. Planchon). The genus *Kermes* belongs to the *Coccidae* or Scale-insects, and its species are common on oaks wherever they grow. The species from which kermes is obtained is common in Spain, Italy and the South of France and the Mediterranean basin generally, where it feeds on *Quercus coccifera*, a small shrub. As in the case of other scale-insects, the males are relatively small and are capable of flight, while the females are wingless. The females of the genus *Kermes* are remarkable for their gall-like form, and it was not until 1714 that their animal nature was discovered.

In the month of May, when full grown, the females are globose, 6 to 7 millim. in diameter, of a reddish-brown colour, and covered with an ash-coloured powder. They are found attached to the twigs or buds by a circular lower surface 2 millim. in diameter, and surrounded by a narrow zone of white cottony down. At this time there are concealed under a cavity, formed by the approach of the abdominal wall of the insect to the dorsal one, thousands of eggs of a red colour, and smaller than poppy seed, which are protruded and ranged regularly beneath the insect. At the end of May or the beginning of June the young escape by a small orifice, near the point of attachment of the parent. They are then of a fine red colour, elliptic and convex in shape, but rounded at the two extremities, and bear two threads half as long as their body at their posterior extremity. At this period they are extremely active, and swarm with extraordinary rapidity all over the food plant, and in two or three days attach themselves to fissures in the bark or buds, but rarely to the leaves. In warm and dry summers the insects breed again in the months of August and September, according to Eméric, and then they are more frequently found attached to the leaves. Usually they remain immovable and apparently unaltered until the end of the succeeding March, when their bodies become gradually distended and lose all trace of abdominal rings. They then appear full of a reddish juice resembling discoloured blood. In this state, or when the eggs are ready to be extruded, the insects are collected. In some cases the insects from which the young are ready to escape are dried in the sun on linen cloths—care being taken to prevent the escape of the young from the cloths until they are dead. The young insects are then sifted from the shells, made into a paste with vinegar, and dried on skins exposed to the sun, and the paste packed in skins is then ready for exportation to the East under the name of "pâte d'écarlate."

In the pharmacopoeia of the ancients kermes triturated with vinegar was used as an outward application, especially in wounds of the nerves. From the 9th to the 16th century this insect formed an ingredient in the "confectio alkermes," a well known medicine, at one time official in the London pharmacopoeia as an astringent in doses of 20 to 60 grains or more. Syrup of kermes was also prepared. Both these preparations have fallen into disuse.

Mineral kermes is trisulphide of antimony, containing a variable portion of trioxide of antimony both free and combined with alkali. It was known as *poudre des Chartreux* because in 1714 it is said to have saved the life of a Carthusian monk who had been given up by the Paris faculty; but the monk Simon who administered it on that occasion called it *Alkermes mineral*. Its reputation became so great that in 1720 the French government bought the recipe for its preparation. It still appears in the pharmacopoeias of many European countries and in that of the United States. The product varies somewhat according to the mode of preparation adopted. According to the French directions the official substance is obtained by adding 60 grammes of powdered antimony trisulphide to a boiling solution of 1280 grammes of crystallized sodium carbonate in 12,800 grammes of distilled water and boiling for one hour. The liquid is then filtered hot, and on being allowed to cool slowly deposits the

[1] The word *lut* means bare, void of vegetation, arid, waterless, and has nothing in common with the Lot of Holy Writ, as many have supposed.

kermes, which is washed and dried at 100° C.; prepared in this way it is a brown-red velvety powder, insoluble in water.

See G. Planchon, *Le Kermes du chêne* (Montpellier, 1864); Lewis, *Materia Medica* (1784), pp. 71, 365; *Memorias sobre la grana Kermes de España* (Madrid, 1788); Adams, *Paulus Aegineta*, iii. 180; Beckmann, *History of Inventions*.

KERMESSE (also KERMIS and KIRMESS), originally the mass said on the anniversary of the foundation of a church and in honour of the patron, the word being equivalent to "Kirkmass." Such celebrations were regularly held in the Low Countries and also in northern France, and were accompanied by feasting, dancing and sports of all kinds. They still survive, but are now practically nothing more than country fairs and the old allegorical representations are uncommon. The Brussels Kermesse is, however, still marked by a procession in which the effigies of the Mannikin and medieval heroes are carried. At Mons the Kermesse occurs annually on Trinity Sunday and is called the procession of Lumeçon (Walloon for *limaçon*, a snail): the hero is Gilles de Chin, who slays a terrible monster, captor of a princess, in the Grand Place. This is the story of George and the Dragon. At Hasselt the Kermesse (now only septennial) not only commemorates the Christian story of the foundation of the town, but even preserves traces of a pagan festival. The word Kermesse (generally in the form "Kirmess") is applied in the United States to any entertainment, especially one organized in the interest of charity.

See Demetrius C. Boulger, *Belgian Life in Town and Country* (1904).

KERN, JAN HENDRIK (1833–), Dutch Orientalist, was born in Java of Dutch parents on the 6th of April 1833. He studied at Utrecht, Leiden and Berlin, where he was a pupil of the Sanskrit scholar, Albrecht Weber. After some years spent as professor of Greek at Maestricht, he became professor of Sanskrit at Benares in 1863, and in 1865 at Leiden. His studies included the Malay languages as well as Sanskrit. His chief work is *Geschiedenis van het Buddhisme in Indië* (Haarlem, 2 vols., 1881–1883); in English he wrote a translation (Oxford, 1884) of the *Saddharma Pundarîka* and a *Manual of Indian Buddhism* (Strassburg, 1896) for Bühler Kielhorn's *Grundriss der indo-arischen Philologie*.

KERNEL (O.E. *cyrnel*, a diminutive of "corn," seed, grain), the soft and frequently edible part contained within the hard outer husk of a nut or the stone of a fruit; also used in botany of the nucleus of a seed, the body within its several integuments or coats, and generally of the nucleus or core of any structure; hence, figuratively, the pith or gist of any matter.

KERNER, JUSTINUS ANDREAS CHRISTIAN (1786–1862), German poet and medical writer, was born on the 18th of September 1786 at Ludwigsburg in Württemberg. After attending the classical schools of Ludwigsburg and Maulbronn, he was apprenticed in a cloth factory, but, in 1804, owing to the good services of Professor Karl Philipp Conz (1762–1827) of Tübingen, was enabled to enter the university there; he studied medicine but had also time for literary pursuits in the company of Uhland, Gustav Schwab and others. He took his doctor's degree in 1808, spent some time in travel, and then settled as a practising physician in Wildbad. Here he completed his *Reiseschatten von dem Schattenspieler Luchs* (1811), in which his own experiences are described with caustic humour. He next co-operated with Uhland and Schwab in producing the *Poetischer Almanach für 1812*, which was followed by the *Deutscher Dichterwald* (1813), and in these some of Kerner's best poems were published. In 1815 he obtained the official appointment of district medical officer (*Oberamtsarzt*) in Gaildorf, and in 1818 was transferred in a like capacity to Weinsberg, where he spent the rest of his life. His house, the site of which at the foot of the historical Schloss Weibertreu was presented by the municipality to their revered physician, became the Mecca of literary pilgrims. Hospitable welcome was extended to all, from the journeyman artisan to crowned heads. Gustavus IV. of Sweden came thither with a knapsack on his back. The poets Count Christian Friedrich Alexander von Württemberg (1801–1844) and Lenau (*q.v.*) were constant guests, and thither came also in 1826 Friederike Hauffe (1801–1829), the daughter of a forester in Prevorst, a somnambulist and clairvoyante, who forms the subject of Kerner's famous work *Die Seherin von Prevorst, Eröffnungen über das innere Leben des Menschen und über das Hineinragen einer Geisterwelt in die unsere* (1829; 6th ed., 1892). In 1826 he published a collection of *Gedichte* which were later supplemented by *Der letzte Blütenstrauss* (1852) and *Winterblüten* (1859). Among others of his well-known poems are the charming ballad *Der reichste Fürst*; a drinking song, *Wohlauf, noch getrunken*, and the pensive *Wanderer in der Sägemühle*.

In addition to his literary productions, Kerner wrote some popular medical books of great merit, dealing with animal magnetism, a treatise on the influence of sebacic acid on animal organisms, *Das Fettgift oder die Fettsäure und ihre Wirkungen auf den tierischen Organismus* (1822); a description of Wildbad and its healing waters, *Das Wildbad im Königreich Württemberg* (1813); while he gave a pretty and vivid account of his youthful years in *Bilderbuch aus meiner Knabenzeit* (1859); and in *Die Bestürmung der württembergischen Stadt Weinsberg im Jahre 1525* (1820), showed considerable skill in historical narrative. In 1851 he was compelled, owing to increasing blindness, to retire from his medical practice, but he lived, carefully tended by his daughters, at Weinsberg until his death on the 21st of February 1862. He was buried beside his wife, who had predeceased him in 1854, in the churchyard of Weinsberg, and the grave is marked by a stone slab with an inscription he himself had chosen: *Friederike Kerner und ihr Justinus*. Kerner was one of the most inspired poets of the Swabian school. His poems, which largely deal with natural phenomena, are characterized by a deep melancholy and a leaning towards the supernatural, which, however, is balanced by a quaint humour, reminiscent of the Volkslied.

Kerner's *Ausgewählte poetische Werke* appeared in 2 vols. (1878); *Sämtliche poetische Werke*, ed. by J. Gaismaier, 4 vols. (1905); a selection of his poems will also be found in Reclam's *Universal-bibliothek* (1898). His correspondence was edited by his son in 1897. See also D. F. Strauss, *Kleine Schriften* (1866); A. Reinhard, *J. Kerner und das Kernerhaus zu Weinsberg* (1862; 2nd ed., 1886); G. Rümelin, *Reden und Aufsätze*, vol. iii. (1894); M. Niethammer (Kerner's daughter), *J. Kerners Jugendliebe und mein Vaterhaus* (1877); A. Watts, *Life and Works of Kerner* (London, 1884); T. Kerner, *Das Kernerhaus und seine Gäste* (1894).

KERRY, a county of Ireland in the province of Munster, bounded W. by the Atlantic Ocean, N. by the estuary of the Shannon, which separates it from Clare, E. by Limerick and Cork, and S.E. by Cork. The area is 1,159,356 acres, or 1811 sq. m., the county being the fifth of the Irish counties in extent. Kerry, with its combination of mountain, sea and plain, possesses some of the finest scenery of the British Islands. The portion of the county south of Dingle Bay consists of mountain masses intersected by narrow valleys. Formerly the mountains were covered by a great forest of fir, birch and yew, which was nearly all cut down to be used in smelting iron, and the constant pasturage of cattle prevents the growth of young trees. In the north-east towards Killarney the hills rise abruptly into the ragged range of Macgillicuddy's Reeks, the highest summit of which, Carntual (Carrantuohill), has a height of 3414 ft. The next highest summit is Caper (3200 ft.), and several others are over 2500 ft. Lying between the precipitous sides of the Tomies, the Purple Mountains and the Reeks is the famous Gap of Dunloe. In the Dingle promontory Brandon Mountain attains a height of 3127 ft. The sea-coast, for the most part wild and mountainous, is much indented by inlets, the largest of which, Tralee Bay, Dingle Bay and Kenmare River, lie in synclinal troughs, the anticlinal folds of the rocks forming extensive promontories. Between Kenmare River and Dingle Bay the land is separated by mountain ridges into three valleys. The extremity of the peninsula between Dingle Bay and Tralee Bay is very precipitous, and Mount Brandon, rising abruptly from the ocean, is skirted at its base (in part) by a road from which magnificent views are obtained. From near the village of Ballybunion to Kilconey Point near the Shannon there is a remarkable succession

of caves, excavated by the sea. One of these caves inspired Tennyson with some lines in "Merlin and Vivien," which he wrote on the spot. The principal islands are the picturesque Skelligs, Valencia Island and the Blasquet Islands.

The principal rivers are the Blackwater, which, rising in the Dunkerran Mountains, forms for a few miles the boundary line between Kerry and Cork, and then passes into the latter county; the Ruaughty, which with a course resembling the arc of a circle falls into the head of the Kenmare River; the Inny and Ferta, which flow westward, the one into Ballinskellig Bay and the other into Valencia harbour; the Flesk, which flows northward through the lower Lake of Killarney, after which it takes the name of Laune, and flows north-westward to Dingle Bay; the Caragh, which rises in the mountains of Dunkerran, after forming several lakes falls into Castlemaine harbour; the Maine, which flows from Castle Island and south-westward to the sea at Castlemaine harbour, receiving the northern Flesk, which rises in the mountains that divide Cork from Kerry; and the Feale, Gale and Brick, the junction of which forms the Cashin, a short tidal river which flows into the estuary of the Shannon. The lakes of Kerry are not numerous, and none is of great size, but those of Killarney (*q.v.*) form one of the most important features in the striking and picturesque mountain scenery amidst which they are situated. The other principal lakes are Lough Currane (Waterville Lake) near Ballinskellig, and Lough Caragh near Castlemaine harbour. Salmon and trout fishing with the rod is extensively prosecuted in all these waters. Near the summit of Mangerton Mountain an accumulation of water in a deep hollow forms what is known as the Devil's Punchbowl, the surplus water, after making a succession of cataracts, flowing into Muckross Lake at the foot of the mountain. There are chalybeate mineral springs near Killarney, near Valencia Island, and near the mouth of the Inny; sulphurous chalybeate springs near Dingle, Castlemaine and Tralee; and a saline spring at Magherybeg in Corkaguiney, which bursts out of clear white sand a little below high-water mark. Killarney is an inland centre widely celebrated and much visited on account of its scenic attractions; there are also several well-known coast resorts, among them Derrynane, at the mouth of Kenmare Bay, the residence of Daniel O'Connell the "liberator"; Glenbeigh on Dingle Bay, Parknasilla on Kenmare Bay, Waterville (an Atlantic telegraph station) between Ballinskellig Bay and Lough Currane, and Tarbert, a small coast town on the Shannon estuary. Others of the smaller villages have grown into watering-places, such as Ballybunion, Castlegregory and Portmagee.

Geology.—Kerry includes on the north and east a considerable area of Carboniferous shales and sandstones, reaching the coal-measures, with unproductive coals, east of Listowel and on the Glanruddery Mountains. The Carboniferous Limestone forms a fringe to these beds, and is cut off by the sea at Knockaneen Bay, Tralee and Castlemaine. In all the great promontories, Old Red Sandstone, including Jukes's "Glengariff Grits," forms the mountains, while synclinal hollows of Carboniferous Limestone have become submerged to form marine inlets between them. The Upper Lake of Killarney lies in a hollow of the Old Red Sandstone, which here rises to its greatest height in Macgillicuddy's Reeks; Lough Leane however, with its low shores, rests on Carboniferous Limestone. In the Dingle promontory the Old Red Sandstone is strikingly unconformable on the Dingle beds and the Upper Silurian series; the latter include volcanic rocks of Wenlock age. The evidences of local glaciation in this county, especially on the wild slopes of the mountains, are as striking as in North Wales. A copper-mine was formerly worked at Muckross, near Killarney, in which cobalt ores also occurred. Slate is quarried in Valencia Island.

Fauna.—Foxes are numerous, and otters and badgers are not uncommon. The alpine hare is very abundant. The red deer inhabits the mountains round Killarney. The golden eagle, once frequently seen in the higher mountain regions, is now rarely met. The sea eagle haunts the lofty marine cliffs, the mountains and the rocky islets. The osprey is occasionally seen, and also the peregrine falcon. The merlin is common. The common owl is indigenous, the long-eared owl resident, and the short-eared owl a regular winter visitor. Rock pigeons breed on the sea-cliffs, and the turtle-dove is an occasional visitant. The great grey seal is found in Brandon and Dingle bays.

Climate and Agriculture.—Owing to the vicinity of the sea and the height of the mountains, the climate is very moist and unsuitable for the growth of cereals, but it is so mild even in winter that arbutus and other trees indigenous to warm climates grow in the open air, and several flowering plants are found which are unknown in England. In the northern parts the land is generally coarse and poor, except in the valleys, where a rich soil has been formed by rocky deposits. In the Old Red Sandstone valleys there are many very fertile regions, and several extensive districts now covered by bog admit of easy reclamation so as to form very fruitful soil, but other tracts of boggy land scarcely promise a profitable return for labour expended on their reclamation. Over one-third of the total area is quite barren. The numbers of live stock of every kind are generally increased or sustained. Dairy-farming is very largely followed. The Kerry breed of cattle—small finely-shaped animals, black or red in colour, with small upturned horns—are famed for the quality both of their flesh and milk, and are in considerable demand for the parks surrounding mansion-houses. The "Dexter," a cross between the Kerry and an unknown breed, is larger but without its fine qualities. Little regard is paid to the breed of sheep, but those in most common use have been crossed with a merino breed from Spain. Goats share with sheep the sweet pasturage of the higher mountain ridges, while cattle occupy the lower slopes.

Other Industries.—In former times there was a considerable linen trade in Kerry, but this is now nearly extinct, the chief manufacture being that of coarse woollens and linens for home use. At Killarney a variety of articles are made from the wood of the arbutus. A considerable trade in agricultural produce is carried on at Tralee, Dingle and Kenmare, and in slate and stone at Valencia. The deep-sea and coast fisheries are prosperous, and there are many small fishing settlements along the coast, but the centres of the two fishery districts are Valencia and Dingle. Salmon fishing is also an industry, for which the district centres are Kenmare and Killarney.

Communications.—The Great Southern & Western railway almost monopolizes the lines in the county. The principal line traverses the centre of the county, touching Killarney, Tralee and Listowel, and passing ultimately to Limerick. Branches are from Headford to Kenmare; Farranfore to Killorglin, Cahersiveen and Valencia harbour, Tralee to Fenit and to Castlegregory; and the Listowel and Ballybunion railway. All these are lines to the coast. The Tralee and Dingle railway connects these two towns. The only inland branch is from Tralee to Castleisland.

Population and Administration.—The population (179,136 in 1891; 165,726 in 1901) decreases to an extent about equal to the average of the Irish counties, but the emigration returns are among the heaviest. The chief towns are Tralee (the county town, pop. 9867); Killarney (5656), Listowel (3605) and Cahersiveen or Cahirciveen (2013), while Dingle, Kenmare, Killorglin and Castleisland are smaller towns. The county comprises 9 baronies, and contains 85 civil parishes. Assizes are held at Tralee, and quarter sessions at Cahersiveen, Dingle, Kenmare, Killarney, Listowel and Tralee. The headquarters of the constabulary force is at Tralee. Previous to the Union the county returned eight members to the Irish parliament, two for the county, and two for each of the boroughs of Tralee, Dingle and Ardfert. At the Union the number was reduced to three, two for the county and one for the borough of Tralee; but the divisions now number four: north, south, east and west, each returning one member. The county is in the Protestant diocese of Limerick and the Roman Catholic dioceses of Kerry and Limerick.

History.—The county is said to have derived its name from Ciar, who with his tribe, the *Ciarraidhe*, is stated to have inhabited about the beginning of the Christian era the territory lying between Tralee and the Shannon. That portion lying south of the Maine was at a later period included in the kingdom of Desmond (*q.v.*). Kerry suffered frequently from invasions of the Danes in the 9th and 10th centuries, until they were finally overthrown at the battle of Clontarf in 1014. In 1172 Dermot MacCarthy, king of Cork and Desmond, made submission to Henry II. on certain conditions, but was nevertheless gradually compelled to retire within the limits of Kerry, which is one of the areas generally considered to have been made shire ground by King John. An English adventurer, Raymond le Gros, received from this MacCarthy a large portion of the county round Lixnaw. In 1579–1580 attempts were made by the Spaniards to invade Ireland, landing at Limerick harbour, near Dingle, and a fortress was erected here, but was destroyed by the English in 1580. The Irish took advantage of the disturbed state of England at the time of the Puritan revolution to attempt the overthrow of the English rule in Kerry, and ultimately obtained possession of Tralee, but in 1652 the rebellion was completely subdued, and a large number of estates were afterwards confiscated.

There are remains of a round tower at Aghadoe, near Killarney, and another, one of the finest and most perfect specimens in Ireland, 92 ft. high, at Rattoe, not far from Ballybunion. On

the summit of a hill to the north of Kenmare River is the remarkable stone fortress known as Staigue Fort. There are several stone cells in the principal Skellig island, where penance, involving the scaling of dangerous rocks, was done by pilgrims, and where there were formerly monastic remains which have been swept away by the sea. The principal groups of sepulchral stones are those on the summits of the Tomie Mountains, a remarkable stone fort at Cahersiveen, a circle of stones with cromlech in the parish of Tuosist, and others with inscriptions near Dingle. The remote peninsula west of a line from Dingle to Smerwick harbour is full of remains of various dates. The most notable monastic ruins are those of Innisfallen, founded by St Finian, a disciple of St Columba, and the fine remains of Muckross Abbey, founded by the Franciscans, but there are also monastic remains at Ardfert, Castlemaine, Derrynane, Kilcoleman and O'Dorney. Among ruined churches of interest are those of Aghadoe, Kilcrohane, Lough Currane, Derrynane and Muckross. The cathedral of Ardfert, founded probably in 1253, was partly destroyed during the Cromwellian wars, but was restored in 1831. Some interesting portions remain (see TRALEE). There is a large number of feudal castles.

KERSAINT, ARMAND GUY SIMON DE COETNEMPREN, COMTE DE (1742–1793), French sailor and politician, was born at Paris on the 29th of July 1742. He came of an old family, his father, Guy François de Coetnempren, comte de Kersaint, being a distinguished naval officer. He entered the navy in 1755, and in 1757, while serving on his father's ship, was promoted to the rank of ensign for his bravery in action. By 1782 he was a captain, and in this year took part in an expedition to Guiana. At that time the officers of the French navy were divided into two parties—the reds or nobles, and the blues or *roturiers*. At the outbreak of the Revolution, Kersaint, in spite of his high birth, took the side of the latter. He adopted the new ideas, and in a pamphlet entitled *Le Bon Sens* attacked feudal privileges; he also submitted to the Constituent Assembly a scheme for the reorganization of the navy, but it was not accepted. On the 4th of January 1791 Kersaint was appointed administrator of the department of the Seine by the electoral assembly of Paris. He was also elected as a *député suppléant* to the Legislative Assembly, and was called upon to sit in it in place of a deputy who had resigned. From this time onward his chief aim was the realization of the navy scheme which he had vainly submitted to the Constituent Assembly. He soon saw that this would be impossible unless there were a general reform of all institutions, and therefore gave his support to the policy of the advanced party in the Assembly, denouncing the conduct of Louis XVI., and on the 10th of August 1792 voting in favour of his deposition. Shortly after, he was sent on a mission to the *armée du Centre*, visiting in this way Soissons, Reims, Sedan and the Ardennes. While thus occupied he was arrested by the municipality of Sedan; he was set free after a few days' detention. He took an active part in one of the last debates of the Legislative Assembly, in which it was decided to publish a *Bulletin officiel*, a report continued by the next Assembly, and known by the name of the *Bulletin de la Convention Nationale*. Kersaint was sent as a deputy to the Convention by the department of Seine-et-Oise in September 1792, and on the 1st of January 1793 was appointed vice-admiral. He continued to devote himself to questions concerning the navy and national defence, prepared a report on the English political system and the navy, and caused a decree to be passed for the formation of a committee of general defence, which after many modifications was to become the famous Committee of Public Safety. He had also had a decree passed concerning the navy on the 11th of January 1793. He had, however, entered the ranks of the Girondins, and had voted in the trial of the king against the death penalty and in favour of the appeal to the people. He resigned his seat in the Convention on the 20th of January. After the death of the king his opposition became more marked; he denounced the September massacres, but when called upon to justify his attitude confined himself to attacking Marat, who was at the time all-powerful. His friends tried in vain to obtain his appointment as minister of the marine; and he failed to obtain even a post as officer. He was arrested on the 23rd of September at Ville d'Avray, near Paris, and taken before the Revolutionary Tribunal, where he was accused of having conspired for the restoration of the monarchy, and of having insulted national representation by resigning his position in the legislature. He was executed on the 4th of December 1793.

His brother, GUY PIERRE (1747–1822), also served in the navy, and took part in the American war of independence. He did not accept the principles of the Revolution, but emigrated. He was restored to his rank in the navy in 1803, and died in 1822, after having been *préfet maritime* of Antwerp, and prefect of the department of Meurthe.

See Kersaint's own works, *Le Bon Sens* (1789); the *Rubicon* (1789); *Considérations sur la force publique et l'institution des gardes nationales* (1789); *Lettre à Mirabeau* (1791); *Moyens présentés à l'Assemblée nationale pour rétablir la paix et l'ordre dans les colonies*; also E. Chevalier, *Histoire de la Marine française sous la première République*; E. Charavay, *L'Assemblée électorale de Paris en 1790 et 1791* (Paris, 1890); and Agénor Bardoux, *La Duchesse de Duras* (Paris, 1898), the beginning of which deals with Kersaint, whose daughter married Amédée de Duras. (R. A.*)

KERVYN DE LETTENHOVE, CONSTANTINE BRUNO, BARON, (1817–1891), Belgian historian, was born at Saint-Michel-les-Bruges in 1817. He was a member of the Catholic Constitutional party and sat in the Chamber as member for Eecloo. In 1870 he was appointed a member of the cabinet of Anethan as minister of the interior. But his official career was short. The cabinet appointed as governor of Lille one Decker, who had been entangled in the financial speculations of Langand-Dumonceau by which the whole clerical party had been discredited, and which provoked riots. The cabinet was forced to resign, and Kervyn de Lettenhove devoted himself entirely to literature and history. He had already become known as the author of a book on Froissart (Brussels, 1855), which was crowned by the French Academy. He edited a series of chronicles—*Chroniques relatives à l'histoire de la Belgique sous la domination des ducs de Bourgogne* (Brussels, 1870–1873), and *Rélations politiques des Pays Bas et de l'Angleterre sous le regne de Philippe II.* (Brussels, 1882–1892). He wrote a history of *Les Hugenots et les Gueux* (Bruges, 1883–1885) in the spirit of a violent Roman Catholic partisan, but with much industry and learning. He died at Saint-Michel-les-Bruges in 1891.

See *Notices biographiques et bibliographiques de l'académie de Belgique* for 1887.

KESHUB CHUNDER SEN (KESHAVA CHANDRA SENA) (1838–1884), Indian religious reformer, was born of a high-caste family at Calcutta in 1838. He was educated at one of the Calcutta colleges, where he became proficient in English literature and history. For a short time he was a clerk in the Bank of Bengal, but resigned his post to devote himself exclusively to literature and philosophy. At that time Sir William Hamilton, Hugh Blair, Victor Cousin, J. H. Newman and R. W. Emerson were among his favourite authors. Their works made the deepest impression on him, for, as he expressed it, "Philosophy first taught me insight and reflection, and turned my eyes inward from the things of the external world, so that I began to reflect on my position, character and destiny." Like many other educated Hindus, Keshub Chunder Sen had gradually dissociated himself from the popular forms of the native religion, without abandoning what he believed to be its spirit. As early as 1857 he joined the Brahma Samaj, a religious association aiming at the reformation of Hinduism. Keshub Chunder Sen threw himself with enthusiasm into the work of this society and in 1862 himself undertook the ministry of one of its branches. In the same year he helped to found the Albert College and started the *Indian Mirror*, a weekly journal in which social and moral subjects were discussed. In 1863 he wrote *The Brahma Samaj Vindicated*. He also travelled about the country lecturing and preaching. The steady development of his reforming zeal led to a split in the society, which broke into two sections, Chunder Sen putting himself at the head of the reform movement, which took the name "Brahma Samaj of India," and tried to propagate

its doctrines by missionary enterprise. Its tenets at this time were the following: (1) The wide universe is the temple of God. (2) Wisdom is the pure land of pilgrimage. (3) Truth is the everlasting scripture. (4) Faith is the root of all religions. (5) Love is the true spiritual culture. (6) The destruction of selfishness is the true asceticism. In 1866 he delivered an address on "Jesus Christ, Europe and Asia," which led to the false impression that he was about to embrace Christianity. This helped to call attention to him in Europe, and in 1870 he paid a visit to England. The Hindu preacher was warmly welcomed by almost all denominations, particularly by the Unitarians, with whose creed the new Brahma Samaj had most in common, and it was the committee of the British and Foreign Unitarian Association that organized the welcome soirée at Hanover Square Rooms on the 12th of April. Ministers of ten different denominations were on the platform, and among those who officially bade him welcome were Lord Lawrence and Dean Stanley. He remained for six months in England, visiting most of the chief towns. His eloquence, delivery and command of the language won universal admiration. His own impression of England was somewhat disappointing. Christianity in England appeared to him too sectarian and narrow, too "muscular and hard," and Christian life in England more materialistic and outward than spiritual and inward. "I came here an Indian, I go back a confirmed Indian; I came here a Theist, I go back a confirmed Theist. I have learnt to love my own country more and more." These words spoken at the farewell soirée may furnish the key to the change in him which so greatly puzzled many of his English friends. He developed a tendency towards mysticism and a greater leaning to the spiritual teaching of the Indian philosophies, as well as a somewhat despotic attitude towards the Samaj. He gave his child daughter in marriage to the raja of Kuch Behar; he revived the performance of mystical plays, and himself took part in one. These changes alienated many followers, who deserted his standard and founded the Sadhārana (General) Brahma Samaj (1878). Chunder Sen did what he could to reinvigorate his own section by a new infusion of Christian ideas and phrases, *e.g.* "the New Dispensation," "the Holy Spirit." He also instituted a sacramental meal of rice and water. Two lectures delivered between 1881 and 1883 throw a good deal of light on his latest doctrines. They were "The Marvellous Mystery, the Trinity," and "Asia's Message to Europe." This latter is an eloquent plea against the Europeanizing of Asia, as well as a protest against Western sectarianism. During the intervals of his last illness he wrote *The New Samhita, or the Sacred Laws of the Aryans of the New Dispensation*. He died in January 1884, leaving many bitter enemies and many warm friends.

See the article BRAHMA SAMAJ; also P. Mozoomdar, *Life and Teachings of Keshub Chunder Sen* (1888).

KÉSMÁRK (Ger. Käsmark), a town of Hungary, in the county of Szepes, 240 m. N.E. of Budapest by rail. Pop. (1900), 5560. It is situated on the Poprad, at an altitude of 1950 ft., and is surrounded on all sides by mountains. Among its buildings are the Roman Catholic parish church, a Gothic edifice of the 15th century with fine carved altars; a wooden Protestant church of the 17th century; and an old town-hall. About 12 m. W. of Késmárk lies the famous watering-place Tatrafüred (Ger. Schmecks), at the foot of the Schlagendorfer peak in the Tatra Mountains. Késmárk is one of the oldest and most important Saxon settlements in the north of Hungary, and became a royal free town at the end of the 13th century, In 1440 it became the seat of the counts of Szepes (Ger., *Zips*), and in 1464 it was granted new privileges by King Matthias Corvinus. During the 16th century, together with the other Saxon towns in the Szepes county, it began to lose both its political and commercial importance. It remained a royal free town until 1876.

KESTREL (Fr. *Cresserelle* or *Crêçerelle*, O. Fr. *Quercerelle* and *Quercelle*, in Burgundy *Cristel*), the English name[1] for one of the smaller falcons. This bird, though in the form of its bill and length of its wings one of the true falcons, and by many ornithologists placed among them under its Linnaean name of *Falco tinnunculus*, is by others referred to a distinct genus *Tinnunculus* as *T. alaudarius*—the last being an epithet wholly inappropriate. We have here a case in which the propriety of the custom which requires the establishment of a genus on structural characters may seem open to question. The differences of structure which separate *Tinnunculus* from *Falco* are of the slightest, and, if insisted upon, must lead to including in the former birds which obviously differ from kestrels in all but a few characters arbitrarily chosen; and yet, if structural characters be set aside, the kestrels form an assemblage readily distinguishable by several peculiarities from all other *Falconidae*, and an assemblage separable from the true Falcons of the genus *Falco*, with its subsidiary groups *Aesalon*, *Hypotriorchis*, and the rest (see FALCON). Scarcely any one outside the walls of an ornithological museum or library would doubt for a moment whether any bird shown to him was a kestrel or not; and Gurney has stated his belief (*Ibis*, 1881, p. 277) that the aggregation of species placed by Bowdler Sharpe (*Cat. Birds Brit. Mus.* i. 423–448) under the generic designation of *Cerchneis* (which should properly be *Tinnunculus*) includes "three natural groups sufficiently distinct to be treated as at least separate subgenera, bearing the name of *Dissodectes*, *Tinnunculus* and *Erythropus*." Of these the first and last are not kestrels, but are perhaps rather related to the hobbies (*Hypotriorchis*).

The ordinary kestrel of Europe, *Falco tinnunculus* or *Tinnunculus alaudarius*, is by far the commonest bird of prey in the British Islands. It is almost entirely a summer migrant, coming from the south in early spring and departing in autumn, though examples (which are nearly always found to be birds of the year) occasionally occur in winter, some arriving on the eastern coast in autumn. It is most often observed while hanging in the air for a minute or two in the same spot, by means of short and rapid beats of its wings, as, with head pointing to windward and expanded tail, it is looking out for prey—which consists chiefly of mice, but it will at times take a small bird, and the remains of frogs, insects and even earthworms have been found in its crop. It generally breeds in the deserted nest of a crow or pie, but frequently in rocks, ruins, or even in hollow trees—laying four or five eggs, mottled all over with dark brownish-red, sometimes tinged with orange and at other times with purple. Though it may occasionally snatch up a young partridge or pheasant, the kestrel is the most harmless bird of prey, if it be not, from its destruction of mice and cockchafers, a beneficial species. Its range extends over nearly the whole of Europe from 68° N. lat., and the greater part of Asia—though the form which inhabits Japan and is abundant in north-eastern China has been by some writers deemed distinct and called *T. japonicus*—it is also found over a great part of Africa, being, however, unknown beyond Guinea on the west and Mombasa on the east coast (*Ibis*, 1881, p. 457). The southern countries of Europe have also another and smaller species of kestrel, *T. tinnunculoides* (the *T. cenchris* and *T. naumanni* of some writers), which is widely spread in Africa and Asia, though specimens from India and China are distinguished as *T. pekinensis*.

Three other species are found in Africa—*T. rupicola*, *T. rupicoloides* and *T. alopex*—the first a common bird in the Cape, while the others occur in the interior. Some of the islands of the Ethiopian region have peculiar species of kestrel, as the *T. newtoni* of Madagascar, *T. punctatus* of Mauritius and *T. gracilis* of the Seychelles; while, on the opposite side, the kestrel of the Cape Verde Islands has been separated as *T. neglectus*.

The *T. sparverius*, commonly known in Canada and the United States as the "sparrow-hawk," is a beautiful little bird. Various attempts have been made to recognize several species, more or less in accordance with locality, but the majority of ornithologists seem unable to accept the distinctions which have been elaborated chiefly by Bowdler Sharpe in his *Catalogue* and R. Ridgway (*North American Birds*, iii. 159–175), the former of whom recognizes six species, while the latter admits but three—

[1] Other English names are windhover and standgale (the last often corrupted into stonegale and stannell).

T. sparverius, *T. leucophrys* and *T. sparverioides*—with five geographical races of the first, viz. the typical *T. sparverius* from the continent of North America except the coast of the Gulf of Mexico; *T. australis* from the continent of South America except the North Atlantic and Caribbean coasts; *T. isabellinus*, inhabiting continental America from Florida to Fr. Guiana; *T. dominicensis* from the Lesser Antilles as far northwards as St Thomas; and lastly *T. cinnamominus* from Chile and western Brazil. *T. leucophrys* is said to be from Haiti and Cuba; and *T. sparverioides* peculiar to Cuba only. This last has been generally allowed to be a good species, though Dr Gundlach, the best authority on the birds of that island, in his *Contribucion á la Ornitologia Cubana* (1876), will not allow its validity. More recently it was found (*Ibis*, 1881, pp. 547–564) that *T. australis* and *T. cinnamominus* cannot be separated, that Ridgway's *T. leucophrys* should properly be called *T. dominicensis*, and his *T. dominicensis T. antillarum*; while Ridgway has recorded the supposed occurrence of *T. sparverioides* in Florida. Of other kestrels *T. moluccensis* is widely spread throughout the islands of the Malay Archipelago, while *T. cenchroides* seems to inhabit the whole of Australia, and has occurred in Tasmania (*Proc. Roy. Soc. Tasmania*, 1875, pp. 7, 8). No kestrel is found in New Zealand, but an approach to the form is made by the very peculiar *Hieracidea* (or *Harpe*) *novae-zelandiae* (of which a second race or species has been described, *H. brunnea* or *H. ferox*), the "sparrow-hawk," "quail-hawk" and "bush-hawk" of the colonists—a bird of much higher courage than any kestrel, and perhaps exhibiting the more generalized and ancestral type from which both kestrels and falcons may have descended. (A. N.)

KESWICK, a market town in the Penrith parliamentary division of Cumberland, England, served by the joint line of the Cockermouth Keswick & Penrith, and London & North-Western railways. Pop. of urban district (1901), 4451. It lies in the northern part of the Lake District, in an open valley on the banks of the river Greta, with the mountain of Skiddaw to the north and the lovely lake of Derwentwater to the south. It is much frequented by visitors as a centre for this famous district—for boating on Derwentwater and for the easy ascent of Skiddaw. Many residences are seen in the neighbourhood, and the town as a whole is modern. Fitz Park, opened in 1887, is a pleasant recreation ground. The town-hall contains a museum of local geology, natural history, &c. In the parish church of Crosthwaite, ¾ m. distant, there is a monument to the poet Southey. His residence, Greta Hall, stands at the end of the main street, close by the river. Keswick is noted for its manufacture of lead pencils; and the plumbago (locally wad) used to be supplied from mines in Borrowdale. Char, caught in the neighbouring lakes, are potted at Keswick in large quantities and exported.

KESWICK CONVENTION, an annual summer reunion held at the above town for the main purpose of "promoting practical holiness" by meetings for prayer, discussion and personal intercourse. It has no denominational limits, and is largely supported by the "Evangelical" section of the Church of England. The convention, started in a private manner by Canon Harford-Battersby, then vicar of Keswick, and Mr Robert Wilson in 1874, met first in 1875, and rapidly grew after the first few years, both in numbers and influence, in spite of attacks on the alleged "perfectionism" of some of its leaders and on the novelty of its methods. Its members take a deep interest in foreign missions.

In the *History of the C.M.S.*, vol. iii. (by Eugene Stock), the missionary influence of the "Keswick men" in Cambridge and elsewhere may be readily traced. See also *The Keswick Convention*: its *Message, its Method and its Men*, edited by C. F. Harford (1906).

KET (or KETT), **ROBERT** (d. 1549), English rebel, is usually called a tanner, but he certainly held the manor of Wymondham in Norfolk. With his brother William he led the men of Wymondham in their quarrel with a certain Flowerden, and having thus come into prominence, he headed the men of Norfolk when they rose in rebellion in 1549 owing to the hardships inflicted by the extensive enclosures of common lands and by the general policy of the protector Somerset. A feast held at Wymondham in July 1549 developed into a riot and gave the signal for the outbreak. Leading his followers to Norwich, Ket formed a camp on Mousehold Heath, where he is said to have commanded 16,000 men, introduced a regular system of discipline, administered justice and blockaded the city. He refused the royal offer of an amnesty on the ground that innocent and just men had no need of pardon, and on the 1st of August 1549 attacked and took possession of Norwich. John Dudley, earl of Warwick, marched against the rebels, and after his offer of pardon had been rejected he forced his way into the city, driving its defenders before him. Then, strengthened by the arrival of some foreign mercenaries, he attacked the main body of the rebels at Dussindale on the 27th of August. Ket's men were easily routed by the trained soldiery, and Robert and William Ket were seized and taken to London, where they were condemned to death for treason. On the 7th of December 1549 Robert was executed at Norwich, and his body was hanged on the top of the castle, while that of William was hanged on the church tower at Wymondham.

See F. W. Russell, *Kett's Rebellion* (1859), and J. A. Froude, *History of England*, vol. iv. (London, 1898).

KETCH, JOHN (d. 1686), English executioner, who as "Jack Ketch" gave the nickname for nearly two centuries to his successors, is believed to have been appointed public hangman in the year 1663. The first recorded mention of him is in *The Plotters Ballad, being Jack Ketch's incomparable Receipt for the Cure of Traytorous Recusants and Wholesome Physick for a Popish Contagion*, a broadside published in December 1672. The execution of William, Lord Russell, on the 21st of July 1683 was carried out by him in a clumsy way, and a pamphlet is extant which contains his "Apologie," in which he alleges that the prisoner did not "dispose himself as was most suitable" and that he was interrupted while taking aim. On the scaffold, on the 15th of July 1685, the duke of Monmouth, addressing Ketch, referred to his treatment of Lord Russell, the result being that Ketch was quite unmanned and had to deal at least five strokes with his axe, and finally use a knife, to sever Monmouth's head from his shoulders. In 1686 Ketch was deposed and imprisoned at Bridewell, but when his successor, Pascha Rose, a butcher, was, after four months in the office, hanged at Tyburn, Ketch was reappointed. He died towards the close of 1686.

KETCHUP, also written *catsup* and *katchup* (said to be from the Chinese *kôe-chiap* or *kê-tsiap*, brine of pickled fish), a sauce or relish prepared principally from the juice of mushrooms and of many other species of edible fungi, salted for preservation and variously spiced. The juices of various fruits, such as cucumbers, tomatoes, and especially green walnuts, are used as a basis of ketchup, and shell-fish ketchup, from oysters, mussels and cockles, is also made; but in general the term is restricted to sauces having the juice of edible fungi as their basis.

KETENES, in chemistry, a group of organic compounds which may be considered as internal anhydrides of acetic acid and its substitution derivatives. Two classes may be distinguished: the aldo-ketenes, including ketene itself, together with its monoalkyl derivatives and carbon suboxide, and the keto-ketenes which comprise the dialkyl ketenes. The aldo-ketenes are colourless compounds which are not capable of autoxidation, are polymerized by pyridine or quinoline, and are inert towards compounds containing the groupings C:N and C:O. The keto-ketenes are coloured compounds, which undergo autoxidation readily, form ketene bases on the addition of pyridine and quinoline, and yield addition compounds with substances containing the C:N and C:O groupings. The ketenes are usually obtained by the action of zinc on ethereal or ethyl acetate solutions of halogen substituted acid chlorides or bromides. They are characterized by their additive reactions: combining with water to form acids, with alcohols to form esters, and with primary amines to form amides.

Ketene, $CH_2{:}CO$, was discovered by N. T. M. Wilsmore (*Jour. Chem. Soc.*, 1907, vol. 91, p. 1938) among the gaseous products formed

when a platinum wire is electrically heated under the surface of acetic anhydride. It is also obtained by the action of zinc on bromacetyl bromide (H. Staudinger, *Ber.* 1908, 41, p. 594). At ordinary temperatures it is a gas, but it may be condensed to a liquid and finally solidified, the solid melting at −151° C. It is characterized by its penetrating smell. On standing for some time a brown-coloured liquid is obtained, from which a colourless liquid boiling at 126–127° C., has been isolated (Wilsmore, ibid., 1908, 93, p. 946). Although originally described as acetylketen, it has proved to be a cyclic compound (Ber., 1909, 42, p. 4908). It is soluble in water, the solution showing an acid reaction, owing to the formation of aceto-acetic acid, and with alkalis it yields acetates. It differs from the simple ketenes in that it is apparently unacted upon by phenols and alcohols. *Dimethyl ketene*, $(CH_3)_2C:CO$, obtained by the action of zinc on α-brom-isobutyryl bromide, is a yellowish coloured liquid. At ordinary temperatures it rapidly polymerizes (probably to a tetramethylcylobutanedione). It boils at 34° C. (750 mm.) (Staudinger, *Ber.* 1905, 38, p. 1735; 1908, 41, p. 2208). Oxygen rapidly converts it into a white explosive solid. *Diethyl ketene*, $(C_2H_5)_2C:CO$, is formed on heating diethylmalonic anhydride (Staudinger, ibid.). *Diphenyl ketene*, $(C_6H_5)_2C:CO$, obtained by the action of zinc on diphenyl-chloracetyl chloride, is an orange-red liquid which boils at 146° C. (12 mm.). It does not polymerize. Magnesium phenyl bromide gives triphenyl vinyl alcohol.

KETI, a sea-port of British India, in Karachi district, Sind, situated on the Hajamro branch of the Indus. Pop. (1901), 2127. It is an important seat of trade, where sea-borne goods are transferred to and from river boats.

KETONES, in chemistry, organic compounds of the type $R{\cdot}CO{\cdot}R'$, where R, R′ = alkyl or aryl groups. If the groups R and R′ are identical, the ketone is called a *simple* ketone, if unlike, a *mixed* ketone. They may be prepared by the oxidation of secondary alcohols; by the addition of the elements of water to hydrocarbons of the acetylene type RC CH ; by oxidation of primary alcohols of the type $RR'{\cdot}CH{\cdot}CH_2OH$: $RR'{\cdot}CH{\cdot}CH_2OH \rightarrow R{\cdot}CO{\cdot}R' + H_2O + H_2CO_2$; by distillation of the calcium salts of the fatty acids, $C_nH_{2n}O_2$; by heating the sodium salts of these acids $C_nH_{2n}O_2$ with the corresponding acid anhydride to 190° C. (W. H. Perkin, *Jour. Chem. Soc.*, 1886, 49, p. 322); by the action of anhydrous ferric chloride on acid chlorides (J. Hamonet, *Bull. de la soc. chim.*, 1888, 50, p. 357),

$$2C_2H_5COCl \rightarrow C_2H_5{\cdot}CO{\cdot}CH(CH_3){\cdot}COCl \rightarrow C_2H_5{\cdot}CO{\cdot}CH(CH_3){\cdot}CO_2H \rightarrow C_2H_5{\cdot}CO{\cdot}CH_2{\cdot}CH_3;$$

and by the action of zinc alkyls on acid chlorides (M. Freund, *Ann.*, 1861, 118, p. 1), $2CH_3COCl + ZnCH_3)_2 = ZnCl_2 + 2CH_3{\cdot}CO{\cdot}CH_3$. In the last reaction complex addition products are formed, and must be quickly decomposed by water, otherwise tertiary alcohols are produced (A. M. Butlerow, *Jahresb.*, 1864, p. 496; *Ann.* 1867, 144, p. 1). They may also be prepared by the decomposition of ketone chlorides with water; by the oxidation of the tertiary hydroxyacids; by the hydrolysis of the ketonic acids or their esters with dilute alkalis or baryta water (see ACETO-ACETIC ESTER); by the hydrolysis of alkyl derivatives of acetone dicarboxylic acid, $HO_2C{\cdot}CH_2{\cdot}CO{\cdot}CHR{\cdot}CO_2H$; and by the action of the Grignard reagent on nitriles (E. Blaise, *Comptes rendus*, 1901, 132, p. 38),

$$R{\cdot}CN + R'M_gI \rightarrow RR'C:N{\cdot}M_gI \rightarrow R{\cdot}CO{\cdot}R' + NH_3 + M_gI{\cdot}OH.$$

The ketones are of neutral reaction, the lower members of the series being colourless, volatile, pleasant-smelling liquids. They do not reduce silver solutions, and are not so readily oxidized as the aldehydes. On oxidation, the molecule is split at the carbonyl group and a mixture of acids is obtained. Sodium amalgam reduces them to secondary alcohols; phosphorus pentachloride replaces the carbonyl oxygen by chlorine, forming the ketone chlorides. Only those ketones which contain a methyl group are capable of forming crystalline addition compounds with the alkaline bisulphites (F. Grimm, *Ann.*, 1871, 157, p. 262). They combine with hydrocyanic acid to form nitriles, which on hydrolysis furnish hydroxyacids,

$$(CH_3)_2CO \rightarrow (CH_3)_2C{\cdot}OH{\cdot}CN \rightarrow (CH_3)_2{\cdot}C{\cdot}OH{\cdot}CO_2H;$$

with phenylhydrazine they yield hydrazones; with hydrazine they yield in addition ketazines $RR'{\cdot}C:N{\cdot}N:C{\cdot}RR'$ (T. Curtius), and with hydroxylamine ketoximes. The latter readily undergo the "Beckmann" transformation on treatment with acid chlorides, yielding substituted acid amides,

$$RR'{\cdot}C:NOH \rightarrow RC(NR'){\cdot}OH \rightarrow R{\cdot}CO{\cdot}NHR'$$

(see OXIMES, also A. Hantzsch, *Ber.*, 1891, 24, p. 13). The ketones react with mercaptan to form mercaptols (E. Baumann, *Ber.*, 1885, 18, p. 883), and with concentrated nitric acid they yield dinitroparaffins (G. Chancel, *Bull. de la soc. chim.*, 1879, 31, p. 503). With nitrous acid (obtained from amyl nitrite and gaseous hydrochloric acid, the ketone being dissolved in acetic acid) they form isonitroso-ketones, $R{\cdot}CO{\cdot}CH:NOH$ (L. Claisen, *Ber.*, 1887, 20, pp. 656, 2194). With ammonia they yield complex condensation products; acetone forming di- and tri-acetonamines (W. Heintz, *Ann.* 1875, 178, p. 305; 1877, 189, p. 214. They also condense with aldehydes, under the influence of alkalis or sodium ethylate (L. Claisen, *Ann.*, 1883, 218, pp. 121, 129, 145; 1884, 223, p. 137; S. Kostanecki and G. Rossbach, *Ber.*, 1896, 29, pp. 1488, 1495, 1893, &c.). On treatment with the Grignard reagent, in absolute ether solution, they yield addition products which are decomposed by water with production of tertiary alcohols (V. Grignard, *Comptes rendus*, 1900, 130, p. 1322 et seq.),

$$RR'CO \rightarrow RR'{\cdot}C(OM_gI){\cdot}R'' \rightarrow RR'R''{\cdot}C(OH) + MgI{\cdot}OH.$$

Ketones do not polymerize in the same way as aldehydes, but under the influence of acids and bases yield condensation products; thus acetone gives mesityl oxide, phorone and mesitylene (see below).

For *dimethyl ketone* or acetone, see ACETONE. *Diethyl ketone*, $(C_2H_5)_2{\cdot}CO$, is a pleasant-smelling liquid boiling at 102·7° C. With concentrated nitric acid it forms dinitroethane, and it is oxidized by chromic acid to acetic and propionic acids. *Methylnonylketone*, $CH_3{\cdot}CO{\cdot}C_9H_{19}$, is the chief constituent of oil of rue, which also contains *methylheptylketone*, $CH_3{\cdot}CO{\cdot}C_7H_{15}$, a liquid of boiling-point 85–90° C. (7 mm.), which yields normal caprylic acid on oxidation with hypobromites.

Mesityl oxide, $(CH_3)_2C:CH{\cdot}CO{\cdot}CH_3$, is an aromatic smelling liquid of boiling point 129·5–130° C. It is insoluble in water, but readily dissolves in alcohol. On heating with dilute sulphuric acid it yields acetone, but with the concentrated acid it gives mesitylene, C_9H_{12}. Potassium permanganate oxidizes it to acetic acid and hydroxyisobutyric acid (A. Pinner, *Ber.*, 1882, 15, p. 591). It forms hydroxyhydrocollidine when heated with acetamide and anhydrous zinc chloride (F. Canzoneri and G. Spica, *Gazz. chim. Ital.*, 1884, 14, p. 349). *Phorone*, $(CH_3)_2C:CH{\cdot}CO{\cdot}CH:C(CH_3)_2$, forms yellow crystals which melt at 28° C. and boil at 197·2° C. When heated with phosphorus pentoxide it yields acetone, water and some pseudocumene. Dilute nitric acid oxidizes it to acetic and oxalic acids, while potassium permanganate oxidizes it to acetone, carbon dioxide and oxalic acid.

DIKETONES.—The diketones contain two carbonyl groups, and are distinguished as α or 1·2 diketones, β or 1·3 diketones, γ or 1·4 diketones, &c., according as they contain the groupings $-CO{\cdot}CO-$, $-CO{\cdot}CH_2{\cdot}CO-$, $-CO{\cdot}CH_2{\cdot}CH_2{\cdot}CO-$, &c.

The α-diketones may be prepared by boiling the product of the action of alkaline bisulphites on isonitrosoketones with 15 % sulphuric acid (H. v. Pechmann, *Ber.*, 1887, 20, p. 3112; 1889, 22, p. 2115), $CH_3{\cdot}CO{\cdot}C:(N{\cdot}OH){\cdot}CH_3 \rightarrow CH_3{\cdot}CO{\cdot}C:(NHSO_3){\cdot}CH_3 \rightarrow CH_3{\cdot}CO{\cdot}CO{\cdot}CH_3$; or by the action of isoamyl nitrite on the isonitrosoketones (O. Manasse, *Ber.*, 1888, 21, p. 2177), $C_2H_5{\cdot}CO{\cdot}C:(NOH){\cdot}CH_3 + {}_{11}C_5HONO = C_2H_5{\cdot}CO{\cdot}CO{\cdot}CH_3 + C_5H_{11}OH + N_2O$. They condense with orthodiamines to form quinoxalines (O. Hinsberg, *Ann.*, 1887, 237, p. 327), and with ammonia and aldehydes to form imidazoles. *Diacetyl*, $CH_3{\cdot}CO{\cdot}CO{\cdot}CH_3$, is a yellowish green liquid, which boils at 87–88° C., and possesses a pungent smell. It combines with sodium bisulphite and with hydrocyanic acid. Dilute alkalis convert it into paraxyloquinone.

The β-diketones form characteristic copper salts, and in alcoholic solution they combine with semicarbazide to form products which on boiling with ammoniacal silver nitrate solution give pyrazoles (T. Posner, *Ber.*, 1901, 34, p. 3975); with hydroxylamine they form isoxazoles, and with phenylhydrazine pyrazoles. *Acetyl acetone*, $CH_3{\cdot}CO{\cdot}CH_2{\cdot}CO{\cdot}CH_3$, may be prepared by the action of aluminium chloride on acetyl chloride, or by condensing ethyl acetate with acetone in the presence of sodium (L. Claisen). It is a liquid of boiling point 136° C. It condenses readily with aniline to give αγ-dimethyl quinoline.

The γ-diketones are characterized by the readiness with which they yield furfurane, pyrrol and thiophene derivatives, the furfurane derivatives being formed by heating the ketones with a dehydrating agent, the thiophenes by heating with phosphorus pentasulphide, and the pyrrols by the action of alcoholic ammonia or amines. *Acetonyl acetone*, $CH_3{\cdot}CO{\cdot}CH_2{\cdot}CH_2{\cdot}CO{\cdot}CH_3$, a liquid boiling at 194° C., may be obtained by condensing sodium aceto-acetate with mono-chloracetone (C. Paal, *Ber.*, 1885, 18, p. 59),

$$CH_3COCH_2Cl + Na{\cdot}CH{\cdot}COCH_3(COOR) \rightarrow CH_3CO{\cdot}CH_2{\cdot}CH{\cdot}COCH_3(COOR) \rightarrow CH_3CO{\cdot}CH_2{\cdot}CH_2{\cdot}COCH_3;$$

or by the hydrolysis of diaceto-succinic ester, prepared by the action of iodine on sodium aceto-acetate (L. Knorr, *Ber.*, 1889, 22, pp. 169, 2100).

1·5 diketones have been prepared by L. Claisen by condensing ethoxymethylene aceto-acetic esters and similar compounds with β-ketonic esters and with 1·3 diketones. The ethoxymethylene aceto-acetic esters are prepared by condensing aceto-acetic ester with ortho-formic ester in the presence of acetic anhydride (German patents 77354, 79087, 79863). The 1·5 diketones of this type, when heated with aqueous ammonia, form pyridine derivatives. Those in which the keto groups are in combination with phenyl residues give pyridine derivatives on treatment with hydroxylamine, thus benzamarone, $C_6H_5CH[CH(C_6H_5){\cdot}CO{\cdot}C_6H_5]$, gives pentaphenylpyridine, $NC_5(C_6H_5)_5$. On the general reactions of the 1·5 diketones, see E. Knoevenagel (*Ann.*, 1894, 281, p. 25 et seq.) and H. Stobbe (*Ber.*, 1902, 35, p. 1445).

Many cyclic ketones are known, and in most respects they resemble the ordinary aliphatic ketones (see POLYMETHYLENES; TERPENES).

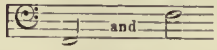
KETTELER, WILHELM EMMANUEL, BARON VON (1811–1877), German theologian and politician, was born at Harkotten, in Bavaria, on the 25th of December 1811. He studied theology at Göttingen, Berlin, Heidelberg and Munich, and was ordained priest in 1844. He resolved to consecrate his life to maintaining the cause of the freedom of the Church from the control of the State. This brought him into collision with the civil power, an attitude which he maintained throughout a stormy and eventful life. Ketteler was rather a man of action than a scholar, and he first distinguished himself as one of the deputies of the Frankfort National Assembly, a position to which he was elected in 1848, and in which he soon became noted for his decision, foresight, energy and eloquence. In 1850 he was made bishop of Mainz, by order of the Vatican, in preference to the celebrated Professor Leopold Schmidt, of Giessen, whose Liberal sentiments were not agreeable to the Papal party. When elected, Ketteler refused to allow the students of theology in his diocese to attend lectures at Giessen, and ultimately founded an opposition seminary in the diocese of Mainz itself. He also founded orders of School Brothers and School Sisters, to work in the various educational agencies he had called into existence, and he laboured to institute orphanages and rescue homes. In 1858 he threw down the gauntlet against the State in his pamphlet on the rights of the Catholic Church in Germany. In 1863 he adopted Lassalle's Socialistic views, and published his *Die Arbeitfrage und das Christenthum*. When the question of papal infallibility arose, he opposed the promulgation of the dogma on the ground that such promulgation was inopportune. But he was not resolute in his opposition. The opponents of the dogma complained at the very outset that he was wavering, half converted by his hosts, the members of the German College at Rome, and further influenced by his own misgivings. He soon deserted his anti-Infallibilist colleagues, and submitted to the decrees in August 1870. He was the warmest opponent of the State in the *Kulturkampf* provoked by Prince Bismarck after the publication of the Vatican decrees, and was largely instrumental in compelling that statesman to retract the pledge he had rashly given, never to "go to Canossa." To such an extent did Bishop von Ketteler carry his opposition, that in 1874 he forbade his clergy to take part in celebrating the anniversary of the battle of Sedan, and declared the Rhine to be a "Catholic river." He died at Burghausen, Upper Bavaria, on the 13th of July 1877.

(J. J. L.*)

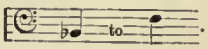
KETTERING, a market town in the eastern parliamentary division of Northamptonshire, England, 72 m. N.N.W. from London by the Midland railway. Pop. of urban district (1891), 19,454; (1901), 28,653. The church of SS Peter and Paul, mainly Perpendicular, has a lofty and ornate tower and spire. The chief manufactures are boots, shoes, brushes, stays, clothing and agricultural implements. There are iron-works in the immediate neighbourhood. The privilege of market was granted in 1227 by a charter of Henry III.

KETTLE, SIR RUPERT ALFRED (1817–1894), English county court judge, was born at Birmingham on the 9th of January 1817. His family had for some time been connected with the glass-staining business. In 1845 he was called to the bar, and in 1859 he was made judge of the Worcestershire county courts, becoming also a bencher of the Middle Temple (1882). He acted as arbitrator in several important strikes, and besides being the first president of the Midland iron trade wages board, he was largely responsible for the formation of similar boards in other staple trades. His name thus became identified with the organization of a system of arbitration between employers and employed, and in 1880 he was knighted for his services in this capacity. In 1851 he married; one of his sons subsequently became a London police magistrate. Kettle died on the 6th of October 1894 at Wolverhampton.

KETTLEDRUM[1] (Fr. *timbales*; Ger. *Pauken*; Ital. *timpani*; Sp. *timbal*), the only kind of drum (*q.v.*) having a definite musical pitch. The kettledrum consists of a hemispherical pan of copper, brass or silver, over which a piece of vellum is stretched tightly by means of screws working on an iron ring, which fits closely round the head of the drum. In the bottom of the pan is a small vent-hole, which prevents the head being rent by the concussion of air. The vellum head may thus be slackened or tightened at will to produce any one of the notes within its compass of half an octave. Each kettledrum gives but one note at a time, and as it takes some little time to alter all the screws, two or three kettledrums, sometimes more, each tuned to a different note, are used in an orchestra or band. For centuries kettledrums have been made and used in Europe in pairs, one large and one small; the relative proportions of the two instruments being well defined and invariable. Even when eight pairs of drums, all tuned to different notes, are used, as by Berlioz in his "Grand Requiem," there are still but the two sizes of drums to produce all the notes. Various mechanisms have been tried with the object of facilitating the change of pitch, but the simple old-fashioned model is still the most frequently used in England. Two sticks, of which there are several kinds, are employed to play the kettledrum; the best of these are made of whalebone for elasticity, and have a small wooden knob at one end, covered with a thin piece of fine sponge. Others have the button covered with felt or india-rubber. The kettledrum is struck at about a quarter of the diameter from the ring.

The compass of kettledrums collectively is not much more than an octave, between 

; the larger instruments, which it is inadvisable to tune below F, take any one of the following notes:—

and the smaller are tuned to one of the notes completing the chromatic and enharmonic scale from 

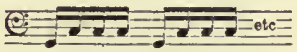
. These limits comprise all the notes of artistic value that can be obtained from kettledrums. When there are but two drums—the term "drum" used by musicians always denotes the kettledrum—they are generally tuned to the tonic and dominant or to the tonic and subdominant, these notes entering into the composition of most of the harmonies of the key. Formerly the kettledrums used to be treated as transposing instruments, the notation, as for the horn, being in C, the key to which the kettledrums were to be tuned being indicated in the score. Now composers write the real notes.

The tone of a good kettledrum is sonorous, rich, and of great power. When noise rather than music is required uncovered sticks are used. The drums may be muffled or *covered* by placing a piece of cloth or silk over the vellum to damp the sound, a device which produces a lugubrious, mysterious effect and is indicated in the score by the words *timpani coperti*, *timpani con sordini*, *timbales couvertes*, *gedämpfte Pauken*. Besides the beautiful effects obtained by means of delicate gradations of tone, numerous rhythmical figures may be executed on one, two or more notes. German drummers who were

[1] From "drum" and "kettle," a covered metal vessel for boiling water or other liquid; the O. E. word is *cetel*, cf. Du. *ketel*, Ger. *Kessel*, borrowed from Lat. *catillus*, dim. of *catinus*, bowl.

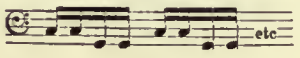
renowned during the 17th and 18th centuries, borrowing the terms from the trumpets with which the kettledrums were long associated, recognized the following beats:—

Single tonguing
(*Einfache Zungen*)



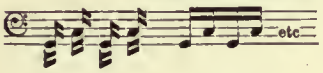
Double tonguing
(*Doppel oder gerissene Zungen*)

Legato tonguing
(*Tragende Zungen*)

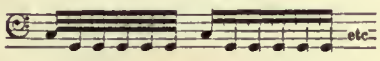


Whole double-tonguing
(*Ganze Doppel-Zungen*)

Double cross-beat [1]
(*Doppel Kreuzschläge*)



The roll
(*Wirbel*)



The double roll
(*Doppel Wirbel*)

It is generally stated that Beethoven was the first to treat the kettledrum as a solo instrument, but in *Dido*, an opera by C. Graupner performed at the Hamburg Opera House in 1707, there is a short solo for the kettledrum.[2]

The tuning of the kettledrum is an operation requiring time, even when the screw-heads, as is now usual, are T-shaped; to expedite the change, therefore, efforts have been made in all countries to invent some mechanism which would enable the performer to tune the drum to a fixed note by a single movement. The first mechanical kettledrums date from the beginning of the 19th century. In Holland a system was invented by J. C. N. Stumpff[3]; in France by Labbaye in 1827; in Germany Einbigler patented a system in Frankfort-on-Main in 1836[4]; in England Cornelius Ward in 1837; in Italy C. A. Boracchi of Monza in 1839.[5]

The drawback in most of these systems is the complicated nature of the mechanism, which soon gets out of order, and, being very cumbersome and heavy, it renders the instrument more or less of a fixture. Potter's kettledrum with instantaneous system of tuning, the best known at the present day in England, and used in some military bands with entire success, is a complete contrast to the above. There is practically no mechanism; the system is simple, ingenious, and neither adds to the weight nor to the bulk of the instrument. There are no screws round the head of Potter's kettledrum; an invisible system of cords in the interior, regulated by screws and rods in the form of a Maltese cross, is worked from the outside by a small handle connected to a dial, on the face of which are twenty-eight numbered notches. By means of these the performer is able to tune the drum instantly to any note within the compass by remembering the numbers which correspond to each note and pointing the indicator to it on the face of the dial. Should the cords become slightly stretched, flattening the pitch, causing the representative numbers to change, the performer need only give his indicator an extra turn to bring his instrument back to pitch, each note having several notches at its service. The internal mechanism, being of an elastic nature, has no detrimental effect on the tone but tends to increase its volume and improve its quality.

The origin of the kettledrum is remote and must be sought in the East. Its distinctive characteristic is a hemispherical or convex vessel, closed by means of a single parchment or skin drawn tightly over the aperture, whereas other drums consist of a cylinder, having one end or both covered by the parchment, as in the side-drum and tambourine respectively. The Romans were acquainted with the kettledrum, including it among the *tympana*; the *tympanum leve*, like a sieve, was the tambourine used in the rites of Bacchus and Cybele.[6] The comparatively heavy tympanum of bronze mentioned by Catullus was probably the small kettledrum which appears in pairs on monuments of the middle ages.[7] Pliny[8] states that half pearls having one side round and the other flat were called *tympania*. If the name *tympania* (Gr. *τύμπανον*, from *τύπτειν*, to strike) was given to pearls of a certain shape because they resembled the kettledrum, this argues that the instrument was well known among the Romans. It is doubtful, however, if it was adopted by them as a military instrument, since it is not mentioned by Vegetius,[9] who defines very clearly the duties of the service instruments *buccina*, *tuba*, *cornu* and *lituus*.

The Greeks also knew the kettledrum, but as a warlike instrument of barbarians. Plutarch[10] mentions that the Parthians, in order to frighten their enemies, in offering battle used not the horn or *tuba*, but hollow vessels covered with a skin, on which they beat, making a terrifying noise with these tympana. Whether the kettledrum penetrated into western Europe before the fall of the Roman Empire and continued to be included during the middle ages among the tympana has not been definitely ascertained. Isidore of Seville gives a somewhat vague description of tympanum, conveying the impression that his information has been obtained second-hand: "Tympanum est pellis vel corium ligno ex una parte extentum. Est enim pars media symphoniae in similitudinem cribri. Tympanum autem dictum quod medium est. Unde, et margaritum medium tympanum dicitur, et ipsum ut symphonia ad virgulam percutitur."[11] It is clear that in this passage Isidore is referring to Pliny.

The names given during the middle ages to the kettledrum are derived from the East. We have *attambal* or *atlabal* in Spain,

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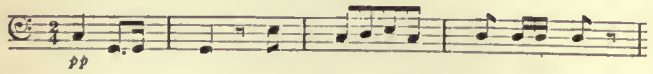
[1] This rhythmical use of kettledrums was characteristic of the military instrument of percussion, rather than the musical member of the orchestra. During the middle ages and until the end of the 18th century, the two different notes obtainable from the pair of kettledrums were probably used more as a means of marking and varying the rhythm than as musical notes entering into the composition of the harmonies. The kettledrums, in fact, approximated to the side drums in technique. The contrast between the purely rhythmical use of kettledrums, given above, and the more modern musical use is well exemplified by the well-known solo for four kettledrums in Meyerbeer's *Robert le Diable*, beginning thus—



[2] See Wilhelm Kleefeld, *Das Orchester der Hamburger Oper* (1678–1738); *Internationale Musikgesellschaft*, Sammelband i. 2, p. 278 (Leipzig, 1899).

[3] See J. Georges Kastner, *Méthode complète et raisonnée de timbales* (Paris), p. 19, where several of the early mechanical kettledrums are described and illustrated.

[4] See Gustav Schilling's *Encyklopädie der gesammten musikal. Wissenschaften* (Stuttgart, 1840), vol. v., art. "Pauke."

[5] See *Manuale pel Timpanista* (Milan, 1842), where Boracchi describes and illustrates his invention.

[6] Catullus, lxiii. 8–10; Claud. *De cons. Stilich.* iii. 365; Lucret. ii. 618; Virg. *Aen.* ix. 619, &c.

[7] John Carter, *Specimens of Ancient Sculpture*, bas-relief from seats of choir of Worcester cathedral and of collegiate church of St Katherine near the Tower of London (plates, vol. i. following p. 53 and vol. ii. following p. 22).

[8] *Nat. Hist.* ix. 35, 23.

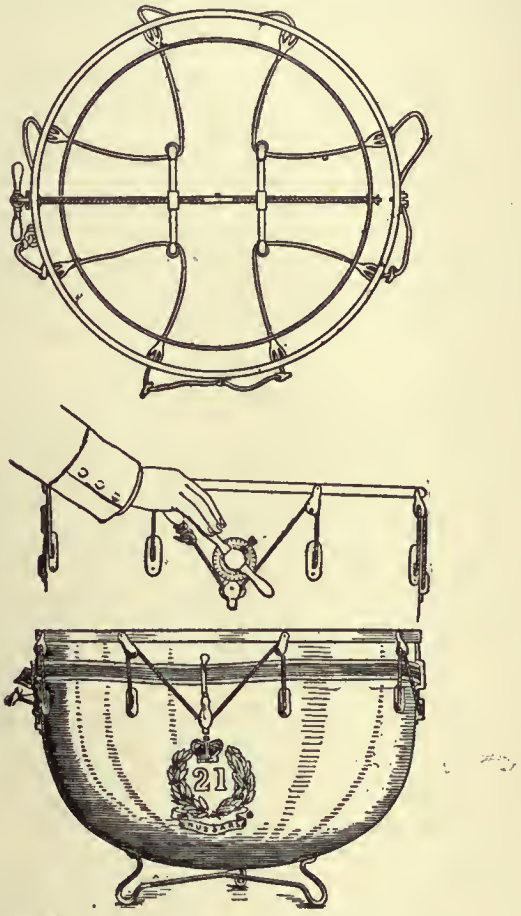
[9] *De re militari*, ii. 22; iii. 5, &c.

[10] *Crassus*, xxiii. 10. See also Justin xli. 2, and Polydorus, lib. 1, cap. xv.

[11] See Isidore of Seville, *Etymologiarum*, lib. iii. cap. 21, 141; Migne, *Patr. curs. completus*, lxxxii. 167.

from the Persian *tambal*, whence is derived the modern French *timbales*; *nacaire*, *naquaire* or *nakeres* (English spelling), from the Arabic *nakkarah* or *noqqārich* (Bengali, *nāgarā*), and the German *Pauke*, M.H.G. *Bûke* or *Pûke*, which is probably derived from *byk*, the Assyrian name of the instrument.

A line in the chronicles of Joinville definitely establishes the identity of the *nakeres* as a kind of drum: "Lor il fist sonner



(Geo. Potter & Co. of Aldershot.)

FIG. 1.—Mechanical Kettledrum, showing the system of cords inside the head.
This regiment is now the 21st (Empress of India) Lancers.

les tabours que l'on appelle *nacaires*." The nacaire is among the instruments mentioned by Froissart as having been used on the occasion of Edward III.'s triumphal entry into Calais in 1347: "trompes, tambours, nacaires, chalemies, muses."[1] Chaucer mentions them in the description of the tournament in the *Knight's Tale* (line 2514):—

> "Pipes, trompes, *nakeres* and clarionnes
> That in the bataille blowen blody sonnes."

The earliest European illustration showing kettledrums is the scene depicting Pharaoh's banquet in the fine illuminated MS. book of Genesis of the 5th or 6th century, preserved in Vienna. There are two pairs of shallow metal bowls on a table, on which a woman is performing with two sticks, as an accompaniment to the double pipes.[2] As a companion illumination may be cited the picture of an Eastern banquet given in a 14th century MS. at the British Museum (Add. MS. 27,695), illuminated by a skilled Genoese. The potentate is enjoying the music of various instruments, among which are two kettledrums strapped to the back of a Nubian slave. This was the earlier manner of using the instrument before it became inseparably associated with the trumpet, sharing its position as the service instrument of the cavalry. Jost Amman[3] gives a picture of a pair of kettledrums with banners being played by an armed knight on horseback.

(From Hartel u. Wickhoff's "Die Wiener Genesis," *Jahrbuch der kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses.*)

Fig. 2.—Kettledrums in an early Christian MS.

As in the case of the trumpet, the use of the kettledrum was placed under great restrictions in Germany and France and to some extent in England, but it was used in churches with the trumpet.[4] No French or German regiment was allowed

Fig. 3.—Medieval Kettledrums, 14th century. (Brit. Museum.)

kettledrums unless they had been captured from the enemy, and the *timbalier* or the *Heerpauker* on parade, in reviews and marches generally, rode at the head of the squadron; in battle his position was in the wings. In England, before the Restoration, only the Guards were allowed kettledrums, but after the accession of James II. every regiment of horse was provided with them.[5] Before the Royal Regiment of Artillery was established, the master-general of ordnance was responsible for the raising of trains of artillery. Among his retinue in time of war were a trumpeter and kettledrummer. The kettledrums were mounted on a chariot drawn by six white horses. They appeared in the field for the first time in a train of artillery during the Irish rebellion of 1689, and the charges for ordnance

[1] *Panthéon littéraire* (Paris, 1837), J. A. Buchon, vol. i. cap. 322, p. 273.

[2] Reproduced by Franz Wickhoff, "Die Wiener Genesis," supplement to the 15th and 16th volumes of the *Jahrb. d. kunsthistorischen Sammlungen d. allerhöchsten Kaiserhauses* (Vienna, 1895); see frontispiece in colours and plate illustration XXXIV.

[3] *Artliche u. kunstreiche Figuren zu der Reutterey* (Frankfort-on-Main, 1584).

[4] See Michael Praetorius, *Syntagma Musicum* and *Monatshefte f. Musikgeschichte*, Jahrgang x. 51.

[5] See Georges Kastner, *op. cit.*, pp. 10 and 11; Johann Ernst Altenburg, *Versuch einer Anleitung z. heroisch-musikalischen Trompeter u. Paukerkunst* (Halle, 1795), p. 128; and H. G. Farmer, *Memoirs of the Royal Artillery Band*, p. 23, note 1 (London, 1904).

include the item, "large kettledrums mounted on a carriage with cloaths marked I.R. and cost £158, 9s."[1] A model of the kettledrums with their carriage which accompanied the duke of Marlborough to Holland in 1702 is preserved in the Rotunda Museum at Woolwich. The kettledrums accompanied the Royal Artillery train in the Vigo expedition and during the campaign in Flanders in 1748. Macbean[2] states that they were mounted on a triumphal car ornamented and gilt, bearing the ordnance flag and drawn by six white horses. The position of the car on march was in front of the flag gun, and in camp in front of the quarters of the duke of Cumberland with the artillery guns packed round them. The kettledrummer had by order "to mount the kettledrum carriage every night half an hour before the sun sett and beat till gun fireing." In 1759 the kettledrums ceased to form part of the establishment of the Royal Artillery, and they were deposited, together with their carriage, in the Tower, at the same time as a pair captured at Malplaquet in 1709. These Tower drums were frequently borrowed by Handel for performances of his oratorios.

The kettledrums still form part of the bands of the Life Guards and other cavalry regiments. (K. S.)

KEUPER, in geology the third or uppermost subdivision of the Triassic system. The name is a local miners' term of German origin; it corresponds to the French *marnes irisées*. The formation is well exposed in Swabia, Franconia, Alsace and Lorraine and Luxemburg; it extends from Basel on the east side of the Rhine into Hanover, and northwards it spreads into Sweden and through England into Scotland and north-east Ireland; it appears flanking the central plateau of France and in the Pyrenees and Sardinia. In the German region it is usual to divide the Keuper into three groups, the *Rhaetic* or upper Keuper, the middle, *Hauptkeuper* or *gypskeuper*, and the lower, *Kohlenkeuper* or *Lettenkohle*. In Germany the lower division consists mainly of grey clays and *schieferletten* with white, grey and brightly coloured sandstone and dolomitic limestone. The upper part of this division is often a grey dolomite known as the Grenz dolomite; the impure coal beds—*Lettenkohle*—are aggregated towards the base. The middle division is thicker than either of the others (at Göttingen, 450 metres); it consists of a marly series below, grey, red and green marls with gypsum and dolomite—this is the *gypskeuper* in its restricted sense. The higher part of the series is sandy, hence called the *Steinmergel*; it is comparatively free from gypsum. To this division belong the Myophoria beds (*M. Raibliana*) with galena in places; the Estheria beds (*E. laxitesta*); the Schelfsandstein, used as a building-stone; the Lehrberg and Berg-gyps beds; Semionotus beds (*S. Bergeri*) with building-stone of Coburg; and the Burg- and Stubensandstein. The salt, which is associated with gypsum, is exploited in south Germany at Dreuze, Pettoncourt, Vie in Lorraine and Wimpfen on the Neckar. A ½-metre coal is found on this horizon in the Erzgebirge, and another, 2 metres thick, has been mined in Upper Silesia. The upper Keuper, Rhaetic or *Avicula contorta* zone in Germany is mainly sandy with dark grey shales and marls; it is seldom more than 25 metres thick. The sandstones are used for building purposes at Bayreuth, Culmbach and Bamberg. In Swabia and the Wesergebirge are several "bone-beds," thicker than those in the middle Keuper, which contain a rich assemblage of fossil remains of fish, reptiles and the mammalian teeth of *Microlestes antiquus* and *Triglyptus Fraasi*. The name Rhaetic is derived from the Rhaetic Alps where the beds are well developed; they occur also in central France, the Pyrenees and England. In S.Tirol and the Judicarian Mountains the Rhaetic is represented by the Kössener beds. In the Alpine region the presence of coral beds gives rise to the so-called "Lithodendron Kalk."

In Great Britain the Keuper contains the following subdivisions: *Rhaetic or Penarth beds*, grey, red and green marls, black shales and so-called "white lias" (10–150 ft.). *Upper Keuper marl*, red and grey marls and shales with gypsum and rock salt (800–3000 ft.). *Lower Keuper sandstone*, marls and thin sandstones at the top, red and white sandstones (including the so-called "waterstones") below, with breccias and conglomerates at the base (150–250 ft.). The basal or "dolomitic conglomerate" is a shore or scree breccia derived from local materials; it is well developed in the Mendip district. The rock-salt beds vary from 1 in. to 100 ft. in thickness; they are extensively worked (mined and pumped) in Cheshire, Middlesbrough and Antrim. The Keuper covers a large area in the midlands and around the flanks of the Pennine range; it reaches southward to the Devonshire coast, eastward into Yorkshire and north-westward into north Ireland and south Scotland. As in Germany, there are one or more "bone beds" in the English Rhaetic with a similar assemblage of fossils. In the "white lias" the upper hard limestone is known as the "sun bed" or "Jew stone"; at the base is the Cotham or landscape marble.

Representatives of the Rhaetic are found in south Sweden, where the lower portion contains workable coals, in the Himalayas, Japan, Tibet, Burma, eastern Siberia and in Spitzbergen. The upper portion of the Karroo beds of South Africa and part of the Otapiri series of New Zealand are probably of Rhaetic age.

The Keuper is not rich in fossils; the principal plants are cypress-like conifers (*Walchia*, *Voltzia*) and a few calamites with such forms as *Equiselum arenaceum* and *Pterophyllum Jaegeri*, *Avicula contorta*, *Protocardium rhaelicum*, *Terebratula gregaria*, *Myophoria costata*, *M. Goldfassi* and *Lingula tenuessima*, *Anoplophoria lettica* may be mentioned among the invertebrates. Fishes include *Ceratodus*, *Hybodus* and *Lepidotus*. Labyrinthodonts represented by the footprints of *Cheirotherium* and the bones of *Labyrinthodon*, *Mastodonsaurus* and *Capitosaurus*. Among the reptiles are *Hyperodapedon*, *Palaeosaurus*, *Zanclodon*, *Nothosaurus* and *Belodon*. *Microlestes*, the earliest known mammalian genus, has already been mentioned.

See also the article TRIASSIC SYSTEM. (J. A. H.)

KEW, a township in the Kingston parliamentary division of Surrey, England, situated on the south bank of the Thames, 6 m. W.S.W. of Hyde Park Corner, London. Pop. (1901), 2699. A stone bridge of seven arches, erected in 1789, connecting Kew with Brentford on the other side of the river, was replaced by a bridge of three arches opened by Edward VII. in 1903 and named after him. Kew has increased greatly as a residential suburb of London; the old village consisted chiefly of a row of houses with gardens attached, situated on the north side of a green, to the south of which is the church and churchyard and at the west the principal entrance to Kew Gardens. From remains found in the bed of the river near Kew bridge it has been conjectured that the village marks the site of an old British settlement. The name first occurs in a document of the reign of Henry VII., where it is spelt Kayhough. The church of St Anne (1714) has a mausoleum containing the tomb of the duke of Cambridge (d. 1850) son of George III., and is also the burial-place of Thomas Gainsborough the artist, Jeremiah Meyer the painter of miniatures (d. 1789), John Zoffany the artist (d. 1810), Joshua Kirby the architect (d. 1774), and William Aiton the botanist and director of Kew Gardens (d. 1793).

The free school originally endowed by Lady Capel in 1721 received special benefactions from George IV., and the title of "the king's free school."

The estate of Kew House about the end of the 17th century came into the possession of Lord Capel of Tewkesbury, and in 1721 of Samuel Molyneux, secretary to the prince of Wales, afterwards George II. After his death it was leased by Frederick prince of Wales, son of George II., and was purchased about 1789 by George III., who devoted his leisure to its improvement. The old house was pulled down in 1802, and a new mansion was begun from the designs of James Wyatt, but the king's death prevented its completion, and in 1827 the portion built was removed. Dutch House, close to Kew House, was sold by Robert Dudley, earl of Leicester, to Sir Hugh Portman, a Dutch merchant, late in the 16th century, and in 1781 was purchased by George III. as a nursery for the royal children. It is a plain brick structure, now known as Kew Palace.

[1] Miller's *Artillery Regimental History*; see also H. G. Farmer, *op. cit.*, p. 22; illustration 1702, p. 26.
[2] *Memoirs of the Royal Artillery.*

The Royal Botanic Gardens of Kew originated in the exotic garden formed by Lord Capel and greatly extended by the princess dowager, widow of Frederick, prince of Wales, and by George III., aided by the skill of William Aiton and of Sir Joseph Banks. In 1840 the gardens were adopted as a national establishment, and transferred to the department of woods and forests. The gardens proper, which originally contained only about 11 acres, were subsequently increased to 75 acres, and the pleasure grounds or arboretum adjoining extend to 270 acres. There are extensive conservatories, botanical museums, including the magnificent herbarium and a library. A lofty Chinese pagoda was erected in 1761. A flagstaff 159 ft. high is made out of the fine single trunk of a Douglas pine. In the neighbouring Richmond Old Park is the important Kew Observatory.

KEWANEE, a city of Henry county, Illinois, U.S.A., in the N. W. part of the state, about 55 m. N. by W. of Peoria. Pop. (1900), 8382, of whom 2006 were foreign-born; (1910 census), 9307. It is served by the Chicago Burlington & Quincy railroad and by the Galesburg & Kewanee Electric railway. Among its manufactures are foundry and machine-shop products, boilers, carriages and wagons, agricultural implements, pipe and fittings, working-men's gloves, &c. In 1905 the total factory product was valued at $6,729,381, or 61·5% more than in 1900. Kewanee was settled in 1836 by people from Wethersfield, Connecticut, and was first chartered as a city in 1897.

KEY, SIR ASTLEY COOPER (1821–1888), English admiral, was born in London in 1821, and entered the navy in 1833. His father was Charles Aston Key (1793-1849), a well-known surgeon, the pupil of Sir Astley Cooper, and his mother was the latter's niece. After distinguishing himself in active service abroad, on the South American station (1844–1846), in the Baltic during the Crimean War (C.B. 1855) and China (1857), Key was appointed in 1858 a member of the royal commission on national defence, in 1860 captain of the steam reserve at Devonport, and in 1863 captain of H.M.S. "Excellent" and superintendent of the Royal Naval College. He had a considerable share in advising as to the reorganization of administration, and in 1866, having become rear-admiral, was made director of naval ordnance. Between 1869 and 1872 he held the offices of superintendent of Portsmouth dockyard, superintendent of Malta dockyard, and second in command in the Mediterranean. In 1872 he was made president of the projected Royal Naval College at Greenwich, which was organized by him, and after its opening in 1873 he was made a K.C.B. and a vice-admiral. In 1876 he was appointed commander-in-chief on the North American and West Indian station. Having become full admiral in 1878, he was appointed in 1879 principal A.D.C., and soon afterwards first naval lord of the admiralty, retaining this post till 1885. In 1882 he was made G.C.B. He died at Maidenhead on the 3rd of March, 1888.

See *Memoirs of Sir Astley Cooper Key*, by Vice-Admiral Colomb (1898).

KEY, THOMAS HEWITT (1799–1875), English classical scholar, was born in London on the 20th of March, 1799. He was educated at St John's and Trinity Colleges, Cambridge, and graduated 19th wrangler in 1821. From 1825 to 1827 he was professor of mathematics in the university of Virginia, and after his return to England was appointed (1828) professor of Latin in the newly founded university of London. In 1832 he became joint headmaster of the school founded in connexion with that institution; in 1842 he resigned the professorship of Latin, and took up that of comparative grammar together with the undivided headmastership of the school. These two posts he held till his death on the 29th of November 1875. Key is best known for his introduction of the crude-form (the uninflected form or stem of words) system, in general use among Sanskrit grammarians, into the teaching of the classical languages. This system was embodied in his *Latin Grammar* (1846). In *Language, its Origin and Development* (1874), he upholds the onomatopoeic theory. Key was prejudiced against the German "Sanskritists," and the etymological portion of his *Latin Dictionary*, published in 1888, was severely criticized on this account. He was a member of the Royal Society and president of the Philological Society, to the *Transactions* of which he contributed largely.

See *Proceedings of the Royal Society*, vol. xxiv. (1876); R. Ellis in the *Academy* (Dec. 4, 1875); J. P. Hicks, *T. Hewitt Key* (1893), where a full list of his works and contributions is given.

KEY (in O. Eng. *cæg*; the ultimate origin of the word is unknown; it appears only in Old Frisian *kei* of other Teutonic languages; until the end of the 17th century the pronunciation was *kay*, as in other words in O. Eng. ending in *æg*; cf. *dæg*, day; *claeg*, clay; the *New English Dictionary* takes the change to *kee* to be due to northern influence), an instrument of metal used for the opening and closing of a lock (see Lock). Until the 14th century bronze and not iron was most commonly used. The terminals of the stem of the keys were frequently decorated, the "bow" or loop taking the form sometimes of a trefoil, with figures inscribed within it; this decoration increased in the 16th century, the terminals being made in the shape of animals and other figures. Still more elaborate ceremonial keys were used by court officials; a series of chamberlains' keys used during the 18th and 19th centuries in several courts in Europe is in the British Museum. The terminals are decorated with crowns, royal monograms and ciphers. The word "key" is by analogy applied to things regarded as means for the opening or closing of anything, for the making clear that which is hidden. Thus it is used of an interpretation as to the arrangement of the letters or words of a cipher, of a solution of mathematical or other problems, or of a translation of exercises or books, &c., from a foreign language. The term is also used figuratively of a place of commanding strategic position. Thus Gibraltar, the "Key of the Mediterranean," was granted in 1462 by Henry IV. of Castile, the arms, *gules*, a castle proper, with key pendant to the gate, *or*; these arms form the badge of the 50th regiment of foot (now 2nd Batt. Essex Regiment) in the British army, in memory of the part which it took in the siege of 1782. The word is also frequently applied to many mechanical contrivances for unfastening or loosening a valve, nut, bolt, &c., such as a spanner or wrench, and to the instruments used in tuning a pianoforte or harp or in winding clocks or watches. A farther extension of the word is to appliances or devices which serve to lock or fasten together distinct parts of a structure, as the "key-stone" of an arch, the wedge or piece of wood, metal, &c., which fixes a joint, or a small metal instrument, shaped like a U, used to secure the bands in the process of sewing in book-binding.

In musical instruments the term "key" is applied in certain wind instruments, particularly of the wood-wind type, to the levers which open and close valves in order to produce various notes, and in keyboard instruments, such as the organ or the pianoforte, to the exterior white or black parts of the levers which either open or shut the valves to admit the wind from the bellows to the pipes or to release the hammers against the strings (see Keyboard). It is from this application of the word to these levers in musical instruments that the term is also used of the parts pressed by the finger in typewriters and in telegraphic instruments.

A key is the insignia of the office of chamberlain in a royal household (see Chamberlain and Lord Chamberlain). The "power of the keys" (*clavium potestas*) in ecclesiastical usage represents the authority given by Christ to Peter by the words, "I will give unto thee the keys of the kingdom of heaven" (Matt. xvi. 19). This is claimed by the Roman Church to have been transmitted to the popes as the successors of St Peter.

"Key" was formerly the common spelling of "quay," a wharf, and is still found in America for "cay," an island reef or sandbank off the coast of Florida (see Quay).

The origin of the name Keys or House of Keys, the lower branch of the legislature, the court of Tynwald, of the Isle of Man, has been much discussed, but it is generally accepted that it is a particular application of the word "key" by English- and not Manx-speaking

people. According to A. W. Moore, *History of the Isle of Man*, i. 160 sqq. (1900), in the Manx statutes and records the name of the house was in 1417 *Claves Manniae et Claves legis*, Keys of Man and Keys of the Law; but the popular and also the documentary name till 1585 seems to have been "the 24," in Manx *Kiare as feed*. From 1585 to 1734 the name was in the statutes, &c., "the 24 Keys," or simply "the Keys." Moore suggests that the name was possibly originally due to an English "clerk of the rolls," the members of the house being called in to "unlock or solve the difficulties of the law." There is no evidence for the suggestion that Keys is an English corruption of *Kiare-as*, the first part of *Kiare as feed*. Another suggestion is that it is from a Scandinavian word *keise*, chosen.

KEYBOARD, or MANUAL (Fr. *clavier*; Ger. *Klaviatur*; Ital. *tastatura*), a succession of keys for unlocking sound in stringed, wind or percussion musical instruments, together with the case or board on which they are arranged. The two principal types of keyboard instruments are the organ and the piano; their keyboards, although similarly constructed, differ widely in scope and capabilities. The keyboard of the organ, a purely mechanical contrivance, is the external means of communicating with the valves or pallets that open and close the entrances to the pipes. As its action is incapable of variation at the will of the performer, the keyboard of the organ remains without influence on the quality and intensity of the sound. The keyboard of the piano, on the contrary, besides its purely mechanical function, also forms a sympathetic vehicle of transmission for the performer's rhythmical and emotional feeling, in consequence of the faithfulness with which it passes on the impulses communicated by the fingers. The keyboard proper does not, in instruments of the organ and piano types, contain the complete mechanical apparatus for directly unlocking the sound, but only that external part of it which is accessible to the performer.

The first instrument provided with a keyboard was the organ; we must therefore seek for the prototype of the modern keyboard in connexion with the primitive instrument which marks the transition between the mere syrinx provided with bellows, in which all the pipes sounded at once unless stopped by the fingers, and the first organ in which sound was elicited from a pipe only when unlocked by means of some mechanical contrivance. The earliest contrivance was the simple slider, unprovided with a key or touchpiece and working in a groove like the lid of a box, which was merely pushed in or drawn out to open or close the hole that formed the communication between the wind chest and the hole in the foot of the pipe. These sliders fulfilled in a simple manner the function of the modern keys, and preceded the groove and pallet system of the modern organ. We have no clear or trustworthy information concerning the primitive organ with sliders. Athanasius Kircher[1] gives a drawing of a small mouth-blown instrument under the name of *Magraketha* (*Mashroqitha'*, Dan. iii. 5), and Ugolini[2] describes a similar one, but with a pair of bellows, as the magrēphah of the treatise *'Arākhīn*.[3] By analogy with the evolution of the organ in central and western Europe from the 8th to the 15th century, of which we are able to study the various stages, we may conclude that in principle both drawings were probably fairly representative, even if nothing better than efforts of the imagination to illustrate a text.

The invention of the keyboard with balanced keys has been placed by some writers as late as the 13th or 14th century, in spite of its having been described by both Hero of Alexandria and Vitruvius and mentioned by poets and writers. The misconception probably arose from the easy assumption that the organ was the product of Western skill and that the primitive instruments with sliders found in 11th century documents[4] represent the sum of the progress made in the evolution; in reality they were the result of a laborious effort to reconquer a lost art. The earliest trace of a balanced keyboard we possess is contained in Hero's description of the hydraulic organ said to have been invented by Ctesibius of Alexandria in the 2nd century B.C. After describing the other parts (see ORGAN), Hero passes on to the sliders with perforations corresponding with the open feet of the speaking pipes which, when drawn forward, traverse and block the pipes. He describes the following contrivances: attached to the slider is a three-limbed, pivoted elbow-key, which, when depressed, pushes the slider inwards; in order to provide for its automatic return when the finger is lifted from the key, a slip of horn is attached by a gut string to each elbow-key. When the key is depressed and the slider pushed home, the gut string pulls the slip of horn and straightens it. As soon as the key is released, the piece of horn, regaining its natural bent by its own elasticity, pulls the slider out so that the perforation of the slider overlaps and the pipe is silenced.[5] The description of the keyboard by Vitruvius Pollio, a variant of that of Hero, is less accurate and less complete.[6] From evidence discussed in the article ORGAN, it is clear that the principle of a balanced keyboard was well understood both in the 2nd and in the 5th century A.D. After this all trace of this important development disappears, sliders of all kinds with and without handles doing duty for keys until the 12th or 13th century, when we find the small portative organs furnished with narrow keys which appear to be balanced; the single bellows were manipulated by one hand while the other fingered the keys. As this little instrument was mainly used to accompany the voice in simple chaunts, it needed few keys, at most nine or twelve. The pipes were flue-pipes. A similar little instrument, having tiny invisible pipes furnished with beating reeds and a pair of bellows (therefore requiring two performers) was known as the regal. There are representations of these medieval balanced keyboards with keys of various shapes, the most common being the rectangular with or without rounded corners and the T-shaped. Until the 14th century all the keys were in one row and of the same level, and although the B flat was used for modulation, it was merely placed between A and B natural in the sequence of notes. During the 14th century small square additional keys made their appearance, one or two to the octave, inserted between the others in the position of our black keys but not raised. An example of this keyboard is reproduced by J. F. Riaño[7] from a fresco in the Cistercian monastery of Nuestra Señora de Piedra in Aragon, dated 1390.

So far the history of the keyboard is that of the organ. The only stringed instruments with keys before this date were the *organistrum* and the *hurdy-gurdy*, in which little tongues of wood manipulated by handles or keys performed the function of the fingers in stopping the strings on the neck of the instruments, but they did not influence the development of the keyboard. The advent of the immediate precursors of the pianoforte was at hand. In the *Wunderbuch*[8] (1440), preserved in the Grand Ducal Library at Weimar, are represented a number of musical instruments, all named. Among them are a *clavichordium* and a *clavicymbalum* with narrow additional keys let in between the wider ones, one to every group of two large keys. The same arrangement prevailed in a *clavicymbalum* figured in an anonymous MS. attributed to the 14th century, preserved in the public library at Ghent[9]; from the lettering over the jacks and strings, of which there are but eight, it would seem as though the draughtsman had left the accidentals out of the scheme of notation. These are the earliest known representations of instruments with keyboards. The exact date at which our chromatic keyboard came into use has not been discovered, but it existed in the 15th century and may be studied in the picture of St Cecilia playing the organ on the Ghent altarpiece painted by the brothers Hubert and Jan van Eyck. Praetorius distinctly states that the large Halberstadt organ had the keyboard which he figures (plates xxiv. and xxv.) from the outset, and reproduces the inscription asserting that the organ was built in 1361 by the priest Nicolas Fabri and was renovated in 1495 by Gregorius Kleng. The keyboard of this organ has the arrangement of the present day with raised black notes; it is not improbable that Praetorius's statement was correct, for Germany and the Netherlands led the van in organ-building during the middle ages.

At the beginning of the 16th century, to facilitate the playing of contrapuntal music having a drone bass or *point d'orgue*, the arrangement of the pipes of organs and of the strings of spinets and harpsichords was altered, with the result that the lowest octave of the keyboard was made in what is known as short measure, or mi, ré, ut, *i.e.* a diatonic with B flat included, but grouped in the space of a sixth instead of appearing as a full octave. In order to carry out this device, the note below F was C, instead of E, the missing D and E and the B flat being substituted for the three sharps of F, G and A, and appearing as black notes, thus:—

D E B♭
C F G A B C,

or if the lowest note appeared to be B, it sounded as G and the arrangement was as follows:—

A B
G C D E F G.

This was the most common scheme for the short octave during the 16th and 17th centuries, although others are occasionally found. Praetorius also gives examples in which the black notes of the short octave were divided into two halves, or separate keys, the forward

[1] See *Musurgia*, bk. II., iv. § 3.

[2] *Thes. Antiq. Sacra.* (Venice, 1744–1769), xxxii. 477.

[3] II. 3 and fol. 10, 2. *'Arākhīn* ("Valuations") is a treatise in the Babylonian Talmud. The word *Magrephah* occurs in the *Mishna*, the description of the instrument in the *gemārā*.

[4] See the Cividale Prayer Book of St Elizabeth in Arthur Haseloff's *Eine Sächs.-thüring. Malerschule*, pl. 26, No. 57, also Bible of St Etienne Harding at Dijon (see ORGAN: *History*).

[5] See the original Greek with translation by Charles Maclean in "The Principle of the Hydraulic Organ," *Intern. Musikges.* vi. 2, 219–220 (Leipzig 1905).

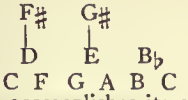
[6] See Clément Loret's account in *Revue archéologique*, pp. 76–102 (Paris, 1890).

[7] *Early Hist. of Spanish Music* (London, 1807).

[8] Reproduced by Dr Alwin Schulz in *Deutsches Leben im XIV. u. XV. Jhdt.*, figs. 522 seq. (Vienna, 1892).

[9] "De diversis monocordis, pentacordis, etc., ex quibus diversa formantur instrumenta musica," reproduced by Edm. van der Straeten in *Hist. de la musique aux Pays-Bas*, i. 278.

half for the drone note, the back half for the chromatic semitone, thus:—



This arrangement, which accomplishes its object without sacrifice, was to be found early in the 17th century in the organs of the monasteries of Riddageshausen and of Bayreuth in Vogtland.

See A. J. Hipkins, *History of the Pianoforte* (London, 1896), and the older works of Girolamo Diruta (1597), Praetorius (1618), and Mersenne (1636). (K. S.)

KEYSTONE, the central voussoir of an arch (*q.v.*). The Etruscans and the Romans emphasized its importance by decorating it with figures and busts, and, in their triumphal arches, projected it forward and utilized it as an additional support to the architrave above. Throughout the Italian period it forms an important element in the design, and serves to connect the arch with the horizontal mouldings running above it. In Gothic architecture there is no keystone, but the junction of pointed ribs at their summit is sometimes decorated with a boss to mask the intersection.

KEY WEST (from the Spanish *Cayo Hueso*, " Bone Reef "), a city, port of entry, and the county-seat of Monroe county, Florida, U.S.A., situated on a small coral island (4½m. long and about 1 m. wide) of the same name, 60 m. S. W. of Cape Sable, the most southerly point of the mainland. It is connected by lines of steamers with Miami and Port Tampa, with Galveston, Texas, with Mobile, Alabama, with Philadelphia and New York City, and with West Indian ports, and by regular schooner lines with New York City, the Bahamas, British Honduras, &c. There is now an extension of the Florida East Coast railway from Miami to Key West (155 m.). Pop. (1880), 9890; (1890), 18,080; (1900), 17,114, of whom 7266 were foreign-born and 5562 were negroes; (1910 census), 19,945. The island is notable for its tropical vegetation and climate. The jasmine, almond, banana, cork and coco-nut palm are among the trees. The oleander grows here to be a tree, and there is a banyan tree, said to be the only one growing out of doors in the United States. There are many species of plants in Key West not found elsewhere in North America. The mean annual temperature is 76° F., and the mean of the hottest months is 82·2° F.; that of the coldest months is 69° F.; thus the mean range of temperature is only 13°. The precipitation is 35 in.; most of the rain falls in the " rainy season" from May to November, and is preserved in cisterns by the inhabitants as the only supply of drinking water. The number of cloudy days per annum averages 60. The city occupies the highest portion of the island. The harbour accommodates vessels drawing 27 ft.; vessels of 27–30 ft. draft can enter by either the " Main Ship " channel or the south-west channel; the south-east channel admits vessels of 25 ft. draft or less; and four other channels may be used by vessels of 15–19 ft. draft. The harbour is defended by Fort Taylor, built on the island of Key West in 1846, and greatly improved and modernized after the Spanish-American War of 1898. Among the buildings are the United States custom house, the city hall, a convent, and a public library.

In 1869 the insignificant population of Key West was greatly increased by Cubans who left their native island after an attempt at revolution; they engaged in the manufacture of tobacco, and Key West cigars were soon widely known. Towards the close of the 19th century this industry suffered from labour troubles, from the competition of Tampa, Florida, and from the commercial improvement of Havana, Cuba; but soon after 1900 the tobacco business of Key West began to recover. Immigrants from the Bahama Islands form another important element in the population. They are known as " Conchs," and engage in sponge fishing. In 1905 the value of factory products was $4,254,024 (an increase of 37·7% over the value in 1900); the exports in 1907 were valued at $852,457; the imports were valued at $994,472, the excess over the exports being due to the fact that the food supply of the city is derived from other Florida ports and from the West Indies.

According to tradition the native Indian tribes of Key West, after being almost annihilated by the Caloosas, fled to Cuba. There are relics of early European occupation of the island which suggest that it was once the resort of pirates. The city was settled about 1822. The Seminole War and the war of the United States with Mexico gave it some military importance. In 1861 Confederate forces attempted to seize Fort Taylor, but they were successfully resisted by General William H. French.

KHABAROVSK (known as KHABAROVKA until 1895), a town of Asiatic Russia, capital of the Amur region and of the Maritime Province. Pop. (1897), 14,932. It was founded in 1858 and is situated on a high cliff on the right bank of the Amur, at its confluence with the Usuri, in 48° 28′ N. and 135° 6′ E. It is connected by rail with Vladivostok (480 m.), and is an important entrepôt for goods coming down the Usuri and its tributary the Sungacha, as well as a centre of trade, especially in sables. The town is built of wood, and has a large cathedral, a monument (1891) to Count Muraviev-Amurskiy, a cadet corps (new building 1904), a branch of the Russian Geographical Society, with museum, and a technical railway school.

KHAIRAGARH, a feudatory state in the Central Provinces, India. Area, 931 sq. m.; pop. (1901), 137,554, showing a decrease of 24% in the decade due to the effects of famine; estimated revenue, £20,000; tribute £4600. The chief, who is descended from the old Gond royal family, received the title of raja as an hereditary distinction in 1898. The state includes a fertile plain, yielding rice and cotton. Its prosperity has been promoted by the Bengal-Nagpur railway, which has a station at Dongargarh, the largest town (pop. 5856), connected by road with Khairagarh town, the residence of the raja.

KHAIREDDIN (*Khair-ed-Din* = " Joy of Religion ") (d. 1890), Turkish statesman, was of Circassian race, but nothing is known about his birth and parentage. In early boyhood he was in the hands of a Tunisian slave-dealer, by whom he was sold to Hamuda Pasha, then bey of Tunis, who gave him his freedom and a French education. When Khaireddin left school the bey made him steward of his estates, and from this position he rose to be minister of finance. When the prime minister, Mahmud ben Ayad, absconded to France with the treasure-chest of the beylic, Hamuda despatched Khaireddin to obtain the extradition of the fugitive. The mission failed; but the six years it occupied enabled Khaireddin to make himself widely known in France, to become acquainted with French political ideas and administrative methods, and, on his return to Tunisia, to render himself more than ever useful to his government. Hamuda died while Khaireddin was in France, but he was highly appreciated by the three beys—Ahmet (1837), Mohammed (1855), and Sadok (1859)—who in turn followed Hamuda, and to his influence was due the sequence of liberal measures which distinguished their successive reigns. Khaireddin also secured for the reigning family the confirmation from the sultan of Turkey of their right of succession to the beylic. But although Khaireddin's protracted residence in France had imbued him with liberal ideas, it had not made him a French partisan, and he strenuously opposed the French scheme of establishing a protectorate over Tunisia upon which France embarked in the early 'seventies. This rendered him obnoxious to Sadok's prime minister—an apostate Jew named Mustapha ben Ismael—who succeeded in completely undermining the bey's confidence in him. His position thus became untenable in Tunisia, and shortly after the accession of Abdul Hamid he acquainted the sultan with his desire to enter the Turkish service. In 1877 the sultan bade him come to Constantinople, and on his arrival gave him a seat on the Reform Commission then sitting at Tophane. Early in 1879 the sultan appointed him grand vizier, and shortly afterwards he prepared a scheme of constitutional government, but Abdul Hamid refused to have anything to do with it. Thereupon Khaireddin resigned office, on the 28th of July 1879. More than once the sultan offered him anew the grand vizierate, but Khaireddin persistently refused it, and thus incurred disfavour. He died on the 30th of January 1890, practically a prisoner in his own house.

KHAIRPUR, or KHYRPOOR, a native state of India, in the Sind province of Bombay. Area, 6050 sq. m.; pop. (1901),

199,313, showing an apparent increase of 55 % in the decade; estimated revenue, £90,000. Like other parts of Sind, Khairpur consists of a great alluvial plain, very rich and fertile in the neighbourhood of the Indus and the irrigation canals, the remaining area being a continuous series of sand-hill ridges covered with a stunted brushwood, where cultivation is altogether impossible. A small ridge of limestone hills passes through the northern part of the state, being a continuation of a ridge known as the Ghar, running southwards from Rohri. The state is watered by five canals drawn off from the Indus, besides the Eastern Nara, a canal which follows an old bed of the Indus. In the desert tracts are pits of *natron*.

KHAIRPUR town is situated on a canal 15 m. E. of the Indus, with a railway station, 20 m. S. of Sukkur, on the Kotri-Rohri branch of the North-Western railway, which here crosses a corner of the state. Pop. (1901), 14,014. There are manufactures of cloth, carpets, goldsmiths' work and arms, and an export trade in indigo, grain and oilseeds.

The chief, or mir, of Khairpur belongs to a Baluch family, known as the Talpur, which rose on the fall of the Kalhora dynasty of Sind. About 1813, during the troubles in Kabul incidental to the establishment of the Barakzai dynasty, the mirs were able to withhold the tribute which up to that date had been somewhat irregularly paid to the rulers of Afghanistan. In 1832 the individuality of the Khairpur state was recognized by the British government in a treaty under which the use of the river Indus and the roads of Sind were secured. When the first Kabul expedition was decided on, the mir of Khairpur, Ali Murad, cordially supported the British policy; and the result was that, after the battles of Meeanee and Daba had put the whole of Sind at the disposal of the British, Khairpur was the only state allowed to retain its political existence under the protection of the paramount power. The chief mir, Faiz Mahommed Khan, G.C.I.E., who was an enlightened ruler, died in 1909, shortly after returning from a pilgrimage to the Shiite shrine of Kerbela.

KHAJRAHO, a village of Central India, in the state of Chhatarpur, famous for its old temples; pop. (1901), 1242. It is believed to have been the capital of the ancient kingdom of Jijhoti, corresponding with modern Bundelkhand. The temples consist of three groups: Saiva, Vaishnav and Jain, almost all built in the 10th and 11th centuries. They are covered outside and inside with elaborate sculptures, and also bear valuable inscriptions.

KHAKI (from Urdu *khak*, dust), originally a dust-coloured fabric, of the character of canvas, drill or holland, used by the British and native armies in India. It seems to have been first worn by the Guides, a mixed regiment of frontier troops, in 1848, and to have spread to other regiments during the following years. Some at any rate of the British troops had uniforms of khaki during the Indian Mutiny (1857–58), and thereafter drill or holland (generally called "khaki" whatever its colour) became the almost universal dress of British and native troops in Asia and Africa. During the South African War of 1899–1902, drill of a sandy shade of brown was worn by all troops sent out from Great Britain and the Colonies. Khaki drill, however, proved unsuitable material for the cold weather in the uplands of South Africa, and after a time the troops were supplied with dust-coloured serge uniforms. Since 1900 all drab and green-grey uniforms have been, unofficially at any rate, designated khaki.

KHALIFA, THE. ABDULLAH ET TAAISHA (Seyyid Abdullah ibn Seyyid Mahommed) (1846–1899), successor of the mahdi Mahommed Ahmed, born in 1846 in the south-western portion of Darfur, was a member of the Taaisha section of the Baggara or cattle-owning Arabs. His father, Mahommed et Taki, had determined to emigrate to Mecca with his family; but the unsettled state of the country long prevented him, and he died in Africa after advising his eldest son, Abdullah, to take refuge with some religious sheikh on the Nile, and to proceed to Mecca on a favourable opportunity. Abdullah, who had already had much connexion with slave-hunters, and had fought against the Egyptian conquest of Darfur, departed for the Nile valley with this purpose; hearing on the way of the disputes of Mahommed Ahmed, who had not yet claimed a sacred character, with the Egyptian officials, he went to him in spite of great difficulties, and, according to his own statement, at once recognized in him the mahdi ("guide") divinely appointed to regenerate Islam in the latter days. His advice to Mahommed to stir up revolt in Darfur and Kordofan being justified by the result, he became his most trusted counsellor, and was soon declared principal khalifa or vicegerent of the mahdi, all of whose acts were to be regarded as the mahdi's own. The mahdi on his deathbed (1885) solemnly named him his successor; and for thirteen years Abdullah ruled over what had been the Egyptian Sudan. Khartum was deserted by his orders, and Omdurman, at first intended as a temporary camp, was made his capital. At length the progress of Sir Herbert (afterwards Lord) Kitchener's expedition compelled him to give battle to the Anglo-Egyptian forces near Omdurman, where on the 2nd of September 1898 his army, fighting with desperate courage, was almost annihilated. The khalifa, who had not left Omdurman since the death of the mahdi, fled to Kordofan with the remnant of his host. On the 25th of November 1899 he gave battle to a force under Colonel (afterwards General Sir) F. R. Wingate, and was slain at Om Debreikat. He met death with great fortitude, refusing to fly, and his principal amirs voluntarily perished with him.

The khalifa was a man of iron will and great energy, and possessed some military skill. By nature tyrannical, he was impatient of all opposition and appeared to delight in cruelty. It must be remembered, however, that he had to meet the secret or open hostility of all the tribes of the Nile valley and that his authority was dependent on his ability to overawe his opponents. He maintained in public the divine character of the power he inherited from the mahdi and inspired his followers to perform prodigies of valour. Although he treated many of his European captives with terrible severity he never had any of them executed. It is said that their presence in Omdurman ministered to his vanity—one of the most marked features of his character. In private life he showed much affection for his family.

Personal sketches of the khalifa are given in Slatin Pasha's *Fire and Sword in the Sudan* (London, 1896), and in Father Ohrwalder's *Ten Years in the Mahdi's Camp* (London, 1892). See also Sir F. R. Wingate's *Mahdiism and the Egyptian Sudan* (London, 1891).

KHALĪL IBN AḤMAD [ABŪ 'ABDURRAḤMĀN UL-KHALĪL IBN AḤMAD IBN 'AMR IBN TAMĪM] (718–791), Arabian philologist, was a native of Oman. He was distinguished for having written the first Arabic dictionary and for having first classified the Arabic metres and laid down their rules. He was also a poet, and lived the ascetic life of a poor student. His grammatical work was carried on by his pupil Sībawaihī. The dictionary known as the *Kitāb-ul-'Ain* is ascribed, at least in its inception, to Khalīl. It was probably finished by one of his pupils and was not known in Bagdad until 862. The words were not arranged in alphabetical order but according to physiological principles, beginning with *'Ain* and ending with *Ya*. The work seems to have been in existence as late as the 14th century, but is now only known from extracts in manuscript.

Various grammatical works are ascribed to Khalīl, but their authenticity seems doubtful; cf. C. Brockelmann, *Gesch. der arabischen Literatur*, i. 100 (Weimar, 1898). (G. W. T.)

KHAMGAON, a town of India, in the Buldana district of Berar, 340 m. N.E. of Bombay. Pop. (1901), 18,341. It is an important centre of the cotton trade. The cotton market, the second in the province, was established about 1820. Khamgaon was connected in 1870 with the Great Indian Peninsula railway by a short branch line.

KHAMSEH, a small but important province of Persia, between Kazvin and Tabriz. It consisted formerly of five districts, whence its name Khamseh, "the five," but is now subdivided into seventeen districts. The language of the inhabitants is Turkish. The province pays a revenue of about £20,000 per annum, and its capital is Zenjān.

KHAMSIN (Arabic for "fifty"), a hot oppressive wind arising in the Sahara. It blows in Egypt at intervals for about fifty days during March, April and May, and fills the air with sand. In Guinea the wind from the Sahara is known as harmattan (*q.v.*).

KHAMTIS, a tribe of the north-east frontier of India, dwelling in the hills bordering the Lakhimpur district of Assam. They are of Shan origin, and appear to have settled in their present abode in the middle of the 18th century. In 1839 they raided the British outpost of Sadiya, but they have since given no trouble. Their headquarters are in a valley 200 m. from Sadiya, which can be reached only over high passes and through dense jungle. In 1901 the number of speakers of Khamti was returned as only 1490, mostly in Burma.

KHAN (from the Turkī, hence Persian and Arabic *Khān*), a title of respect in Mahommedan countries. It is a contracted form of *khāqān* (khakan), a word equivalent to sovereign or emperor, used among the Mongol and Turkī-nomad hordes. The title khan was assumed by Jenghis when he became supreme ruler of the Mongols; his successors became known in Europe as the Great Khans (sometimes as the Chams, &c.) of Tatary or Cathay. Khan is still applied to semi-independent rulers, such as the khans of Russian Turkestan, or the khan of Kalat in Baluchistan, and is also used immediately after the name of rulers such as the sultan of Turkey; the meaning of the term has also extended downwards, until in Persia and Afghanistan it has become an affix to the name of any Mahommedan gentleman, like Esquire, and in India it has become a part of many Mahommedan names, especially when Pathan descent is claimed. The title of Khan Bahadur is conferred by the British government on Mahommedans and also on Parsis.

KHANDESH, EAST and **WEST,** two districts of British India, in the central division of Bombay. They were formed in 1906 by the division of the old single district of Khandesh. Their areas are respectively 4544 sq. m. and 5497 sq. m., and the population on these areas in 1901 was 957,728 and 469,654. The headquarters of East Khandesh are at Jalgaon, and those of West Khandesh at Dhulia.

The principal natural feature is the Tapti river, which flows through both districts from east to west and divides each into two unequal parts. Of these the larger lie towards the south, and are drained by the rivers Girna, Bori and Panjhra. Northwards beyond the alluvial plain, which contains some of the richest tracts in Khandesh, the land rises towards the Satpura hills. In the centre and east the country is level, save for some low ranges of barren hills, and has in general an arid, unfertile appearance. Towards the north and west, the plain rises into a difficult and rugged country, thickly wooded, and inhabited by wild tribes of Bhils, who chiefly support themselves on the fruits of the forests and by wood-cutting. The drainage of the district centres in the Tapti, which receives thirteen principal tributaries in its course through Khandesh. None of the rivers is navigable, and the Tapti flows in too deep a bed to be useful for irrigation. The district on the whole, however, is fairly well supplied with surface water. Khandesh is not rich in minerals. A large area is under forest; but the jungles have been denuded of most of their valuable timber. Wild beasts are numerous. In 1901 the population of the old single district was 1,427,382, showing an increase of less than 1% in the decade. Of the aboriginal tribes the Bhils are the most important. They number 167,000, and formerly were a wild and lawless robber tribe. Since the introduction of British rule, the efforts made by kindly treatment, and by the offer of suitable employment, to win the Bhils from their disorderly life have been most successful. Many of them are now employed in police duties and as village watchmen. The principal crops are millets, cotton, pulse, wheat and oilseeds. There are many factories for ginning and pressing cotton, and a cotton-mill at Jalgaon. The eastern district is traversed by the Great Indian Peninsula railway, which branches at Bhusawal (an important centre of trade) towards Jubbulpore and Nagpur. Both districts are crossed by the Tapti Valley line from Surat. Khandesh suffered somewhat from famine in 1896–1897, and more severely in 1899–1900.

KHANDWA, a town of British India, in the Nimar district of the Central Provinces, of which it is the headquarters, 353 m. N.E. of Bombay by rail. Pop. (1901), 19,401. Khandwa is an ancient town, with Jain and other temples. As a centre of trade, it has superseded the old capital of Burhanpur. It is an important railway junction, where the Malwa line from Indore meets the main line of the Great Indian Peninsula. There are factories for ginning and pressing cotton, and raw cotton is exported.

KHANSĀ (Tumāḍir bint 'Amr, known as al-Khansā) (d. *c.* 645), Arabian poetess of the tribe Sulaim, a branch of Qais, was born in the later years of the 6th century and brought up in such wealth and luxury as the desert could give. Refusing the offer of Duraid ibn uṣ-Ṣimma, a poet and prince, she married Mirdās and had by him three sons. Afterwards she married again. Before the time of Islam she lost her brothers Ṣakhr and Moawiya in battle. Her elegies written on these brothers and on her father made her the most famous poetess of her time. At the fair of 'Ukāz Nābigha Dhubyāni is said to have placed A'sha first among the poets then present and Khansā second above Hassān ibn Thābit. Khansā with her tribe accepted Islam somewhat late, but persisted in wearing the heathen sign of mourning, against the precepts of Islam. Her four sons fought in the armies of Islam and were slain in the battle of Kadisīya. Omar wrote her a letter congratulating her on their heroic end and assigned her a pension. She died in her tent *c.* 645. Her daughter 'Amra also wrote poetry. Opinion was divided among later critics as to whether Khansā or Laila (see ARABIC LITERATURE: §*Poetry*) was the greater.

Her diwan has been edited by L. Cheikho (Beirut, 1895) and translated into French by De Coppier (Beirut, 1889). Cf. T. Nöldeke's *Beiträge zur Kenniniss der Poesie der alten Araber* (Hanover, 1864). Stories of her life are contained in the *Kitāb ul-Aghāni*, xiii. 136–147. (G. W. T.)

KHAR, a small but very fertile province of Persia, known by the ancients as Choara and Choarene; pop. about 10,000. The governor of the province resides at Kishlak Khar, a large village situated 62 m. S.E. of Teheran, or at Aradān, a village 10 m. farther E. The province has an abundant water-supply from the Hableh-rūd, and produces great quantities of wheat, barley and rice. Of the £6000 which it pays to the state, more than £4000 is paid in kind—wheat, barley, straw and rice.

KHARAGHODA, a village of British India, in the Ahmedabad district of Bombay, situated on the Little Runn of Cutch, and the terminus of a branch railway; pop. (1901), 2108. Here is the government factory of salt, known as Baragra salt, producing nearly 2,000,000 cwt. a year, most of which is exported to other provinces in Central and Northern India.

KHARGA (WAH EL-KHARGA, the outer oasis), the largest of the Egyptian oases, and hence frequently called the Great Oasis. It lies in the Libyan desert between 24° and 26° N. and 30° and 31° E., the chief town, also called Kharga, being 435 m. by rail S. by W. of Cairo. It is reached by a narrow-gauge line (opened in 1908) from Kharga junction, a station on the Nile valley line near Farshut. The oasis consists of a depression in the desert some 1200 sq. m. in extent, and is about 100 m. long N. to S. and from 12 to 50 broad E. to W. Formerly, and into historic times, a lake occupied a considerable part of the depression, and the thick deposits of clay and sand then laid down now form the bulk of the cultivated lands of the oasis. It includes, however, a good deal of desert land. The inhabitants numbered (1907 census) 8348. They are of Berber stock. Administratively the oasis forms part of the mudiria of Assiut. It is practically rainless, and there is not now a single natural flowing spring. There are, however, numerous wells, water being obtained freely from the porous sandstone which underlies a great part of the Libyan desert. Some very ancient wells are 400 ft. deep. In water-bearing sandstones near the surface there are underground aqueducts dating from Roman times. The oasis contains many groves of date palms, there being over 60,000 adult trees in 1907. The dom palm, tamarisk, acacia and wild senna are also found. Rice, barley and wheat are the chief cereals cultivated, and lucerne for fodder. Besides agriculture the only industry is basket and mat making—from palm leaves and fibre. Since 1906 extensive boring and land reclamation works have been undertaken in the oasis.

The name of the oasis appears in hieroglyphics as *Kenem*, and that of its capital as *Hebi* (the plough). In Pharaonic times it supported a large population, but the numerous ruins are mostly of later date. The principal ruin, a temple of Ammon, built under Darius, is of sandstone, 142 ft. long by 63 ft. broad and 30 ft. in height. South-east is another temple, a square stone building with the name of Antoninus Pius over one of the entrances. On the eastern escarpment of the oasis on the way to Girga are the remains of a large Roman fort with twelve bastions. On the road to Assiut is a fine Roman columbarium or dove-cote. Next to the great temple the most interesting ruin in the oasis is, however, the necropolis, a burial-place of the early Christians, placed on a hill 3 m. N. of the town of Kharga. There are some two hundred rectangular tomb buildings in unburnt brick with ornamented fronts. In most of the tombs is a chamber in which the mummy was placed, the Egyptian Christians at first continuing this method of preserving the bodies of their dead. In several of the tombs and in the chapel of the cemetery is painted the Egyptian sign of life, which was confounded with the Christian cross. The chapel is basilican; in it and in another building in the necropolis are crude frescoes of biblical subjects.

Kharga town (pop. 1907 census, 5362) is picturesquely situated amid palm groves. The houses are of sun-dried bricks, the streets narrow and winding and for the most part roofed over, the roofs carrying upper storeys. Some of the streets are cut through the solid rock. South of the town are the villages of Genna, Guehda (with a temple dedicated to Ammon, Mut and Khonsu), Bulak (pop. 1012), Dakakin, Beris (pop. 1564), Dush (with remains of a fine temple bearing the names of Domitian and Hadrian), &c.

Kharga is usually identified with the city of Oasis mentioned by Herodotus as being seven days' journey from Thebes and called in Greek the Island of the Blessed. The oasis was traversed by the army of Cambyses when on its way to the oasis of Ammon (Siwa), the army perishing in the desert before reaching its destination. During the Roman period, as it had also been in Pharaonic times, Kharga was used as a place of banishment, the most notable exile being Nestorius, sent thither after his condemnation by the council of Ephesus. Later it became a halting-place for the caravans of slaves brought from Darfur to Egypt.

About 100 m. W. of Kharga is the oasis of Dakhla, the inner or receding oasis, so named in contrast to Kharga as being farther from the Nile. Dakhla has a population (1907) of 18,368. Its chief town, El Kasr, has 3602 inhabitants. The principal ruin, of Roman origin and now called Deir el Hagar (the stone convent), is of considerable size. The Theban triad were the chief deities worshipped here. Some 120 m. N.W. of Dakhla is the oasis of Farafra, population about 1000, said to be the first of the oases conquered by the Moslems from the Christians. It is noted for the fine quality of its olives. The Baharia, or Little Oasis (pop. about 6000), lies 80 m. N.N.E. of Farafra. Many of its inhabitants, who are of Berber race, are Senussites. Baharia is about 250 m. E.S.E. of the oasis of Siwa (see EGYPT: *The Oases*; and SIWA).

See H. Brugsch, *Reise nach dem grossen Oase el-Khargeh in der Libyschen Wüste* (Leipzig, 1878); H. J. L. Beadnell, *An Egyptian Oasis* (London, 1909); Murray's *Handbook for Egypt*, 11th ed. (London, 1907); *Geological and Topographical Report on Kharga Oasis* (1899), on *Farafra Oasis* (1899), on *Dakhla Oasis* (1900), on *Baharia Oasis* (1903), all issued by the Public Works Department, Cairo. (F. R. C.)

KHARKOV, a government of Little Russia, surrounded by those of Kursk, Poltava, Ekaterinoslav, territory of the Don Cossacks, and Voronezh, and belonging partly to the basin of the Don and partly to that of the Dnieper. The area is 21,035 sq. m. In general the government is a table-land, with an elevation of 300 to 450 ft., traversed by deep-cut river valleys. The soil is for the most part of high fertility, about 57% of the surface being arable land and 24% natural pasture; and though the winter is rather severe, the summer heat is sufficient for the ripening of grapes and melons in the open air. The bulk of the population is engaged in agricultural pursuits and the breeding of sheep, cattle and horses, though various manufacturing industries have developed rapidly, more especially since the middle of the 19th century. Horses are bred for the army, and the yield of wool is of special importance. The ordinary cereals, maize, buckwheat, millet, hemp, flax, tobacco, poppies, potatoes and beetroot are all grown, and bee-keeping and silkworm-rearing are of considerable importance. Sixty-three per cent. of the land is owned by the peasants, 25% by the nobility, 6% by owners of other classes, and 6% by the crown and public institutions. Beetroot sugar factories, cotton-mills, distilleries, flour-mills, tobacco factories, brickworks, breweries, woollen factories, ironworks, pottery-kilns and tanneries are the leading industrial establishments. Gardening is actively prosecuted. Salt is extracted at Slavyansk. The mass of the people are Little Russians, but there are also Great Russians, Kalmucks, Germans, Jews and Gypsies. In 1867 the total population was 1,681,486, and in 1897 2,507,277, of whom 1,242,892 were women and 367,602 lived in towns. The estimated population in 1906 was 2,983,900. The government is divided into eleven districts. The chief town is Kharkov (*q.v.*). The other district towns, with their populations in 1897, are Akhtyrka (25,965 in 1900), Bogodukhov (11,928), Izyum (12,959), Kupyansk (7256), Lebedin (16,684), Starobyelsk (13,128), Sumy (28,519 in 1900), Valki (8842), Volchansk (11,322), and Zmiyev (4652).

KHARKOV, a town of southern Russia, capital of the above government, in 56° 37′ N. and 25° 5′ E., in the valley of the Donets, 152 m. by rail S.S.E. of Kursk. Oak forests bound it on two sides. Pop. (1867), 59,968; (1900), 197,405. Kharkov is an archiepiscopal see of the Orthodox Greek Church, and the headquarters of the X. army corps. The four annual fairs are among the busiest in Russia, more especially the Kreshchenskaya or Epiphany fair, which is opened on the 6th (19th) of January, and the Pokrovsky fair in the autumn. The turnover at the former is estimated at £3,000,000 to £4,000,000. Thousands of horses are bought and sold. At the Trinity (Troitsa) fair in June an extensive business (£800,000) is done in wool. A great variety of manufactured goods are produced in the town—linen, felt, beetroot sugar, tobacco, brandy, soap, candles, cast-iron. Kharkov is an educational centre for the higher and middle classes. Besides a flourishing university, instituted in 1805, and attended by from 1600 to 1700 students, it possesses a technological institute (400 students), a railway engineering school, an observatory, a veterinary college, a botanical garden, a theological seminary, and a commercial school. The university building was formerly a royal palace. The library contains 170,000 volumes; and the zoological collections are especially rich in the birds and fishes of southern Russia. Public gardens occupy the site of the ancient military works; and the government has a model farm in the neighbourhood. Of the Orthodox churches one has the rank of cathedral (1781). Among the public institutions are a people's palace (1903) and an industrial museum.

The foundation of Kharkov is assigned to 1650, but there is archaeological evidence of a much earlier occupation of the district, if not of the site. The Cossacks of Kharkov remained faithful to the tsar during the rebellions of the latter part of the 17th century; in return they received numerous privileges, and continued to be a strong advance-guard of the Russian power, till the final subjugation of all the southern region. With other military settlements Kharkov was placed on a new footing in 1765; and at the same time it became the administrative centre of the Ukraine.

KHARPUT, the most important town in the Kharput (or Mamuret el-Aziz) vilayet of Asia Minor, situated at an altitude of 4350 ft., a few miles south of the Murad Su or Eastern Euphrates, and almost as near the source of the Tigris, on the Samsun-Sivas-Diarbekr road. Pop. about 20,000. The town is built on a hill terrace about 1000 ft. above a well-watered plain of exceptional fertility which lies to the south and supports a large population. Kharput probably stands on or near the site of *Carcathiocerta* in Sophene, reached by Corbulo in A.D. 65. The early Moslem geographers knew it as Hisn Ziyad, but the Armenian name was Khartabirt or Kharbirt, whence Kharput. Cedrenus (11th century) writes Χάρποτε. There is a story that in 1122

Joscelin (Jocelyn) of Courtenay, and Baldwin II., king of Jerusalem, both prisoners of the Amir Balak in its castle, were murdered by being cast from its cliffs after an attempted rescue. The story is told by William of Tyre, who calls the place Quart Piert or Pierre, but it is a mere romance. Kharput is an important station of the American missionaries, who have built a college, a theological seminary, and boys' and girls' schools. In November 1895 Kurds looted and burned the Armenian villages on the plain; and in the same month Kharput was attacked and the American schools were burned down. A large number of the Gregorian and Protestant Armenian clergy and people were massacred, and churches, monasteries and houses were looted. The vilayet Kharput was founded in 1888, being the result of a provincial rearrangement, designed to ensure better control over the disturbed districts of Kurdistan. It has much mineral wealth, a healthy climate and a fertile soil. The seat of government is Mezere, on the plain 3 m. S. of Kharput.

(D. G. H.)

KHARSAWAN, a feudatory state of India, within the Chota Nagpur division of Bengal; area 153 sq. m.; pop. (1901), 36,540; estimated revenue £2600. Since the opening of the main line of the Bengal-Nagpur railway through the state trade has been stimulated, and it is believed that both iron and copper can be worked profitably.

KHARTUM, the capital of the Anglo-Egyptian Sudan, on the left bank of the Blue Nile immediately above its junction with the White Nile in 15° 36′ N., 32° 32′ E., and 1252 ft. above the sea. It is 432 m. by rail S.W. of Port Sudan, on the Red Sea, and 1345 m. S. of Cairo by rail and steamer. Pop. (1907) with suburbs, but excluding Omdurman, 69,349.

The city, laid out on a plan drawn up by Lord Kitchener in 1898, has a picturesque aspect with its numerous handsome stone and brick buildings surrounded by gardens and its groves of palms and other trees. The river esplanade, 2 m. long, contains the chief buildings. Parallel with it is Khedive Avenue, of equal length. The rest of the city is in squares, the streets forming the design of the union jack. In the centre of the esplanade is the governor-general's palace, occupying the site of the palace destroyed by the Mahdists in 1885. It is a three-storeyed building with arcaded verandas and a fine staircase leading to a loggia on the first floor. Here a tablet indicates the spot in the old palace where General Gordon fell. In the gardens, which cover six acres, is a colossal stone "lamb" brought from the ruins of Soba, an ancient Christian city on the Blue Nile. The "lamb" is in reality a ram of Ammon, and has an inscription in Ethiopian hieroglyphs. In front of the southern façade, which looks on to Khedive Avenue, is a bronze statue of General Gordon seated on a camel, a copy of the statue by Onslow Ford at Chatham, England. Government offices and private villas are on either side of the palace, and beyond, on the east, are the Sudan Club, the military hospital, and the Gordon Memorial College. The college, the chief educational centre in the Sudan, is a large, many-windowed building with accommodation for several hundred scholars and research laboratories and an economic museum. At the western end of the esplanade are the zoological gardens, the chief hotel, the Coptic church and the Mudiria House (residence of the governor of Khartum). Running south from Khedive Avenue at the spot where the Gordon statue stands, is Victoria Avenue, leading to Abbas Square, in the centre of which is the great mosque with two minarets. On the north-east side of the square are the public markets. The Anglican church, dedicated to All Saints, the principal banks and business houses, are in Khedive Avenue. There are Maronite and Greek churches, an Austrian Roman Catholic mission, a large and well-equipped civil hospital and a museum for Sudan archaeology. Outside the city are a number of model villages (each of the principal tribes of the Sudan having its own settlement) in which the dwellings are built after the tribal fashion. Adjacent are the parade ground and racecourse and the golf-links. A line of fortifications extends south of the city from the Blue to the White Nile. The buildings are used as barracks. Barracks for British troops occupy the end of the line facing the Blue Nile.

On the right (northern) bank of the Blue Nile is the suburb of Khartum North, formerly called Halfaya,[1] where is the principal railway station. It is joined to the city by a bridge (completed 1910) containing a roadway and the railway, Khartum itself being served by steam trams and rickshaws. The steamers for the White and the Blue Nile start from the quay along the esplanade. West of the zoological gardens is the point of junction of the Blue and White Niles and here is a ferry across to Omdurman (*q.v.*) on the west bank of the White Nile a mile or two below Khartum. In the river immediately below Khartum is Tuti Island, on which is an old fort and an Arab village.

From its geographical position Khartum is admirably adapted as a commercial and political centre. It is the great entrepôt for the trade of the Anglo-Egyptian Sudan. By the Nile waterways there is easy transport from the southern and western equatorial provinces and from Sennar and other eastern districts. Through Omdurman come the exports of Kordofan and Darfur, while by the Red Sea railway there is ready access to the markets of the world. The only important manufacture is the making of bricks.

The population is heterogeneous. The official class is composed chiefly of British and Egyptians; the traders are mostly Greeks, Syrians and Copts, while nearly all the tribes of the Sudan are represented in the negro and Arab inhabitants.

At the time of the occupation of the Sudan by the Egyptians a small fishing village existed on the site of the present city. In 1822 the Egyptians established a permanent camp here and out of this grew the city, which in 1830 was chosen as the capital of the Sudanese possessions of Egypt. It got its name from the resemblance of the promontory at the confluence of the two Niles to an elephant's trunk, the meaning of *khartum* in the dialect of Arabic spoken in the locality. The city rapidly acquired importance as the Sudan was opened up by travellers and traders, becoming, besides the seat of much legitimate commerce, a great slave mart. It was chosen as the headquarters of Protestant and Roman Catholic missions, and had a population of 50,000 or more. Despite its size it contained few buildings of any architectural merit; the most important were the palace of the governor-general and the church of the Austrian mission. The history of the city is intimately bound up with that of the Sudan generally, but it may be recalled here that in 1884, at the time of the Mahdist rising, General Gordon was sent to Khartum to arrange for the evacuation by the Egyptians of the Sudan. At Khartum he was besieged by the Mahdists, whose headquarters were at Omdurman. Khartum was captured and Gordon killed on the 26th of January 1885, two days before the arrival off the town of a small British relief force, which withdrew on seeing the city in the hands of the enemy. Nearly every building in Khartum was destroyed by the Mahdists and the city abandoned in favour of Omdurman, which place remained the headquarters of the mahdi's successor, the khalifa Abdullah, till September 1898, when it was taken by the Anglo-Egyptian forces under General (afterwards Lord) Kitchener, and the seat of government again transferred to Khartum. It speedily arose from its ruins, being rebuilt on a much finer scale than the original city. In 1899 the railway from Wadi Halfa was completed to Khartum, and in 1906 through communication by rail was established with the Red Sea.

KHASI AND JAINTIA HILLS, a district of British India, in the Hills division of Eastern Bengal and Assam. It occupies the central plateau between the valleys of the Brahmaputra and the Surma. Area, 6027 sq. m.; pop. (1901), 202,250, showing an increase of 2% in the decade.

The district consists of a succession of steep ridges running east and west, with elevated table-lands between. On the southern side, towards Sylhet, the mountains rise precipitously from the valley of the Bārāk or Surma. The first plateau is about 4000 ft. above sea-level. Farther north is another plateau, on which is situated the station of Shillong, 4900 ft. above the sea; behind lies the Shillong range, of which the highest peak rises to 6450 ft. On the north side, towards Kamrūp, are two similar plateaus of lower elevation. The

[1] The village of Halfaya, a place of some importance before the foundation of Khartum, is 4 m. to the N., on the eastern bank of the Nile. From the 15th century up to 1821 it was the capital of a small state, tributary to Sennar, regarded as a continuation of the Christian kingdom of Aloa (see DONGOLA).

general appearance of all these table-lands is that of undulating downs, covered with grass, but destitute of large timber. At 3000 ft. elevation the indigenous pine predominates over all other vegetation, and forms almost pure pine forests. The highest ridges are clothed with magnificent clumps of timber trees, which superstition has preserved from the axe of the wood-cutter. The characteristic trees in these sacred groves chiefly consist of oaks, chestnuts, magnolias, &c. Beneath the shade grow rare orchids, rhododendrons and wild cinnamon. The streams are merely mountain torrents; many of them pass through narrow gorges of wild beauty. From time immemorial, Lower Bengal has drawn its supply of lime from the Khasi Hills, and the quarries along their southern slope are inexhaustible. Coal of fair quality crops out at several places, and there are a few small coal-mines.

The Khasi Hills were conquered by the British in 1833. They are inhabited by a tribe of the same name, who still live in primitive communities under elective chiefs in political subordination to the British government. There are 25 of these chiefs called *Siems*, who exercise independent jurisdiction and pay no tribute. According to the census of 1901 the Khasis numbered 107,500. They are a peculiar race, speaking a language that belongs to the Mon-Anam family, following the rule of matriarchal succession, and erecting monolithic monuments over their dead. The Jaintia Hills used to form a petty Hindu principality which was annexed in 1835. The inhabitants, called Syntengs, a cognate tribe to the Khasis, were subjected to a moderate income tax, an innovation against which they rebelled in 1860 and 1862. The revolt was stamped out by the Khasi and Jaintia Expedition of 1862–63. The headquarters of the district were transferred in 1864 from Cherrapunji to Shillong, which was afterwards made the capital of the province of Assam. A good cart-road runs north from Cherrapunji through Shillong to Gauhati on the Brahmaputra; total length, 97 m. The district was the focus of the great earthquake of the 12th of June 1897, which not only destroyed every permanent building, but broke up the roads and caused many landslips. The loss of life was put at only 916, but hundreds died subsequently of a malignant fever. In 1901 the district had 17,321 Christians, chiefly converts of the Welsh Calvinistic Mission.

See *District Gazetteer* (1906); Major P. R. T. Gurdon, *The Khasis* (1907).

KHASKOY (also *Chaskoi*, *Haskoi*, *Khaskioi*, *Chaskovo*, *Haskovo*, and in Bulgarian *Khaskovo*), the capital of the department of Khaskoy in the eastern Rumelia, Bulgaria; 45 m. E.S.E. of Philippopolis. Pop. (1900), 14,928. The town has a station 7 m. N. on the Philippopolis-Adrianople section of the Belgrade-Constantinople railway. Carpets and woollen goods are manufactured, and in the surrounding country tobacco and silk are produced.

KHATTAK, an important Pathan tribe in the North-West Frontier Province of India, inhabiting the south-eastern portion of the Peshawar district and the south-eastern and eastern portions of Kohat. They number 24,000, and have always been quiet and loyal subjects of the British government. They furnish many recruits to the Indian army, and make most excellent soldiers.

KHAZARS (known also as Chozars, as Ἀκάτζιροι or Χάζαροι in Byzantine writers, as Khazirs in Armenian and Khwalisses in Russian chronicles, and Ugri Bielii in Nestor), an ancient people who occupied a prominent place amongst the secondary powers of the Byzantine state-system. In the epic of Firdousi Khazar is the representative name for all the northern foes of Persia, and legendary invasions long before the Christian era are vaguely attributed to them. But the Khazars are an historic figure upon the borderland of Europe and Asia for at least 900 years (A.D. 190–1100). The epoch of their greatness is from A.D. 600 to 950. Their home was in the spurs of the Caucasus and along the shores of the Caspian—called by medieval Moslem geographers Bahr-al-Khazar (" sea of the Khazars "); their cities, all populous and civilized commercial centres, were Itil, the capital, upon the delta of the Volga, the " river of the Khazars," Semender (Tarkhu), the older capital, Khamlidje or Khalendsch, Belendscher, the outpost towards Armenia, and Sarkel on the Don. They were the Venetians of the Caspian and the Euxine, the organizers of the transit between the two basins, the universal carriers between East and West; and Itil was the meeting-place of the commerce of Persia, Byzantium, Armenia, Russia and the Bulgarians of the middle Volga. The tide of their dominion ebbed and flowed repeatedly, but the normal Khazari may be taken as the territory between the Caucasus, the Volga and the Don, with the outlying province of the Crimea, or Little Khazaria. The southern boundary never greatly altered; it did at times reach the Kur and the Aras, but on that side the Khazars were confronted by Byzantium and Persia, and were for the most part restrained within the passes of the Caucasus by the fortifications of Dariel. Amongst the nomadic Ugrians and agricultural Slavs of the north their frontier fluctuated widely, and in its zenith Khazaria extended from the Dnieper to Bolgari upon the middle Volga, and along the eastern shore of the Caspian to Astarabad.

Ethnology.—The origin of the Khazars has been much disputed, and they have been variously regarded as akin to the Georgians, Finno-Ugrians and Turks. This last view is perhaps the most probable. Their king Joseph, in answer to the inquiry of Ḥasdai Ibn Shaprūt of Cordova (*c.* 958), stated that his people sprang from Thogarmah, grandson of Japhet, and the supposed ancestor of the other peoples of the Caucasus. The Arab geographers who knew the Khazars best connect them either with the Georgians (Ibn Athīr) or with the Armenians (Dimishqi, ed. Mehren, p. 263); whilst Aḥmad ibn Faḍlān, who passed through Khazaria on a mission from the caliph Moqtadir (A.D. 921), positively asserts that the Khazar tongue differed not only from the Turkish, but from that of the bordering nations, which were Ugrian.

Nevertheless there are many points connected with the Khazars which indicate a close connexion with Ugrian or Turkish peoples. The official titles recorded by Ibn Faḍlān are those in use amongst the Tatar nations of that age, whether Huns, Bulgarians, Turks or Mongols. The names of their cities can be explained only by reference to Turkish or Ugrian dialects (Klaproth, *Mém. sur les Khazars*; Howorth, *Khazars*). Some too amongst the medieval authorities (Ibn Ḥauqal and Iṣṭakhri) note a resemblance between the speech in use amongst the Khazars and the Bulgarians; and the modern Magyar—a Ugrian language—can be traced back to a tribe which in the 9th century formed part of the Khazar kingdom. These characteristics, however, are accounted for by the fact that the Khazars were at one time subject to the Huns (A.D. 448 et seq.), at another to the Turks (*c.* 580), which would sufficiently explain the signs of Tatar influence in their polity, and also by the testimony of all observers, Greeks, Arabs and Russians, that there was a double strain within the Khazar nation. There were *Khazars* and *Kara* (black) *Khazars*. The Khazars were fair-skinned, black-haired and of a remarkable beauty and stature; their women indeed were sought as wives equally at Byzantium and Bagdad; while the Kara Khazars were ugly, short, and were reported by the Arabs almost as dark as Indians. The latter were indubitably the Ugrian nomads of the steppe, akin to the Tatar invaders of Europe, who filled the armies and convoyed the caravans of the ruling caste. But the Khazars proper were a civic commercial people, the founders of cities, remarkable for somewhat elaborate political institutions, for persistence and for good faith—all qualities foreign to the Hunnic character.

They have been identified with the Ἀκάτζιροι (perhaps Ak-Khazari, or White Khazars) who appear upon the lower Volga in the Byzantine annals, and thence they have been deduced, though with less convincing proof, either from the Ἀγάθυρσοι (Agathyrsi) or the Καττίαροι of Herodotus, iv. 104. There was throughout historic times a close connexion which eventually amounted to political identity between the Khazars and the Barsileens (the Passils of Moses of Chorene) who occupied the delta of the Volga; and the Barsileens can be traced through the pages of Ptolemy (*Geog.* v. 9), of Pliny (iv. 26), of Strabo (vii. 306), and of Pomponius Mela (ii. c. 1, p. 119) to the so-called Royal Scyths, Σκύθαι βασιλῆες, who were known to the Greek colonies upon the Euxine, and whose political superiority and commercial enterprise led to this rendering of their name. Such points, however, need not here be further pursued than to establish the presence of this white race around the Caspian and the Euxine throughout historic times. They appear in European history as White Huns (Ephthalites), White Ugrians (Sar-ogours), White Bulgarians. Owing to climatic causes the tract they occupied was slowly drying up. They were the outposts of civilization towards the encroaching desert, and the Tatar nomadism that advanced with it. They held in precarious subjection the hordes whom the conditions of the climate and the soil made it impossible to supplant. They bore the brunt of each of the great waves of Tatar conquests, and were eventually overwhelmed.

History.—Amidst this white race of the steppe the Khazars can be first historically distinguished at the end of the 2nd century A.D. They burst into Armenia with the Barsileens, A.D. 198. They were repulsed and attacked in turn. The pressure of the nomads of the steppe, the quest of plunder or revenge, these seem the only motives of these early expeditions; but in the long struggle between the Roman and Persian empires, of which Armenia was often the battlefield, and eventually the prize, the attitude of the Khazars assumed political importance. Armenia inclined to the civilization and ere long to the Christianity of Rome, whilst her Arsacid princes maintained an inveterate feud with the Sassanids of Persia. It became therefore the policy of the Persian kings to call in the Khazars in every collision with the empire (200–350). During the 4th century however, the growing power of Persia culminated in the annexation of eastern Armenia. The Khazars, endangered by so powerful a neighbour, passed from under Persian influence into that remote alliance with Byzantium which thenceforth characterized their policy, and they aided Julian in his invasion of Persia (363). Simultaneously with the approach of Persia to the Caucasus the terrible empire of the Huns sprang up among the Ugrians of the northern steppes. The Khazars, straitened on every side, remained passive till the danger culminated in the accession of Attila (434). The emperor Theodosius sent envoys to bribe the Khazars (Ἀκάτζιροι) to divert the Huns from the empire by an attack upon their flank. But there was a Hunnic party amongst the Khazar chiefs. The design was betrayed to Attila; and he extinguished the independence of the nation in a moment. Khazaria became the apanage of his eldest son, and the centre of government amongst the eastern subjects of the Hun (448). Even the iron rule of Attila was preferable to the time of anarchy that succeeded it. Upon his death (454) the wild immigration which he had arrested revived. The Khazars and the Sarogours (*i.e.* White Ogors, possibly the Barsileens of the Volga delta) were swept along in a flood of mixed Tatar peoples which the conquests of the Avars had set in motion. The Khazars and their companions broke through the Persian defences of the Caucasus. They appropriated the territory up to the Kur and the Aras, and roamed at large through Iberia, Georgia and Armenia. The Persian king implored the emperor Leo I. to help him defend Asia Minor at the Caucasus (457), but Rome was herself too hard pressed, nor was it for fifty years that the Khazars were driven back and the pass of Derbent fortified against them (*c.* 507).

Throughout the 6th century Khazaria was the mere highway for the wild hordes to whom the Huns had opened the passage into Europe, and the Khazars took refuge (like the Venetians from Attila) amongst the seventy mouths of the Volga. The pressure of the Turks in Asia precipitated the Avars upon the West. The conquering Turks followed in their footsteps (560–580). They beat down all opposition, wrested even Bosporus in the Crimea from the empire, and by the annihilation of the Ephthalites completed the ruin of the White Race of the plains from the Oxus to the Don. The empires of Turks and Avars, however, ran swiftly their barbaric course, and the Khazars arose out of the chaos to more than their ancient renown. They issued from the land of Barsilia, and extended their rule over the Bulgarian hordes left masterless by the Turks, compelling the more stubborn to migrate to the Danube (641). The agricultural Slavs of the Dnieper and the Oka were reduced to tribute, and before the end of the 7th century the Khazars had annexed the Crimea, had won complete command of the Sea of Azov, and, seizing upon the narrow neck which separates the Volga from the Don, had organized the portage which has continued since an important link in the traffic between Asia and Europe. The alliance with Byzantium was revived. Simultaneously, and no doubt in concert, with the Byzantine campaign against Persia (589), the Khazars had reappeared in Armenia, though it was not till 625 that they appear as Khazars in the Byzantine annals. They are then described as "Turks from the East," a powerful nation which held the coasts of the Caspian and the Euxine, and took tribute of the Viatitsh, the Severians and the Polyane. The khakan, enticed by the promise of an imperial princess, furnished Heraclius with 40,000 men for his Persian war, who shared in the victory over Chosroes at Nineveh.

Meanwhile the Moslem empire had arisen. The Persian empire was struck down (637). and the Moslems poured into Armenia. The khakan, who had defied the summons sent him by the invaders, now aided the Byzantine patrician in the defence of Armenia. The allies were defeated, and the Moslems undertook the subjugation of Khazaria (651). Eighty years of warfare followed, but in the end the Moslems prevailed. The khakan and his chieftains were captured and compelled to embrace Islam (737), and till the decay of the Mahommedan empire Khazaria with all the other countries of the Caucasus paid an annual tribute of children and of corn (737–861). Nevertheless, though overpowered in the end, the Khazars had protected the plains of Europe from the Mahommedans, and made the Caucasus the limit of their conquests.

In the interval between the decline of the Mahommedan empire and the rise of Russia the Khazars reached the zenith of their power. The merchants of Byzantium, Armenia and Bagdad met in the markets of Itil (whither since the raids of the Mahommedans the capital had been transferred from Semender), and traded for the wax, furs, leather and honey that came down the Volga. So important was this traffic held at Constantinople that, when the portage to the Don was endangered by the irruption of a fresh horde of Turks (the Petchenegs), the emperor Theophilus himself despatched the materials and the workmen to build for the Khazars a fortress impregnable to their forays (834). Famous as the one stone structure is in that stoneless region, the post became known far and wide amongst the hordes of the steppe as Sar-kel or the White Abode. Merchants from every nation found protection and good faith in the Khazar cities. The Jews, expelled from Constantinople, sought a home amongst them, developed the Khazar trade, and contended with Mahommedans and Christians for the theological allegiance of the Pagan people. The dynasty accepted Judaism (*c.* 740), but there was equal tolerance for all, and each man was held amenable to the authorized code and to the official judges of his own faith. At the Byzantine court the khakan was held in high honour. The emperor Justinian Rhinotmetus took refuge with him during his exile and married his daughter (702). Justinian's rival Vardanes in turn sought an asylum in Khazaria, and in Leo IV. (775) the grandson of a Khazar sovereign ascended the Byzantine throne. Khazar troops were amongst the bodyguard of the imperial court; they fought for Leo VI. against Simeon of Bulgaria; and the khakan was honoured in diplomatic intercourse with the seal of three solidi, which marked him as a potentate of the first rank, above even the pope and the Carolingian monarchs. Indeed his dominion became an object of uneasiness to the jealous statecraft of Byzantium, and Constantine Porphyrogenitus, writing for his son's instruction in the government, carefully enumerates the Alans, the Petchenegs, the Uzes and the Bulgarians as the forces he must rely on to restrain it.

It was, however, from a power that Constantine did not consider that the overthrow of the Khazars came. The arrival of the Varangians amidst the scattered Slavs (862) had united them into a nation. The advance of the Petchenegs from the East gave the Russians their opportunity. Before the onset of those fierce invaders the precarious suzerainty of the khakan broke up. By calling in the Uzes, the Khazars did indeed dislodge the Petchenegs from the position they had seized in the heart of the kingdom between the Volga and the Don, but only to drive them inwards to the Dnieper. The Hungarians, severed from their kindred and their rulers, migrated to the Carpathians, whilst Oleg, the Russ prince of Kiev, passed through the Slav tribes of the Dnieper basin with the cry "Pay nothing to the Khazars" (884). The kingdom dwindled rapidly to its ancient limits between the Caucasus, the Volga and the Don, whilst the Russian traders of Novgorod and Kiev supplanted the Khazars as the carriers between Constantinople and the North. When Ibn Faḍlān visited Khazaria forty years later, Itil was even yet a great city, with baths and market-places and thirty mosques. But there was no domestic product nor manufacture; the kingdom depended solely upon the now precarious transit dues, and administration was in the hands of a major domus also called khakan. At the assault of Swiatoslav of Kiev the rotten fabric crumbled into dust. His troops were equally at home on land and water. Sarkel, Itil and Semender surrendered to him (965–969). He pushed his conquests to the Caucasus, and established Russian colonies upon the Sea of Azov. The principality of Tmutarakan, founded by his grandson Mstislav (988), replaced the kingdom of Khazaria, the last trace of which was extinguished by a joint expedition of Russians and Byzantines (1016). The last of the khakans, George, Tzula, was taken prisoner. A remnant of the nation took refuge in an island of the Caspian (Siahcouyé); others retired to the Caucasus; part emigrated to the district of Kasakhi in Georgia, and appear for the last time joining with Georgia in her successful effort to throw off the yoke of the Seljuk Turks (1089). But the name is thought to survive in Kadzaria, the Georgian title for Mingrelia, and in Kadzaro, the Turkish word for the Lazis. Till the 13th century the Crimea was known to European travellers as Gazaria; the "ramparts of the Khazars" are still distinguished in the Ukraine; and the record of their dominion survives in the names of Kazarek, Kazaritshi, Kazarinovod, Kozar-owka, Kozari, and perhaps in Kazan.

Authorities.—*Khazar*: The letter of King Joseph to R. Hasdai Ibn Shaprūt, first published by J. Akrish, *Kol Mebasser* (Constantinople, 1577), and often reprinted in editions of Jehuda hal-Levy's *Kuzari*. German translations by Zedner (Berlin, 1840) and Cassel, *Magyar. Alterth.* (Berlin, 1848); French by Carmoly, *Rev. Or.* (1841). Cf. Harkavy, *Russische Revue*, iv. 69; Graetz, *Geschichte*, v. 364, and Carmoly, *Itinéraires de la Terre Sainte* (Brussels, 1847). *Armenian*: Moses of Chorene; cf. Saint-Martin, *Mémoires historiques et géographiques sur l'Arménie* (Paris, 1818). *Arabic*: The account of Ibn Faḍlān (921) is preserved by Yāḳūt, ii. 436 seq. See also Iṣṭakhry (ed. de Geoje, pp. 220 seq.), *Mas'ūdy*, ch. xvii. pp. 406 seq. of Sprenger's translation; *Ibn Ḥauḳal* (ed. de Goeje, pp. 279 seq.) and the histories of Ibn el Athīr and Ṭabary. Much of the Arabic material has been collected and translated by Fraehn, "Veteres Memoriae Chasarorum" in *Mém. de St Pét.* (1822); Dorn (from the Persian Ṭabary), *Mém. de St Pét.* (1844); Dufrémery, *Journ. As.* (1849). See also D'Ohsson's imaginary *Voyage d'Abul Cassim*, based on these sources. *Byzantine Historians*: The relative passages are collected in Stritter's *Memoriae populorum* (St Petersburg, 1778). *Russian*: The *Chronicle* ascribed to Nestor.

Modern: Klaproth, "Mém. sur les Khazars," in *Journ. As.* 1st series, vol. iii.; id., *Tableaux hist. de l'Asie* (Paris, 1823); id., *Tabl. hist. de Caucases* (1827); memoirs on the Khazars by Harkavy and by Howorth (*Congrès intern. des Orientalistes*, vol. ii.); Latham, *Russian and Turk*, pp. 209–217; Vivien St Martin, *Études de géog. ancienne* (Paris, 1850); id., *Recherches sur les populations du Caucase* (1847); id., "Sur les Khazars," in *Nouvelles ann. des voyages* (1857); D'Ohsson, *Peuples du Caucase* (Paris, 1828); S. Krauss, "Zur Geschichte der Chazaren," in *Revue orientale pour les études Ourals-altaïques* (1900). (P. L. G.; C. EL.)

KHEDIVE, a Persian word meaning prince or sovereign, granted as a title by the sultan of Turkey in 1867 to his viceroy in Egypt, Ismail, in place of that of "vali."

KHERI, a district of British India, in the Lucknow division of the United Provinces, which takes its name from a small town with a railway station 81 m. N.W. of Lucknow. The area of the district is 2963 sq. m., and its population in 1901 was 905,138. It consists of a series of fairly elevated plateaus, separated by rivers flowing from the north-west, each bordered by alluvial land. North of the river Ul, the country is considered very unhealthy. Through this tract, probably the bed of a lake, flow two rivers, the Kauriala and Chauka, changing their courses constantly, so that the surface is seamed with deserted river beds much below the level of the surrounding country. The vegetation is very dense, and the stagnant waters are the cause of endemic fevers. The people reside in the neighbourhood of the low ground, as the soil is more fertile and less expensive to cultivate than the forest-covered uplands. South of the Ul, the scene changes. Between every two rivers or tributaries stretches a plain, considerably less elevated than the tract to the north. There is very little slope in any of these plains for many miles, and marshes are formed, from which emerge the headwaters of many secondary streams, which in the rains become dangerous torrents, and frequently cause devastating floods. The general drainage of the country is from north-west to south-east. Several large lakes exist, some formed by the ancient channels of the northern rivers, being fine sheets of water, from 10 to 20 ft. deep and from 3 to 4 m. long; in places they are fringed with magnificent groves. The whole north of the district is covered with vast forests, of which a considerable portion are government reserves. *Sāl* occupies about two-thirds of the forest area. The district is traversed by a branch of the Oudh & Rohilkhand railway from Lucknow to Bareilly.

KHERSON, a government of south Russia, on the N. coast of the Black Sea, bounded W. by the governments of Bessarabia and Podolia, N. by Kiev and Poltava, S. by Ekaterinoslav and Taurida. The area is 27,497 sq. m. The aspect of the country, especially in the south, is that of an open steppe, and almost the whole government is destitute of forest. The Dniester marks the western and the Dnieper the south-eastern boundary; the Bug, the Ingul and several minor streams drain the intermediate territory. Along the shore stretch extensive lagoons. Iron, kaolin and salt are the principal minerals. Nearly 45% of the land is owned by the peasants, 31% by the nobility, 12% by other classes, and 12% by the crown, municipalities and public institutions. The peasants rent 1,730,000 acres more from the landlords. Agriculture is well developed and 9,000,000 acres (51·1%) are under crops. Agricultural machinery is extensively used. The vine is widely grown, and yields 1,220,000 gallons of wine annually. Some tobacco is grown and manufactured. Besides the ordinary cereals, maize, hemp, flax, tobacco and mustard are commonly grown; the fruit trees in general cultivation include the cherry, plum, peach, apricot and mulberry; and gardening receives considerable attention. Agriculture has been greatly improved by some seventy German colonies. Cattle-breeding, horse-breeding and sheep-farming are pursued on a large scale. Some sheep farmers own 30,000 or 40,000 merinos each. Fishing is an important occupation. There are manufactures of wool, hemp and leather; also iron-works, machinery and especially agricultural machinery works, sugar factories, steam flour-mills and chemical works. The ports of Kherson, Ochakov, Nikolayev, and especially Odessa, are among the principal outlets of Russian commerce; Berislav, Alexandriya Elisavetgrad, Voznesenask, Olviopol and Tiraspol play an important part in the inland traffic. In 1871 the total population was 1,661,892, and in 1897 2,744,040, of whom 1,332,175 were women and 785,094 lived in towns. The estimated pop. in 1906 was 3,257,600. Besides Great and Little Russians, it comprises Rumanians, Greeks, Germans (123,453), Bulgarians, Bohemians, Swedes, and Jews (30% of the total), and some Gypsies. About 84% belong to the Orthodox Greek Church; there are also numerous Stundists. The government is divided into six districts, the chief towns of which are: Kherson (*q.v.*), Alexandriya (14,002 in 1897), Ananiev (16,713), Elisavetgrad (66,182 in 1900), Odessa (449,673 in 1900), and Tiraspol (29,323 in 1900). This region was long subject to the sway of the Tatar khans of the Crimea, and owes its rapid growth to the colonizing activity of Catherine II., who between 1778 and 1792 founded the cities of Kherson, Odessa and Nikolayev. Down to 1803 this government was called Nikolayev.

KHERSON, a town of south Russia, capital of the above government, on a hill above the right bank of the Dnieper, about 19 m. from its mouth. Founded by the courtier Potemkin in 1778 as a naval station and seaport, it had become by 1786 a place of 10,000 inhabitants, and, although its progress was checked by the rise of Odessa and the removal (in 1794) of the naval establishments to Nikolayev, it had in 1900 a population of 73,185. The Dnieper at this point breaks into several arms, forming islands overgrown with reeds and bushes; and vessels of burden must anchor at Stanislavskoe-selo, a good way down the stream. Of the traffic on the river the largest share is due to the timber, wool, cereals, cattle and hides trade; wool-dressing, soap-boiling, tallow-melting, brewing, flour-milling and the manufacture of tobacco are the chief industries. Kherson is a substantially built and regular town. The cathedral is the burial-place of Potemkin, and near Kherson lie the remains of John Howard, the English philanthropist, who died here in 1790. The fortifications have fallen into decay. The name Kherson was given to the town from the supposition that the site was formerly that of Chersonesus Heracleotica, the Greek city founded by the Dorians of Heraclea.

KHEVENHÜLLER, LUDWIG ANDREAS (1683–1744), Austrian field-marshal, Count of Aschelberg-Frankenburg, came of a noble family, which, originally Franconian, settled in Carinthia in the 11th century. He first saw active service under Prince Eugène in the War of the Spanish Succession, and by 1716 had risen to the command of Prince Eugène's own regiment of dragoons. He distinguished himself greatly at the battles of Peterwardein and Belgrade, and became in 1723 major-general of cavalry (*General-Wachtmeister*), in 1726 proprietary colonel of a regiment and in 1733 lieutenant field marshal. In 1734 the War of the Polish Succession brought him into the field again. He was present at the battle of Parma (June 29), where Count Mercy, the Austrian commander, was killed, and after Mercy's death he held the chief command of the army in Italy till Field Marshal Königsegg's arrival. Under Königsegg he again distinguished himself at the battle of Guastalla (September 19). He was once more in command during the operations which followed the battle, and his skilful generalship won for him the grade of general of cavalry. He continued in military and diplomatic employment in Italy to the close of the war. In 1737 he was made field marshal, Prince Eugène recommending him to his sovereign as the best general in the service. His chief exploit in the Turkish War, which soon followed his promotion, was at Radojevatz (September 28, 1737), where he cut his way through a greatly superior Turkish army. It was in the Austrian Succession War that his most brilliant work was done. As commander-in-chief of the army on the Danube he not only drove out the French and Bavarian invaders of Austria in a few days of rapid marching and sharp engagements (January, 1742), but overran southern Bavaria, captured Munich, and forced a large French corps in Linz to surrender. Later in the summer of 1742, owing to the inadequate forces at his disposal, he had to evacuate his conquests, but in the following campaign, though now subordinated to Prince Charles of Lorraine, Khevenhüller

reconquered southern Bavaria, and forced the emperor in June to conclude the unfavourable convention of Nieder-Schönfeld. He disapproved the advance beyond the Rhine which followed these successes, and the event justified his fears, for the Austrians had to fall back from the Rhine through Franconia and the Breisgau, Khevenhüller himself conducting the retreat with admirable skill. On his return to Vienna, Maria Theresa decorated the field marshal with the order of the Golden Fleece. He died suddenly at Vienna on the 26th of January 1744.

He was the author of various instructional works for officers and soldiers (*Des G. F. M. Grafen v. Khevenhüller Observationspunkte für sein Dragoner-regiment* (1734 and 1748) and a *règlement* for the infantry (1737), and of an important work on war in general, *Kurzer Begriff aller militärischen Operationen* (Vienna, 1756; French version, *Maximes de guerre*, Paris, 1771).

KHEVSURS, a people of the Caucasus, kinsfolk of the Georgians. They live in scattered groups in East Georgia to the north and north-west of Mount Borbalo. Their name is Georgian and means "People of the Valleys." For the most part nomadic, they are still in a semi-barbarous state. They have not the beauty of the Georgian race. They are gaunt and thin to almost a ghastly extent, their generally repulsive aspect being accentuated by their large hands and feet and their ferocious expression. In complexion and colour of hair and eyes they vary greatly. They are very muscular and capable of bearing extraordinary fatigue. They are fond of fighting, and still wear armour of the true medieval type. This panoply is worn when the law of vendetta, which is sacred among them as among most Caucasian peoples, compels them to seek or avoid their enemy. They carry a spiked gauntlet, the terrible marks of which are borne by a large proportion of the Khevsur faces.

Many curious customs still prevail among the Khevsurs, as for instance the imprisonment of the woman during childbirth in a lonely hut, round which the husband parades, firing off his musket at intervals. After delivery, food is surreptitiously brought the mother, who is kept in her prison a month, after which the hut is burnt. The boys are usually named after some wild animal, *e.g.* bear or wolf, while the girls' names are romantic, such as Daughter of the Sun, Sun of my Heart. Marriages are arranged by parents when the bride and bridegroom are still in long clothes. The chief ceremony is a forcible abduction of the girl. Divorce is very common, and some Khevsurs are polygamous. Formerly no Khevsur might die in a house, but was always carried out under the sun or stars. The Khevsurs like to call themselves Christians, but their religion is a mixture of Christianity, Mahommedanism and heathen rites. They keep the Sabbath of the Christian church, the Friday of the Moslems and the Saturday of the Jews. They worship sacred trees and offer sacrifices to the spirits of the earth and air. Their priests are a combination of medicine-men and divines.

See G. F. R. Radde, *Die Chevs'uren und ihr Land* (Cassel, 1878); Ernest Chantre, *Recherches anthropologiques dans le Caucase* (Lyons, 1885–1887).

KHILCHIPUR, a mediatized chiefship in Central India, under the Bhopal agency; area, 273 sq. m.; pop. (1901), 31,143; estimated revenue, £7000; tribute payable to Sindhia, £700. The residence of the chief, who is a Khichi Rajput of the Chauhan clan, is at Khilchipur (pop. 5121).

KHINGAN, two ranges of mountains in eastern Asia.

(1) GREAT KHINGAN is the eastern border ridge of the immense plateau which may be traced from the Himalaya to Bering Strait and from the Tian-shan Mountains to the Khingan Mountains. It is well known from 50° N. to Kalgan (41° N., 115° E.), where it is crossed by the highway from Urga to Peking. As a border ridge of the Mongolian plateau, it possesses very great orographical importance, in that it is an important climatic boundary, and constitutes the western limits of the Manchurian flora. The base of its western slope, which is very gentle, lies at altitudes of 3000 to 3500 ft. Its crest rises to 4800 to 6500 ft., but its eastern slope sinks very precipitately to the plains of Manchuria, which have only 1500 to 2000 ft. of altitude. On this stretch one or two subordinate ridges, parallel to the main range and separated from it by longitudinal valleys, fringe its eastern slope, thus marking two different terraces and giving to the whole system a width of from 80 to 100 m. Basalts, trachytes and other volcanic formations are found in the main range and on its south-eastern slopes. The range was in volcanic activity in 1720–1721.

South-west of Peking the Great Khingan is continued by the In-shan mountains, which exhibit similar features to those of the Great Khingan, and represent the same terraced escarpment of the Mongolian plateau. Moreover, it appears from the map of the Russian General Staff (surveys of Skassi, V. A. Obruchev, G. N. Potanin, &c.) that similar terrace-shaped escarpments—but considerably wider apart than in Manchuria—occur in the Shan-si province of China, along the southern border of the South Mongolian plateau. These escarpments are pierced by the Yellow River or Hwang-ho south of the Great Wall, between 38° and 39° N., and in all probability a border range homologous to the Great Khingan separates the upper tributaries of the Hwang-ho (namely the Tan-ho) from those of the Yang-tsze-kiang. But according to Obruchev the escarpments of the Wei-tsi-shan and Lu-huang-lin, by which southern Ordos drops towards the Wei-ho (tributary of the Hwang-ho), can hardly be taken as corresponding to the Kalgan escarpment. They fall with gentle slopes only towards the high plains on the south of them, while a steep descent towards the low plain seems to exist further south only, between 32° and 34°. Thus the southern continuations of the Great Khingan, south of 38° N., possibly consist of two separate escarpments. At its northern end the place where the Great Khingan is pierced by the Amur has not been ascertained by direct observation. Prince P. Kropotkin considers that the upper Amur emerges from the high plateau and its border-ridge, the Khingan, below Albazin and above Kumara.[1] If this view prevail—Petermann has adopted it for his map of Asia, and it has been upheld in all the Gotha publications—it would appear that the Great Khingan joins the Stanovoi ridge or Jukjur, in that portion of it which faces the west coast of the Sea of Okhotsk. At any rate the Khingan, separating the Mongolian plateau from the much lower plains of the Sungari and the Nonni, is one of the most important orographical dividing-lines in Asia.

See Semenov's *Geographical Dictionary* (in Russian); D. V. Putiata, *Expedition to the Khingan in 1891* (St Petersburg, 1893); Potanin, "Journey to the Khingan," in *Izvestia Russ. Geog. Soc.* (1901).

(2) The name LITTLE KHINGAN is applied indiscriminately to two distinct mountain ranges. The proper application of the term would be to reserve it for the typical range which the Amur pierces 40 m. below Ekaterino-Nikolsk (on the Amur), and which is also known as the Bureya mountains, and as Dusse-alin. This range, which may be traced from the Amur to the Sea of Okhotsk, seems to be cleft twice by the Sungari and to be continued under different local names in the same south-westerly direction to the peninsula of Liao-tung in Manchuria. The other range to which the name of Little Khingan is applied is that of the Ilkhuri-alin mountains (51° N., 122°–126° E.), which run in a north-westerly direction between the upper Nonni and the Amur, west of Blagovyeshchensk. (P. A. K.; J. T. Be.)

KHIVA, formerly an important kingdom of Asia, but now a much reduced khanate, dependent upon Russia, and confined to the delta of the Amu-darya (Oxus). Its frontier runs down the left bank of the Amu, from 40° 15′ N., and down its left branch to Lake Aral; then, for about 40 m. along the south coast of Lake Aral, and finally southwards, following the escarpment of the Ust-Urt plateau. From the Transcaspian territory of Russia Khiva is separated by a line running almost W.N.W.–E.S.E. under 40° 30′ N., from the Uzboi depression to the Amu-darya. The length of the khanate from north to south is 200 m., and its greatest width 300 m. The area of the Khiva oasis is 5210 sq. m. while the area of the steppes is estimated at 17,000 sq. m. The population of the former is estimated at 400,000, and that of the latter also at 400,000 (nomadic). The water of the Amu is brought by a number of irrigation canals to the oasis, the general declivity of the surface westwards facilitating the irrigation. Several old beds of the Amu intersect the territory. The water of the Amu and the very thin layer of ooze which it deposits render the oasis very fertile. Millet, rice, wheat, barley, oats, peas, flax, hemp, madder, and all sorts of vegetables and fruit (especially melons) are grown, as also the vine and cotton. The white-washed houses scattered amidst the elms and poplars, and surrounded by flourishing fields, produce the most agreeable contrast with the arid steppes. Livestock, especially sheep, camels, horses and cattle, is extensively bred by the nomads.

[1] See his sketch of the orography of East Siberia (French trans., with addenda, published by the *Institut Géographique* of Brussels in 1902).

The population is composed of four divisions: Uzbegs (150,000 to 200,000), the dominating race among the settled inhabitants of the oasis, from whom the officials are recruited; Sarts and Tajiks, agriculturists and tradespeople of mixed race; Turkomans (*c.* 170,000), who live in the steppes, south and west of the oasis, and formerly plundered the settled inhabitants by their raids; and the Kara-kalpaks, or Black Bonnets, a Turki tribe some 50,000 in number. They live south of Lake Aral, and in the towns of Kungrad, Khodsheili and Kipchak form the prevailing element. They cultivate the soil, breed cattle, and their women make carpets. There are also about 10,000 Kirghiz, and when the Russians took Khiva in 1873 there were 29,300 Persian slaves, stolen by Turkoman raiders, and over 6500 liberated slaves, mostly Kizil-bashes. The former were set free and the slave trade abolished. Of domestic industries, the embroidering of cloth, silks and leather is worthy of notice. The trade of Khiva is considerable: cotton, wool, rough woollen cloth and silk cocoons are exported to Russia, and various animal products to Bokhara. Cottons, velveteen, hardware and pepper are imported from Russia, and silks, cotton, china and tea from Bokhara. Khivan merchants habitually attend the Orenburg and Nizhniy-Novgorod fairs.

History.—The present khanate is only a meagre relic of the great kingdom which under the name of Chorasmia, Kharezm (Khwārizm) and Urgenj (Jurjānīya, Gurganj) held the keys of the mightiest river in Central Asia. Its possession has consequently been much disputed from early times, but the country has undergone great changes, geographical as well as political, which have lessened its importance. The Oxus (Amu-darya) has changed its outlet, and no longer forms a water-way to the Caspian and thence to Europe, while Khiva is entirely surrounded by territory either directly administered or protected by Russia.

Chorasmia is mentioned by Herodotus, it being then one of the Persian provinces, over which Darius placed satraps, but nothing material of it is known till it was seized by the Arabs in A.D. 680. When the power of the caliphs declined the governor of the province probably became independent; but the first king known to history is Mamun-ibn-Mahommed in 995. Khwārizm fell under the power of Mahmud of Ghazni in 1017, and subsequently under that of the Seljuk Turks. In 1097 the governor Kutb-ud-din assumed the title of king, and one of his descendants, 'Ala-ud-din-Mahommed, conquered Persia, and was the greatest prince in Central Asia when Jenghiz Khan appeared in 1219. Khiva was conquered again by Timur in 1379; and finally fell under the rule of the Uzbegs in 1512, who are still the dominant race under the protection of the Russians.

Russia established relations with Khiva in the 17th century. The Cossacks of the Yaik during their raids across the Caspian learnt of the existence of this rich territory and made more than one plundering expedition to the chief town Urgenj. In 1717 Peter the Great, having heard of the presence of auriferous sand in the bed of the Oxus, desiring also to "open mercantile relations with India through Turan" and to release from slavery some Russian subjects, sent a military force to Khiva. When within 100 miles of the capital they encountered the troops of the khan. The battle lasted three days, and ended in victory for the Russian arms. The Khivans, however, induced the victors to break up their army into small detachments and treacherously annihilated them in detail. It was not until the third decade of the 19th century that the attention of the Muscovite government was again directed to the khanate. In 1839 a force under General Perovsky moved from Orenburg across the Ust-Urt plateau to the Khivan frontiers, to occupy the khanate, liberate the captives and open the way for trade. This expedition likewise terminated in disaster. In 1847 the Russians founded a fort at the mouth of the Jaxartes or Syr-darya. This advance deprived the Khivans not only of territory, but of a large number of tax-paying Kirghiz, and also gave the Russians a base for further operations. For the next few years, however, the attention of the Russians was taken up with Khokand, their operations on that side culminating in the capture of Tashkent in 1865. Free in this quarter, they directed their thoughts once more to Khiva. In 1869 Krasnovodsk on the east shore of the Caspian was founded, and in 1871–1872 the country leading to Khiva from different parts of Russian Turkestan was thoroughly explored and surveyed. In 1873 an expedition to Khiva was carefully organized on a large scale. The army of 10,000 men placed at the disposal of General Kaufmann started from three different bases of operation—Krasnovodsk, Orenburg and Tashkent. Khiva was occupied almost without opposition. All the territory (35,700 sq. m. and 110,000 souls) on the right bank of the Oxus was annexed to Russia, while a heavy war indemnity was imposed upon the khanate. The Russians thereby so crippled the finances of the state that the khan is in complete subjection to his more powerful neighbour.

(J. T. Be.; C. El.)

KHIVA, capital of the khanate of Khiva, in Western Asia, 25 m. W. of the Amu-darya and 240 m. W.N.W. of Bokhara. Pop. about 10,000. It is surrounded by a low earthen wall, and has a citadel, the residence of the khan and the higher officials. There are a score of mosques, of which the one containing the tomb of Polvan, the patron saint of Khiva, is the best, and four large *madrasas* (Mahommedan colleges). Large gardens exist in the western part of the town. A small Russian quarter has grown up. The inhabitants make carpets, silks and cottons.

KHNOPFF, FERNAND EDMOND JEAN MARIE (1858–), Belgian painter and etcher, was born at the château de Grembergen (Termonde), on the 12th of September 1858, and studied under X. Mellery. He developed a very original talent, his work being characterized by great delicacy of colour, tone and harmony, as subtle in spiritual and intellectual as in its material qualities. "A Crisis" (1881) was followed by "Listening to Schumann," "St Anthony" and "The Queen of Sheba" (1883), and then came one of his best known works, "The Small Sphinx" (1884). His "Memories" (1889) and "White, Black and Gold" (1901) are in the Brussels Museum; "Portrait of Mlle R." (1889) in the Venice Museum; "A Stream at Fosset" (1897) at Budapest Museum; "The Empress" (1899) in the collection of the emperor of Austria, and "A Musician" in that of the king of the Belgians. "I lock my Door upon Myself" (1891), which was exhibited at the New Gallery, London, in 1902 and there attracted much attention, was acquired by the Pinakothek at Munich. Other works are "Silence" (1890), "The Idea of Justice" (1905) and "Isolde" (1906), together with a polychrome bust "Sibyl" (1894) and an ivory mask (1897). In quiet intensity of feeling Khnopff was influenced by Rossetti, and in simplicity of line by Burne-Jones, but the poetry and the delicately mystic and enigmatic note of his work are entirely individual. He did good work also as an etcher and drypointist.

See L. Dumont-Wilden, *Fernand Khnopff* (Brussels, 1907).

KHOI, a district and town in the province of Azerbaijan, Persia, towards the extreme north-west frontier, between the Urmia Lake and the river Aras. The district contains many flourishing villages, and consists of an elevated plateau 60 m. by 10 to 15, highly cultivated by a skilful system of drainage and irrigation, producing fertile meadows, gardens and fields yielding rich crops of wheat and barley, cotton, rice and many kinds of fruit. In the northern part and bounding on Maku lies the plain of Chaldaran (Kalderan), where in August 1514 the Turks under Sultan Selim I. fought the Persians under Shah Ismail and gained a great victory.

The town of Khoi lies in 38° 37′ N., 45° 15′ E., 77 m. (90 by road) N.W. of Tabriz, at an elevation of 3300 ft., on the great trade route between Trebizond and Tabriz, and about 2 m. from the left bank of the Kotur Chai (river from Kotur) which is crossed there by a seven-arched bridge and is known lower down as the Kizil Chai, which flows into the Aras. The walled part of the town is a quadrilateral with faces of about 1200 yds. in length and fortifications consisting of two lines of bastions, ditches, &c., much out of repair. The population numbers about 35,000, a third living inside the walls. The Armenian quarter, with about 500 families and an old church, is outside the walls. The city within the walls forms one of the best laid out towns in

Persia, cool streams and lines of willows running along the broad and regular streets. There are some good buildings, including the governor's residence, several mosques, a large brick bazaar and a fine caravanserai. There is a large transit trade, and considerable local traffic across the Turkish border. The city surrendered to the Russians in 1827 without fighting and after the treaty of peace (Turkman Chai, Feb. 1828) was held for some time by a garrison of 3000 Russian troops as a guarantee for the payment of the war indemnity. In September 1881 Khoi suffered much from a violent earthquake. It has post and telegraph offices.

KHOJENT, or KHOJEND, a town of the province of Syr-darya, in Russian Turkestan, on the left bank of the Syr-darya or Jaxartes, 144 m. by rail S.S.E. from Tashkent, in 40° 17′ N. and 69° 30′ E., and on the direct road from Bokhara to Khokand. Pop. (1900), 31,881. The Russian quarter lies between the river and the native town. Near the river is the old citadel, on the top of an artificial square mound, about 100 ft. high. The banks of the river are so high as to make its water useless to the town in the absence of pumping gear. Formerly the entire commerce between the khanates of Bokhara and Khokand passed through this town, but since the Russian occupation (1866) much of it has been diverted. Silkworms are reared, and silk and cotton goods are manufactured. A coarse ware is made in imitation of Chinese porcelain. The district immediately around the town is taken up with cotton plantations, fruit gardens and vineyards. The majority of the inhabitants are Tajiks.

Khojent has always been a bone of contention between Khokand and Bokhara. When the amir of Bokhara assisted Khudayar Khan to regain his throne in 1864, he kept possession of Khojent. In 1866 the town was stormed by the Russians; and during their war with Khokand in 1875 it played an important part.

KHOKAND, or KOKAN, a town of Asiatic Russia, in the province of Ferghana, on the railway from Samarkand to Andijan, 85 m. by rail S.W. of the latter, and 20 m. S. of the Syr-darya. Pop. (1900), 86,704. Situated at an altitude of 1375 ft., it has a severe climate, the average temperatures being—year, 56°; January, 22°; July, 65°. Yearly rainfall, 3·6 in. It is the centre of a fertile irrigated oasis, and consists of a citadel, enclosed by a wall nearly 12 m. in circuit, and of suburbs containing luxuriant gardens. The town is modernized, has broad streets and large squares, and a particularly handsome bazaar. The former palace of the khans, which recalls by its architecture the mosques of Samarkand, is the best building in the town. Khokand is one of the most important centres of trade in Turkestan. Raw cotton and silk are the principal exports, while manufactured goods are imported from Russia. Coins bearing the inscription "Khokand the Charming," and known as *khokands*, have or had a wide currency.

The khanate of Khokand was a powerful state which grew up in the 18th century. Its early history is not well known, but the town was founded in 1732 by Abd-ur-Rahim under the name of Iski-kurgan, or Kali-i-Rahimbai. This must relate, however, to the fort only, because Arab travellers of the 10th century mention Hovakend or Hokand, the position of which has been identified with that of Khokand. Many other populous and wealthy towns existed in this region at the time of the Arab conquest of Ferghana. In 1758–1759 the Chinese conquered Dzungaria and East Turkestan, and the begs or rulers of Ferghana recognized Chinese suzerainty. In 1807 or 1808 Alim, son of Narbuta, brought all the begs of Ferghana under his authority, and conquered Tashkent and Chimkent. His attacks on the Bokharan fortress of Ura-tyube were however unsuccessful, and the country rose against him. He was killed in 1817 by the adherents of his brother Omar. Omar was a poet and patron of learning, but continued to enlarge his kingdom, taking the sacred town of Azret (Turkestan), and to protect Ferghana from the raids of the nomad Kirghiz built fortresses on the Syr-darya, which became a basis for raids of the Khokand people into Kirghiz land. This was the origin of a conflict with Russia. Several petty wars were undertaken by the Russians after 1847 to destroy the Khokand forts, and to secure possession, first, of the Ili (and so of Dzungaria), and next of the Syr-darya region, the result being that in 1866, after the occupation of Ura-tyube and Jizakh, the khanate of Khokand was separated from Bokhara. During the forty-five years after the death of Omar (he died in 1822) the khanate of Khokand was the seat of continuous wars between the settled Sarts and the nomad Kipchaks, the two parties securing the upper hand in turns, Khokand falling under the dominion or the suzerainty of Bokhara, which supported Khudayar-khan, the representative of the Kipchak party, in 1858–1866; while Alim-kul, the representative of the Sarts, put himself at the head of the *gazawat* (Holy War) proclaimed in 1860, and fought bravely against the Russians until killed at Tashkent in 1865. In 1868 Khudayar-khan, having secured independence from Bokhara, concluded a commercial treaty with the Russians, but was compelled to flee in 1875, when a new Holy War against Russia was proclaimed. It ended in the capture of the strong fort of Makhram, the occupation of Khokand and Marghelan (1875), and the recognition of Russian superiority by the amir of Bokhara, who conceded to Russia all the territory north of the Naryn river. War, however, was renewed in the following year. It ended, in February 1876, by the capture of Andijan and Khokand and the annexation of the Khokand khanate to Russia. Out of it was made the Russian province of Ferghana.

AUTHORITIES.—The following publications are all in Russian: Kuhn, *Sketch of the Khanate of Khokand* (1876); V. Nalivkin, *Short History of Khokand* (French trans., Paris, 1889); Niazi Mohammed, *Tarihi Shahrohi*, or *History of the Rulers of Ferghana*, edited by Pantusov (Kazañ, 1885); Makshéev, *Historical Sketch of Turkestan and the Advance of the Russians* (St Petersburg, 1890); N. Petrovskiy, *Old Arabian Journals of Travel* (Tashkent, 1894); *Russian Encyclopaedic Dictionary*, vol. xv. (1895). (P. A. K.; J. T. Be.)

KHOLM (Polish *Chelm*), a town of Russian Poland, in the government of Lublin, 45 m. by rail E.S.E. of the town of Lublin. Pop. (1897), 19,236. It is a very old city and the see of a bishop, and has an archaeological museum for church antiquities.

KHONDS, or KANDHS, an aboriginal tribe of India, inhabiting the tributary states of Orissa and the Ganjam district of Madras. At the census of 1901 they numbered 701,198. Their main divisions are into Kutia or hill Khonds and plain-dwelling Khonds; the landowners are known as Raj Khonds. Their religion is animistic, and their pantheon includes eighty-four gods. They have given their name to the Khondmals, a subdivision of Angul district in Orissa: area, 800 sq. m.; pop. (1901), 64,214. The Khond language, Kui, spoken in 1901 by more than half a million persons, is much more closely related to Telugu than is Gondi. The Khonds are a finer type than the Gonds. They are as tall as the average Hindu and not much darker, while in features they are very Aryan. They are undoubtedly a mixed Dravidian race, with much Aryan blood.

The Khonds became notorious, on the British occupation of their district about 1835, from the prevalence and cruelty of the human sacrifices they practised. These "Meriah" sacrifices, as they were called, were intended to further the fertilization of the earth. It was incumbent on the Khonds to purchase their victims. Unless bought with a price they were not deemed acceptable. They seldom sacrificed Khonds, though in hard times Khonds were obliged to sell their children and they could then be purchased as Meriahs. Persons of any race, age or sex, were acceptable if purchased. Numbers were bought and kept and well treated; and Meriah women were encouraged to become mothers. Ten or twelve days before the sacrifice the victim's hair was cut off, and the villagers having bathed, went with the priest to the sacred grove to forewarn the goddess. The festival lasted three days, and the wildest orgies were indulged in.

See Major Macpherson, *Religious Doctrines of the Khonds*; his account of their religion in *Jour. R. Asiatic Soc.* xiii. 220–221 and his *Report upon the Khonds of Ganjam and Cuttack* (Calcutta, 1842); also *District Gazetteer of Angul* (Calcutta, 1908).

KHORASAN, or KHORASSAN (*i.e.* "land of the sun"), a geographical term originally applied to the eastern of the four

quarters (named from the cardinal points) into which the ancient monarchy of the Sassanians was divided. After the Arab conquest the name was retained both as the designation of a definite province and in a looser sense. Under the new Persian empire the expression has gradually become restricted to the north-eastern portion of Persia which forms one of the five great provinces of that country. The province is conterminous E. with Afghanistan, N. with Russian Transcaspian territory, W. with Astarabad and Shahrud-Bostam, and S. with Kerman and Yezd. It lies mainly within 29° 45′–38° 15′ N. and 56°–61° E., extending about 320 m. east and west and 570 m. north and south, with a total area of about 150,000 sq. m. The surface is mountainous. The ranges generally run in parallel ridges, inclosing extensive valleys, with a normal direction from N.W. to S.E. The whole of the north is occupied by an extensive highland system composed of a part of the Elburz and its continuation extending to the Paropamisus. This system, sometimes spoken of collectively as the Kuren Dagh, or Kopet Dagh from its chief sections, forms in the east three ranges, the Hazar Masjed, Binalud Kuh and Jagatai, enclosing the Meshed-Kuchan valley and the Jovain plain. The former is watered by the Kashaf-rud (Tortoise River), or river of Meshed, flowing east to the Hari-rud, their junction forming the Tejen, which sweeps round the Daman-i-Kuh, or northern skirt of the outer range, towards the Caspian but loses itself in the desert long before reaching it. The Jovain plain is watered by the Kali-i-mura, an unimportant river which flows south to the Great Kavir or central depression. In the west the northern highlands develop two branches: (1) the Kuren Dagh, stretching through the Great and Little Balkans to the Caspian at Krasnovodsk Bay, (2) the Ala Dagh, forming a continuation of the Binalud Kuh and joining the mountains between Bujnurd and Astarabad, which form part of the Elburz system. The Kuren Dagh and Ala Dagh enclose the valley of the Atrek River, which flows west and south-west into the Caspian at Hassan Kuli Bay. The western offshoots of the Ala Dagh in the north and the mountains of Astarabad in the south enclose the valley of the Gurgan River, which also flows westwards and parallel to the Atrek to the south-eastern corner of the Caspian. The outer range has probably a mean altitude of 8000 ft., the highest known summits being the Hazar Masjed (10,500) and the Kara Dagh (9800). The central range seems to be higher, culminating with the Shah-Jehan Kuh (11,000) and the Ala Dagh (11,500). The southern ridges, although generally much lower, have the highest point of the whole system in the Shah Kuh (13,000) between Shahrud and Astarabad. South of this northern highland several parallel ridges run diagonally across the province in a N.W.–S.E. direction as far as Seistan.

Beyond the Atrek and other rivers watering the northern valleys a few brackish and intermittent rivers lose themselves in the Great Kavir, which occupies the central and western parts of the province. The true character of the kavir, which forms the distinctive feature of east Persia, has scarcely been determined, some regarding it as the bed of a dried-up sea, others as developed by the saline streams draining to it from the surrounding highlands. Collecting in the central depressions, which have a mean elevation of scarcely more than 500 ft. above the Caspian, the water of these streams is supposed to form saline deposits with a thin hard crust, beneath which the moisture is retained for a considerable time, thus producing those dangerous and slimy quagmires which in winter are covered with brine, in summer with a treacherous incrustation of salt. Dr Sven Hedin explored the central depressions in 1906.

The surface of Khorasan thus consists mainly of highlands, saline, swampy deserts and upland valleys, some fertile and well-watered. Of the last, occurring mainly in the north, the chief are the longitudinal valley stretching from near the Herat frontier through Meshed, Kuchan and Shirvan to Bujnurd, the Derrehgez district, which lies on the northern skirt of the outer range projecting into the Akhal Tekkeh domain, now Russian territory, and the districts of Nishapur and Sabzevar which lie south of the Binalud and Jagatai ranges. These fertile tracts produce rice and other cereals, cotton, tobacco, opium and fruits in profusion. Other products are manna, suffron, asafoetida and other gums. The chief manufactures are swords, stoneware, carpets and rugs, woollens, cottons, silks and sheepskin pelisses (*pustin*, Afghan *poshtin*).

The administrative divisions of the province are: 1, Nishapur; 2, Sabzevar; 3, Jovain; 4, Asfarain; 5, Bujnurd; 6, Kuchan; 7, Derrehgez; 8, Kelat; 9, Chinaran; 10, Meshed; 11, Jam; 12, Bakharz; 13, Radkan; 14, Serrakhs; 15, Sar-i-jam; 16, Bam and Safiabad; 17, Turbet i Haidari; 18, Turshiz; 19, Khaf; 20, Tun and Tabbas; 21, Kain; 22, Seistan.

The population consists of Iranians (Tajiks, Kurds, Baluchis), Mongols, Tatars and Arabs, and is estimated at about a million. The Persians proper have always represented the settled, industrial and trading elements, and to them the Kurds and the Arabs have become largely assimilated. Even many of the original Tatar, Mongol and other nomad tribes (*ilat*), instead of leading their former roving and unsettled life of the *sahara-nishin* (dwellers in the desert), are settled and peaceful *shahr-nishin* (dwellers in towns). In religion all except some Tatars and Mongols and the Baluchis have conformed to the national Shiah faith. The revenues (cash and kind) of the province amount to about £180,000 a year, but very little of this amount reaches the Teheran treasury. The value of the exports and imports from and into the whole province is a little under a million sterling a year. The province produces about 10,000 tons of wool and a third of this quantity, or rather more, valued at £70,000 to £80,000, is exported via Russia to the markets of western Europe, notably to Marseilles, Russia keeping only a small part. Other important articles of export, all to Russia, are cotton, carpets, shawls and turquoises, the last from the mines near Nishapur. (A. H.-S.)

KHORREMABAD, a town of Persia, capital of the province of Luristan, in 33° 32′ N., 48° 15′ E., and at an elevation of 4250 ft. Pop. about 6000. It is situated 138 m. W.N.W. of Isfahan and 117 m. S.E. of Kermanshah, on the right bank of the broad but shallow Khorremabad river, also called Ab-i-istaneh, and, lower down, Kashgan Rud. On an isolated rock between the town and the river stands a ruined castle, the Diz-i-siyah (black castle), the residence of the governor of the district (then called Samha) in the middle ages, and, with some modern additions, one of them consisting of rooms on the summit, called Felek ul aflak (heaven of heavens), the residence of the governors of Luristan in the beginning of the 19th century. At the foot of the castle stands the modern residence of the governor, built *c.* 1830, with several spacious courts and gardens. On the left bank of the river opposite the town are the ruins of the old city of Samha. There are a minaret 60 ft. high, parts of a mosque, an aqueduct, a number of walls of other buildings and a four-sided monolith, measuring 9½ ft. in height, by 3 ft. long and 2½ broad, with an inscription partly illegible, commemorating Mahmud, a grandson of the Seljuk king Malik Shah, and dated A.H. 517, or 519 (A.D. 1148–1150). There also remain ten arches of a bridge which led over the river from Samha on to the road to Shapurkhast, a city situated some distance west.

KHORSABAD, a Turkish village in the vilayet of Mosul, 12½ m. N.E. of that town, and almost 20 m. N. of ancient Nineveh, on the left bank of the little river Kosar. Here, in 1843, P. E. Botta, then French consul at Mosul, discovered the remains of an Assyrian palace and town, at which excavations were conducted by him and Flandin in 1843–1844, and again by Victor Place in 1851–1855. The ruins proved to be those of the town of Dur-Sharrukin, "Sargon's Castle," built by Sargon, king of Assyria, as a royal residence. The town, in the shape of a rectangular parallelogram, with the corners pointing approximately toward the cardinal points of the compass, covered 741 acres of ground. On the north-west side, half within and half without the circuit of the walls, protruding into the plain like a great bastion, stood the royal palace, on a terrace, 45 ft. in height, covering about 25 acres. The palace proper was divided into three sections, built around three sides of a large court on the south-east or city side, into which opened the great outer gates, guarded by winged stone bulls, each section containing suites of rooms built around several smaller inner courts. In the centre was the *serai*, occupied by the king and his retinue, with an extension towards the north, opening on a large inner court, containing the public reception rooms, elaborately decorated with

sculptures and historical inscriptions, representing scenes of hunting, worship, feasts, battles, and the like. The harem, with separate provisions for four wives, occupied the south corner, the domestic quarters, including stables, kitchen, bakery, wine cellar, &c., being at the east corner, to the north-east of the great entrance court. In the west corner stood a temple, with a stage-tower (*ziggurat*) adjoining. The walls of the rooms, which stood only to the height of one storey, were from 9 to 25 ft. in thickness, of clay, faced with brick, in the reception rooms wainscoted with stone slabs or tiles, elsewhere plastered, or, in the harem, adorned with fresco paintings and arabesques. Here and there the floors were formed of tiles or alabaster blocks, but in general they were of stamped clay, on which were spread at the time of occupancy mats and rugs. The exterior of the palace wall exhibited a system of groups of half columns and stepped recesses, an ornament familiar in Babylonian architecture. The palace and city were completed in 707 B.C., and in 706 Sargon took up his residence there. He died the following year, and palace and city seem to have been abandoned shortly thereafter. Up to 1909 this was the only Assyrian palace which had ever been explored systematically, in its entirety, and fortunately it was found on the whole in an admirable state of preservation. An immense number of statues and bas-reliefs, excavated by Botta, were transported to Paris, and formed the first Assyrian museum opened to the world. The objects excavated by Place, together with the objects found by Fresnel's expedition in Babylonia and a part of the results of Rawlinson's excavations at Nineveh, were unfortunately lost in the Tigris, on transport from Bagdad to Basra. Flandin had, however, made careful drawings and copies of all objects of importance from Khorsabad. The whole material was published by the French government in two monumental publications.

See P. E. Botta and E. Flandin, *Monument de Ninive* (Paris, 1849-1850; 5 vols. 400 plates); Victor Place, *Ninive et l'Assyrie, avec des essais de restauration par F. Thomas* (Paris, 1866–1869; 3 vols.). (J. P. Pe.)

KHOTAN (locally Ilchi), a town and oasis of East Turkestan, on the Khotan-darya, between the N. foot of the Kuenlun and the edge of the Takla-makan desert, nearly 200 m. by caravan road S.E. from Yarkand. Pop., about 5000. The town consists of a labyrinth of narrow, winding, dirty streets, with poor, square, flat-roofed houses, half a dozen *madrasas* (Mahommedan colleges), a score of mosques, and some *masars* (tombs of Mahommedan saints). Dotted about the town are open squares, with tanks or ponds overhung by trees. For centuries Khotan was famous for jade or nephrite, a semi-precious stone greatly esteemed by the Chinese for making small fancy boxes, bottles and cups, mouthpieces for pipes, bracelets, &c. The stone is still exported to China. Other local products are carpets (silk and felt), silk goods, hides, grapes, rice and other cereals, fruits, tobacco, opium and cotton. There is an active trade in these goods and in wool with India, West Turkestan and China. The oasis contains two small towns, Kara-kash and Yurun-kash, and over 300 villages, its total population being about 150,000.

Khotan, known in Sanskrit as Kustana and in Chinese as Yu-than, Yu-tien, Kiu-sa-tan-na, and Khio-tan, is mentioned in Chinese chronicles in the 2nd century B.C. In A.D. 73 it was conquered by the Chinese, and ever since has been generally dependent upon the Chinese empire. During the early centuries of the Christian era, and long before that, it was an important and flourishing place, the capital of a kingdom to which the Chinese sent embassies, and famous for its glass-wares, copper tankards and textiles. About the year A.D. 400 it was a city of some magnificence, and the seat of a flourishing cult of Buddha, with temples rich in paintings and ornaments of the precious metals; but from the 5th century it seems to have declined. In the 8th century it was conquered, after a struggle of 25 years, by the Arab chieftain Kotaiba ibn Moslim, from West Turkestan, who imposed Islam upon the people. In 1220 Khotan was destroyed by the Mongols under Jenghiz Khan. Marco Polo, who passed through the town in 1274, says that "Everything is to be had there [at Cotan, *i.e.* Khotan] in plenty, including abundance of cotton, with flax, hemp, wheat, wine, and the like. The people have vineyards and gardens and estates. They live by commerce and manufactures, and are no soldiers."[1] The place suffered severely during the Dungan revolt against China in 1864–1875, and again a few years later when Yakub Beg of Kashgar made himself master of East Turkestan.

The Khotan-darya rises in the Kuen-lun Mountains in two headstreams, the Kara-kash and the Yurun-kash, which unite towards the middle of the desert, some 90 m. N. of the town of Khotan. The conjoint stream then flows 180 m. northwards across the desert of Takla-makan, though it carries water only in the early summer, and empties itself into the Tarim a few miles below the confluence of the Ak-su with the Yarkand-darya (Tarim). In crossing the desert it falls 1250 ft. in a distance of 270 m. Its total length is about 300 m. and the area it drains probably nearly 40,000 sq. m.

See J. P. A. Rémusat, *Histoire de la ville de Khotan* (Paris, 1820); and Sven Hedin, *Through Asia* (Eng. trans., London, 1898), chs. lx. and lxii., and *Scientific Results of a Journey in Central Asia*, 1899-1902, vol. ii. (Stockholm, 1906). (J. T. Be.)

KHOTIN, or Khoteen (variously written Khochim, Choczim, and Chocim), a fortified town of South Russia, in the government of Bessarabia, in 48° 30′ N. and 26° 30′ E., on the right bank of the Dniester, near the Austrian (Galician) frontier, and opposite Podolian Kamenets. Pop. (1897), 18,126. It possesses a few manufactures (leather, candles, beer, shoes, bricks), and carries on a considerable trade, but has always been of importance mainly as a military post, defending one of the most frequented passages of the Dniester. In the middle ages it was the seat of a Genoese colony; and it has been in Polish, Turkish and Austrian possession. The chief events in its annals are the defeat of the Turks in 1621 by Ladislaus IV., of Poland, in 1673 by John Sobieski, of Poland, and in 1739 by the Russians under Münnich; the defeat of the Russians by the Turks in 1768; the capture by the Russians in 1769, and by the Austrians in 1788; and the occupation by the Russians in 1806. It finally passed to Russia with Bessarabia in 1812 by the peace of Bucharest.

KHULNA, a town and district of British India, in the Presidency division of Bengal. The town stands on the river Bhairab, and is the terminus of the Bengal Central railway, 109 m. E. of Calcutta. Pop. (1901), 10,426. It is the most important centre of river-borne trade in the delta.

The District of Khulna lies in the middle of the delta of the Ganges, including a portion of the Sundarbans or seaward fringe of swamps. It was formed out of Jessore in 1882. Area (excluding the Sundarbans), 2077 sq. m. Besides the Sundarbans, the north-east part of the district is swampy; the north-west is more elevated and drier, while the central part, though low-lying, is cultivated. The whole is alluvial. In 1901 the population was 1,253,043, showing an increase of 6% in the decade. Rice is the principal crop; mustard, jute and tobacco are also grown, and the fisheries are important. Sugar is manufactured from the date palm. The district is entered by the Bengal Central railway, but by far the greater part of the traffic is carried by water.

See *District Gazetteer* (Calcutta, 1908).

KHUNSAR, a town of Persia, sometimes belonging to the province of Isfahan, at others to Irak, 96 m. N.W. of Isfahan, in 33° 9′ N., 50° 23′ E., at an elevation of 7600 ft. Pop., about 10,000. It is picturesquely situated on both sides of a narrow valley through which the Khunsar River, a stream about 12 ft. wide, flows in a north-east direction to Kuom. The town and its fine gardens and orchards straggle some 6 m. along the valley with a mean breadth of scarcely half a mile. There is a great profusion of fruit, the apples yielding a kind of cider which, however, does not keep longer than a month. The climate is cool in summer and cold in winter. There are five caravanserais, three mosques and a post office.

KHURJA, a town of British India, in the Bulandshahr district of the United Provinces, 27 m. N.W. of Aligarh, near the main

[1] Sir H. Yule, *The Book of Ser Marco Polo*, bk. i. ch. xxxvi. (3rd ed., London, 1903).

line of the East Indian railway. Pop. (1901), 29,277. It is an important centre of trade in grain, indigo, sugar and *ghi*, and has cotton gins and presses and a manufacture of pottery. Jain traders form a large and wealthy class; and the principal building in the town is a modern Jain temple, a fine domed structure richly carved and ornamented in gold and colours.

KHYBER PASS, the most important of the passes which lead from Afghanistan into India. It is a narrow defile winding between cliffs of shale and limestone 600 to 1000 ft. high, stretching up to more lofty mountains behind. No other pass in the world has possessed such strategic importance or retains so many historic associations as this gateway to the plains of India. It has probably seen Persian and Greek, Seljuk, Tatar, Mongol and Durani conquerors, with the hosts of Alexander the Great, Mahmud of Ghazni, Jenghiz Khan, Timur, Baber, Nadir Shah, Ahmed Shah, and numerous other warrior chiefs pass and repass through its rocky defiles during a period of 2000 years. The mountain barrier which separates the Peshawar plains from the Afghan highlands differs in many respects from the mountain barrier which intervenes between the Indus plains and the plateau farther south. To the south this barrier consists of a series of flexures folded parallel to the river, through which the plateau drainage breaks down in transverse lines forming gorges and clefts as it cuts through successive ridges. West of Peshawar the strike of the mountain systems is roughly from west to east, and this formation is maintained with more or less regularity as far south as the Tochi River and Waziristan. Almost immediately west of Peshawar, and stretching along the same parallel of latitude from the meridian of Kabul to within ten miles of the Peshawar cantonment, is the great central range of the Safed Koh, which forms throughout its long, straight line of rugged peaks the southern wall, or water-divide, of the Kabul River basin. About the meridian of 71 E. it forks, sending off to the north-east what is locally known as a spur to the Kabul River, but which is geographically only part of that stupendous water-divide which hedges in the Kunar and Chitral valleys, and, under the name of the Shandur Range, unites with the Hindu Kush near the head of the Taghdumbash Pamir. The Kabul River breaks through this northern spur of the Safed Koh; and in breaking through it is forced to the northward in a curved channel or trough, deeply sunk in the mountains between terrific cliffs and precipices, where its narrow waterway affords no foothold to man or beast for many miles. To reach the Kabul River within Afghan territory it is necessary to pass over this water-divide; and the Khyber stream, flowing down from the pass at Landi Kotal to a point in the plains opposite Jamrud, 9 m. W. of Peshawar, affords the opportunity.

Pursuing the main road from Peshawar to Kabul, the fort of Jamrud, which commands the British end of the Khyber Pass, lies some 11 m. W. of Peshawar. The road leads through a barren stony plain, cut up by water-courses and infested by all the worst cut-throats in the Peshawar district. Some three miles beyond Jamrud the road enters the mountains at an opening called Shadi Bagiar, and here the Khyber proper begins. The highway runs for a short distance through the bed of a ravine, and then joins the road made by Colonel Mackeson in 1839–1842, until it ascends on the left-hand side to a plateau called Shagai. From here can be seen the fort of Ali Masjid, which commands the centre of the pass, and which has been the scene of more than one famous siege. Still going westward the road turns to the right, and by an easy zigzag descends to the river of Ali Masjid, and runs along its bank. The new road along this cliff was made by the British during the Second Afghan War (1879–80), and here is the narrowest part of the Khyber, not more than 15 ft. broad, with the Rhotas hill on the right fully 2000 ft. overhead. Some three miles farther on the valley widens, and on either side lie the hamlets and some sixty towers of the Zakka Khel Afridis. Then comes the Loargi Shinwari plateau, some seven miles in length and three in its widest part, ending at Landi Kotal, where is another British fort, which closes this end of the Khyber and overlooks the plains of Afghanistan. After leaving Landi Kotal the great Kabul highway passes between low hills, until it debouches on the Kabul River and leads to Dakka. The whole of the Khyber Pass from end to end lies within the country of the Afridis, and is now recognized as under British control. From Shadi Bagiar on the east to Landi Kotal on the west is about 20 m. in a straight line.

The Khyber has been adopted by the British as the main road to Kabul, but its difficulties (before they were overcome by British engineers) were such that it was never so regarded by former rulers of India. The old road to India left the Kabul River near its junction with the Kunar, and crossed the great divide between the Kunar valley and Bajour; then it turned southwards to the plains. During the first Afghan War the Khyber was the scene of many skirmishes with the Afridis and some disasters to the British troops. In July 1839 Colonel Wade captured the fortress of Ali Masjid. In 1842, when Jalalabad was blockaded, Colonel Moseley was sent to occupy the same fort, but was compelled to evacuate it after a few days owing to scarcity of provisions. In April of the same year it was reoccupied by General Pollock in his advance to Kabul. It was at Ali Masjid that Sir Neville Chamberlain's friendly mission to the amir Shere Ali was stopped in 1878, thus causing the second Afghan War; and on the outbreak of that war Ali Masjid was captured by Sir Samuel Browne. The treaty which closed the war in May 1879 left the Khyber tribes under British control. From that time the pass was protected by jezailchis drawn from the Afridi tribe, who were paid a subsidy by the British government. For 18 years, from 1879 onward, Colonel R. Warburton controlled the Khyber, and for the greater part of that time secured its safety; but his term of office came to an end synchronously with the wave of fanaticism which swept along the north-west border of India during 1897. The Afridis were persuaded by their mullahs to attack the pass, which they themselves had guaranteed. The British government were warned of the intended movement, but only withdrew the British officers belonging to the Khyber Rifles, and left the pass to its fate. The Khyber Rifles, deserted by their officers, made a half-hearted resistance to their fellow-tribesmen, and the pass fell into the hands of the Afridis, and remained in their possession for some months. This was the chief cause of the Tirah Expedition of 1897. The Khyber Rifles were afterwards strengthened, and divided into two battalions commanded by four British officers.

See *Eighteen Years in the Khyber*, by Sir Robert Warburton (1900); *Indian Borderland*, by Sir T. Holdich (1901). (T. H. H.*)

KIAKHTA, a town of Siberia, one of the chief centres of trade between Russia and China, on the Kiakhta, an affluent of the Selenga, and on an elevated plain surrounded by mountains, in the Russian government of Transbaikalia, 320 m. S.W. of Chita, the capital, and close to the Chinese frontier, in 50° 20′ N., 106° 40′ E. Besides the lower town or Kiakhta proper, the municipal jurisdiction comprises the fortified upper town of Troitskosavsk, about 2 m. N., and the settlement of Ust-Kiakhta, 10 m. farther distant. The lower town stands directly opposite to the Chinese emporium of Maimachin, is surrounded by walls, and consists principally of one broad street and a large exchange courtyard. From 1689 to 1727 the trade of Kiakhta was a government monopoly, but in the latter year it was thrown open to private merchants, and continued to improve until 1860, when the right of commercial intercourse was extended along the whole Russian-Chinese frontier. The annual December fairs for which Kiakhta was formerly famous, and also the regular traffic passing through the town, have considerably fallen off since that date. The Russians exchange here leather, sheepskins, furs, horns, woollen cloths, coarse linens and cattle for teas (in value 95% of the entire imports), porcelain, rhubarb, manufactured silks, nankeens and other Chinese produce. The population, including Ust-Kiakhta (5000) and Troitskosavsk (9213 in 1897), is nearly 20,000.

KIANG-SI, an eastern province of China, bounded N. by Hu-peh and Ngan-hui, S. by Kwang-tung, E. by Fu-kien, and

W. by Hu-nan. It has an area of 72,176 sq. m., and a population returned at 22,000,000. It is divided into fourteen prefectures. The provincial capital is Nan-ch'ang Fu, on the Kan Kiang, about 35 m. from the Po-yang Lake. The whole province is traversed in a south-westerly and north-easterly direction by the Nan-shan ranges. The largest river is the Kan Kiang, which rises in the mountains in the south of the province and flows north-east to the Po-yang Lake. It was over the Meiling Pass and down this river that, in old days, embassies landing at Canton proceeded to Peking. During the summer time it has water of sufficient depth for steamers of light draft as far as Nan-ch'ang, and it is navigable by native craft for a considerable distance beyond that city. Another river of note is the Chang Kiang, which has its source in the province of Ngan-hui and flows into the Po-yang Lake, connecting in its course the Wu-yuen district, whence come the celebrated "Moyune" green teas, and the city of King-te-chên, celebrated for its pottery, with Jao-chow Fu on the lake. The black "Kaisow" teas are brought from the Ho-kow district, where they are grown, down the river Kin to Juy-hung on the lake, and the Siu-ho connects by a navigable stream I-ning Chow, in the neighbourhood of which city the best black teas of this part of China are produced, with Wu-ching, the principal mart of trade on the lake. The principal products of the province are tea, China ware, grass-cloth, hemp, paper, tobacco and tallow. Kiu-kiang, the treaty port of the province, opened to foreign trade in 1861, is on the Yangtsze-kiang, a short distance above the junction of the Po-yang Lake with that river.

KIANG-SU, a maritime province of China, bounded N. by Shan-tung, S. by Cheh-kiang, W. by Ngan-hui, and E. by the sea. It has an area of 45,000 sq. m., and a population estimated at 21,000,000. Kiang-su forms part of the great plain of northern China. There are no mountains within its limits, and few hills. It is watered as no other province in China is watered. The Grand Canal runs through it from south to north; the Yangtsze-kiang crosses its southern portion from west to east; it possesses several lakes, of which the T'ai-hu is the most noteworthy, and numberless streams connect the canal with the sea. Its coast is studded with low islands and sandbanks, the results of the deposits brought down by the Hwang-ho. Kiang-su is rich in places of interest. Nanking, "the Southern Capital," was the seat of the Chinese court until the beginning of the 15th century, and it was the headquarters of the T'ai-p'ing rebels from 1853, when they took the city by assault, to 1864, when its garrison yielded to Colonel Gordon's army. Hang-chow Fu and Su-chow Fu, situated on the T'ai-hu, are reckoned the most beautiful cities in China. "Above there is Paradise, below are Su and Hang," says a Chinese proverb. Shang-hai is the chief port in the province. In 1909 it was connected by railway (270 m. long) via Su-Chow and Chin-kiang with Nanking. Tea and silk are the principal articles of commerce produced in Kiang-su, and next in importance are cotton, sugar and medicines. The silk manufactured in the looms of Su-chow is famous all over the empire. In the mountains near Nanking, coal, plumbago, iron ore and marble are found. Shang-hai, Chin-kiang, Nanking and Su-chow are the treaty ports of the province.

KIAOCHOW BAY, a large inlet on the south side of the promontory of Shantung, in China. It was seized in November 1897 by the German fleet, nominally to secure reparation for the murder of two German missionaries in the province of Shantung. In the negotiations which followed, it was arranged that the bay and the land on both sides of the entrance within certain defined lines should be leased to Germany for 99 years. During the continuance of the lease Germany exercises all the rights of territorial sovereignty, including the right to erect fortifications. The area leased is about 117 sq. m., and over a further area, comprising a zone of some 32 m., measured from any point on the shore of the bay, the Chinese government may not issue any ordinances without the consent of Germany. The native population in the ceded area is about 60,000. The German government in 1899 declared Kiaochow a free port. By arrangement with the Chinese government a branch of the Imperial maritime customs has been established there for the collection of duties upon goods coming from or going to the interior, in accordance with the general treaty tariff. Trade centres at Ts'ingtao, a town within the bay. The country in the neighbourhood is mountainous and bare, but the lowlands are well cultivated. Ts'ingtao is connected by railway with Chinan Fu, the capital of the province; a continuation of the same line provides for a junction with the main Lu-Han (Peking-Hankow) railway. The value of the trade of the port during 1904 was £2,712,145 (£1,808,113 imports and £904,032 exports).

KICKAPOO ("he moves about"), the name of a tribe of North American Indians of Algonquian stock. When first met by the French they were in central Wisconsin. They subsequently removed to the Ohio valley. They fought on the English side in the War of Independence and that of 1812. In 1852 a large band went to Texas and Mexico and gave much trouble to the settlers; but in 1873 the bulk of the tribe was settled on its present reservation in Oklahoma. They number some 800, of whom about a third are still in Mexico.

KIDD, JOHN (1775–1851), English physician, chemist and geologist, born at Westminster on the 10th of September 1775, was the son of a naval officer, Captain John Kidd. He was educated at Bury St Edmunds and Westminster, and afterwards at Christ Church, Oxford, where he graduated B.A. in 1797 (M.D. in 1804). He also studied at Guy's Hospital, London (1797–1801), where he was a pupil of Sir Astley Cooper. He became reader in chemistry at Oxford in 1801, and in 1803 was elected the first Aldrichian professor of chemistry. He then voluntarily gave courses of lectures on mineralogy and geology: these were delivered in the dark chambers under the Ashmolean Museum, and there J. J. and W. D. Conybeare, W. Buckland, C. G. B. Daubeny and others gained their first lessons in geology. Kidd was a popular and instructive lecturer, and through his efforts the geological chair, first held by Buckland, was established. In 1818 he became a F.R.C.P.; in 1822 regius professor of medicine in succession to Sir Christopher Pegge; and in 1834 he was appointed keeper of the Radcliffe Library. He delivered the Harveian oration before the Royal College of Physicians in 1834. He died at Oxford on the 7th of September 1851.

PUBLICATIONS.—*Outlines of Mineralogy* (2 vols., 1809); *A Geological Essay on the Imperfect Evidence in Support of a Theory of the Earth* (1815); *On the Adaptation of External Nature to the Physical Condition of Man*, 1833 (Bridgewater Treatise).

KIDD, THOMAS (1770–1850), English classical scholar and schoolmaster, was born in Yorkshire. He was educated at Giggleswick School and Trinity College, Cambridge. He held numerous scholastic and clerical appointments, the last being the rectory of Croxton, near Cambridge, where he died on the 27th of August 1850. Kidd was an intimate friend of Porson and Charles Burney the younger. He contributed largely to periodicals, chiefly on classical subjects, but his reputation mainly rests upon his editions of the works of other scholars: *Opuscula Ruhnkeniana* (1807), the minor works of the great Dutch scholar David Ruhnken; *Miscellanea Critica* of Richard Dawes (2nd ed., 1827); *Tracts and Miscellaneous Criticisms* of Richard Porson (1815). He also published an edition of the works of Horace (1817) based upon Bentley's recension.

KIDD, WILLIAM [CAPTAIN KIDD] (*c.* 1645–1701), privateer and pirate, was born, perhaps, in Greenock, Scotland, but his origin is quite obscure. He told Paul Lorraine, the ordinary of Newgate, that he was "about 56" at the time of his condemnation for piracy in 1701. In 1691 an award from the council of New York of £150 was given him for his services during the disturbances in the colony after the revolution of 1688. He was commissioned later to chase a hostile privateer off the coast, is described as an owner of ships, and is known to have served with credit against the French in the West Indies. In 1695 he came to London with a sloop of his own to trade. Colonel R. Livingston (1654–1724), a well-known New York landowner, recommended him to the newly appointed colonial governor Lord Bellomont, as a fit man to command a vessel to cruise against the pirates in the Eastern seas (see PIRATE).

Accordingly the "Adventure Galley," a vessel of 30 guns and 275 tons, was privately fitted out, and the command given to Captain Kidd, who received the king's commission to arrest and bring to trial all pirates, and a commission of reprisals against the French. Kidd sailed from Plymouth in May 1696 for New York, where he filled up his crew, and in 1697 reached Madagascar, the pirates' principal rendezvous. He made no effort whatever to hunt them down. On the contrary he associated himself with a notorious pirate named Culliford. The fact would seem to be that Kidd meant only to capture French ships. When he found none he captured native trading vessels, under pretence that they were provided with French passes and were fair prize, and he plundered on the coast of Malabar. During 1698–1699 complaints reached the British government as to the character of his proceedings. Lord Bellomont was instructed to apprehend him if he should return to America. Kidd deserted the "Adventure" in Madagascar, and sailed for America in one of his prizes, the "Quedah Merchant," which he also left in the West Indies. He reached New England in a small sloop with several of his crew and wrote to Bellomont, professing his ability to justify himself and sending the governor booty. He was arrested in July 1699, was sent to England and tried, first for the murder of one of his crew, and then with others for piracy. He was found guilty on both charges, and hanged at Execution Dock, London, on the 23rd of May 1701. The evidence against him was that of two members of his crew, the surgeon and a sailor who turned king's evidence, but no other witnesses could be got in such circumstances, as the judge told him when he protested. "Captain Kidd's Treasure" has been sought by various expeditions and about £14,000 was recovered from Kidd's ship and from Gardiner's Island (off the E. end of Long Island); but its magnitude was palpably exaggerated. He left a wife and child at New York. The so-called ballad about him is a poor imitation of the authentic chant of Admiral Benbow.

Much has been written about Kidd, less because of the intrinsic interest of his career than because the agreement made with him by Bellomont was the subject of violent political controversy. The best popular account is in *An Historical Sketch of Robin Hood and Captain Kidd* by W. W. Campbell (New York, 1853), in which the essential documents are quoted. But see PIRATE.

KIDDERMINSTER, a market town and municipal and parliamentary borough of Worcestershire, England, 135½ m. N.W. by W. from London and 15 m. N. of Worcester by the Great Western railway, on the river Stour and the Staffordshire and Worcestershire canal. Pop. (1901), 24,692. The parish church of All Saints, well placed above the river, is a fine Early English and Decorated building, with Perpendicular additions. Of other buildings the principal are the town hall (1876), the corporation buildings, and the school of science and art and free library. There is a free grammar school founded in 1637. A public recreation ground, Brinton Park, was opened in 1887. Richard Baxter, who was elected by the townsfolk as their minister in 1641, was instrumental in saving the town from a reputation of ignorance and depravity caused by the laxity of their clergy. He is commemorated by a statue, as is Sir Rowland Hill, the introducer of penny postage, who was born here in 1795. Kidderminster is chiefly celebrated for its carpets. The permanency of colour by which they are distinguished is attributed to the properties of the water of the Stour, which is impregnated with iron and fuller's earth. Worsted spinning and dyeing are also carried on, and there are iron foundries, tinplate works, breweries, malthouses, &c. The parliamentary borough returns one member. The town is governed by a mayor, 6 aldermen and 18 councillors. Area, 1214 acres.

In 736 lands upon the river Stour, called Stour in Usmere, which have been identified with the site of Kidderminster (*Chideminstre*), were given to Earl Cyneberght by King Æthelbald to found a monastery. If this monastery was ever built, it was afterwards annexed to the church of Worcester, and the lands on the Stour formed part of the gift of Coenwulf, king of the Mercians, to Deneberht, bishop of Worcester, but were exchanged with the same king in 816 for other property. At the Domesday Survey, Kidderminster was still in the hands of the king and remained a royal manor until Henry II. granted it to Manser Biset. The poet Edmund Waller was one of the 17th century lords of the manor. The town was possibly a borough in 1187 when the men paid £4 to an aid. As a royal possession it appears to have enjoyed various privileges in the 12th century, among them the right of choosing a bailiff to collect the toll and render it to the king, and to elect six burgesses and send them to the view of frankpledge twice a year. The first charter of incorporation, granted in 1636, appointed a bailiff and 12 capital burgesses forming a common council. The town was governed under this charter until the Municipal Reform Act of 1835. Kidderminster sent two members to the parliament of 1295, but was not again represented until the privilege of sending one member was conferred by the Reform Act of 1832. The first mention of the cloth trade for which Kidderminster was formerly noted occurs in 1334, when it was enacted that no one should make woollen cloth in the borough without the bailiff's seal. At the end of the 18th century the trade was still important, but it began to decline after the invention of machinery, probably owing to the poverty of the manufacturers. The manufacture of woollen goods was however replaced by that of carpets, introduced in 1735. At first only the "Kidderminster" carpets were made, but in 1749 a Brussels loom was set up in the town and Brussels carpets were soon produced in large quantities.

See *Victoria County History: Worcestershire*; J. R. Burton, *A History of Kidderminster, with Short Accounts of some Neighbouring Parishes* (1890).

KIDNAPPING (from *kid*, a slang term for a child, and *nap* or *nab*, to steal), originally the stealing and carrying away of children and others to serve as servants or labourers in the American plantations; it was defined by Blackstone as the forcible abduction or stealing away of a man, woman or child from their own country and sending them into another. The difference between kidnapping, abduction (*q.v.*) and false imprisonment is not very great; indeed, kidnapping may be said to be a form of assault and false imprisonment, aggravated by the carrying of the person to some other place. The term is, however, more commonly applied in England to the offence of taking away children from the possession of their parents. By the Offences against the Person Act 1861, "whosoever shall unlawfully, by force or fraud, lead or take away or decoy or entice away or detain any child under the age of fourteen years with intent to deprive any parent, guardian or other person having the lawful care or charge of such child of the possession of such child, or with intent to steal any article upon or about the person of such child, to whomsoever such article may belong, and whosoever shall with any such intent receive or harbour any such child, &c.," shall be guilty of felony, and is liable to penal servitude for not more than seven years, or to imprisonment for any term not more than two years with or without hard labour. The abduction or unlawfully taking away an unmarried girl under sixteen out of the possession and against the will of her father or mother, or any other person having the lawful care or charge of her, is a misdemeanour under the same act. The term is used in much the same sense in the United States.

The kidnapping or forcible taking away of persons to serve at sea is treated under IMPRESSMENT.

KIDNEY DISEASES.[1] (For the anatomy of the kidneys, see URINARY SYSTEM.) The results of morbid processes in the kidney may be grouped under three heads: the actual lesions produced, the effects of these on the composition of the urine,

[1] The word "kidney" first appears in the early part of the 14th century in the form *kidenei*, with plural *kideneiren*, *kideneris*, *kidneers*, &c. It has been assumed that the second part of the word is "neer" or "near" (cf. Ger. *Niere*), the common dialect word for "kidney" in northern, north midland and eastern counties of England (see J. Wright, *English Dialect Dictionary*, 1903, *s.v.* Near), and that the first part represents the O.E. *cwiδ*, belly, womb; this the *New English Dictionary* considers improbable; there is only one doubtful instance of singular *kidnere* and the ordinary form ended in *-ei* or *ey*. Possibly this represents M.E. *ey*, plur. *eyren*, egg, the name being given from the resemblance in shape. The first part is uncertain.

and the effects of the kidney-lesion on the body at large. Affections of the kidney are congenital or acquired. When acquired they may be the result of a pathological process limited to the kidney, in which case they are spoken of as primary, or an accompaniment of disease in other parts of the body, when they may be spoken of as secondary.

Congenital Affections.—The principal congenital affections are anomalies in the number or position of the kidneys or of their ducts; atrophy; cystic disease and growths. The most common abnormality is the existence of a *single kidney*; rarely a supernumerary kidney may be present. The presence of a single kidney may be due to failure of development, or to atrophy in foetal life; it may also be dependent on the fusion of originally separate kidneys in such a way as to lead to the formation of a *horse-shoe kidney*, the two organs being connected at their lower ends. In some cases of horse-shoe kidney the organs are united merely by fibrous tissue. Occasionally the two kidneys are fused end to end, with two ureters. A third variety is that where the fusion is more complete, producing a disk-like mass with two ureters. The kidneys may be situated in *abnormal positions*; thus they may be in front of the sacro-iliac articulation, in the pelvis, or in the iliac fossa. The importance of such displacements lies in the fact that the organs may be mistaken for tumours. In some cases *atrophy* is associated with mal-development, so that only the medullary portion of the kidney is developed; in others it is associated with arterial obstruction, and sometimes it may be dependent upon obstruction of the ureter. In *congenital cystic disease* the organ is transformed into a mass of cysts, and the enlargement of the kidneys may be so great as to produce difficulties in birth. The cystic degeneration is caused by obstruction of the uriniferous tubules or by anomalies in development, with persistence of portions of the Wolffian body. In some cases cystic degeneration is accompanied by anomalies in the ureters and in the arterial supply. *Growths of the kidney* are sometimes found in infants; they are usually malignant, and may consist of a peculiar form of sarcoma, which has been spoken of as rhabdo-sarcoma, owing to the presence in the mass of involuntary muscular fibres. The existence of these tumours is dependent on anomalies of development; the tissue which forms the primitive kidney belongs to the same layer as that which gives rise to the muscular system (mesoblast). *Anomalies of the excretory ducts*: in some cases the ureter is double, in others it is greatly dilated; in others the pelvis of the kidney may be greatly dilated, with or without dilatation of the ureter.

Acquired Affections. Movable Kidney.—One or both of the kidneys in the adult may be preternaturally mobile. This condition is more common in women, and is usually the result of a severe shaking or other form of injury, or of the abdominal walls becoming lax as a sequel to abdominal distension, to emaciation or pregnancy, or to the effects of tight-lacing. The more extreme forms of movable kidney are dependent, generally, on anomalies in the arrangement of the peritoneum, so that the organ has a partial mesentery; and to this condition, where the kidney can be moved freely from one part of the abdomen to another, the term *floating kidney* is applied. But more usually the organ is loose under the peritoneum, and not efficiently supported in its fatty bed. Movable kidney produces a variety of symptoms, such as pain in the loin and back, faintness, nausea and vomiting—and the function of the organ may be seriously interfered with, owing to the ureter becoming kinked. In this way hydronephrosis, or distension of the kidney with urine, may be produced. The return of blood through the renal vein may also be hindered, and temporary vascular engorgement of the kidney, with haematuria, may be produced.

In some cases the movable kidney may be satisfactorily kept in its place by a pad and belt, but in other cases an operation has to be undertaken. This consists in exposing the kidney (generally the right) through an incision below the last rib, and fixing it in its proper position by several permanent sutures of silk or silkworm gut. The operation is neither difficult nor dangerous, and its results are excellent.

Embolism.—The arrangement of the blood-vessels of the kidney is peculiarly favourable to the production of wedge-shaped areas of necrosis, the result of a blocking by clots. Sometimes the clot is detached from the interior of the heart, the effect being an arrest of the circulation in the part of the kidney supplied by the blocked artery. In other cases, the plug is infective owing to the presence of septic micro-organisms, and this is likely to lead to the formation of small pyaemic abscesses. It is exceptional for the large branches of the renal artery to be blocked, so that the symptoms produced in the ordinary cases are only the temporary appearance of blood or albumen in the urine. Blocking of the main renal vessels as a result of disease of the walls of the vessels may lead to disorganization of the kidneys. Blocking of the veins, leading to extreme congestion of the kidney, also occurs. It is seen in cases of extreme weakness and wasting, sometimes in septic conditions, as in puerperal pyaemia, where a clot, formed first in one of the pelvic veins, may spread up the vena cava and secondarily block the renal veins. Thrombosis of the renal vein also occurs in malignant disease of the kidney and in certain forms of chronic Bright's disease.

Passive congestion of the kidneys occurs in heart-diseases and lung-diseases, where the return of venous blood is interfered with. It may also be produced by tumours pressing on the vena cava. The engorged kidneys become brownish red, enlarged and fibroid, and they secrete a scanty, high-coloured urine.

Active congestion is produced by the excretion in the urine of such materials as turpentine and cantharides and the toxins of various diseases. These irritants produce engorgement and inflammation of the kidney, much as they would that of any other structures with which they come in contact. Renal disturbance is often the result of the excretion of microbic poisons. Extreme congestion of the kidneys may be produced by exposure to cold, owing to some intimate relationship existing between the cutaneous and the renal vessels, the constriction of the one being accompanied by the dilatation of the other. Infective diseases, such as typhoid fever, pneumonia, scarlet fever, in fact, most acute specific diseases, produce during their height a temporary nephritis, not usually followed by permanent alteration in the kidney; but some acute diseases cause a nephritis which may lay the foundation of permanent renal disease. This is most common as a result of scarlet fever.

Bright's disease is the term applied to certain varieties of acute and chronic inflammation of the kidney. Three forms are usually recognized—acute, chronic and the granular or cirrhotic kidney. In the more common form of granular kidney the renal lesion is only part of a widespread affection involving the whole arterial system, and is not actually related to Bright's disease. *Chronic Bright's disease* is sometimes the sequel to acute Bright's disease, but in a great number of cases the malady is chronic from the beginning. The lesions of the kidney are probably produced by irritation of the kidney-structures owing to the excretion of toxic substances either ingested or formed in the body; it is thought by some that the malady may arise as a result of exposure to cold. The principal causes of Bright's disease are alcoholism, gout, pregnancy and the action of such poisons as lead; it may also occur as a sequel to acute diseases, such as scarlet fever. Persons following certain occupations are peculiarly liable to Bright's disease, *e.g.* engineers who work in hot shops and pass out into the cold air scantily clothed; and painters, in whom the malady is dependent on the action of lead on the kidney. In the case of alcohol and lead the poison is ingested; in the case of scarlet fever, pneumonia, and perhaps pregnancy, the toxic agent causing the renal affection is formed in the body. In Bright's disease all the elements of the kidney, the glomeruli, the tubular epithelium, and the interstitial tissue, are affected. When the disease follows scarlet fever, the glomerular structures are mostly affected, the capsules being thickened by fibrous tissue, and the glomerular tuft compressed and atrophied. The epithelium of the convoluted tubules undergoes degeneration; considerable quantities of it are shed, and form the well-known *casts* in the urine. The tubules become blocked by the epithelium, and distended with the pent-up urine; this is one cause of the increase in size that the kidneys undergo in certain forms of Bright's disease. The lesions in the tubules and in the glomeruli are not generally uniform. The interstitial tissue is always affected, and exudation, proliferation and formation of fibrous tissue occur. In the granular and contracted kidney the lesion in the interstitial tissue reaches a high degree of development, little renal secreting tissue being left. Such tubules as remain are dilated, and the epithelium lining them is altered, the cells becoming hyaline and losing their structure. The vessels are narrowed owing to thickening of the subendothelial layer, and the muscular coat undergoes hypertrophic and fibroid changes, so that the vessels are abnormally rigid. When the overgrowth of fibrous tissue is considerable, the surface of the organ becomes uneven, and it is for this reason that the term *granular kidney* has been applied to the condition. In acute Bright's disease the kidney is increased in size and engorged with blood, the changes described above being in active progress. In the chronic form the kidney may be large or small, and is usually white or mottled. If large, the cortex is thickened, pale and waxy, and the pyramids are congested; if small, the fibrous change has advanced and the cortex is diminished. Bright's disease, both acute and chronic, is essentially a disease of the cortical secreting portion of the kidney. The true granular kidney, classified by some as a third variety, is usually part of a general arterial degeneration, the overgrowth of fibrous tissue in the kidney and the lesions in the arteries being well marked.

The principal degenerations affecting the kidney are the fatty and the albuminoid. *Fatty degeneration* often reaches a high degree in alcoholics, where fatty degeneration of the heart and liver are also present. *Albuminoid disease* is frequently associated with some varieties of Bright's disease, and is also seen as a result of chronic bone disease, or of long-continued suppuration involving other parts of the body, or of syphilis. It is due to irritation of the kidneys by toxic products.

Growths of the Kidney.—The principal growths are tubercle, adenoma, sarcoma and carcinoma. In addition, fatty and fibrous growths, the nodules of glanders and the gummata of syphilis, may be mentioned. Tuberculous disease is sometimes primary; more frequently it is secondary to tubercle in other portions of the genito-urinary apparatus. The genito-urinary tract may be infected by

tubercle in two ways; *ascending*, in which the primary lesion is in the testicle, epididymis, or urinary bladder, the lesion travelling up by the ureter or the lymphatics to the kidney; *descending*, where the tubercle bacillus reaches the kidney through the blood-vessels. In the latter case, miliary tubercles, as scattered granules, are seen, especially in the cortex of the kidney; the lesion is likely to be bilateral. In primary tuberculosis, and in ascending tuberculosis, the lesion is at first unilateral. *Malignant disease* of the kidney takes the form of sarcoma or carcinoma. Sometimes it is dependent on the malignant growths starting in what are spoken of as " adrenal rests " in the cortex of the kidney. Sarcoma is most often seen in the young; carcinoma in the middle-aged and elderly. Carcinoma may be primary or secondary, but the kidney is not so prone to malignant disease as other organs, such as the stomach, bowel or liver.

Cystic Kidneys.—Cysts may be single—sometimes of large size. Scattered small cysts are met with in chronic Bright's disease and in granular contracted kidney, where the dilatation of tubules reaches a high degree. Certain growths, such as adenomata, are liable to cystic degeneration, and cysts are also found in malignant disease. Finally, there is a rare condition of general cystic disease somewhat similar to the congenital affection. In this form the kidneys, greatly enlarged, consist of a congeries of cysts separated by the remains of renal tissue.

Parasitic Affections.—The more common parasites affecting the kidney, or some other portion of the urinary tract, and causing disease, are filaria, bilharzia and the cysticercus form of the *taenia echinococcus* (hydatids). The presence of *filaria* in the thoracic duct and other lymph-channels may determine the presence of chyle in the urine, together with the ova and young forms of the filaria, owing to the distension and rupture of a lymphatic vessel into some portion of the urinary tract. This is the common cause of chyluria in hot climates, but chyluria is occasionally seen in the United Kingdom without filaria. *Bilharzia*, especially in Egypt and South Africa, causes haematuria. The cysticercus form of the *taenia echinococcus* leads to the production of hydatid cysts in the kidney; this organ, however, is not so often affected as the liver.

Stone in the Kidney.—Calculi are frequently found in the kidney, consisting usually of uric acid, sometimes of oxalates, more rarely of phosphates. Calculous disease of the bladder (*q.v.*) is generally the sequel to the formation of a stone in the kidney, which, passing down, becomes coated by the salts in the urine. Calculi are usually formed in the pelvis of the kidney, and their formation is dependent either on the excessive amounts of uric acid, oxalic acid, &c., in the urine, or on an alteration in the composition of the urine, such as increased acidity, or on uric acid or oxalate of lime being present in an abnormal amount. The formation of abnormal crystals is often due to the presence of some colloid, such as blood, mucus or albumen, in the secretion, modifying the crystalline form. Once a minute calculus has been formed, its subsequent growth is highly probable, owing to the deposition on it of the urinary constituent forming it. Calculi formed in the pelvis of the kidney may be single and may reach a very large size, forming, indeed, an actual cast of the interior of the expanded kidney. At other times they are multiple and of varying size. They may give rise to no symptoms, or on the other hand may cause distressing renal colic, especially when they are small and loose and are passed or are trying to be passed. Serious complications may result from the presence of a stone in the kidney, such as hydronephrosis, from the urinary secretion being pent up behind the obstruction, or complete suppression, which is apparently produced reflexly through the nervous system. In such cases the surgical removal of the stone is often followed by the restoration of the renal secretion.

The symptoms of *renal calculus* may be very slight, or they may be entirely absent if the stone is moulding itself into the interior of the kidney; but if the stone is movable, heavy and rough, it may cause great distress, especially during exercise. There will probably be blood in the urine; and there will be pain in the loin and thigh and down into the testicle. The testicle also may be drawn up by its suspensory muscle, and there may be irritability of the bladder. With stone in one kidney the pains may be actually referred to the kidney of the other side. Generally, but not always, there is tenderness in the loin. If the stone is composed of lime it may throw a shadow on the Röntgen plate, but other stones may give no shadow.

Renal colic is the acute pain felt when a small stone is travelling down the ureter to the bladder. The pain is at times so acute that fomentations, morphia and hot baths fail to ease it, and nothing short of chloroform gives relief.

For the *operative treatment of renal calculus* an incision is made a little below the last rib, and, the muscles having been traversed, the kidney is reached on the surface which is not covered by peritoneum. Most likely the stone is then felt, so it is cut down upon and removed. If it is not discoverable on gently pinching the kidney between the finger and thumb, the kidney had better be opened in its convex border and explored by the finger. Often it has happened that when a man has presented most of the symptoms of renal calculus and has been operated on with a negative result as regards finding a stone, all the symptoms have nevertheless disappeared as the direct result of the blank operation.

Pyelitis.—Inflammation of the pelvis of the kidney is generally produced by the extension of gonorrhoeal or other septic inflammation upwards from the bladder and lower urinary tract, or by the presence of stone or of tubercle in the pelvis of the kidney. Pyonephrosis, or distension of the kidney with pus, may result as a sequel to pyelitis or as a complication of hydronephrosis; in many cases the inflammation spreads to the capsule of the kidney, and leads to the formation of an abscess outside the kidney—a *perinephritic abscess*. In some cases a perinephritic abscess results from a septic plug in a blood-vessel of the kidney, or it may occur as the result of an injury to the loose cellular tissue surrounding the kidney, without lesion of the kidney.

Hydronephrosis, or distension of the kidney with pent-up urine, results from obstruction of the ureter, although all obstructions of the ureter are not followed by it, calculous obstruction, as already noted, often causing complete suppression of urine. Obstruction of the ureter, causing hydronephrosis, is likely to be due to the impaction of a stone, or to pressure on the ureter from a tumour in the pelvis—as, for instance, a cancer of the uterus—or to some abnormality of the ureter. Sometimes a kink of the ureter of a movable kidney causes hydronephrosis. The hydronephrosis produced by obstruction of the ureter may be intermittent; and when a certain degree of distension is produced, either as a result of the shifting of the calculus or of some other cause, the obstruction is temporarily relieved in a great outflow of urine, and the urinary discharge is re-established. When the hydronephrosis has long existed the kidney is converted into a sac, the remains of the renal tissues being spread out as a thin layer.

Effects on the Urine.—Diseases of the kidney produce alterations in the composition of the urine; either the proportion of the normal constituents being altered, or substances not normally present being excreted. In most diseases the quantity of urinary water is diminished, especially in those in which the activity of the circulation is impaired. There are diseases, however, more especially the granular kidney and certain forms of chronic Bright's disease, in which the quantity of urinary water is considerably increased, notwithstanding the profound anatomical changes that have occurred in the kidney. There are two forms of suppression of the urine: one is *obstructive suppression*, seen where the ureter is blocked by stone or other morbid process; the other is *non-obstructive suppression*, which is apt to occur in advanced diseases of the kidney. In other cases complete suppression may occur as the result of injuries to distant parts of the body, as after severe surgical operations. In some diseases in which the quantity of urinary water excreted is normal, or even greater than normal, the efficiency of the renal activity is really diminished, inasmuch as the urine contains few solids. In estimating the efficiency of the kidneys, it is necessary to take into consideration the so-called " solid urine," that is to say, the quantity of solid matter daily excreted, as shown by the specific gravity of the urine. The nitrogenous constituents—urea, uric acid, creatinin, &c.—vary greatly in amount in different diseases. In most renal diseases the quantities of these substances are diminished because of the physiological impairment of the kidney. The chief abnormal constituents of the urine are serum-albumen, serum-globulin, albumoses (albuminuria), blood (haematuria), blood pigment (haemoglobinuria), pus (pyuria), chyle (chyluria) and pigments such as melanuria and urobilinuria.

Effects on the Body at large.—These may be divided into the persistent and the intermittent or transitory. The most important persistent effects produced by disease of the kidney are, first, nutritional changes leading to general ill health, wasting and cachexia; and, secondly, certain cardio-vascular phenomena, such as enlargement (hypertrophy) of the heart, and thickening of the inner, and degeneration of the middle, coat of the smaller arteries. Amongst the intermittent or transitory effects are dropsy, secondary inflammations of certain organs and serous cavities, and uraemia. Some of these effects are seen in every form of severe kidney disease, and uraemia may occur in any advanced kidney disease. Renal dropsy is chiefly seen in certain forms of Bright's disease, and the cardiac and arterial changes are commonest in cases of granular or contracted kidney, but may be absent in other diseases which destroy the kidney tissue, such as hydronephrosis. *Uraemia* is a toxic condition, and three varieties of it are recognized—the acute, the chronic and the latent. Many of these effects are dependent upon the action of poisons retained in the body owing to the deficient action of the kidneys. It is also probable that abnormal substances having a toxic action are produced as a result of a perverted metabolism. Uraemia is of toxic origin, and it is probable that the dropsy of renal disease is due to effects produced in the capillaries by the presence of abnormal substances in the blood. High arterial tension, cardiac hypertrophy and arterial degeneration may also be of toxic origin, or they may be produced by an attempt of the body to maintain an active circulation through the greatly diminished amount of kidney tissue available.

Rupture of the kidney may result from a kick or other direct injury. Vomiting and collapse are likely to ensue, and most likely blood will appear in the urine, or a tumour composed of blood and urine may form in the renal region. An incision made into the swelling from the loin may enable the surgeon to see the torn kidney. An attempt should be made to save the kidney by suturing and draining; unless

the damage is obviously past repair, the kidney should not be removed without giving nature a chance. (J. R. B.; E. O.*)

KIDWELLY (*Cydweli*), a decayed market-town and municipal borough of Carmarthenshire, Wales, situated (as its name implies) near the junction of two streams, the Gwendraeth Fawr and the Gwendraeth Fach, a short distance from the shores of Carmarthen Bay. Pop. (1901), 2285. It has a station on the Great Western railway. The chief attraction of Kidwelly is its magnificent and well-preserved castle, one of the finest in South Wales, dating chiefly from the 13th century and admirably situated on a knoll above the Gwendraeth Fach. The parish church of St Mary, of the 14th century, possesses a lofty tower with a spire. The quiet little town has had a stirring history. It was a place of some importance when William de Londres, a companion of Fitz Hamon and his conquering knights, first erected a castle here. In 1135 Kidwelly was furiously attacked by Gwenllian, wife of Griffith ap Rhys, prince of South Wales, and a battle, fought close to the town at a place still known as Maes Gwenllian, ended in the total defeat and subsequent execution of the Welsh princess. Later, the extensive lordship of Kidwelly became the property through marriage of Henry, earl of Lancaster, and to this circumstance is due the exclusive jurisdiction of the town. Kidwelly received its first charter of incorporation from Henry VI.; its present charter dating from 1618. The decline of Kidwelly is due to the accumulation of sand at the mouth of the river, and to the consequent prosperity of the neighbouring Llanelly.

KIEF, KEF or KEIF (a colloquial form of the Arabic *kaif*, pleasure or enjoyment), the state of drowsy contentment produced by the use of narcotics. To "do kef," or to "make kef," is to pass the time in such a state. The word is used in northern Africa, especially in Morocco, for the drug used for the purpose.

KIEL, the chief naval port of Germany on the Baltic, a town of the Prussian province of Schleswig-Holstein. Pop. (1900), 107,938; (1905), 163,710, including the incorporated suburbs. It is beautifully situated at the southern end on the Kieler Busen (bay or harbour of Kiel), 70 m. by rail N. from Hamburg. It consists of a somewhat cramped old town, lying between the harbour and a sheet of water called Kleiner Kiel, and a better built and more spacious new town, which has been increased by the incorporation of the garden suburbs of Brunswick and Düsternbrook. In the old town stands the palace, built in the 13th century, enlarged in the 18th and restored after a fire in 1838. It was once the seat of the dukes of Holstein-Gottorp, who resided here from 1721 to 1773, and became the residence of Prince Henry of Prussia. Other buildings are the church of St Nicholas (restored in 1877–1884), dating from 1240, with a lofty steeple; the old town-hall on the market square; the church of the Holy Ghost; three fine modern churches, those of St James, and St Jürgen and of St Ansgar; and the theatre. Further to the north and facing the bay is the university, founded in 1665 by Christian Albert, duke of Schleswig, and named after him "Christian Albertina." The new buildings were erected in 1876, and connected with them are a library of 240,000 volumes, a zoological museum, a hospital, a botanical garden and a school of forestry. The university, which is celebrated as a medical school, is attended by nearly 1000 students, and has a teaching staff of over 100 professors and docents. Among other scientific and educational institutions are the Schleswig-Holstein museum of national antiquities in the old university buildings, the Thaulow museum (rich in Schleswig-Holstein wood-carving of the 16th and 17th centuries), the naval academy, the naval school and the school for engineers.

The pride of Kiel is its magnificent harbour, which has a comparatively uniform depth of water, averaging 40 ft., and close to the shores 20 ft. Its length is 11 m. and its breadth varies from ¼ m. at the southern end to 4½ m. at the mouth. Its defences, which include two forts on the west and four on the east side, all situated about 5 m. from the head of the harbour at the place (Friedrichsort) where its shores approach one another, make it a place of great strategic stength. The imperial docks (five in all) and ship-building yards are on the east side facing the town, between Gaarden and Ellerbeck, and comprise basins capable of containing the largest war-ships afloat. The imperial yard employs 7000 hands, and another 7000 are employed in two large private ship-building works, the Germania (Krupp's) and Howalds'. The Kaiser Wilhelm Canal, commonly called the Kiel Canal, connecting the Baltic with the North Sea at Brunsbüttel, has its eastern entrance at Wik, 1½ m. N. of Kiel (see GERMANY: *Waterways*). The town and adjacent villages, *e.g.* Wik, Heikendorf and Laboe, are resorted to for sea-bathing, and in June of each year a regatta, attended by yachts from all countries, is held. The *Kieler Woche* is one of the principal social events in Germany, and corresponds to the "Cowes week" in England. Kiel is connected by day and night services with Korsör in Denmark by express passenger boats. The harbour yields sprats which are in great repute. The principal industries are those connected with the imperial navy and ship-building, but embrace also flour-mills, oil-works, iron-foundries, printing-works, saw-mills, breweries, brick-works, soap-making and fish-curing. There is an important trade in coal, timber, cereals, fish, butter and cheese.

The name of Kiel appears as early as the 10th century in the form Kyl (probably from the Anglo-Saxon *Kille* = a safe place for ships). Kiel is mentioned as a city in the next century; in 1242 it received the Lübeck rights; in the 14th century it acquired various trading privileges, having in 1284 entered the Hanseatic League. In recent times Kiel has been associated with the peace concluded in January 1814 between Great Britain, Denmark and Sweden, by which Norway was ceded to Sweden. In 1773 Kiel became part of Denmark, and in 1866 it passed with the rest of Schleswig-Holstein to Prussia. Since being made a great naval arsenal, Kiel has rapidly developed in prosperity and population.

See Prahl, *Chronika der Stadt Kiel* (Kiel, 1856); Erichsen, *Topographie des Landkreises Kiel* (Kiel, 1898); H. Eckardt, *Alt-Kiel in Wort und Bild* (Kiel, 1899); P. Hasse, *Das Kieler Stadtbuch, 1264–1289* (Kiel, 1875); *Das älteste Kieler Rentebuch 1300, 1487*, edited by C. Reuter (Kiel, 1893); *Das zweite Kieler Rentebuch 1487, 1586*, edited by W. Stern (Kiel, 1904); and the *Mitteilungen der Gesellschaft für Kieler Stadtgeschichte* (Kiel, 1877, 1904).

KIELCE, a government in the south-west of Russian Poland, surrounded by the governments of Piotrkow and Radom and by Austrian Galicia. Area, 3896 sq. m. Its surface is an elevated plateau 800 to 1000 ft. in altitude, intersected in the north-east by a range of hills reaching 1350 ft. and deeply trenched in the south. It is drained by the Vistula on its south-east border, and by its tributaries, the Nida and the Pilica, which have a very rapid fall and give rise to inundations. Silurian and Devonian quartzites, dolomite, limestones and sandstones prevail in the north, and contain rich iron ores, lead and copper ores. Carboniferous deposits containing rich coal seams occur chiefly in the south, and extend into the government of Piotrkow. Permian limestones and sandstones exist in the south. The Triassic deposits contain very rich zinc ores of considerable thickness and lead. The Jurassic deposits consist of iron-clays and limestones, containing large caves. The Cretaceous deposits yield gypsum, chalk and sulphur. White and black marble are also extracted. The soil is of great variety and fertile in parts, but owing to the proximity of the Carpathians, the climate is more severe than might be expected. Rye, wheat, oats, barley and buckwheat are grown; modern intensive culture is spreading, and land fetches high prices, the more so as the peasants' allotments were small at the outset and are steadily decreasing. Out of a total of 2,193,300 acres suitable for cultivation 53·4 % are actually cultivated. Grain is exported. Gardening is a thriving industry in the south; beet is grown for sugar in the south-east. Industries are considerably developed: zinc ores are extracted, as well as some iron and a little sulphur. Tiles, metallic goods, leather, timber goods and flour are the chief products of the manufactures. Pop. (1897), 765,212, for the most part Poles, with 11% Jews; (1906, estimated), 910,900. By religion 88% of the people are Roman Catholics. Kielce is divided into seven districts, the chief towns of which, with

populations in 1897, are Kielce (*q.v.*), Jedrzejow (Russ. Andreyev, 5010), Miechow (4156), Olkusz (3491), Pinczów (8095), Stopnica (4659) and Wloszczowa (23,065).

KIELCE, a town of Russian Poland, capital of the above government, 152 m. by rail S. of Warsaw, situated in a picturesque hilly country. Pop. (1890), 12,775; (1897), 23,189. It has a castle, built in 1638 and for some time inhabited by Charles XII.; it was renowned for its portrait gallery and the library of Zaluski, which was taken to St Petersburg. The squares and boulevards are lined with handsome modern buildings. The principal factories are hemp-spinning, cotton-printing and cement works. The town was founded in 1173 by a bishop of Cracow. In the 16th century it was famous for its copper mines, but they are no longer worked.

KIEPERT, HEINRICH (1818–1899), German geographer, was born at Berlin on the 31st of July 1818. He was educated at the university there, studying especially history, philology and geography. In 1840–1846, in collaboration with Karl Ritter, he issued his first work, *Atlas von Hellas und den hellenischen Kolonien*, which brought him at once into eminence in the sphere of ancient historical cartography. In 1848 his *Historisch-geographischer Atlas der alten Welt* appeared, and in 1854 the first edition of the *Atlas antiquus*, which has obtained very wide recognition, being issued in English, French, Russian, Dutch and Italian. In 1894 Kiepert produced the first part of a larger atlas of the ancient world under the title *Formae orbis antiqui*; his valuable maps in *Corpus inscriptionum latinarum* must also be mentioned. In 1877–1878 his *Lehrbuch der alten Geographie* was published, and in 1879 *Leitfaden der alten Geographie*, which was translated into English (*A Manual of Ancient Geography*, 1881) and into French. Among Kiepert's general works one of the most important was the excellent *Neuer Handatlas über alle Teile der Erde* (1855 et seq.), and he also compiled a large number of special and educational maps. Asia Minor was an area in which he took particular interest. He visited it four times in 1841–1888; and his first map (1843–1846), together with his *Karte des osmanischen Reiches in Asien* (1844 and 1869), formed the highest authority for the geography of the region. Kiepert was professor of geography in the university of Berlin from 1854. He died at Berlin on the 21st of April 1899. He left unpublished considerable material in various departments of his work, and with the assistance of this his son Richard (b. 1846), who followed his father's career, was enabled to issue a map of Asia Minor in 24 sheets, on a scale of 1: 400,000 (1902 et seq.), and to carry on the issue of *Formae orbis antiqui*.

KIERKEGAARD, SÖREN AABY (1813–1855), Danish philosopher, the seventh child of a Jutland hosier, was born in Copenhagen on the 5th of May 1813. As a boy he was delicate, precocious and morbid in temperament. He studied theology at the university of Copenhagen, where he graduated in 1840 with a treatise *On Irony*. For two years he travelled in Germany, and in 1842 settled finally in Copenhagen, where he died on the 11th of November 1855. He had lived in studious retirement, subject to physical suffering and mental depression. His first volume, *Papers of a Still Living Man* (1838), a characterization of Hans Andersen, was a failure, and he was for some time unnoticed. In 1843 he published *Euten—Eller* (*Either—or*) (4th ed., 1878), the work on which his reputation mainly rests; it is a discussion of the ethical and aesthetic ideas of life. In his last years he carried on a feverish agitation against the theology and practice of the state church, on the ground that religion is for the individual soul, and is to be separated absolutely from the state and the world. In general his philosophy was a reaction against the speculative thinkers—Steffens (*q.v.*), Niels Treschow (1751–1833) and Frederik Christian Sibbern (1785–1872); it was based on the absolute dualism of Faith and Knowledge. His chief follower was Rasmus Nielsen (1809–1884) and he was opposed by Georg Brandes, who wrote a brilliant account of his life and works. As a dialectician he has been described as little inferior to Plato, and his influence on the literature of Denmark is considerable both in style and in matter. To him Ibsen owed his character Brand in the drama of that name.

See his posthumous autobiographical sketch, *Syns punktetfor min Forfattervirksomhed* ("Standpoint of my Literary Work"); Georg Brandes, *Sören Kierkegaard* (Copenhagen, 1877); A. Bärthold, *Noten zu K.'s Lebensgeschichte* (Halle, 1876), *Die Bedeutung der ästhetischen Schriften S. Kierkegaarde* (Halle, 1879) and *S. K.'s Persönlichkeit in ihrer Verwirklichung der Ideale* (Gütersloh, 1886); F. Petersen, *S. K.'s Christendomsforkyndelae* (Christiania, 1877). For Kierkegaard's relation to recent Danish thought, see Höffding's *Archiv für Geschichte der Philosophie* (1888), vol. ii.

KIEV, KIEFF, or KIYEFF, a government of south-western Russia, conterminous with those of Minsk, Poltava, Chernigov, Podolia, Kherson and Volhynia; area 19,686 sq. m. It represents a deeply trenched plateau, 600 to 800 ft. in altitude, reaching 950 to 1050 ft. in the west, assuming a steep character in the middle, and sloping gently northwards to the marshy regions of the Pripet, while on the east it falls abruptly to the valley of the Dnieper, which lies only 250 to 300 ft. above the sea. General A. Tillo has shown that neither geologically nor tectonically can "spurs of the Carpathians" penetrate into Kiev. Many useful minerals are extracted, such as granites, gabbro, labradorites of a rare beauty, syenites and gneiss, marble, grinding stones, pottery clay, phosphorites, iron ore and mineral colours. Towards the southern and central parts the surface is covered by deep rich "black earth." Nearly the whole of the government belongs to the basin of the Dnieper, that river forming part of its eastern boundary. In the south-west are a few small tributaries of the Bug. Besides the Dnieper the only navigable stream is its confluent the Pripet. The climate is more moderate than in middle Russia, the average temperatures at the city of Kiev being—year, 44·5°; January, 21°; July, 68°; yearly rainfall, 22 inches. The lowlands of the north are covered with woods; they have the flora of the Polyesie, or marshy woodlands of Minsk, and are peopled with animals belonging to higher latitudes.[1] The population, which was 2,017,262 in 1863, reached 3,575,457 in 1897, of whom 1,791,503 were women, and 147,878 lived in towns; and in 1904 it reached 4,042,526, of whom 2,030,744 were women. The estimated population in 1906 was 4,206,100. In 1897 there were 2,738,977 Orthodox Greeks, 14,888 Nonconformists, 91,821 Roman Catholics, 423,875 Jews, and 6820 Protestants.

No less than 41% of the land is in large holdings, and 45% belongs to the peasants. Out of an area of 12,600,000 acres, 11,100,000 acres are available for cultivation, 4,758,000 acres are under crops, 650,000 acres under meadows, and 1,880,000 acres under woods. About 290,000 acres are under beetroot, for sugar. The crops principally grown are wheat, rye, oats, millet, barley and buckwheat, with, in smaller quantities, hemp, flax, vegetables, fruit and tobacco. Camels have been used for agricultural work. Bee-keeping and gardening are general. The chief factories are sugar works and distilleries. The former produce 850,000 to 1,150,000 tons of sugar and over 50,000 tons of molasses annually. The factories include machinery works and iron foundries, tanneries, steam flour-mills, petroleum refineries and tobacco factories. Two main railways, starting from Kiev and Cherkasy respectively, cross the government from N.E. to S.W., and two lines traverse its southern part from N.W. to S.E., parallel to the Dnieper. Steamers ply on the Dnieper and some of its tributaries. Wheat, rye, oats, barley and flour are exported. There are two great fairs, at Kiev and Berdichev respectively, and many of minor importance. Trade is very brisk, the river traffic alone being valued at over one million sterling annually. The government is divided into twelve districts. The chief town is Kiev (*q.v.*) and the district towns, with their populations in 1897, Berdichev (53,728), Cherkasy (29,619), Chigirin (9870), Kanev (8892), Lipovets (6068), Radomysl (11,154), Skvira (16,265), Tarashcha (11,452), Umañ (28,628), Vasilkov (17,824) and Zvenigorodka (16,972).

The plains on the Dnieper have been inhabited since probably the Palaeolithic period, and the burial-grounds used since the

[1] Schmahlhausen's *Flora of South-West Russia* (Kiev, 1886) contains a good description of the flora of the province.

Stone Age. The burial mounds (*kurgans*) of both the Scythians and the Slavs, traces of old forts (*gorodishche*), stone statues, and more recent caves offer abundant material for anthropological and ethnographical study.

KIEV, a city of Russia, capital of the above government, on the right or west bank of the Dnieper, in 50° 27′ 12″ N. and 30° 30′ 18″ E., 628 m. by rail S.W. of Moscow and 406 m. by rail N.N.E. of Odessa. The site of the greater part of the town consists of hills or bluffs separated by ravines and hollows, the elevation of the central portions being about 300 ft. above the ordinary level of the Dnieper. On the opposite side of the river the country spreads out low and level like a sea. Having received all its important tributaries, the Dnieper is here a broad (400 to 580 yds.) and navigable stream; but as it approaches the town it divides into two arms and forms a low grassy island of considerable extent called Tukhanov. During the spring floods there is a rise of 16 or even 20 ft., and not only the island but the country along the left bank and the lower grounds on the right bank are laid under water. The bed of the river is sandy and shifting, and it is only by costly engineering works that the main stream has been kept from returning to the more eastern channel, along which it formerly flowed. Opposite the southern part of the town, where the currents have again united, the river is crossed by a suspension bridge, which at the time of its erection (1848–1853) was the largest enterprise of the kind in Europe. It is about half a mile in length and 52½ ft. in breadth, and the four principal spans are each 440 ft. The bridge was designed by Vignoles, and cost about £400,000. Steamers ply in summer to Kremenchug, Ekaterinoslav, Mogilev, Pinsk and Chernigov. Altogether Kiev is one of the most beautiful cities in Russia, and the vicinity too is picturesque.

Until 1837 the town proper consisted of the Old Town, Pechersk and Podoli; but in that year three districts were added, and in 1879 the limits were extended to include Kurenevka, Lukyanovka, Shulyavka and Solomenka. The administrative area of the town is 13,500 acres.

The Old Town, or Old Kiev quarter (Starokievskaya Chast), occupies the highest of the range of hills. Here the houses are most closely built, and stone structures most abundant. In some of the principal streets are buildings of three to five storeys, a comparatively rare thing in Russia, indeed in the main street (Kreshchatik) fine structures have been erected since 1896. In the 11th century the area was enclosed by earthen ramparts, with bastions and gateways; but of these the only surviving remnant is the Golden Gate. In the centre of the Old Town stands the cathedral of St Sophia, the oldest cathedral in the Russian empire. Its external walls are of a pale green and white colour, and it has ten cupolas, four spangled with stars and six surmounted each with a cross. The golden cupola of the four-storeyed campanile is visible for many miles across the steppes. The statement frequently made that the church was a copy of St Sophia's in Constantinople has been shown to be a mistake. The building measures in length 177 ft., while its breadth is 118 ft. But though the plan shows no imitation of the great Byzantine church, the decorations of the interior (mosaics, frescoes, &c.) do indicate direct Byzantine influence. During the occupation of the church by the Uniats or United Greek Church in the 17th century these were covered with whitewash, and were only discovered in 1842, after which the cathedral was internally restored; but the chapel of the Three Pontiffs has been left untouched to show how carefully the old style has been preserved or copied. Among the mosaics is a colossal representation of the Virgin, 15 ft. in height, which, like the so-called "indestructible wall" in which it is inlaid, dates from the time (1019–1054) of Prince Yaroslav. This prince founded the church in 1037 in gratitude for his victory over the Petchenegs, a Turkish race then settled in the Dnieper valley. His sarcophagus, curiously sculptured with palms, fishes, &c., is preserved. The church of St Andrew the Apostle occupies the spot where, according to Russian tradition, that apostle stood when as yet Kiev was not, and declared that the hill would become the site of a great city. The present building, in florid rococo style, dates from 1744–1767. The church of the Tithes, rebuilt in 1828–1842, was founded in the close of the 10th century by Prince Vladimir in honour of two martyrs whom he had put to death; and the monastery of St Michael (or of the Golden Heads—so called from the fifteen gilded cupolas of the original church) claims to have been built in 1108 by Svyatopolk II., and was restored in 1655 by the Cossack chieftain Bogdan Chmielnicki. On a plateau above the river, the favourite promenade of the citizens, stands the Vladimir monument (1853) in bronze. In this quarter, some distance back from the river, is the new and richly decorated Vladimir cathedral (1862–1896), in the Byzantine style, distinguished for the beauty and richness of its paintings.

Until 1820 the south-eastern district of Pechersk was the industrial and commercial quarter; but it has been greatly altered in carrying out fortifications commenced in that year by Tsar Nicholas I. Most of the houses are small and old-fashioned. The monastery—the Kievo-Pecherskaya—is the chief establishment of its kind in Russia; it is visited every year by about 250,000 pilgrims. Of its ten or twelve conventual churches the chief is that of the Assumption. There are four distinct quarters in the monastery, each under a superior, subject to the archimandrite: the Laura proper or New Monastery, that of the Infirmary, and those of the Nearer and the Further Caves. These caves or catacombs are the most striking characteristic of the place; the name Pechersk, indeed, is connected with the Russian *peshchera*, "a cave." The first series of caves, dedicated to St Anthony, contains eighty saints' tombs; the second, dedicated to St Theodosius, a saint greatly venerated in Russia, about forty-five. The bodies were formerly exposed to view; but the pilgrims who now pass through the galleries see nothing but the draperies and the inscriptions. Among the more notable names are those of Nestor the chronicler, and Iliya of Murom, the Old Cossack of the Russian epics. The foundation of the monastery is ascribed to two saints of the 11th century—Anthony and Hilarion, the latter metropolitan of Kiev. By the middle of the 12th century it had become wealthy and beautiful. Completely ruined by the Mongol prince Batu in 1240, it remained deserted for more than two centuries. Prince Simeon Oblkovich was the first to begin the restoration. A conflagration laid the buildings waste in 1716, and their present aspect is largely due to Peter the Great. The cathedral of the Assumption, with seven gilded cupolas, was dedicated in 1089, destroyed by the Mongols in 1240, and restored in 1729; the wall-paintings of the interior are by V. Vereshchagin. The monastery contains a school of picture-makers of ancient origin, whose productions are widely diffused throughout the empire, and a printing press, from which have issued liturgical and religious works, the oldest known examples bearing the date 1616. It possesses a wonder-working ikon or image of the "Death of the Virgin," said to have been brought from Constantinople in 1073, and the second highest bell-tower in Russia.

The Podol quarter lies on the low ground at the foot of the bluffs. It is the industrial and trading quarter of the city, and the seat of the great fair of the "Contracts," the transference of which from Dubno in 1797 largely stimulated the commercial prosperity of Kiev. The present regular arrangement of its streets arose after the great fire of 1811. Lipki district (from the *lipki* or lime trees, destroyed in 1833) is of recent origin, and is mainly inhabited by the well-to-do classes. It is sometimes called the palace quarter, from the royal palace erected between 1868 and 1870, on the site of the older structure dating from the time of Tsaritsa Elizabeth. Gardens and parks abound; the palace garden is exceptionally fine, and in the same neighbourhood are the public gardens with the place of amusement known as the Château des Fleurs.

In the New Buildings, or the Lybed quarter, are the university and the botanical gardens. The Ploskaya Chast (Flat quarter) or Obolon contains the lunatic asylum; the Lukyanovka Chast, the penitentiary and the camp and barracks; and the Bulvarnaya Chast, the military gymnasium of St Vladimir and the

railway station. The educational and scientific institutions of Kiev rank next to those of the two capitals. Its university, removed from Vilna to Kiev in 1834, has about 2500 students, and is well provided with observatories, laboratories, libraries and museums; five scientific societies and two societies for aid to poor students are attached to it. There are, besides, a theological academy, founded in 1615; a society of church archaeology, which possesses a museum built in 1900, very rich in old ikons, crosses, &c., both Russian and Oriental; an imperial academy of music; university courses for ladies; a polytechnic, with 1300 students—the building was completed in 1900 and stands on the other side of Old Kiev, away from the river. Of the learned societies the more important are the medical (1840), the naturalists' (1869), the juridical (1876), the historical of Nestor the Chronicler (1872), the horticultural (1875), and the dramatic (1879), the archaeological commission (1843), and the society of church archaeology.

Kiev is the principal centre for the sugar industry of Russia, as well as for the general trade of the region. Its Stryetenskaya fair is important. More than twenty caves were discovered on the slope of a hill (Kirilov Street), and one of them, excavated in 1876, proved to have belonged to neolithic troglodytes. Numerous graves, both from the pagan and the Christian periods, the latter containing more than 2000 skeletons, with a great number of small articles, were discovered in the same year in the same neighbourhood. Many colonial Roman coins of the 3rd and 4th centuries, and silver *dirhems*, stamped at Samarkand, Balkh, Merv, &c., were also found in 1869.

In 1862 the population of Kiev was returned as 70,341; in 1874 the total was given as 127,251; and in 1902 as 319,000. This includes 20,000 Poles and 12,000 Jews. Kiev is the headquarters of the IX. Army Corps, and of a metropolitan of the Orthodox Greek Church.

The history of Kiev cannot be satisfactorily separated from that of Russia. According to Nestor's legend it was founded in 864 by three brothers, Kiy, Shchek and Khoriv, and after their deaths the principality was seized by two Varangians (Scandinavians), Askold and Dir, followers of Rurik, also in 864. Rurik's successor Oleg conquered Kiev in 882 and made it the chief town of his principality. It was in the waters of the Dnieper opposite the town that Prince Vladimir, the first saint of the Russian church, caused his people to be baptized (988), and Kiev became the seat of the first Christian church, of the first Christian school, and of the first library in Russia. For three hundred and seventy-six years it was an independent Russian city; for eighty years (1240–1320) it was subject to the Mongols; for two hundred and forty-nine years (1320–1569) it belonged to the Lithuanian principality; and for eighty-five years to Poland (1569–1654). It was finally united to the Russian empire in 1686. The city was devastated by the khan of the Crimea in 1483. The Magdeburg rights, which the city enjoyed from 1516, were abolished in 1835, and the ordinary form of town government introduced; and in 1840 it was made subject to the common civil law of the empire.

The Russian literature concerning Kiev is voluminous. Its bibliography will be found in the *Russian Geographical Dictionary* of P. Semenov, and in the *Russian Encyclopaedic Dictionary*, published by Brockhaus and Efron (vol. xv., 1895). Among recent publications are: Rambaud's *La Russie épique* (Paris, 1876); Avenarius, *Kniga o Kievskikh Bogatuiryakh* (St Petersburg, 1876), dealing with the early Kiev heroes; Zakrevski, *Opisanie Kieva* (1868); the materials issued by the commission for the investigation of the ancient records of the city; Taranovskiy, *Gorod Kiev* (Kiev, 1881); De Baye, *Kiev, la mère des villes russes* (Paris, 1896); Goetz, *Das Kiewer Höhlenkloster als Kulturzentrum des Vormongolischen Russlands* (Passau, 1904). See also Count Bobrinsky, *Kurgans of Smiela* (1897); and N. Byelyashevsky, *The Mints of Kiev*.

(P. A. K.; J. T. Be.)

KILBARCHAN, a burgh of barony of Renfrewshire, Scotland, 1 m. from Milliken Park station on the Glasgow & South-Western railway, 13 m. W. by S. of Glasgow. Pop. (1901), 2886. The public buildings include a hall, library and masonic lodge (dating from 1784). There is also a park. In a niche in the town steeple (erected in 1755) is the statue of the famous piper, who died about the beginning of the 17th century and is commemorated in the elegy on "The Life and Death of Habbie Simson, Piper of Kilbarchan" by Robert Sempill of Beltrees (1595–1665). The chief industries are manufactures of linen (introduced in 1739 and dating the rise of the prosperity of the town), cotton, silks and "Paisley" shawls, and calico-printing, besides quarries, coal and iron mines in the neighbourhood. Two miles south-west is a great rock of greenstone called Clochoderrick, 12 ft. in height, 22 ft. in length, and 17 ft. in breadth. About 2 m. north-west on Gryfe Water, lies Bridge of Weir (pop. 2242), the industries of which comprise tanning, currying, calico-printing, thread-making and wood-turning. It has a station on the Glasgow & South-Western railway. Immediately to the south-west of Bridge of Weir are the ruins of Ranfurly Castle, the ancient seat of the Knoxes. Sir John de Knocks (*fl.* 1422) is supposed to have been the great-grandfather of John Knox; and Andrew Knox (1559–1633), one of the most distinguished members of the family, was successively bishop of the Isles, abbot of Icolmkill (Iona), and bishop of Raphoe. About 4 m. N.W. of Bridge of Weir lies the holiday resort of Kilmalcolm (pronounced Kilmacome; pop. 2220), with a station on the Glasgow & South-Western railway. It has a golf-course, public park and hydropathic establishment. Several charitable institutions have been built in and near the town, amongst them the well-known Quarrier's Orphan Homes of Scotland.

KILBIRNIE, a town in north Ayrshire, Scotland, on the Garnock, 20½ m. S.W. of Glasgow, with stations on the Glasgow & South-Western and the Caledonian railways. Pop. (1901), 4571. The industries include flax-spinning, rope works, engineering works, and manufactures of linen thread, wincey, flannels and fishing-nets, and there are iron and steel works and coal mines in the vicinity. The parish church is of historical interest, most of the building dating from the Reformation. In the churchyard are the recumbent effigies of Captain Thomas Crawford of Jordanhill (d. 1603), who in 1575 effected the surprise of Dumbarton Castle, and his lady. Near Kilbirnie Place, a modern mansion, are the ruins of Kilbirnie Castle, an ancient seat of the earls of Crawford, destroyed by fire in 1757. About 1 m. E. is Kilbirnie Loch, 1⅓ m. long.

KILBRIDE, WEST, a town on the coast of Ayrshire, Scotland, near the mouth of Kilbride Burn, 4 m. N.N.W. of Ardrossan and 35¾ m. S.W. of Glasgow by the Glasgow & South-Western railway. Pop. (1901), 2315. It has been growing in repute as a health resort; the only considerable industry is weaving. In the neighbourhood are the ruins of Law Castle, Crosbie Castle and Portincross Castle, the last, dating from the 13th century, said to be a seat of the Stuart kings. Farland Head, with cliffs 300 ft. high, lies 2 m. W. by N.; and the inland country is hilly, one point, Kaim Hill, being 1270 ft. above sea-level.

KILDARE, a county of Ireland in the province of Leinster, bounded W. by Queen's County and King's County, N. by Meath, E. by Dublin and Wicklow, and S. by Carlow. The area is 418,496 acres or about 654 sq. m. The greater part of Kildare belongs to the great central plain of Ireland. In the east of the county this plain is bounded by the foot-hills of the mountains of Dublin and Wicklow; in the centre it is interrupted by an elevated plateau terminated on the south by the hills of Dunmurry, and on the north by the Hill of Allen (300 ft.) which rises abruptly from the Bog of Allen. The principal rivers are the Boyne, which with its tributary the Blackwater rises in the north part of the county, but soon passes into Meath; the Barrow, which forms the boundary of Kildare with Queen's County, and receives the Greese and the Lane shortly after entering Kildare; the Lesser Barrow, which flows southward from the Bog of Allen to near Rathangan; and the Liffey, which enters the county near Ballymore Eustace, and flowing north-west and then north-east quits it at Leixlip, having received the Morrel between Celbridge and Clane, and the Ryewater at Leixlip. Trout are taken in the upper waters, and there are salmon reaches near Leixlip.

Geology.—The greater part of the county is formed of typical grey Carboniferous limestone, well seen in the flat land about Clane. The natural steps at the Salmon Falls at Leixlip are formed from similar strata. Along the south-east the broken ground of Silurian shales forms the higher country, rising towards the Leinster chain. The granite core of the latter, with its margin of mica-schist produced by the metamorphism of the Silurian beds, appears in the south round Castledermot. A parallel ridge of Silurian rocks,

including an interesting series of basic lavas, rises from the plain north of Kildare town (Hill of Allen and Chair of Kildare), with some Old Red Sandstone on its flanks. The limestone in this ridge is rich in fossils of Bala age, and has been compared with that at Portrane in county Dublin. The low ground is diversified by eskers and masses of glacial gravel, notably at the dry sandy plateau of the Curragh; but in part it retains sufficient moisture to give rise to extensive bogs. The Liffey, which comes down as a mountain-stream in the Silurian area, forming a picturesque fall in the gorge of Pollaphuca, wanders through the limestone region between low banks as a true river of the plain.

Climate and Industries.—Owing to a considerable degree to the large extent of bog, the climate of the northern districts is very moist, and fogs are frequent, but the eastern portion is drier, and the climate of the Liffey valley is very mild and healthy. The soil, whether resting on the limestone or on the clay slate, is principally a rich deep loam inclining occasionally to clay, easily cultivated and very fertile if properly drained. About 40,000 acres in the northern part of the county are included in the Bog of Allen, which is, however, intersected in many places by elevated tracts of firm ground. To the east of the town of Kildare is the Curragh, an undulating down upwards of 4800 acres in extent. The most fertile and highly cultivated districts of Kildare are the valleys of the Liffey and a tract in the south watered by the Greese. The demesne lands along the valley of the Liffey are finely wooded. More attention is paid to drainage and the use of manures on the larger farms than is done in many other parts of Ireland. The pastures which are not subjected to the plough are generally very rich and fattening. The proportion of tillage to pasture is roughly as 1 to 2½. Wheat is a scanty crop, but oats, barley, turnips and potatoes are all considerably cultivated. Cattle and sheep are grazed extensively, and the numbers are well sustained. Of the former, crosses with the shorthorn or the Durham are the commonest breed. Leicesters are the principal breed of sheep. Poultry farming is a growing industry.

Though possessing a good supply of water-power the county is almost destitute of manufactures; there are a few small cotton, woollen and paper mills, as well as breweries and distilleries, and several corn mills. Large quantities of turf are exported to Dublin by canal. The main line of the Midland Great Western follows the northern boundary of the county, with a branch to Carbury and Edenderry; and that of the Great Southern & Western crosses the county by way of Newbridge and Kildare, with southward branches to Naas (and Tullow, county Carlow) and to Athy and the south. The northern border is traversed by the Royal Canal, which connects Dublin with the Shannon at Cloondara. Farther south the Grand Canal, which connects Dublin with the Shannon at Shannon Harbour, occupies the valley of the Liffey until at Sallins it enters the Bog of Allen, passing into King's County near the source of the Boyne. Several branch canals afford communication with the southern districts.

Population and Administration.—The decreasing population (70,206 in 1891; 63,566 in 1901) shows an unusual excess of males over females, in spite of an excess of male emigrants. About 86% of the population are Roman Catholics. The county comprises 14 baronies and contains 110 civil parishes. Assizes are held at Naas, and quarter sessions at Athy, Kildare, Maynooth and Naas. The military stations at Newbridge and the Curragh constitute the Curragh military district, and the barracks at Athy and Naas are included in the Dublin military district. The principal towns are Athy (pop. 3599), Naas (3836) and Newbridge (2903); with Maynooth (which is the seat of a Roman Catholic college), Celbridge, Kildare (the county town), Monasterevan, Kilcullen and Leixlip. Ballitore, one of the larger villages, is a Quaker settlement, and at a school here Edmund Burke was educated. Kildare returned ten members to the Irish parliament, of whom eight represented boroughs; it sends only two (for the north and south divisions of the county) to the parliament of the United Kingdom. The county is in the Protestant diocese of Dublin and the Roman Catholic dioceses of Dublin and of Kildare and Leighlin.

History and Antiquities.—According to a tale in the Book of Leinster the original name of Kildare was *Druim Criaidh* (Drumcree), which it retained until the time of St Brigit, after which it was changed to *Cilldara*, the church of the oak, from an old oak under whose shadow the saint had constructed her cell. For some centuries it was under the government of the Macmurroughs, kings of Leinster, but with the remainder of Leinster it was granted by Henry II. to Strongbow. On the division of the palatinate of Leinster among the five grand-daughters of Strongbow, Kildare fell to Sibilla, the fourth daughter, who married William de Ferrars, earl of Derby. Through the marriage of the only daughter of William de Ferrars it passed to William de Vescy—who, when challenged to single combat by John Fitz Thomas, baron of Offaly, for accusing him of treason, fled to France. His lands were thereupon in 1297 bestowed on Fitz Thomas, who in 1316 was created earl of Kildare, and in 1317 was appointed sheriff of Kildare, the office remaining in the family until the attainder of Gerald, the ninth earl, in the reign of Henry VIII. Kildare was a liberty of Dublin until 1296, when an act was passed constituting it a separate county.

In the county are several old gigantic pillar-stones, the principal being those at Punchestown, Harristown, Jigginstown and Mullamast. Among remarkable earthworks are the raths at Mullamast, Knockcaellagh near Kilcullen, Ardscull near Naas, and the numerous sepulchral mounds in the Curragh. Of the round towers the finest is that of Kildare; there are remains of others at Taghadoe, Old Kilcullen, Oughterard and Castledermot. Formerly there were an immense number of religious houses in the county. There are remains of a Franciscan abbey at Castledermot. At Graney are ruins of an Augustinian nunnery and portions of a building said to have belonged to the Knights Templars. The town of Kildare has ruins of four monastic buildings, including the nunnery founded by St Brigit. The site of a monastery at Old Kilcullen, said to date from the time of St Patrick, is marked by two stone crosses, one of which is curiously sculptured. The fine abbey of Monasterevan is now the seat of the marquess of Drogheda. On the Liffey are the remains of Great Connel Abbey near Celbridge, of St Wolstan's near Celbridge, and of New Abbey. At Moone, where there was a Franciscan monastery, are the remains of an ancient cross with curious sculpturings. Among castles may be mentioned those of Athy and Castledermot, built about the time of the Anglo-Norman invasion; Maynooth Castle, built by the Fitzgeralds; Kilkea, originally built by the seventh earl of Kildare, and restored within the 19th century; and Timolin, erected in the reign of King John.

KILDARE, a market town and the county town of county Kildare, Ireland, in the south parliamentary division, a junction on the main line of the Great Southern & Western railway, 30. m. S.W. from Dublin, the branch line to Athy, Carlow and Kilkenny diverging southward. Pop. (1901), 1576. The town is of high antiquarian interest. There is a Protestant cathedral church, the diocese of which was united with Dublin in 1846. St Brigit or Bridget founded the religious community in the 5th century, and a fire sacred to the memory of the saint is said to have been kept incessantly burning for several centuries (until the Reformation) in a small ancient chapel called the Fire House, part of which remains. The cathedral suffered with the town from frequent burnings and destructions at the hands of the Danes and the Irish, and during the Elizabethan wars. The existing church was partially in ruins when an extensive restoration was begun in 1875 under the direction of G.E. Street; while the choir, which dated from the latter part of the 17th century, was rebuilt in 1896. Close to the church are an ancient cross and a very fine round tower (its summit unhappily restored with a modern battlement) 105½ ft. high, with a doorway with unusual ornament of Romanesque character. There are remains of a castle of the 13th century, and of a Carmelite monastery. From the elevated situation of the town, a striking view of the great central plain of Ireland is afforded. Kildare was incorporated by James II., and returned two members to the Irish parliament.

KILHAM, ALEXANDER (1762–1798), English Methodist, was born at Epworth, Lincolnshire, on the 10th of July 1762. He was admitted by John Wesley in 1785 into the regular itinerant ministry. He became the leader and spokesman of the democratic party in the Connexion which claimed for the laity the free election of class-leaders and stewards, and equal representation with ministers at Conference. They also contended that the ministry should possess no official authority or pastoral prerogative, but should merely carry into effect the decisions of majorities in the different meetings. Kilham further advocated the complete separation of the Methodists from the Anglican Church. In the violent controversy that ensued he

wrote many pamphlets, often anonymous, and frequently not in the best of taste. For this he was arraigned before the Conference of 1796 and expelled, and he then founded the Methodist New Connexion (1798, merged since 1906 in the United Methodist Church). He died in 1798, and the success of the church he founded is a tribute to his personality and to the principles for which he strove. Kilham's wife (Hannah Spurr, 1774–1832), whom he married only a few months before his death, became a Quaker, and worked as a missionary in the Gambia and at Sierra Leone; she reduced to writing several West African vernaculars.

KILIA, a town of S. Russia, in the government of Bessarabia, 100 m. S.W. of Odessa, on the Kilia branch of the Danube, 20 m. from its mouth. Pop. (1897), 11,703. It has steam flour-mills and a rapidly increasing trade. The town, anciently known as Chilia, Chele, and Lycostomium, was a place of banishment for political dignitaries of Byzantium in the 12th–13th centuries. After belonging to the Genoese from 1381–1403 it was occupied successively by Walachia and Moldavia, until in 1484 it fell into the hands of the Ottoman Turks. It was taken from them by the Russians in 1790. After being bombarded by the Anglo-French fleet in July 1854, it was given to Rumania on the conclusion of the war; but in 1878 was transferred to Russia with Bessarabia.

KILIAN (CHILIAN, KILLIAN), **ST,** British missionary bishop and the apostle of eastern Franconia, where he began his labours towards the end of the 7th century. There are several biographies of him, the first of which dates back to the 9th century (*Bibliotheca hagiographica latina*, Nos. 4660–4663). The oldest texts which refer to him are an 8th century necrology at Würzburg and the notice by Hrabanus Maurus in his martyrology. According to Maurus Kilian was a native of Ireland, whence with his companions he went to eastern Franconia. After having preached the gospel in Würzburg, the whole party were put to death by the orders of an unjust judge named Gozbert. It is difficult to fix the period with precision, as the judge (or duke) Gozbert is not known through other sources. Kilian's comrades, Coloman and Totman, were, according to the Würzburg necrology, respectively priest and deacon. The elevation of the relics of the three martyrs was performed by Burchard, the first bishop of Würzburg, and they are venerated in the cathedral of that town. His festival is celebrated on the 8th of July.

See *Acta Sanctorum*, Julii, ii. 599–619; F. Emmerich, *Der heilige Kilian* (Würzburg, 1896); J. O'Hanlon, *Lives of the Irish Saints*, vii. 122–143 (Dublin, 1875–1904); A. Hauck, *Kirchengeschichte Deutschlands*, 3rd ed., i. 382 seq. (H. DE.)

KILIMANJARO, a great mountain in East Africa, its centre lying in 3° 5′ S. and 37° 23′ E. It is the highest known summit of the continent, rising as a volcanic cone from a plateau of about 3000 ft. to 19,321 ft. Though completely isolated it is but one of several summits which crown the eastern edge of the great plateau of equatorial Africa. About 200 m. almost due north, across the wide expanse of the Kapte and Kikuyu uplands, lies Mount Kenya, somewhat inferior in height and mass to Kilimanjaro; and some 25 m. due west rises the noble mass of Mount Meru.

The major axis of Kilimanjaro runs almost east and west, and on it rise the two principal summits, Kibo in the west, Mawenzi (Ki-mawenzi) in the east. Kibo, the higher, is a truncated cone with a nearly perfect extinct crater, and marks a comparatively recent period of volcanic activity; while Mawenzi (16,892 ft.) is the very ancient core of a former summit, of which the crater walls have been removed by denudation. The two peaks, about 7 m. apart, are connected by a saddle or plateau, about 14,000 ft. in altitude, below which the vast mass slopes with great regularity in a typical volcanic curve, especially in the south, to the plains below. The sides are furrowed on the south and east by a large number of narrow ravines, down which flow streams which feed the Pangani and Lake Jipe in the south and the Tsavo tributary of the Sabaki in the east. South-west of Kibo, the Shira ridge seems to be of independent origin, while in the north-west a rugged group of cones, of comparatively recent origin, has poured forth vast lava-flows. In the south-east the regularity of the outline is likewise broken by a ridge running down from Mawenzi.

The lava slopes of the Kibo peak are covered to a depth of some 200 ft. with an ice-cap, which, where ravines occur, takes the form of genuine glaciers. The crater walls are highest on the south, three small peaks, uncovered by ice, rising from the rim on this side. To the central and highest of these, the culminating point of the mountain, the name Kaiser Wilhelm Spitze has been given. The rim here sinks precipitously some 600 ft. to the interior of the crater, which measures rather over 2000 yds. in diameter, and is in part covered by ice, in part by a bare cone of ashes. On the west the rim is breached, allowing the passage of an important glacier formed from the snow which falls within the crater. Lower down this cleft, which owed its origin to dislocation, is occupied by two glaciers, one of which reaches a lower level (13,800 ft.) than any other on Kilimanjaro. On the north-west three large glaciers reach down to 16,000 ft.

Mawenzi peak has no permanent ice-cap, though at times snow lies in patches. The rock of which it is composed has become very jagged by denudation, forming stupendous walls and precipices. On the east the peak falls with great abruptness some 6500 ft. to a vast ravine, due apparently to dislocation and sinking of the ground. Below this the slope is more gradual and more symmetrical. Like the other high mountains of eastern Africa, Kilimanjaro presents well-defined zones of vegetation. The lowest slopes are arid and scantily covered with scrub, but between 4000 and 6000 ft. on the south side the slopes are well watered and cultivated. The forest zone begins, on the south, at about 6500 ft., and extends to 9500, but in the north it is narrower, and in the north-west, the driest quarter of the mountain, almost disappears. In the alpine zone, marked especially by tree lobelias and *Senecio*, flowering plants extend up to 15,700 ft. on the sheltered south-west flank of Mawenzi, but elsewhere vegetation grows only in dwarfed patches beyond 13,000 ft. The special fauna and flora of the upper zone are akin to those of other high African mountains, including Cameroon. The southern slopes, between 4000 and 6000 ft., form the well-peopled country of Chaga, divided into small districts.

As the natives believe that the summit of Kilimanjaro is composed of silver, it is conjectured that Aristotle's reference to "the so-called Silver Mountain" from which the Nile flows was based on reports about this mountain. It is possible, however, that the "Silver Mountain" was Ruwenzori (*q.v.*), from whose snow-clad heights several headstreams of the Nile do descend. It is also possible, though improbable, that Ruwenzori and not Kilimanjaro nor Kenya may be the range known to Ptolemy and to the Arab geographers of the middle ages as the Mountains of the Moon. Reports of the existence of mountains covered with snow were brought to Zanzibar about 1845 by Arab traders. Attracted by these reports Johannes Rebmann of the Church Missionary Society journeyed inland from Mombasa in 1848 and discovered Kilimanjaro, which is some 200 m. inland. Rebmann's account, though fully borne out by his colleague Dr Ludwig Krapf, was at first received with great incredulity by professional geographers. The matter was finally set at rest by the visits paid to the mountain by Baron Karl von der Decken (1861 and 1862) and Charles New (1867), the latter of whom reached the lower edge of the snow. Kilimanjaro has since been explored by Joseph Thomson (1883), Sir H. H. Johnston (1884), and others. It has been the special study of Dr Hans Meyer, who made four expeditions to it, accomplishing the first ascent to the summit in 1889. In the partition of Africa between the powers of western Europe, Kilimanjaro was secured by Germany (1886) though the first treaties concluded with native chiefs in that region had been made in 1884 by Sir H. H. Johnston on behalf of a British company. On the southern side of the mountain at Moshi is a German government station.

See R. Thornton (the geologist of von der Decken's party) in *Proc. of Roy. Geog. Soc.* (1861–1862); Ludwig Krapf, *Travels in East Africa* (1860); Charles New, *Life . . . in East Africa* (1873); Sir J. D. Hooker in *Journal of Linnean Society* (1875); Sir H. H. Johnston, *The Kilimanjaro Expedition* (1886); Hans Meyer, *Across East African Glaciers* (1891); *Der Kilimanjaro* (Berlin, 1900). Except the last-named all these works were published in London. (E. HE.)

KILIN, or CH'-I-LIN, one of the four symbolical creatures which in Chinese mythology are believed to keep watch and ward over the Celestial Empire. It is a unicorn, portrayed in Chinese art as having the body and legs of a deer and an ox's

tail. Its advent on earth heralds an age of enlightened government and civic prosperity. It is regarded as the noblest of the animal creation and as the incarnation of fire, water, wood, metal and earth. It lives for a thousand years, and is believed to step so softly as to leave no footprints and to crush no living thing.

KILKEE, a seaside resort of county Clare, Ireland, the terminus of a branch of the West Clare railway. Pop. (1901), 1661. It lies on a small and picturesque inlet of the Atlantic named Moore Bay, with a beautiful sweep of sandy beach. The coast, fully exposed to the open ocean, abounds in fine cliff scenery, including numerous caves and natural arches, but is notoriously dangerous to shipping. Moore Bay is safe and attractive for bathers. Bishop's Island, a bold isolated rock in the vicinity, has remains of an oratory and house ascribed to the recluse St Senan.

KILKENNY, a county of Ireland, in the province of Leinster, bounded N. by Queen's County, E. by Carlow and Wexford, S. by Waterford, and W. by Waterford and Tipperary. The area is 511,775 acres, or about 800 sq. m. The greater part of Kilkenny forms the south-eastern extremity of the great central plain of Ireland, but in the south-east occurs an extension of the mountains of Wicklow and Carlow, and the plain is interrupted in the north by a hilly region forming part of the Castlecomer coal-field, which extends also into Queen's County and Tipperary. The principal rivers, the Suir, the Barrow and the Nore, have their origin in the Slieve Bloom Mountains (county Tipperary and Queen's County), and after widely divergent courses southward discharge their waters into Waterford Harbour. The Suir forms the boundary of the county with Waterford, and is navigable for small vessels to Carrick. The Nore, which is navigable to Innistioge, enters the county at its north-western boundary, and flows by Kilkenny to the Barrow, 9 m. above Ross, having received the King's River at Jerpoint and the Argula near Innistioge. The Barrow, which is navigable beyond the limits of Kilkenny into Kildare, forms the eastern boundary of the county from near New Bridge. There are no lakes of any extent, but turloughs or temporary lakes are occasionally formed by the bursting up of underground streams.

The coal of the Castlecomer basin is anthracite, and the most productive portions of the bed are in the centre of the basin at Castlecomer. Hematitic iron of a rich quality is found in the Cambro-Silurian rocks at several places; and tradition asserts that silver shields were made about 850 B.C. at Argetros or Silverwood on the Nore. Manganese is obtained in some of the limestone quarries, and also near the Barrow. Marl is abundant in various districts. Pipeclay and potter's clay are found, and also yellow ochre. Copper occurs near Knocktopher.

The high synclinal coal-field forms the most important feature of the north of the county. A prolongation of the field runs out south-west by Tullaroan. The lower ground is occupied by Carboniferous limestone. The Old Red Sandstone, with a Silurian core, forms the high ridge of Slievenaman in the south; and its upper laminated beds contain *Archanodon*, the earliest known freshwater mollusc, and plant-remains, at Kiltorcan near Ballyhale. The Leinster granite appears mainly as inliers in the Silurian of the south-east. The Carboniferous sandstones furnish the hard pavement-slabs sold as "Carlow flags." The black limestone with white shells in it at Kilkenny is quarried as an ornamental marble. Good slates are quarried at Kilmoganny, in the Silurian inlier on the Slievenaman range.

On account of the slope of the country, and the nature of the soil, the surface occupied by bog or wet land is very small, and the air is dry and healthy. So temperate is it in winter that the myrtle and arbutus grow in the open air. There is less rain than at Dublin, and vegetation is earlier than in the adjacent counties. Along the banks of the Suir, Nore and Barrow a very rich soil has been formed by alluvial deposits. Above the Coal-measures in the northern part of the county there is a moorland tract devoted chiefly to pasturage. The soil above the limestone is for the most part a deep and rich loam admirably adapted for the growth of wheat. The heath-covered hills afford honey with a flavour of peculiar excellence. Proportionately to its area, Kilkenny has an exceptionally large cultivable area. The proportion of tillage to pasturage is roughly as 1 to 2¼. Oats, barley, turnips and potatoes are all grown; the cultivation of wheat has very largely lapsed. Cattle, sheep, pigs and poultry are extensively reared, the Kerry cattle being in considerable request.

The linen manufacture introduced into the county in the 17th century by the duke of Ormonde to supersede the woollen manufacture gradually became extinct, and the woollen manufacture now carried on is also very small. There are, however, breweries, distilleries, tanneries and flour-mills, as well as marble polishing works. The county is traversed from N. to S. by the Maryborough, Kilkenny and Waterford branch of the Great Southern & Western railway, with a connexion from Kilkenny to Bagenalstown on the Kildare and Carlow line; and the Waterford and Limerick line of the same company runs for a short distance through the southern part of the county.

The population (87,496 in 1891; 79,159 in 1901) includes about 94% of Roman Catholics. The decrease of population is a little above the average, though emigration is distinctly below it. The chief towns and villages are Kilkenny (*q.v.*), Callan (1840), Castlecomer, Thomastown and Graigue. The county comprises 10 baronies and contains 134 civil parishes. The county includes the parliamentary borough of Kilkenny, and is divided into north and south parliamentary divisions, each returning one member. Kilkenny returned 16 members to the Irish parliament, two representing the county. Assizes are held at Kilkenny, and quarter sessions at Kilkenny, Pilltown, Urlingford, Castlecomer, Callan, Grace's Old Castle and Thomastown. The county is in the Protestant diocese of Ossory and the Roman Catholic dioceses of Ossory and Kildare and Leighlin.

Kilkenny is one of the counties generally considered to have been created by King John. It had previously formed part of the kingdom of Ossory, and was one of the liberties granted to the heiresses of Strongbow with palatinate rights. Circular groups of stones of very ancient origin are on the summits of Slieve Grian and the hill of Cloghmanta. There are a large number of cromlechs as well as raths (or encampments) in various parts of the county. Besides numerous forts and mounds there are five round towers, one adjoining the Protestant cathedral of Kilkenny, and others at Tulloherin, Kilree, Fertagh and Aghaviller. All, except that at Aghaviller, are nearly perfect. There are remains of a Cistercian monastery at Jerpoint, said to have been founded by Dunnough, King of Ossory, and of another belonging to the same order at Graigue, founded by the earl of Pembroke in 1212. The Dominicans had an abbey at Rosbercon founded in 1267, and another at Thomastown, of which there are some remains. The Carmelites had a monastery at Knocktopher. There were an Augustinian monastery at Inistioge, and priories at Callan and Kells, of all of which there are remains. There are also ruins of several old castles, such as those of Callan, Legan, Grenan and Clonamery, besides the ancient portions of Kilkenny Castle.

KILKENNY, a city and municipal and parliamentary borough (returning one member), the capital of county Kilkenny, Ireland, finely situated on the Nore, and on the Great Southern and Western railway, 81 m. S.W. of Dublin. Pop. (1901), 10,609. It consists of Englishtown (or Kilkenny proper) and Irishtown, which are separated by a small rivulet, but although Irishtown retains its name, it is now included in the borough of Kilkenny. The city is irregularly built, possesses several spacious streets with many good houses, while its beautiful environs and imposing ancient buildings give it an unusual interest and picturesque appearance. The Nore is crossed by two handsome bridges. The cathedral of St Canice, from whom the town takes its name, dates in its present form from about 1255. The see of Ossory, which originated in the monastery of Aghaboe founded by St Canice in the 6th century, and took its name from the early kingdom of Ossory, was moved to Kilkenny (according to conjecture) about the year 1200. In 1835 the diocese of Ferns and Leighlin was united to it. With the exception of St Patrick's, Dublin, the cathedral is the largest

ecclesiastical building in Ireland, having a length from east to west of 226 ft., and a breadth along the transepts from north to south of 123 ft. It occupies an eminence at the western extremity of Irishtown. It is a cruciform structure mainly in Early English style, with a low massive tower supported on clustered columns of the black marble peculiar to the district. The building was extensively restored in 1865. It contains many old sepulchral monuments and other ancient memorials. The north transept incorporates the parish church. The adjacent library of St Canice contains numerous ancient books of great value. A short distance from the south transept is a round tower 100 ft. high; the original cap is wanting. The episcopal palace near the east end of the cathedral was erected in the time of Edward III. and enlarged in 1735. Besides the cathedral the principal churches are the Protestant church of St Mary, a plain cruciform structure of earlier foundation than the present cathedral; that of St John, including a portion of the hospital of St John founded about 1220; and the Roman Catholic cathedral, of the diocese of Ossory, dedicated to St Mary (1843–1857), a cruciform structure in the Early Pointed style, with a massive central tower. There are important remains of two monasteries—the Dominican abbey founded in 1225, and now used as a Roman Catholic church; and the Franciscan abbey on the banks of the Nore, founded about 1230. But next in importance to the cathedral is the castle, the seat of the marquess of Ormonde, on the summit of a precipice above the Nore. It was originally built by Strongbow, but rebuilt by William Marshall after the destruction of the first castle in 1175; and many additions and restorations by members of the Ormonde family have maintained it as a princely residence. The Protestant college of St John, originally founded by Pierce Butler, 8th earl of Ormonde, in the 16th century, and re-endowed in 1684 by James, 1st duke of Ormonde, stands on the banks of the river opposite the castle. In it Swift, Farquhar, Congreve and Bishop Berkeley received part of their education. On the outskirts of the city is the Roman Catholic college of St Kyran (Kieran), a Gothic building completed about 1840. The other principal buildings are the modern court-house, the tholsel or city court (1764), the city and county prison, the barracks and the county infirmary. In the neighbourhood are collieries as well as long-established quarries for marble, the manufactures connected with which are an important industry of the town. The city also possesses corn-mills, breweries and tanneries. Not far from the city are the remarkable limestone caverns of Dunmore, which have yielded numerous human remains. The corporation of Kilkenny consists of a mayor, 6 aldermen and 18 councillors.

Kilkenny proper owes its origin to an English settlement in the time of Strongbow, and it received a charter from William Marshall, who married Strongbow's daughter. This charter was confirmed by Edward III., and from Edward IV. Irishtown received the privilege of choosing a portreeve independent of Kilkenny. By Elizabeth the boroughs, while retaining their distinct rights, were constituted one corporation, which in 1609 was made a free borough by James I., and in the following year a free city. From James II. the citizens received a new charter, constituting the city and liberties a distinct county, to be styled the county of the city of Kilkenny, the burgesses of Irishtown continuing, however, to elect a portreeve until the passing of the Muncipal Reform Act. Frequent parliaments were held at Kilkenny from the 14th to the 16th century, and so late as the reign of Henry VIII. it was the occasional residence of the lord-lieutenant. In 1642 it was the meeting-place of the assembly of confederate Catholics. In 1648 Cromwell, in the hope of obtaining possession of the town by means of a plot, advanced towards it, but before his arrival the plot was discovered. In 1650 it was, however, compelled to surrender after a long and resolute defence. At a very early period Kilkenny and Irishtown returned each two members to the Irish parliament, but since the Union one member only has been returned to Westminster for the city of Kilkenny.

The origin of the expression "to fight like Kilkenny cats," which, according to the legend, fought till only their tails were left, has been the subject of many conjectures. It is said to be an allegory on the disastrous municipal quarrels of Kilkenny and Irishtown which lasted from the end of the 14th to the end of the 17th centuries (*Notes and Queries*, 1st series, vol. ii. p. 71). It is referred also to the brutal sport of some Hessian soldiers, quartered in Kilkenny during the rebellions of 1798 or 1803, who tied two cats together by their tails, hung them over a line and left them to fight. A soldier is said to have freed them by cutting off their tails to escape censure from the officers (ibid. 3rd series, vol. v. p. 433). Lastly, it is attributed to the invention of J. P. Curran. As a sarcastic protest against cock-fighting in England, he declared that he had witnessed in Sligo (?) fights between trained cats, and that once they had fought so fiercely that only their tails were left (ibid. 7th series, vol. ii. p. 394).

KILKENNY, STATUTE OF, the name given to a body of laws promulgated in 1366 with the object of strengthening the English authority in Ireland. In 1361, when Edward III. was on the English throne, he sent one of his younger sons, Lionel, duke of Clarence, who was already married to an Irish heiress, to represent him in Ireland. From the English point of view the country was in a most unsatisfactory condition. Lawless and predatory, the English settlers were hardly distinguishable from the native Irish, and the authority of the English king over both had been reduced to vanishing point. In their efforts to cope with the prevailing disorder Lionel and his advisers summoned a parliament to meet at Kilkenny early in 1366 and here the statute of Kilkenny was passed into law. This statute was written in Norman-French, and nineteen of its clauses are merely repetitions of some ordinances which had been drawn up at Kilkenny fifteen years earlier. It began by relating how the existing state of lawlessness was due to the malign influence exercised by the Irish over the English, and, like Magna Carta, its first positive provision declared that the church should be free. As a prime remedy for the prevailing evils all marriages between the two races were forbidden. Englishmen must not speak the Irish tongue, nor receive Irish minstrels into their dwellings, nor even ride in the Irish fashion; while to give or sell horses or armour to the Irish was made a treasonable offence. Moreover English and not Breton law was to be employed, and no Irishman could legally be receivd into a religious house, nor presented to a benefice. The statute also contained clauses for compelling the English settlers to keep the laws. For each county four wardens of the peace were to be appointed, while the sheriffs were to hold their tourns twice a year and were not to oppress the people by their exactions. An attempt was made to prevent the emigration of labourers, and finally the spiritual arm was invoked to secure obedience to these laws by threats of excommunication. The statute, although marking an interesting stage in the history of Ireland, had very little practical effect.

The full text is published in the *Statutes and Ordinances of Ireland. John to Henry V.*, by H. F. Berry (1907).

KILLALA (pron. *Killálla*), a small town on the north coast of county Mayo, Ireland, in the northern parliamentary division, on the western shore of a fine bay to which it gives name. Pop. (1901), 510. It is a terminus of a branch of the Midland Great Western railway. Its trade is almost wholly diverted to Ballina on the river Moy, which enters the bay, but Killala is of high antiquarian and historical interest. It was for many centuries a bishop's see, the foundation being attributed to St Patrick in the 5th century, but the diocese was joined with Achonry early in the 17th century and with Tuam in 1833. The cathedral church of St Patrick is a plain structure of the 17th century. There is a fine souterrain, evidently connected with a rath, or encampment, in the graveyard. A round tower, 84 ft. in height, stands boldly on an isolated eminence. Close to Killala the French under Humbert landed in 1798, being diverted by contrary winds from the Donegal coast. Near the Moy river, south of Killala, are the abbeys of Moyne and Roserk or Rosserick, both Decorated in style, and both possessing fine cloisters. At Rathfran, 2 m. N., is a Dominican abbey (1274), and in the neighbourhood are camps, cromlechs, and an inscribed ogham stone, 12 ft. in height. Killala gives name to a Roman Catholic diocese, the seat of which, however, is at Ballina.

KILLALOE, a town of county Clare, Ireland, in the east parliamentary division, at the lower extremity of Lough Derg on the river Shannon, at the foot of the Slieve Bernagh mountains. Pop. (1901), 885. It is connected, so as to form one town, with Ballina (county Tipperary) by a bridge of 13 arches. Ballina is the terminus of a branch of the Great Southern and Western railway, 15 m. N.E. of Limerick. Slate is quarried in the vicinity, and there were formerly woollen manufactures. The cathedral of St Flannan occupies the site of a church founded by St Dalua in the 6th century. The present building is mainly of the 12th century, a good cruciform example of the period, preserving, however, a magnificent Romanesque doorway. It was probably completed by Donall O'Brien, king of Munster, but part of the fabric dates from a century before his time. In the churchyard is an ancient oratory said to date from the period of St Dalua. Near Killaloe stood Brian Boru's palace of Kincora, celebrated in verse by Moore; for this was the capital of the kings of Munster. Killaloe is frequented by anglers for the Shannon salmon-fishing and for trout-fishing in Lough Derg. Killaloe gives name to Protestant and Roman Catholic dioceses.

KILLARNEY, a market town of county Kerry, Ireland, in the east parliamentary division, on a branch line of the Great Southern & Western railway, 185¼ m. S.W. from Dublin. Pop. of urban district (1901), 5656. On account of the beautiful scenery in the neighbourhood the town is much frequented by tourists. The principal buildings are the Roman Catholic cathedral and bishop's palace of the diocese of Kerry, designed by A. W. Pugin, a large Protestant church and several hotels. Adjoining the town is the mansion of the earl of Kenmare. There is a school of arts and crafts, where carving and inlaying are prosecuted. The only manufacture of importance now carried on at Killarney is that of fancy articles from arbutus wood; but it owed its origin to iron-smelting works, for which abundant fuel was obtained from the neighbouring forests.

The lakes of Killarney, about 1½ m. from the town, lie in a basin between several lofty mountain groups, some of which rise abruptly from the water's edge, and all clothed with trees and shrubbery almost to their summits. The lower lake, or Lough Leane (area 5001 acres), is studded with finely wooded islands, on the largest of which, Ross Island, are the ruins of Ross Castle, an old fortress of the O'Donoghues; and on another island, the "sweet Innisfallen" of Moore, are the picturesque ruins of an abbey founded by St Finian the leper at the close of the 6th century. Between the lower lake and the middle or Torc lake (680 acres in extent) stands Muckross Abbey, built by Franciscans about 1440. With the upper lake (430 acres), thickly studded with islands, and close shut in by mountains, the lower and middle lakes are connected by the Long Range, a winding and finely wooded channel, 2½ m. in length, and commanding magnificent views of the mountains. Midway in its course is a famous echo caused by the Eagle's Nest, a lofty pyramidal rock.

Besides the lakes of Killarney themselves, the immediate neighbourhood includes many features of natural beauty and of historic interest. Among the first are Macgillicuddy's Reeks and the Torc and Purple Mountains, the famous pass known as the Gap of Dunloe, Mount Mangerton, with a curious depression (the Devil's Punchbowl) near its summit, the waterfalls of Torc and Derrycunihy, and Lough Guitane, above Lough Leane. Notable ruins and remains, besides Muckross and Innisfallen, include Aghadoe, with its ruined church of the 12th century (formerly a cathedral) and remains of a round tower; and the Ogham Cave of Dunloe, a souterrain containing inscribed stones. The waters of the neighbourhood provide trout and salmon, and the flora is of high interest to the botanist. Innumerable legends centre round the traditional hero O'Donoghue.

KILLDEER, a common American plover, so called in imitation of its whistling cry, the *Charadrius vociferus* of Linnaeus, and the *Aegialitis vocifera* of modern ornithologists. About the size of a snipe, it is mostly sooty-brown above, but showing a bright buff on the tail coverts, and in flight a white bar on the wings; beneath it is pure white except two pectoral bands of deep black. It is one of the finest as well as the largest of the group commonly known as ringed plovers or ring dotterels,[1] forming the genus *Aegialitis* of Boie. Mostly wintering in the south or only on the sea-shore of the more northern states, in spring it spreads widely over the interior, breeding on the newly ploughed lands or on open grass-fields. The nest is made in a slight hollow, and is often surrounded with small pebbles and fragments of shells. Here the hen lays her pear-shaped, stone-coloured eggs, four in number, and always arranged with their pointed ends touching each other, as is the custom of most Limicoline birds. The parents exhibit the greatest anxiety for their offspring on the approach of an intruder. It is the best-known bird of its family in the United States, where it is less abundant in the north-east than farther south or west. In Canada it does not range farther northward than 56° N.; it is not known in Greenland, and hardly in Labrador, though it is a passenger in Newfoundland every spring and autumn.[2] In winter it finds its way to Bermuda and to some of the Antilles, but it is not recorded from any of the islands to the windward of Porto Rico. In the other direction, however, it travels down the Isthmus of Panama and the west coast of South America to Peru. The killdeer has several other congeners in America, among which may be noticed *Ae. semipalmata*, curiously resembling the ordinary ringed plover of the Old World, *Ae. hiaticula*, except that it has its toes connected by a web at the base; and *Ae. nivosa*, a bird inhabiting the western parts of both the American continents, which in the opinion of some authors is only a local form of the widely spread *Ae. alexandrina* or *cantiana*, best known as Kentish plover, from its discovery near Sandwich towards the end of the 18th century, though it is far more abundant in many other parts of the Old World. The common ringed plover, *Ae. hiaticula*, has many of the habits of the killdeer, but is much less often found away from the sea-shore, though a few colonies may be found in dry warrens in certain parts of England many miles from the coast, and in Lapland at a still greater distance. In such localities it paves its nest with small stones (whence it is locally known as "Stone hatch"), a habit almost unaccountable unless regarded as an inherited instinct from shingle-haunting ancestors.

(A. N.)

KILLIECRANKIE, a pass of Perthshire, Scotland, 3¾ m. N.N.W. of Pitlochry by the Highland railway. Beginning close to Killiecrankie station it extends southwards to the bridge of Garry for nearly 1½ m. through the narrow, extremely beautiful, densely wooded glen in the channel of which flows the Garry. A road constructed by General Wade in 1732 runs up the pass, and between this and the river is the railway, built in 1863. The battle of the 27th of July 1689, between some 3000 Jacobites under Viscount Dundee and the royal force, about 4000 strong, led by General Hugh Mackay, though named from the ravine, was not actually fought in the pass. When Mackay emerged from the gorge he found the Highlanders already in battle array on the high ground on the right bank of the Girnaig, a tributary of the Garry, within half a mile of where the railway station now is. Before he had time to form on the more open table-land, the clansmen charged impetuously with their claymores and swept his troops back into the pass and the Garry. Mackay lost nearly half his force, the Jacobites about 900, including their leader. Urrard House adjoins the spot where Viscount Dundee received his death-wound.

KILLIGREW, SIR HENRY (d. 1603), English diplomatist, belonged to an old Cornish family and became member of parliament for Launceston in 1553. Having lived abroad

[1] The word dotterel seems properly applicable to a single species only, the *Charadrius morinellus* of Linnaeus, which, from some of its osteological characters, may be fitly regarded as the type of a distinct genus, *Eudromias*. Whether any other species agree with it in the peculiarity alluded to is at present uncertain.

[2] A single example is said to have been shot near Christchurch, in Hampshire, England, in April 1857 (*Ibis*, 1862, p. 276).

during the whole or part of Mary's reign, he returned to England when Elizabeth came to the throne and at once began to serve the new queen as a diplomatist. He was employed on a mission to Germany, and in conducting negotiations in Scotland, where he had several interviews with Mary Queen of Scots. He was knighted in 1591, and after other diplomatic missions in various parts of Europe he died early in 1603. Many of Sir Henry's letters on public matters are in the Record Office, London, and in the British Museum. His first wife, Catherine (*c.* 1530–1583), daughter of Sir Anthony Cooke (1504–1576), tutor to Edward VI., was a lady of talent.

Another celebrated member of this family was Sir ROBERT KILLIGREW (*c.* 1579–1633), who was knighted by James I. in the same year (1603) as his father, Sir William Killigrew. Sir William was an officer in Queen Elizabeth's household and a member of parliament; he died in November 1622. Sir Robert was a member of all the parliaments between 1603 and his death, but he came more into prominence owing to his alleged connexion with the death of Sir Thomas Overbury. A man of some scientific knowledge, he had been in the habit of supplying powders to Robert Carr, earl of Somerset, but it is not certain that the fatal powder came from the hands of Killigrew. He died early in 1633, leaving five sons, three of whom attained some reputation (see below).

KILLIGREW, THOMAS (1612–1683), English dramatist and wit, son of Sir Robert Killigrew, was born in Lothbury, London, on the 7th of February 1612. Pepys says that as a boy he satisfied his love of the stage by volunteering at the Red Bull to take the part of a devil, thus seeing the play for nothing. In 1633 he became page to Charles I., and was faithfully attached to the royal house throughout his life. In 1635 he was in France, and has left an account (printed in the *European Magazine*, 1803) of the exorcizing of an evil spirit from some nuns at Loudun. In 1641 he published two tragi-comedies, *The Prisoners* and *Claracilla*, both of which had probably been produced before 1636. In 1647 he followed Prince Charles into exile. His wit, easy morals and accommodating temper recommended him to Charles, who sent him to Venice in 1651 as his representative. Early in the following year he was recalled at the request of the Venetian ambassador in Paris. At the Restoration he became groom of the bedchamber to Charles II., and later chamberlain to the queen. He received in 1660, with Sir William Davenant, a patent to erect a new playhouse, the performances in which were to be independent of the censorship of the master of the revels. This infringement of his prerogative caused a dispute with Sir Henry Herbert, then holder of the office, but Killigrew settled the matter by generous concessions. He acted independently of Davenant, his company being known as the King's Servants. They played at the Red Bull, until in 1663 he built for them the original Theatre Royal in Drury Lane. Pepys writes in 1664 that Killigrew intended to have four opera seasons of six weeks each during the year, and with this end in view paid several visits to Rome to secure singers and scene decorators. In 1664 his plays were published as *Comedies and Tragedies. Written by Thomas Killigrew.* They are *Claracilla*; *The Princess, or Love at First Sight*; *The Parson's Wedding*; *The Pilgrim*; *Cicilia and Clorinda, or Love in Arms*; *Thomaso, or the Wanderer*; and *Bellamira, her Dream, or Love of Shadows. The Parson's Wedding* (acted *c.* 1640, reprinted in the various editions of Dodsley's *Old Plays* and in the *Ancient British Drama*) is an unsavoury play, which displays nevertheless considerable wit, and some of its jokes were appropriated by Congreve. It was revived after the Restoration in 1664 and 1672 or 1673, all the parts being in both cases taken by women. Killigrew succeeded Sir Henry Herbert as master of the revels in 1673. He died at Whitehall on the 19th of March 1683. He was twice married, first to Cecilia Crofts, maid of honour to Queen Henrietta Maria, and secondly to Charlotte de Hesse, by whom he had a son Thomas (1657–1719), who was the author of a successful little piece, *Chit-Chat*, played at Drury Lane on the 14th of February 1719, with Mrs Oldfield in the part of Florinda.

Killigrew enjoyed a greater reputation as a wit than as a dramatist. Sir John Denham said of him:—

> Had Cowley ne'er spoke, Killigrew ne'er writ,
> Combined in one, they'd made a matchless wit.

Many stories are related of his bold speeches to Charles I. Pepys (Feb. 12, 1668) records that he was said to hold the title of King's Fool or Jester, with a cap and bells at the expense of the king's wardrobe, and that he might therefore revile or jeer anybody, even the greatest, without offence.

His elder brother, Sir WILLIAM KILLIGREW (1606–1695), was a court official under Charles I. and Charles II. He attempted to drain the Lincolnshire fens, and was the author of four plays (printed 1665 and 1666) of some merit.

A younger brother, Dr HENRY KILLIGREW (1613–1700), was chaplain and almoner to the duke of York, and master of the Savoy after the Restoration. A juvenile play of his, *The Conspiracy*, was printed surreptitiously in 1638, and in an authenticated version in 1653 as *Pallantus and Eudora*. He had two sons, HENRY KILLIGREW (d. 1712), an admiral, and JAMES KILLIGREW, also a naval officer, who was killed in an encounter with the French in January 1695; and a daughter, ANNE (1660–1685), poet and painter, who was maid of honour to the duchess of York, and was the subject of an ode by Dryden, which Samuel Johnson thought the noblest in the language.

A sister, ELIZABETH KILLIGREW, married Francis Boyle, 1st Viscount Shannon, and became a mistress of Charles II.

KILLIN, a village and parish of Perthshire, Scotland, at the south-western extremity of Loch Tay, 4 m. N.E. of Killin Junction on a branch line of the Callander & Oban railway. Pop. of parish (1901), 1423. It is situated near the confluence of the rivers and glens of the Dochart and Lochay, and is a popular tourist centre, having communication by steamer with Kenmore at the other end of the lake, and thence by coach to Aberfeldy, the terminus of a branch of the Highland railway. It has manufactures of tweeds. In a field near the village a stone marks the site of what is known as Fingal's Grove. An island in the Dochart (which is crossed at Killin by a bridge of five arches) is the ancient burial-place of the clan Macnab. Finlarig Castle, a picturesque mass of ivy-clad ruins, was a stronghold of the Campbells of Glenorchy, and several earls of Breadalbane were buried in ground adjoining it, where the modern mausoleum of the family stands. Three miles up the Lochay, which rises in the hills beyond the forest of Mamlorn and has a course of 15 m., the river forms a graceful cascade. The Dochart, issuing from Loch Dochart, flows for 13 m. in a north-easterly direction and falls into Loch Tay. The ruined castle on an islet in the loch once belonged to the Campbells of Lochawe.

KILLIS, a town of N. Syria, in the vilayet of Aleppo, 60 m. N. of Aleppo city. It is situated in an extremely fertile plain, and is completely surrounded with olive groves, the produce of which is reckoned the finest oil of all Syria; and its position on the carriage-road from Aleppo to Aintab and Birejik gives it importance. The population (20,000) consists largely of Circassians, Turkomans and Arabs, the town lying just on the northern rim of the Arab territory. As Killis lies also very near the proposed junction of the Bagdad and the Beirut-Aleppo railways (at Tell Hahesh), it is likely to increase in importance.

KILLYBEGS, a seaport and market town of county Donegal, Ireland, in the south parliamentary division, on the north coast on Donegal Bay, the terminus of the Donegal railway. Pop. (1901), 607. It derives some importance from its fine land-locked harbour, which, affording accommodation to large vessels, is used as a naval station, and is the centre of an important fishery. There is a large pier for the fishing vessels. The manufacture of carpets occupies a part of the population, employing both male and female labour—the productions being known as Donegal carpets. There are slight remains of a castle and ancient church; and a mineral spring is still used. The town received a charter from James I., and was a parliamentary borough, returning two members, until the Union.

KILLYLEAGH, a small seaport and market town of county Down, Ireland, in the east parliamentary division, on the western shore of Strangford Lough. Pop. (1901), 1410. Linen manufacture is the principal industry, and agricultural produce is exported. Killyleagh was an important stronghold in early times, and the modern castle preserves the towers of the old building. Sir John de Courcy erected this among many other fortresses in the neighbourhood; it was besieged by Shane O'Neill (1567), destroyed by Monk (1648), and subsequently rebuilt. The town was incorporated by James I., and returned two members to the Irish parliament.

KILMAINE, CHARLES EDWARD (1751–1799), French general, was born at Dublin on the 19th of October 1751. At the age of eleven he went with his father, whose surname was Jennings, to France, where he changed his name to Kilmaine, after a village in Mayo. He entered the French army as an officer in a dragoon regiment in 1774, and afterwards served as a volunteer in the Navy (1778), during which period he was engaged in the fighting in Senegal. From 1780 to 1783 he took part in the War of American Independence under Rochambeau, rejoining the army on his return to France. In 1791, as a retired captain, he took the civic oath and was recalled to active service, becoming lieutenant-colonel in 1792, and colonel, brigadier-general, and lieutenant-general in 1793. In this last capacity he distinguished himself in the wars on the northern and eastern frontiers. But he became an object of suspicion on account of his foreign birth and his relations with England. He was suspended on the 4th of August 1793, and was not recalled to active service till 1795. He then took part in the Italian campaigns of 1796 and 1797, and was made commandant of Lombardy. He afterwards received the command of the cavalry in Bonaparte's "army of England," of which, during the absence of Desaix, he was temporarily commander-in-chief (1798). He died on the 15th of December 1799

See J. G. Alger, *Englishmen in the French Revolution* (1889); Eugène Fieffé, *Histoire des troupes étrangères au service de France* (1854); Etienne Charavay, *Correspondance de Carnot*, tome iii.

KILMALLOCK, a market town of county Limerick, Ireland, in the east parliamentary division, 124¼ m. S.W. of Dublin by the Great Southern & Western main line. Pop. (1901), 1206. It commands a natural route (now followed by the railway) through the hills to the south and south-west, and is a site of great historical interest. It received a charter in the reign of Edward III., at which time it was walled and fortified, and entered by four gates, two of which remain. It was a military post of importance in Elizabeth's reign, but its fortifications were for the most part demolished by order of Cromwell. Two castellated mansions are still to be seen. The church of St Peter and St Paul belonged to a former abbey, and has a tower at the north-west corner which is a converted round tower. The Dominican Abbey, of the 13th century, has Early English remains of great beauty and a tomb to Edmund, the last of the White Knights, a branch of the family of Desmond intimately connected with Kilmallock, who received their title from Edward III. at the battle of Halidon Hill. The foundation of Kilmallock, however, is attributed to the Geraldines, who had several towns in this vicinity. Eight miles from the town is Lough Gur, near which are numerous stone circles and other remains. Kilmallock returned two members to the Irish parliament.

KILMARNOCK, a municipal and police burgh of Ayrshire, Scotland, on Kilmarnock Water, a tributary of the Irvine, 24 m. S.W. of Glasgow by the Glasgow & South-Western railway. Pop. (1901), 35,091. Among the chief buildings are the town hall, court-house, corn-exchange (with the Albert Tower, 110 ft. high), observatory, academy, corporation art gallery, institute (containing a free library and a museum), Kay schools, School of Science and Art, Athenaeum, theatre, infirmary, Agricultural Hall, and Philosophical Institution. The grounds of Kilmarnock House, presented to the town in 1893, were laid out as a public park. In Kay Park (48¾ acres), purchased from the duke of Portland for £9000, stands the Burns Memorial, consisting of two storeys and a tower, and containing a museum in which have been placed many important MSS. of the poet and the McKie library of Burns's books. The marble statue of the poet, by W. G. Stevenson, stands on a terrace on the southern face. A Reformers' monument was unveiled in Kay Park in 1885. Kilmarnock rose into importance in the 17th century by its production of striped woollen "Kilmarnock cowls" and broad blue bonnets, and afterwards acquired a great name for its Brussels, Turkey and Scottish carpets. Tweeds, blankets, shawls, tartans, lace curtains, cottons and winceys are also produced. The boot and shoe trade is prosperous, and there are extensive engineering and hydraulic machinery works. But the iron industry is prominent, the town being situated in the midst of a rich mineral region. Here, too, are the workshops of the Glasgow & South-Western railway company. Kilmarnock is famous for its dairy produce, and every October holds the largest cheese-show in Scotland. The neighbourhood abounds in freestone and coal. The burgh, which is governed by a provost and council, unites with Dumbarton, Port Glasgow, Renfrew and Rutherglen in returning one member to parliament. Alexander Smith, the poet (1830–1867), whose father was a lace-pattern designer, and Sir James Shaw (1764–1843), lord mayor of London in 1806, to whom a statue was erected in the town in 1848, were natives of Kilmarnock. It dates from the 15th century, and in 1591 was made a burgh of barony under the Boyds, the ruling house of the district. The last Boyd who bore the title of Lord Kilmarnock was beheaded on Tower Hill, London, in 1746, for his share in the Jacobite rising. The first edition of Robert Burns's poems was published here in 1786.

KILMAURS, a town in the Cunningham division of Ayrshire, Scotland, on the Carmel, 21½ m. S. by W. of Glasgow by the Glasgow & South-Western railway. Pop. (1901), 1803. Once noted for its cutlery, the chief industries now are shoe and bonnet factories, and there are iron and coal mines in the neighbourhood. The parish church dates from 1170, and was dedicated either to the Virgin or to a Scottish saint of the 9th century called Maure. It was enlarged in 1403 and in great part rebuilt in 1888. Adjoining it is the burial-place of the earls of Glencairn, the leading personages in the district during several centuries, some of whom bore the style of Lord Kilmaurs. Their family name was Cunningham, adopted probably from the manor which they acquired in the 12th century. The town was made a burgh of barony in 1527 by the earl of that date. Burns's patron, the thirteenth earl, on whose death the poet wrote his touching "Lament," sold the Kilmaurs estate in 1786 to the marchioness of Titchfield.

KILN (O. E. *cylene*, from the Lat. *culina*, a kitchen, cooking-stove), a place for burning, baking or drying. Kilns may be divided into two classes—those in which the materials come into actual contact with the flames, and those in which the furnace is beneath or surrounding the oven. Lime-kilns are of the first class, and brick-kilns, pottery-kilns, &c., of the second, which also includes places for merely drying materials, such as hop-kilns, usually called "oasts" or "oast-houses."

KILPATRICK, NEW, or **EAST,** also called BEARSDEN, a town of Dumbartonshire, Scotland, 5½ m. N.W. of Glasgow by road, with a station on the North British railway company's branch line from Glasgow to Milngavie. Pop. (1901), 2705. The town is largely inhabited by business men from Glasgow. The public buildings include the Shaw convalescent home, Buchanan Retreat, house of refuge for girls, library, and St Peter's College, a fine structure, presented to the Roman Catholic Church in 1892 by the archbishop of Glasgow. There is some coal-mining, and lime is manufactured. Remains of the Wall of Antoninus are close to the town. At Garscube and Garscadden, both within 1½ m. of New Kilpatrick, are extensive iron-works, and at the former place coal is mined and stone quarried.

KILPATRICK, OLD, a town of Dumbartonshire, Scotland, on the right bank of the Clyde, 10½m. N.W. of Glasgow by rail, with stations on the North British and Caledonian railways. Pop. (1901), 1533. It is traditionally the birthplace of St Patrick,

whose father is said to have acted there as a Roman magistrate. Roman remains occur in the district, and the Wall of Antoninus ran through the parish. To the north, occupying an area of about 6 m. from east to west and 5 m. from north to south run the Kilpatrick Hills, of which the highest points are Duncomb and Fynloch Hill (each 1313 ft.).

KILRUSH, a seaport and watering-place of county Clare, Ireland, in the west parliamentary division, on the north shore of the Shannon estuary 45 m. below Limerick. Pop. of urban district (1901), 4179. It is the terminus of a branch of the West Clare railway. The only seaport of importance in the county, it has a considerable export trade in peat fuel, extensive fisheries, and flagstone quarries; while general fairs, horse fairs and annual agricultural shows are held. The inner harbour admits only small vessels, but there is a good pier a mile south of the town. Off the harbour lies Scattery Island (*Inis Cathaigh*), where St Senan (d. 544) founded a monastery. There are the remains of his oratory and house and of seven rude churches or chapels, together with a round tower and a holy well still in repute. The island also received the epithet of Holy, and was a favourite burial-ground until modern times.

KILSYTH, a police burgh of Stirlingshire, Scotland, on the Kelvin, 13 m. N.N.E. of Glasgow by the North British railway, and close to the Forth and Clyde canal. Pop. (1901), 7292. The principal buildings are the town and public halls, and the academy. The chief industries are coal-mining and iron-works; there are also manufactures of paper and cotton, besides quarrying of whinstone and sandstone. There are considerable remains of the Wall of Antoninus south of the town, and to the north the ruins of the old castle. Kilsyth dates from the middle of the 17th century and became a burgh of barony in 1826. It was the scene of Montrose's defeat of the Covenanters on the 15th of August 1645. The town was the centre of remarkable religious revivals in 1742–3 and 1839, the latter conducted by William Chalmers Burns (1815–1868), the missionary to China.

KILT, properly the short loose skirt or petticoat, reaching to the knees and usually made of tartan, forming part of the dress of a Scottish Highlander (see COSTUME). The word means that which is "girded or tucked up," and is apparently of Scandinavian origin, cf. Danish *kilte*, to tuck up. The early kilt was not a separate garment but was merely the lower part of the plaid, in which the Highlander wrapped himself, hanging down in folds below the belt.

KILWA (Quiloa), a seaport of German East Africa, about 200 m. S. of Zanzibar. There are two Kilwas, one on the mainland—Kilwa Kivinje; the other, the ancient city, on an island—Kilwa Kisiwani. Kilwa Kivinje, on the northern side of Kilwa Bay, is regularly laid out, the houses in the European quarter being large and substantial. The government house and barracks are fortified and are surrounded by fine public gardens. The adjacent country is fertile and thickly populated, and the trade of the port is considerable. Much of it is in the hands of Banyans. Kilwa is a starting-point for caravans to Lake Nyasa. Pop. about 5000. Most of the inhabitants are Swahili.

Kilwa Kisiwani, 18 m. to the south of the modern town, possesses a deep harbour sheltered from all winds by projecting coral reefs. The island on which it is built is separated from the mainland by a shallow and narrow channel. The ruins of the city include massive walls and bastions, remains of a palace and of two large mosques, of which the domed roofs are in fair preservation, besides several Arab forts. The new quarter contains a customs house and a few Arab buildings. Pop. about 600. On the island of Songa Manara, at the southern end of Kilwa Bay, hidden in dense vegetation, are the ruins of another city, unknown to history. Fragments of palaces and mosques in carved limestone exist, and on the beach are the remains of a lighthouse. Chinese coins and pieces of porcelain have been found on the sea-shore, washed up from the reefs.

The sultanate of Kilwa is reputed to have been founded about A.D. 975 by Ali ibn Ḥasan, a Persian prince from Shiraz, upon the site of the ancient Greek colony of Rhapta. The new state, at first confined to the town of Kilwa, extended its influence along the coast from Zanzibar to Sofala, and the city came to be regarded as the capital of the Zenj "empire" (see ZANZIBAR: "Sultanate"). An Arab chronicle gives a list of over forty sovereigns who reigned at Kilwa in a period of five hundred years (cf. A. M. H. J. Stokvis, *Manuel d'histoire*, Leiden, 1888, i. 558). Pedro Alvares Cabral, the Portuguese navigator, was the first European to visit it. His fleet, on its way to India, anchored in Kilwa Bay in 1500. Kilwa was then a large and wealthy city, possessing, it is stated, three hundred mosques. In 1502 Kilwa submitted to Vasco da Gama, but the sultan neglecting to pay the tribute imposed upon him, the city in 1505 was occupied by the Portuguese. They built a fort there; the first erected by them on the east coast of Africa. Fighting ensued between the Arabs and the Portuguese, the city was destroyed; and in 1512 the Portuguese, whose ranks had been decimated by fever, temporarily abandoned the place. Subsequently Kilwa became one of the chief centres of the slave trade. Towards the end of the 17th century it fell under the dominion of the imams of Muscat, and on the separation in 1856 of their Arabian and African possessions became subject to the sultan of Zanzibar. With the rest of the southern part of the sultan's continental dominions Kilwa was acquired by Germany in 1890 (see AFRICA, § 5; and GERMAN EAST AFRICA).

KILWARDBY, ROBERT (d. 1279), archbishop of Canterbury and cardinal, studied at the university of Paris, where he soon became famous as a teacher of grammar and logic. Afterwards joining the order of St Dominic and turning his attention to theology, he was chosen provincial prior of his order in England in 1261, and in October 1272 Pope Gregory X. terminated a dispute over the vacant archbishopric of Canterbury by appointing Kilwardby. Although the new archbishop crowned Edward I. and his queen Eleanor in August 1274, he took little part in business of state, but was energetic in discharging the spiritual duties of his office. He was charitable to the poor, and showed liberality to the Dominicans. In 1278 Pope Nicholas III. made him cardinal-bishop of Porto and Santa Rufina; he resigned his archbishopric and left England, carrying with him the registers and other valuable property belonging to the see of Canterbury. He died in Italy on the 11th of September 1279. Kilwardby was the first member of a mendicant order to attain a high position in the English Church. Among his numerous writings, which became very popular among students, are *De ortu scientiarum*, *De tempore*, *De Universali*, and some commentaries on Aristotle.

See N. Trevet, *Annales sex regum Angliae*, edited by T. Hog (London, 1845); W. F. Hook, *Lives of the Archbishops of Canterbury*, vol. iii. (London, 1860–1876); J. Quétif and J. Échard, *Scriptores ordinis Predicatorum* (Paris, 1719–1721).

KILWINNING, a municipal and police burgh of Ayrshire, Scotland, on the right bank of the Garnock, 24 m. S.W. of Glasgow by the Caledonian railway, and 26¾ m. by the Glasgow & South-Western railway. Pop. (1901), 4440. The chief buildings include the public library, the Masonic hall and the district hospital. The centre of interest, however, is the ruined abbey, originally one of the richest in Scotland. Founded about 1140 by Hugh de Morville, lord of Cunninghame, for Tyronensian monks of the Benedictine order, it was dedicated to St Winnin, who lived on the spot in the 8th century and has given his name to the town. This beautiful specimen of Early English architecture was partly destroyed in 1561, and its lands were granted to the earl of Eglinton and others. Kilwinning is the traditional birthplace of Scottish freemasonry, the lodge, believed to have been founded by the foreign architects and masons who came to build the abbey, being regarded as the mother lodge in Scotland. The royal company of archers of Kilwinning—dating, it is said, as far back as 1488—meet every July to shoot at the popinjay. The industry in weaving shawls and lighter fabrics has died out; and the large iron, coal and fire-clay works at Eglinton, and worsted spinning, employ most of the inhabitants. About a mile from Kilwinning is Eglinton Castle, the seat of the earls of Eglinton, built in 1798 in the English castellated style.

KIMBERLEY, JOHN WODEHOUSE, 1ST EARL OF (1826–1902), English statesman, was born on the 7th of January 1826, being the eldest son of the Hon. Henry Wodehouse and grandson of the 2nd Baron Wodehouse (the barony dating from 1797), whom he succeeded in 1846. He was educated at Eton and Christ Church, Oxford, where he took a first-class degree in

classics in 1847; in the same year married Lady Florence Fitzgibbon (d. 1895), daughter of the last earl of Clare. He was by inheritance a Liberal in politics, and in 1852–1856 and 1859–1861 he was under secretary of state for foreign affairs in Lord Aberdeen's and Lord Palmerston's ministries. In the interval (1856–1858) he had been envoy-extraordinary to Russia; and in 1863 he was sent on a special mission to Copenhagen on the forlorn hope of finding a peaceful solution of the Schleswig-Holstein question. The mission was a failure, but probably nothing else was possible. In 1864 he became under secretary for India, but towards the end of the year was made Lord-Lieutenant of Ireland. In that capacity he had to grapple with the first manifestations of Fenianism, and in recognition of his vigour and success he was created (1866) earl of Kimberley. In July 1866 he vacated his office with the fall of Lord Russell's ministry, but in 1868 he became Lord Privy Seal in Mr Gladstone's cabinet, and in July 1870 was transferred from that post to be secretary of state for the colonies. It was the moment of the great diamond discoveries in South Africa, and the new town of Kimberley was named after the colonial secretary of the day. After an interval of opposition from 1874 to 1880, Lord Kimberley returned to the Colonial Office in Mr Gladstone's next ministry; but at the end of 1882 he exchanged this office first for that of chancellor of the duchy of Lancaster and then for the secretaryship of state for India, a post he retained during the remainder of Mr Gladstone's tenure of power (1882–1886, 1892–1894), though in 1892–1894 he combined with it that of the lord presidency of the council. In Lord Rosebery's cabinet (1894–1895) he was foreign secretary. Lord Kimberley was an admirable departmental chief, but it is difficult to associate his own personality with any ministerial act during his occupation of all these posts. He was at the colonial office when responsible government was granted to Cape Colony, when British Columbia was added to the Dominion of Canada, and during the Boer War of 1880–81, with its conclusion at Majuba; and he was foreign secretary when the misunderstanding arose with Germany over the proposed lease of territory from the Congo Free State for the Cape to Cairo route. He was essentially a loyal Gladstonian party man. His moderation, common sense, and patriotism had their influence, nevertheless, on his colleagues. As leader of the Liberal party in the House of Lords he acted with undeviating dignity; and in opposition he was a courteous antagonist and a critic of weight and experience. He took considerable interest in education, and after being for many years a member of the senate of London University, he became its chancellor in 1899. He died in London on the 8th of April 1902, being succeeded in the earldom by his eldest and only surviving son, Lord Wodehouse (b. 1848).

KIMBERLEY, a town of the Cape province, South Africa, the centre of the Griqualand West diamond industry, 647 m. N.E. of Cape Town and 310 m. S.W. of Johannesburg by rail. Pop. (1904), 34,331, of whom 13,556 were whites. The town is built on the bare veld midway between the Modder and Vaal Rivers and is 4012 ft. above the sea. Having grown out of camps formed round the diamond mines, its plan is very irregular and in striking contrast with the rectangular outline common to South African towns. Grouped round market square are the law courts, with a fine clock tower, the post and telegraph offices and the town-hall. The public library and the hospital are in Du Toits Pan Road. In the district of Newton, laid out during the siege of 1899–1900, a monument to those who fell during the operations has been erected where four roads meet. Siege Avenue, in the suburb of Kenilworth, 250 ft. wide, a mile and a quarter long, and planted with 16 rows of trees, was also laid out during the siege. In the public gardens are statues of Queen Victoria and Cecil Rhodes. The diamond mines form, however, the chief attraction of the town (see DIAMOND). Of these the Kimberley is within a few minutes' walk of market square. The De Beers mine is one mile east of the Kimberley mine. The other principal mines, Bultfontein, Du Toits Pan and Wesselton, are still farther distant from the town. Barbed wire fencing surrounds the mines, which cover about 180 acres. The Kaffirs who work in the mines are housed in large compounds. Wire netting is spread over these enclosures, and every precaution taken to prevent the illicit disposal of diamonds. Ample provision is made for the comfort of the inmates, who in addition to food and lodging earn from 17s. to 24s. a week. Most of the white workmen employed live at Kenilworth, laid out by the De Beers company as a "model village." Beaconsfield, near Du Toits Pan Mine, is also dependent on the diamond industry.

Kimberley was founded in 1870 by diggers who discovered diamonds on the farms of Du Toits Pan and Bultfontein. In 1871 richer diamonds were found on the neighbouring farm of Vooruitzight at places named De Beers and Colesberg Kopje. There were at first three distinct mining camps, one at Du Toits Pan, another at De Beers (called De Beers Rush or Old De Beers) and the third at the Colesberg Kopje (called De Beers New Rush, or New Rush simply). The Colesberg Kopje mine was in July 1873 renamed Kimberley in honour of the then secretary of state for the colonies, the 1st earl of Kimberley, by whose direction the mines were—in 1871—taken under the protection of Great Britain. Kimberley was also chosen as the name of the town into which the mining camps developed. Doubt having arisen as to the rights of the crown to the minerals on Vooruitzight farm, litigation ensued, ending in the purchase of the farm by the state for £100,000 in 1875. In 1880 the town was incorporated in Cape Colony (see GRIQUALAND). In 1874 a great part of the population left for the newly discovered gold diggings in the Lydenburg district of the Transvaal, but others took their place. Among those early attracted to Kimberley were Cecil Rhodes and "Barney" Barnato, who in time came to represent two groups of financiers controlling the mines. The amalgamation of their interests in 1889—when the De Beers group purchased the Kimberley mine for £5,338,650—put the whole diamond production of the Kimberley fields in the hands of one company, the De Beers Consolidated Mines, Ltd., so named after the former owners of the farms on which are situated the chief mines. Kimberley in consequence became largely dependent on the good-will of the De Beers corporation, the town having practically no industries other than diamond mining. Horse-breeding is carried on to a limited extent. The value of the annual output of diamonds averages about £4,500,000. The importance of the industry led to the building of a railway from Cape Town, opened in 1885. On the outbreak of war between the British and the Boers in 1899 Kimberley was invested by a Boer force. The siege began on the 12th of October and lasted until the 15th of February 1900, when the town was relieved by General Sir John French. Among the besieged was Cecil Rhodes, who placed the resources of the De Beers company at the disposal of the defenders. In 1906 the town was put in direct railway communication with Johannesburg, and in 1908 the completion of the line from Bloemfontein gave Natal direct access to Kimberley, which thus became an important railway centre.

KIMERIDGIAN, in geology, the basal division of the Upper Oolites in the Jurassic system. The name is derived from the hamlet of Kimeridge or Kimmeridge near the coast of Dorsetshire, England. It appears to have been first suggested by T. Webster in 1812; in 1818, in the form Kimeridge Clay, it was used by Buckland. From the Dorsetshire coast, where it is splendidly exposed in the fine cliffs from St Alban's Head to Gad Cliff, it follows the line of Jurassic outcrop through Wiltshire, where there is a broad expanse between Westbury and Devizes, as far as Yorkshire, there it appears in the vale of Pickering and on the coast in Filey Bay. It generally occupied broad valleys, of which the vale of Aylesbury may be taken as typical. Good exposures occur at Seend, Calne, Swindon, Wootton Bassett, Faringdon, Abingdon, Culham, Shotover Hill, Brill, Ely and Market Rasen. Traces of the formation are found as far north as the east coast of Cromarty and Sutherland at Eathie and Helmsdale.

In England the Kimeridgian is usually divisible into an Upper Series, 600–650 ft. in the south, dark bituminous shales, paper

shales and clays with layers and nodules of cement-stones and septaria. These beds merge gradually into the overlying Portlandian formation. The Lower Series, with a maximum thickness of 400 ft., consists of clays and dark shales with septaria, cement-stones and calcareous "doggers." These lithological characters are very persistent. The Upper Kimeridgian is distinguished as the zone of *Perisphinctes biplex*, with the sub-zone of *Discina latissima* in the higher portions. *Cardioceras alternans* is the zonal ammonite characteristic of the lower division, with the sub-zone of *Ostrea deltoidea* in the lower portion. *Exogyra virgula* is common in the upper part of the lower division, and the lower part of the Upper Kimeridgian. A large number of ammonites are peculiar to this formation, including *Reineckia eudoxus*, *R. Thurmanni*, *Aspidoceras longispinus*, &c. Large dinosaurian reptiles are abundant, *Cetiosaurus*, *Gigantosaurus*, *Megalosaurus*, also plesiosaurs and ichthyosaurs; crocodilian and chelonian remains are also found. *Protocardia striatula*, *Thracia depressa*, *Belemnites abreviatus*, *B. Blainvillei*, *Lingula ovalis*, *Rhynchonella inconstans* and *Exogyra nana* are characteristic fossils. Alum has been obtained from the Kimeridge Clay, and the cement-stones have been employed in Purbeck; coprolites are found in small quantities. Bricks, tiles, flower-pots, &c., are made from the clay at Swindon, Gillingham, Brill, Ely, Horncastle, and other places. The so-called "Kimeridge coal" is a highly bituminous shale capable of being used as fuel, which has been worked on the cliff at Little Kimeridge.

The "Kimeridgien" of continental geologists is usually made to contain the three sub-divisions of A. Oppel and W. Waagen, viz.:—

Kimeridgien	Upper	(Virgulian)	with *Exogyra virgula*
	Middle	(Pteroceran)	with *Pteroceras oceani*
	Lower	(Astartian)	with *Astarte supracorallina*;

but the upper portion of this continental Kimeridgian is equivalent to some of the British Portlandian; while most of the Astartian corresponds to the Corallian. A. de Lapparent now recognizes only the Virgulian and Pteroceran in the Kimeridgien. Clays and marls with occasional limestones and sandstones represent the Kimeridgien of most of northern Europe, including Russia. In Swabia and some other parts of Germany the curious ruiniform marble *Felsenkalk* occurs on this horizon, and most of the Kimeridgien of southern Europe, including the Alps, is calcareous. Representatives of the formation occur in Caucasia, Algeria, Abyssinia, Madagascar; in South America with volcanic rocks, and possibly in California (Maripan beds), Alaska and King Charles's Land.

See "Jurassic Rocks of Britain," vols. v. and i., *Memoirs of the Geological Survey* (vol. v. contains references to literature up to 1895).

(J. A. H.)

ḲIMḤI, or QIMḤI, the family name of three Jewish grammarians and biblical scholars who worked at Narbonne in the 12th century and the beginning of the 13th, and exercised great influence on the study of the Hebrew language. The name, as is shown by manuscript testimony, was also pronounced *Ḳamḥi* and further mention is made of the French surname Petit.

JOSEPH ḲIMḤI was a native of southern Spain, and settled in Provence, where he was one of the first to set forth in the Hebrew language the results of Hebraic philology as expounded by the Spanish Jews in their Arabic treatises. He was acquainted moreover with Latin grammar, under the influence of which he resorted to the innovation of dividing the Hebrew vowels into five long vowels and five short, previous grammarians having simply spoken of seven vowels without distinction of quantity. His grammatical textbook, *Sefer Ha-Zikkaron*, "Book of Remembrance" (ed. W. Bacher, Berlin, 1888), was marked by methodical comprehensiveness, and introduced into the theory of the verbs a new classification of the stems which has been retained by later scholars. In the far more ample *Sefer Ha-Galuy*, "Book of Demonstration" (ed. Matthews, Berlin, 1887), Joseph Ḳimḥi attacks the philological work of the greatest French Talmud scholar of that day, R. Jacob Tam, who espoused the antiquated system of Menaḥem b. Saruq, and this he supplements by an independent critique of Menaḥem. This work is a mine of varied exegetical and philological details. He also wrote commentaries—the majority of which are lost—on a great number of the scriptural books. Those on Proverbs and Job have been published. He composed an apologetic work under the title *Sefer Ha-Berith* ("Book of the Bond"), a fragment of which is extant, and translated into Hebrew the ethico-philosophical work of Baḥya ibn Paquda ("Duties of the Heart"). In his commentaries he also made contributions to the comparative philology of Hebrew and Arabic.

MOSES ḲIMḤI was the author of a Hebrew grammar, known—after the first three words—as *Mahalak Shebile Ha-daat*, or briefly as *Mahalak*. It is an elementary introduction to the study of Hebrew, the first of its kind, in which only the most indispensable definitions and rules have a place, the remainder being almost wholly occupied by paradigms. Moses Ḳimḥi was the first who made the verb *paqadh* a model for conjugation, and the first also who introduced the now usual sequence in the enumeration of stem-forms. His handbook was of great historical importance as in the first half of the 16th century it became the favourite manual for the study of Hebrew among non-Judaic scholars (1st ed., Pesaro, 1508). Elias Levita (*q.v.*) wrote Hebrew explanations, and Sebastian Münster translated it into Latin. Moses Ḳimḥi also composed commentaries to the biblical books; those on Proverbs, Ezra and Nehemiah are in the great rabbinical bibles falsely ascribed to Abraham ibn Ezra.

DAVID ḲIMḤI (*c.* 1160–1235), also known as *Redaq* (= R. David Ḳimḥi), eclipsed the fame both of his father and his brother. From the writings of the former he quotes a great number of explanations, some of which are known only from this source. His *magnum opus* is the *Sefer Miklol*, "Book of Completeness." This falls into two divisions: the grammar, to which the title of the whole, *Miklol*, is usually applied (first printed in Constantinople, 1532–1534, then, with the notes of Elias Levita, at Venice, 1545), and the lexicon, *Sefer Hashorashim*, "Book of Roots," which was first printed in Italy before 1480, then at Naples in 1490, and at Venice in 1546 with the annotations of Elias. The model and the principal source for this work of David Ḳimḥi's was the book of R. Jonah (Abulwalid), which was cast in a similar bipartite form; and it was chiefly due to Ḳimḥi's grammar and lexicon that, while the contents of Abulwalid's works were common knowledge, they themselves remained in oblivion for centuries. In spite of this dependence on his predecessors his work shows originality, especially in the arrangement of his material. In the grammar he combined the paradigmatic method of his brother Moses with the procedure of the older scholars who devoted a close attention to details. In his dictionary, again, he recast the lexicological materials independently, and enriched lexicography itself, especially by his numerous etymological explanations. Under the title *Et Sofer*, "Pen of the Writer" (Lyk, 1864), David Ḳimḥi composed a sort of grammatical compendium as a guide to the correct punctuation of the biblical manuscripts; it consists, for the most part, of extracts from the *Miklol*. After the completion of his great work he began to write commentaries on portions of the Scriptures. The first was on Chronicles, then followed one on the Psalms, and finally his exegetical masterpiece—the commentary on the prophets. His annotations on the Psalms are especially interesting for the polemical excursuses directed against the Christian interpretation. He was also responsible for a commentary on Genesis (ed. A. Günsburg, Pressburg, 1842), in which he followed Moses Maimonides in explaining biblical narratives as visions. He was an enthusiastic adherent of Maimonides, and, though far advanced in years, took an active part in the battle which raged in southern France and Spain round his philosophico-religious writings. The popularity of his biblical exegesis is demonstrated by the fact that the first printed texts of the Hebrew Bible were accompanied by his commentary: the Psalms 1477, perhaps at Bologna; the early Prophets, 1485, Soncino; the later Prophets, ibid. 1486.

His commentaries have been frequently reprinted, many of them in Latin translations. A new edition of that on the Psalms was begun by Schiller-Szinessy (*First Book of Psalms*, Cambridge, 1883). Abr. Geiger wrote of the three Ḳimḥis in the Hebrew periodical *Oẓar Neḥmad* (vol. ii., 1857 = A. Geiger, *Gesammelte Schriften*, v. 1–47). See further the *Jewish Encyclopedia*. (W. BA.)

KIN (O. E. *cyn*, a word represented in nearly all Teutonic languages, cf. Du. *kunne*, Dan. and Swed. *kön*, Goth *kuni*, tribe; the Teutonic base is *kunya*; the equivalent Aryan root *gan-* to beget, produce, is seen in Gr. *γένος*, Lat. *genus*, cf. "kind"), a collective word for persons related by blood, as descended from a common ancestor. In law, the term "next of kin" is applied to the person or persons who, as being in the nearest degree of blood relationship to a person dying intestate, share according to

degree in his personal estate (see INTESTACY, and INHERITANCE). "Kin" is frequently associated with "kith" in the phrase "kith and kin," now used as an emphasized form of "kin" for family relatives. It properly means one's "country and kin," or one's "friends and kin." Kith (O.E. *cyððe* and *cyð*, native land, acquaintances) comes from the stem of *cunnan*, to know, and thus means the land or people one knows familiarly.

The suffix *-kin*, chiefly surviving in English surnames, seems to have been early used as a diminutive ending to certain Christian names in Flanders and Holland. The termination is represented by the diminutive *-chen* in German, as in *Kindchen*, *Häuschen*, &c. Many English words, such as "pumpkin," "firkin," seem to have no diminutive significance, and may have been assimilated from earlier forms, *e.g.* "pumpkin" from "pumpion."

KINCARDINESHIRE, or THE MEARNS, an eastern county of Scotland, bounded E. by the North Sea, S. and S.W. by Forfarshire, and N.W. and N. by Aberdeenshire. Area, 243,974 acres, or 381 sq. m. In the west and north-west the Grampians are the predominant feature. The highest of their peaks is Mount Battock (2555 ft.), where the counties of Aberdeen, Forfar and Kincardine meet, but there are a score of hills exceeding 1500 ft. in height. In the extreme north, on the confines of Aberdeenshire, the Hill of Fare, famous for its sheep walks, attains an altitude of 1545 ft. In the north the county slopes from the Grampians to the picturesque and finely-wooded valley of the Dee, and in the south it falls to the Howe (Hollow) of the Mearns, which is a continuation north-eastwards of Strathmore. The principal rivers are Bervie Water (20 m. long), flowing south-eastwards to the North Sea; the Water of Feugh (20 m.) taking a north-easterly direction and falling into the Dee at Banchory, and forming near its mouth a beautiful cascade; the Dye (15 m.) rising in Mount Battock and ending its course in the Feugh; Luther Water (14 m.) springing not far from the castle of Drumtochty and meandering pleasantly to its junction with the North Esk; the Cowie (13 m.) and the Carron (8½ m.) entering the sea at Stonehaven. The Dee and North Esk serve as boundary streams during part of their course, the one of Aberdeenshire, the other of Forfarshire. Loch Loirston, in the parish of Nigg, and Loch Lumgair, in Dunnottar parish, both small, are the only lakes in the shire. Of the glens Glen Dye in the north centre of the county is remarkable for its beauty, and the small Den Fenella, to the south-east of Laurencekirk, contains a picturesque waterfall. Its name perpetuates the memory of Fenella, daughter of a thane of Angus, who was slain here after betraying Kenneth II. to his enemies, who (according to local tradition) made away with him in Kincardine Castle. Excepting in the vicinity of St Cyrus, the coast from below Johnshaven to Girdle Ness presents a bold front of rugged cliffs, with an average height of from 100 to 250 ft., interrupted only by occasional creeks and bays, as at Johnshaven, Gourdon, Bervie, Stonehaven, Portlethen, Findon, Cove and Nigg.

Geology.—The great fault which traverses Scotland from shore to shore passes through this county from Craigeven Bay, about a mile north of Stonehaven, by Fenella Hill to Edzell. On the northern side of this line are the old crystalline schists of the Dalradian group; on the southern side Old Red Sandstone occupies all the remaining space. Good exposures of the schists are seen, repeatedly folded, in the cliffs between Aberdeen and Stonehaven. They consist of a lower series of greenish slates and a higher, more micaceous and schistose series with grits; bands of limestone occur in these rocks near Bunchory. Besides the numerous minor flexures the schists are bent into a broad synclinal fold which crosses the county, its axis lying in a south-westerly-north-easterly direction. Rising through the schists are several granite masses, the largest being that forming the high ground around Mt Battock; south of the Dee are several smaller masses, some of which have been extensively quarried. The lower part of the Old Red Sandstone consists of flags, red sandstones and purple clays in great thickness; these are followed by coarse conglomerates, well seen in the cliff at Dunnottar Castle, with ashy grits and some thin sheets of diabase. The diabase forms the Bruxie and Leys Hills and some minor elevations. Above the volcanic series more red sandstones, conglomerates and marls appear. The Old Red Sandstone is folded synclinally in a direction continuing the vale of Strathmore; south of this is an anticline, as may be seen on the coast between St Cyrus and Kinneff. Glacial striae on the higher ground and débris on the lower ground show that the direction taken by the ice flow was south-eastward on the hills but as the shore was approached it gradually took on an easterly and finally a northerly direction.

Climate and Agriculture.—The climate is healthy, but often cold, owing to the exposure to east winds. The average temperature for the year is 45° F., for July 58°, and for January 37°. The average annual rainfall is 34 in. Much of the Grampian territory is occupied by grouse moors, but the land by the Dee, in the Howe and along the coast, is scientifically farmed and yields well. The soil of the Howe is richer and stronger than that in the Dee valley, but the most fertile region is along the coast, where the soil is generally deep loam resting on clay, although in some places it is poor and thin, or stiff and cold. Oats are the principal crop, wheat is not largely grown, but the demands of the distillers maintain a very considerable acreage under barley. Rather more than one-tenth of the total area is under wood. Turnips form the main green crop, but potatoes are extensively raised. A little more than half the holdings consist of 50 acres and under. Great attention is paid to livestock. Shorthorns are the most common breed, but the principal home-bred stock is a cross between shorthorned and polled, though there are many valuable herds of pure polled. Cattle-feeding is carried on according to the most advanced methods. Blackfaced sheep are chiefly kept on the hill runs, Cheviots or a cross with Leicesters being usually found on the lowland farms. Most of the horses are employed in connexion with the cultivation of the soil, but several good strains, including Clydesdales, are retained for stock purposes. Pigs are also reared in considerable numbers.

Other Industries.—Apart from agriculture, the principal industry is the fishing, of which Stonehaven is the centre. The coast being dangerous and the harbours difficult in rough weather, the fishermen often run great risks. The village of Findon (pron. *Finnan*) has given its name to the well-known smoked haddocks, which were first cured in this way at that hamlet. The salmon fisheries of the sea and the rivers yield a substantial annual return. Manufactures are of little more than local importance. Woollens are made at Stonehaven, and at Bervie, Laurencekirk and a few other places flax-spinning and weaving are carried on. There are also some distilleries, breweries and tanneries. Stonehaven, Gourdon and Johnshaven are the chief ports for seaborne trade.

The Deeside railway runs through the portion of the county on the northern bank of the Dee. The Caledonian and North British railways run to Aberdeen via Laurencekirk to Stonehaven, using the same metals, and there is a branch line of the N.B.R. from Montrose to Bervie. There are also coaches between Blairs and Aberdeen, Bervie and Stonehaven, Fettercairn and Edzell, Banchory and Birse, and other points.

Population and Government.—The population was 35,492 in 1891, and 40,923 in 1901, when 103 persons spoke Gaelic and English. The chief town is Stonehaven (pop. in 1901, 4577) with Laurencekirk (1512) and Banchory (1475), but part of the city of Aberdeen, with a population of 9386, is within the county. The county returns one member to parliament, and Bervie, the only royal burgh, belongs to the Montrose group of parliamentary burghs. Kincardine is united in one sheriffdom with the shires of Aberdeen and Banff, and one of the Aberdeen sheriffs-substitute sits at Stonehaven. The county is under school-board jurisdiction. The academy at Stonehaven and a few of the public schools earn grants for higher education. The county council hands over the "residue" grant to the county secondary education committee, which expends it in technical education grants. At Blairs, in the north-east of the shire near the Dee, is a Roman Catholic college for the training of young men for the priesthood.

History.—The annals of Kincardineshire as a whole are almost blank. The county belonged of old to the district of Pictavia and apparently was overrun for a brief period by the Romans. In the parish of Fetteresso are the remains of the camp of Raedykes, in which, according to tradition, the Caledonians under Galgacus were lodged before their battle with Agricola. It is also alleged that in the same district Malcolm I. was killed (954) whilst endeavouring to reduce the unruly tribes of this region. Mearns, the alternative name for the county, is believed to have been derived from Mernia, a Scottish king, to whom the land was granted, and whose brother, Angus, had obtained the adjoining shire of Forfar. The antiquities consist mostly of stone circles, cairns, tumuli, standing stones and a structure in the parish of Dunnottar vaguely known as a "Picts' kiln." By an extraordinary reversion of fortune the town which gave the shire its name has practically vanished. It stood about 2 m. N.E. of Fettercairn, and by the end of the 16th century had declined to a mere hamlet, being represented now only by

the ruins of the royal castle and an ancient burial-ground. The Bruces, earls of Elgin, also bear the title of earl of Kincardine.

See A. Jervise, *History and Traditions of the Lands of the Lindsays* (1853), *History and Antiquities of the Mearns* (1858), *Memorials of Angus and the Mearns* (1861); J. Anderson, *The Black Book of Kincardineshire* (Stonehaven, 1879); C. A. Mollyson, *The Parish of Fordoun* (Aberdeen, 1893); A. C. Cameron, *The History of Fettercairn* (Paisley, 1899).

KINCHINJUNGA, or KANCHANJANGA, the third (or second; see K2) highest mountain in the world. It is a peak of the eastern Himalayas, situated on the boundary between Sikkim and Nepal, with an elevation of 28,146 ft. Kinchinjunga is best seen from the Indian hill-station of Darjeeling, where the view of this stupendous mountain, dominating all intervening ranges and rising from regions of tropical undergrowth to the altitude of eternal snows, is one of the grandest in the world.

KIND (O. E. *ge-cynde*, from the same root as is seen in "kin," *supra*), a word in origin meaning birth, nature, or as an adjective, natural. From the application of the term to the natural disposition or characteristic which marks the class to which an object belongs, the general and most common meaning of "class," genus or species easily develops; that of race, natural order or group, is particularly seen in such expressions as "mankind." The phrase "payment in kind," *i.e.* in goods or produce as distinguished from money, is used as equivalent to the Latin *in specie*; in ecclesiastical usage "communion in both kinds" or "in one kind" refers to the elements of bread and wine (Lat. *species*) in the Eucharist. The present main sense of the adjective "kind," *i.e.* gentle, friendly, benevolent, has developed from the meaning "born," "natural," through "of good birth, disposition or nature," "naturally well-disposed."

KINDERGARTEN, a German word meaning "garden of children," the name given by Friedrich Froebel to a kind of "play-school" invented by him for furthering the physical, moral and intellectual growth of children between the ages of three and seven. For the theories on which this type of school was based see FROEBEL. Towards the end of the 18th century Pestalozzi planned, and Oberlin formed, day-asylums for young children. Schools of this kind took in the Netherlands the name of "play school," and in England, where they have especially thriven, of "infant schools" (*q.v.*). But Froebel's idea of the "Kindergarten" differed essentially from that of the infant schools. The child required to be prepared for society by being early associated with its equals; and young children thus brought together might have their employments, especially their chief employment, play, so organized as to draw out their capacities of feeling and thinking, and even of inventing and creating.

Froebel therefore invented a course of occupations, most of which are social games. Many of the games are connected with the "gifts," as he called the simple playthings provided for the children. These "gifts" are, in order, six coloured balls, a wooden ball, a cylinder and a cube, a cube cut to form eight smaller cubes, another cube cut to form eight parallelograms, square and triangular tablets of coloured wood, and strips of lath, rings and circles for pattern-making. In modern kindergartens much stress has been laid on such occupations as sand-drawing, modelling in clay and paper, pattern-making, plaiting, &c. The artistic faculty was much thought of by Froebel, and, as in the education of the ancients, the sense of rhythm in sound and motion was cultivated by music and poetry introduced in the games. Much care was to be given to the training of the senses, especially those of sight, sound and touch. Intuition or first-hand experience (*Anschauung*) was to be recognized as the true basis of knowledge, and though stories were to be told, instruction of the imparting and "learning-up" kind was to be excluded. Froebel sought to teach the children not what to think but how to think, in this following in the steps of Pestalozzi, who had done for the child what Bacon nearly two hundred years before had done for the philosopher. Where possible the children were to be much in the open air, and were each to cultivate a little garden.

The first kindergarten was opened at Blankenburg, near Rudolstadt, in 1837, but after a needy existence of eight years was closed for want of funds. In 1851 the Prussian government declared that "schools founded on Froebel's principles or principles like them could not be allowed." As early as 1854 it was introduced into England, and Henry Barnard reported on it that it was "by far the most original, attractive and philosophical form of infant development the world has yet seen" (*Report to Governor of Connecticut*, 1854). The great propagandist of Froebelism, the Baroness Berta von Marenholtz-Bülow (1811–1893), drew the attention of the French to the kindergarten from the year 1855, and Michelet declared that Froebel had "solved the problem of human education." In Italy the kindergarten was introduced by Madame Salis-Schwabe. In Austria it is recognized and regulated by the government, though the Volks-Kindergärten are not numerous. But by far the greatest developments of the kindergarten system are in the United States and in Belgium. The movement was begun in the United States by Miss Elizabeth Peabody in 1867, aided by Mrs Horace Mann and Dr Henry Barnard. The first permanent kindergarten was established in St Louis in 1873 by Miss Susan Blow and Dr W. T. Harris. In Belgium the mistresses of the "Écoles gardiennes" are instructed in the "idea of the kindergarten" and "Froebel's method," and in 1880 the minister of public instruction issued a programme for the "Écoles Gardiennes Communales," which is both in fact and in profession a kindergarten manual.

For the position of the kindergarten system in the principal countries of the world see *Report of a Consultative Committee upon the School Attendance of Children below the Age of Five*, English Board of Education Reports (Cd. 4259, 1908); and "The Kindergarten," by Laura Fisher, *Report of the United States Commissioner for Education for 1903*, vol. i. ch. xvi. (Washington, 1905).

KINDĪ [ABŪ YŪSUF YA'QŪB IBN ISḤĀQ UL-KINDĪ, sometimes called pre-eminently "The Philosopher of the Arabs"] flourished in the 9th century, the exact dates of his birth and death being unknown. He was born in Kufa, where his father was governor under the Caliphs Mahdi and Harun al-Rashīd. His studies were made in Baṣra and Bagdad, and in the latter place he remained, occupying according to some a government position. In the orthodox reaction under Motawakkil, when all philosophy was suspect, his library was confiscated, but he himself seems to have escaped. His writings—like those of other Arabian philosophers—are encyclopaedic and are concerned with most of the sciences; they are said to have numbered over two hundred, but fewer than twenty are extant. Some of these were known in the middle ages, for Kindī is placed by Roger Bacon in the first rank after Ptolemy as a writer on optics. His work *De Somniorum Visione* was translated by Gerard of Cremona (*q.v.*) and another was published as *De medicinarum compositarum gradibus investigandis Libellus* (Strassburg, 1531). He was one of the earliest translators and commentators of Aristotle, but like Fārābī (*q.v.*) appears to have been superseded by Avicenna.

See G. Flügel, *Al Kindi genannt der Philosoph der Araber* (Leipzig, 1857), and T. J. de Boer, *Geschichte der Philosophie im Islam* (Stuttgart, 1901), pp. 90 sqq.; also ARABIAN PHILOSOPHY. (G. W. T.)

KINEMATICS (from Gr. *κίνημα*, a motion), the branch of mechanics which discusses the phenomena of motion without reference to force or mass (see MECHANICS).

KINETICS (from Gr. *κινεῖν*, to move), the branch of mechanics which discusses the phenomena of motion as affected by force; it is the modern equivalent of dynamics in the restricted sense (see MECHANICS).

KING, CHARLES WILLIAM (1818–1888), English writer on ancient gems, was born at Newport (Mon.) on the 5th of September 1818. He entered Trinity College, Cambridge, in 1836; graduated in 1840, and obtained a fellowship in 1842; he was senior fellow at the time of his death in London on the 25th of March 1888. He took holy orders, but never held any cure. He spent much time in Italy, where he laid the foundation of his collection of gems, which, increased by subsequent purchases in London, was sold by him in consequence of his failing eyesight and was presented in 1881 to the Metropolitan Museum of Art, New York. King was recognized universally as one of the greatest authorities in this department of art. His chief works on the subject are: *Antique Gems, their Origin, Uses and Value* (1860), a complete and exhaustive treatise; *The Gnostics and their Remains* (2nd ed. by J. Jacobs, 1887, which

led to an animated correspondence in the *Athenaeum*); *The Natural History of Precious Stones and Gems and of the Precious Metals* (1865); *The Handbook of Engraved Gems* (2nd ed., 1885); *Early Christian Numismatics* (1873). King was thoroughly familiar with the works of Greek and Latin authors, especially Pausanias and the elder Pliny, which bore upon the subject in which he was most interested; but he had little taste for the minutiae of verbal criticism. In 1869 he brought out an edition of Horace, illustrated from antique gems; he also translated Plutarch's *Moralia* (1882) and the theosophical works of the Emperor Julian (1888) for Bohn's Classical Library.

KING, CLARENCE (1842–1901), American geologist, was born at Newport, Rhode Island, U.S.A., on the 6th of January 1842. He graduated at Yale in 1862. His most important work was the geological exploration of the fortieth parallel, of which the main reports (1876 and 1877) comprised the geological and topographical atlas of the Rocky Mountains, the Green River and Utah basins, and the Nevada plateau and basin. When the United States Geological Survey was consolidated in 1879 King was chosen director, and he vigorously conducted investigations in Colorado, and in the Eureka district and on the Comstock lode in Nevada. He held office for a year only; in later years his only noteworthy contribution to geology was an essay on the age of the earth, which appeared in the annual report of the Smithsonian Institution for 1893. He died at Phoenix, Arizona, on the 24th of December 1901.

KING, EDWARD (1612–1637), the subject of Milton's *Lycidas*, was born in Ireland in 1612, the son of Sir John King, a member of a Yorkshire family which had migrated to Ireland. Edward King was admitted a pensioner of Christ's College, Cambridge, on the 9th of June 1626, and four years later was elected a fellow. Milton, though two years his senior and himself anxious to secure a fellowship, remained throughout on terms of the closest friendship with his rival, whose amiable character seems to have endeared him to the whole college. King served from 1633 to 1634 as praelector and tutor of his college, and was to have entered the church. His career, however, was cut short by the tragedy which inspired Milton's verse. In 1637 he set out for Ireland to visit his family, but on the 10th of August the ship in which he was sailing struck on a rock near the Welsh coast, and King was drowned. Of his own writings many Latin poems contributed to different collections of Cambridge verse survive, but they are not of sufficient merit to explain the esteem in which he was held.

A collection of Latin, Greek and English verse written in his memory by his Cambridge friends was printed at Cambridge in 1638, with the title *Justa Edouardo King naufrago ab amicis moerentibus amoris et μνείας χάριν*. The second part of this collection has a separate title-page, *Obsequies to the Memorie of Mr Edward King, Anno Dom. 1638*, and contains thirteen English poems, of which *Lycidas*[1] (signed J. M.) is the last.

KING, EDWARD (1829–1910), English bishop, was the second son of the Rev. Walter King, archdeacon of Rochester and rector of Stone, Kent. Graduating from Oriel College, Oxford, he was ordained in 1854, and four years later became chaplain and lecturer at Cuddesdon Theological College. He was principal at Cuddesdon from 1863 to 1873, when he became regius professor of pastoral theology at Oxford and canon of Christ Church. To the world outside he was only known at this time as one of Dr Pusey's most intimate friends and as a leading member of the English Church Union. But in Oxford, and especially among the younger men, he exercised an exceptional influence, due, not to special profundity of intellect, but to his remarkable charm in personal intercourse, and his abounding sincerity and goodness. In 1885 Dr King was made bishop of Lincoln. The most eventful episode of his episcopate was his prosecution (1888–1890) for ritualistic practices before the archbishop of Canterbury, Dr Benson, and, on appeal, before the judicial committee of the Privy Council (see LINCOLN JUDGMENT). Dr King, who loyally conformed his practices to the archbishop's judgment, devoted himself unsparingly to the work of his diocese; and, irrespective of his High Church views, he won the affection and reverence of all classes by his real saintliness of character. The bishop, who never married, died at Lincoln on the 8th of March 1910.

See the obituary notice in *The Times*, March 9, 1910.

KING, HENRY (1591–1669), English bishop and poet, eldest son of John King, afterwards bishop of London, was baptized on the 16th of January 1591. With his younger brother John he proceeded from Westminster School to Christ Church, Oxford, where both matriculated on the 20th of January 1609. Henry King entered the church, and after receiving various ecclesiastical preferments he was made bishop of Chichester in 1642, receiving at the same time the rich living of Petworth, Sussex. On the 29th of December of that year Chichester surrendered to the Parliamentary army, and King was among the prisoners. After his release he found an asylum with his brother-in-law, Sir Richard Hobart of Langley, Buckinghamshire, and afterwards at Richkings near by, with Lady Salter, said to have been a sister of Dr Brian Duppa (1588–1662). King was a close friend of Duppa and personally acquainted with Charles I. In one of his poems dated 1649 he speaks of the *Eikon Basilike* as the king's own work. Restored to his benefice at the Restoration, King died at Chichester on the 30th of September 1669. His works include *Poems, Elegies, Paradoxes and Sonets* (1657), *The Psalmes of David from the New Translation of the Bible, turned into Meter* (1651), and several sermons. He was one of the executors of John Donne, and prefixed an elegy to the 1663 edition of his friend's poems.

King's Poems and Psalms were edited, with a biographical sketch, by the Rev. J. Hannah (1843).

KING, RUFUS (1755–1827), American political leader, was born on the 24th of March 1755 at Scarborough, Maine, then a part of Massachusetts. He graduated at Harvard in 1777, read law at Newburyport, Mass., with Theophilus Parsons, and was admitted to the bar in 1780. He served in the Massachusetts General Court in 1783–1784 and in the Confederation Congress in 1784–1787. During these critical years he adopted the "states' rights" attitude. It was largely through his efforts that the General Court in 1784 rejected the amendment to the Articles of Confederation authorizing Congress to levy a 5% impost. He was one of the three Massachusetts delegates in Congress in 1785 who refused to present the resolution of the General Court proposing a convention to amend the articles. He was also out of sympathy with the meeting at Annapolis in 1786. He did good service, however, in opposing the extension of slavery. Early in 1787 King was moved by the Shays Rebellion and by the influence of Alexander Hamilton to take a broader view of the general situation, and it was he who introduced the resolution in Congress, on the 21st of February 1787, sanctioning the call for the Philadelphia constitutional convention. In the convention he supported the large-state party, favoured a strong executive, advocated the suppression of the slave trade, and opposed the counting of slaves in determining the apportionment of representatives. In 1788 he was one of the most influential members of the Massachusetts convention which ratified the Federal Constitution. He married Mary Alsop (1769–1819) of New York in 1786 and removed to that city in 1788. He was elected a member of the New York Assembly in the spring of 1789, and at a special session of the legislature held in July of that year was chosen one of the first representatives of New York in the United States Senate. In this body he served in 1789–1796, supported Hamilton's financial measures, Washington's neutrality proclamation and the Jay Treaty, and became one of the recognized leaders of the Federalist party. He was minister to Great Britain in 1796–1803 and again in 1825–1826, and was the Federalist candidate for vice-president in 1804 and 1808, and for president in 1816, when he

[1] J. W. Hales, in the *Athenaeum* for the 1st of August 1891, suggests that in writing King's elegy Milton had in his mind, besides the idylls of Theocritus, a Latin eclogue of Giovanni Baptista Amalteo entitled *Lycidas*, in which Lycidas bids farewell to the land he loves and prays for gentle breezes on his voyage. He was familiar with the Italian Latin poets of the Renaissance, and he may also have been influenced in his choice of the name by the shepherd Lycidas in Sannazaro's eclogue *Phillis*.

received 34 electoral votes to 183 cast for Monroe. He was again returned to the Senate in 1813, and was re-elected in 1819 as the result of a struggle between the Van Buren and Clinton factions of the Democratic–Republican party. In the Missouri Compromise debates he supported the anti-slavery programme in the main, but for constitutional reasons voted against the second clause of the Tallmadge Amendment providing that all slaves born in the state after its admission into the Union should be free at the age of twenty-five years. He died at Jamaica, Long Island, on the 29th of April 1827.

The Life and Correspondence of Rufus King, begun about 1850 by his son, Charles King, was completed by his grandson, Charles R. King, and published in six volumes (New York, 1894–1900).

Rufus King's son, JOHN ALSOP KING (1788–1867), was educated at Harrow and in Paris, served in the war of 1812 as a lieutenant of a cavalry company, and was a member of the New York Assembly in 1819–1821 and of the New York Senate in 1823. When his father was sent as minister to Great Britain in 1825 he accompanied him as secretary of the American legation, and when his father returned home on account of ill health he remained as chargé d'affaires until August 1826. He was a member of the New York Assembly again in 1832 and in 1840, was a Whig representative in Congress in 1849–1851, and in 1857–1859 was governor of New York State. He was a prominent member of the Republican party, and in 1861 was a delegate to the Peace Conference in Washington.

Another son, CHARLES KING (1789–1867), was also educated abroad, was captain of a volunteer regiment in the early part of the war of 1812, and served in 1814 in the New York Assembly, and after working for some years as a journalist was president of Columbia College in 1849–1864.

A third son, JAMES GORE KING (1791–1853), was an assistant adjutant-general in the war of 1812, was a banker in Liverpool and afterwards in New York, and was president of the New York & Erie railroad until 1837, when by his visit to London he secured the loan to American bankers of £1,000,000 from the governors of the Bank of England. In 1849–1851 he was a representative in Congress from New Jersey.

Charles King's son, RUFUS KING (1814–1876), graduated at the U.S. Military Academy in 1833, served for three years in the engineer corps, and, after resigning from the army, became assistant engineer of the New York & Erie railroad. He was adjutant-general of New York state in 1839–1843, and became a brigadier-general of volunteers in the Union army in 1861, commanded a division in Virginia in 1862–1863, and, being compelled by ill health to resign from the army, was U.S. minister to the Papal States in 1863–1867.

His son, CHARLES KING (b. 1844), served in the artillery until 1870 and in the cavalry until 1879; he was appointed brigadier-general U.S. Volunteers in the Spanish War in 1898, and served in the Philippines. He wrote *Famous and Decisive Battles* (1884), *Campaigning with Crook* (1890), and many popular romances of military life.

KING, THOMAS (1730–1805), English actor and dramatist, was born in London on the 20th of August 1730. Garrick saw him when appearing as a strolling player in a booth at Windsor, and engaged him for Drury Lane. He made his first appearance there in 1748 as the Herald in *King Lear*. He played the part of Allworth in the first presentation of Massinger's *New Way to Pay Old Debts* (1748), and during the summer he played Romeo and other leading parts in Bristol. For eight years he was the leading comedy actor at the Smock Alley theatre in Dublin, but in 1759 he returned to Drury Lane and took leading parts until 1802. One of his earliest successes was as Lord Ogleby in *The Clandestine Marriage* (1766), which was compared to Garrick's Hamlet and Kemble's Coriolanus, but he reached the climax of his reputation when he created the part of Sir Peter Teazle at the first representation of *The School for Scandal* (1777). He was the author of a number of farces, and part-owner and manager of several theatres, but his fondness for gambling brought him to poverty. He died on the 11th of December 1805.

KING, WILLIAM (1650–1729), Anglican divine, the son of James King, an Aberdeen man who migrated to Antrim, was born in May 1650. He was educated at Trinity College, Dublin, and after being presented to the parish of St Werburgh, Dublin, in 1679, became dean of St Patrick's in 1689, bishop of Derry in 1691, and archbishop of Dublin in 1702. In 1718 he founded the divinity lectureship in Trinity College, Dublin, which bears his name. He died in May 1729. King was the author of *The State of the Protestants in Ireland under King James's Government* (1691), but is best known by his *De Origine Mali* (1702; Eng. trans., 1731), an essay deemed worthy of a reply by Bayle and Leibnitz. King was a strong supporter of the Revolution, and his voluminous correspondence is a valuable help to our knowledge of the Ireland of his day.

See *A Great Archbishop of Dublin, William King, D.D.*, edited by Sir C. S. King, Bart. (1908).

KING, WILLIAM (1663–1712), English poet and miscellaneous writer, son of Ezekiel King, was born in 1663. From his father he inherited a small estate and he was connected with the Hyde family. He was educated at Westminster School under Dr Busby, and at Christ Church, Oxford (B.A. 1685; D.C.L. 1692). His first literary enterprise was a defence of Wycliffe, written in conjunction with Sir Edward Hannes (d. 1710) and entitled *Reflections upon Mons. Varillas's History of Heresy . . .* (1688). He became known as a humorous writer on the Tory and High Church side. He took part in the controversy aroused by the conversion of the once stubborn non-juror William Sherlock, one of his contributions being an entertaining ballad, "The Battle Royal," in which the disputants are Sherlock and South. In 1694 he gained the favour of Princess Anne by a defence of her husband's country entitled *Animadversions on the Pretended Account of Denmark*, in answer to a depreciatory pamphlet by Robert (afterwards Viscount) Molesworth. For this service he was made secretary to the princess. He supported Charles Boyle in his controversy with Richard Bentley over the genuineness of the *Epistles of Phalaris*, by a letter (printed in *Dr Bentley's Dissertations . . .* (1698), more commonly known as *Boyle against Bentley*), in which he gave an account of the circumstances of Bentley's interview with the bookseller Bennet. Bentley attacked Dr King in his *Dissertation* in answer (1699) to this book, and King replied with a second letter to his friend Boyle. He further satirized Bentley in ten *Dialogues of the Dead relating to . . . the Epistles of Phalaris* (1699). In 1700 he published *The Transactioneer, with some of his Philosophical Fancies, in two Dialogues*, ridiculing the credulity of Hans Sloane, who was then the secretary of the Royal Society. This was followed up later with some burlesque *Useful Transactions in Philosophy* (1709). By an able defence of his friend, James Annesley, 5th earl of Anglesey, in a suit brought against him by his wife before the House of Lords in 1701, he gained a legal reputation which he did nothing further to advance. He was sent to Ireland in 1701 to be judge of the high court of admiralty, and later became sole commissioner of the prizes, keeper of the records in the Bermingham Tower of Dublin Castle, and vicar-general to the primate. About 1708 he returned to London. He served the Tory cause by writing for *The Examiner* before it was taken up by Swift. He wrote four pamphlets in support of Sacheverell, in the most considerable of which, "A Vindication of the Rev. Dr Henry Sacheverell . . . in a Dialogue between a Tory and a Whig" (1711), he had the assistance of Charles Lambe of Christ Church and of Sacheverell himself. In December 1711 Swift obtained for King the office of gazetteer, worth from £200 to £250. King was now very poor, but he had no taste for work, and he resigned his office on the 1st of July 1712. He died on the 25th of December in the same year.

The other works of William King include: *A Journey to London, in the year 1698. After the Ingenious Method of that made by Dr Martin Lister to Paris, in the same Year . . .* (1699), which was considered by the author to be his best work; *Adversaria, or Occasional Remarks on Men and Manners*, a selection from his critical note-book, which shows wide and varied reading; *Rufinus, or An Historical Essay on the Favourite Ministry* (1712), a satire on the duke of Marlborough. His chief poems are: *The Art of Cookery: in imitation of Horace's*

Art of Poetry. With some Letters to Dr Lister and Others (1708), one of his most amusing works; *The Art of Love; in imitation of Ovid* . . . (1709); "Mully of Mountoun," and a burlesque "Orpheus and Eurydice." A volume of *Miscellanies in Prose and Verse* appeared in 1705; his *Remains* . . . were edited by J. Brown in 1732; and in 1776 John Nichols produced an excellent edition of his *Original Works . . . with Historical Notes and Memoirs of the Author.* Dr Johnson included him in his *Lives of the Poets*, and his works appear in subsequent collections.

King is not to be confused with another WILLIAM KING (1685–1763), author of a mock-heroic poem called *The Toast* (1736) satirizing the countess of Newburgh, and principal of St Mary Hall, Oxford.

KING [OF OCKHAM], PETER KING, 1ST BARON (1669–1734), lord chancellor of England, was born at Exeter in 1669. In his youth he was interested in early church history, and published anonymously in 1691 *An Enquiry into the Constitution, Discipline, Unity and Worship of the Primitive Church that flourished within the first Three Hundred Years after Christ.* This treatise engaged the interest of his cousin, John Locke, the philosopher, by whose advice his father sent him to the university of Leiden, where he stayed for nearly three years. He entered the Middle Temple in 1694 and was called to the bar in 1698. In 1700 he was returned to parliament for Beer Alston in Devonshire; he was appointed recorder of Glastonbury in 1705 and recorder of London in 1708. He was chief justice of the common pleas from 1714 to 1725, when he was appointed speaker of the House of Lords and was raised to the peerage. In June of the same year he was made lord chancellor, holding office until compelled by a paralytic stroke to resign in 1733. He died at Ockham, Surrey, on the 22nd of July 1734. Lord King as chancellor failed to sustain the reputation which he had acquired at the common law bar. Nevertheless he left his mark on English law by establishing the principles that a will of immovable property is governed by the *lex loci rei sitae*, and that where a husband had a legal right to the personal estate of his wife, which must be asserted by a suit in equity, the court would not help him unless he made a provision out of the property for the wife, if she required it. He was also the author of the Act (4 Geo. II. c. 26) by virtue of which English superseded Latin as the language of the courts. Lord King published in 1702 a *History of the Apostles' Creed* (Leipzig, 1706; Basel, 1750) which went through several editions and was also translated into Latin.

His great-great-grandson, WILLIAM (1805–1893), married in 1835 the only daughter of Lord Byron the poet, and was created earl of Lovelace in 1838. Another descendant, PETER JOHN LOCKE KING (1811–1885), who was member of parliament for East Surrey from 1847 to 1874, won some fame as an advocate of reform, being responsible for the passing of the Real Estate Charges Act of 1854, and for the repeal of a large number of obsolete laws.

KING (O. Eng. *cyning*, abbreviated into *cyng*, *cing*; cf. O.H.G. *chun- kuning*, *chun- kunig*, M.H.G. *künic*, *künec*, *künc*, Mod. Ger. *König*, O. Norse *konungr*, *kongr*, Swed. *konung*, *kung*), a title, in its actual use generally implying sovereignty of the most exalted rank. Any inclusive definition of the word "king" is, however, impossible. It always implies sovereignty, but in no special degree or sense; *e.g.* the sovereigns of the British Empire and of Servia are both kings, and so too, at least in popular parlance, are the chiefs of many barbarous peoples, *e.g.* the Zulus. The use of the title is, in fact, involved in considerable confusion, largely the result of historic causes. Freeman, indeed, in his *Comparative Politics* (p. 138) says: "There is a common idea of kingship which is at once recognized however hard it may be to define it. This is shown among other things by the fact that no difficulty is ever felt as to translating the word king and the words which answer to it in other languages." This, however, is subject to considerable modification. "King," for instance, is used to translate the Homeric ἄναξ equally with the Athenian βασιλεύς or the Roman *rex*. Yet the Homeric "kings" were but tribal chiefs; while the Athenian and Roman kings were kings in something more than the modern sense, as supreme priests as well as supreme rulers and lawgivers (see ARCHON; and ROME: *History*). In the English Bible, too, the title of king is given indiscriminately to the great king of Persia and to potentates who were little more than Oriental sheiks. A more practical difficulty, moreover, presented itself in international intercourse, before diplomatic conventions became, in the 19th century, more or less stereotyped. Originally the title of king was superior to that of emperor, and it was to avoid the assumption of the superior title of *rex* that the chief magistrates of Rome adopted the names of *Caesar*, *imperator* and *princeps* to signalize their authority. But with the development of the Roman imperial idea the title emperor came to mean more than had been involved in that of *rex*; very early in the history of the Empire there were subject kings; while with the Hellenizing of the East Roman Empire its rulers assumed the style of βασιλεύς, no longer to be translated "king" but "emperor." From this Roman conception of the supremacy of the emperor the medieval Empire of the West inherited its traditions. With the barbarian invasions the Teutonic idea of kingship had come into touch with the Roman idea of empire and with the theocratic conceptions which this had absorbed from the old Roman and Oriental views of kingship. With these the Teutonic kingship had in its origin but little in common.

Etymologically the Romance and Teutonic words for king have quite distinct origins. The Latin *rex* corresponds to the Sanskrit *rajah*, and meant originally steersman. The Teutonic king on the contrary corresponds to the Sanskrit *ganaka*, and "simply meant father, the father of a family, the king of his own kin, the father of a clan, the father of a people."[1] The Teutonic kingship, in short, was national; the king was the supreme representative of the people, "hedged with divinity" in so far as he was the reputed descendant of the national gods, but with none of that absolute theocratic authority associated with the titles of *rex* or βασιλεύς. This, however, was modified by contact with Rome and Christianity. The early Teutonic conquerors had never lost their reverence for the Roman emperor, and were from time to time proud to acknowledge their inferiority by accepting titles, such as "patrician," by which this was implied. But by the coronation of Charles, king of the Franks, as emperor of the West, the German kingship was absorbed into the Roman imperial idea, a process which exercised a profound effect on the evolution of the Teutonic kingship generally. In the symmetrical political theory of medieval Europe pope and emperor were sun and moon, kings but lesser satellites; though the theory only partially and occasionally corresponded with the facts. But the elevation of Charlemagne had had a profound effect in modifying the *status* of kingship in nations that never came under his sceptre nor under that of his successors. The shadowy claim of the emperors to universal dominion was in theory everywhere acknowledged; but independent kings hastened to assert their own dignity by surrounding themselves with the ceremonial forms of the Empire and occasionally, as in the case of the Saxon *bretwaldas* in England, by assuming the imperial style. The mere fact of this usurpation showed that the title of king was regarded as inferior to that of emperor; and so it continued, as a matter of sentiment at least, down to the end of the Holy Roman Empire in 1806 and the cheapening of the imperial title by its multiplication in the 19th century. To the

[1] Max Müller, *Lect. Sci. Lang.*, 2nd series, p. 255, "All people, save those who fancy that the name *king* has something to do with a Tartar *khan* or with a 'canning' . . . man, are agreed that the English *cyning* and the Sanskrit *ganaka* both come from the same root, from that widely spread root whence comes our own *cyn* or kin and the Greek γένος. The only question is whether there is any connexion between *cyning* and *ganaka* closer than that which is implied in their both coming from the same original root. That is to say, are we to suppose that *cyning* and *ganaka* are strictly the same word common to Sanskrit and Teutonic, or is it enough to think that *cyning* is an independent formation made after the Teutons had separated themselves from the common stock? . . . The difference between the two derivations is not very remote, as the *cyn* is the ruling idea in any case; but if we make the word immediately cognate with *ganaka* we bring in a notion about 'the father of his people' which has no place if we simply derive *cyning* from *cyn*." See also O. Schrader, *Reallexikon der Indogermanischen Altertumskunde* (Strassburg, 1901) *s.v.* "König": the *chuning* (King) is but the *chunni* (Kin) personified; cf. A.S. *léod* masc. = "prince"; *léod* fem. = "race," *i.e.* Lat. *gens*.

last, moreover, the emperor retained the prerogative of creating kings, as in the case of the king of Prussia in 1701, a right borrowed and freely used by the emperor Napoleon. Since 1814 the title of king has been assumed or bestowed by a consensus of the Powers; *e.g.* the elector of Hanover was made king by the congress of Vienna (1814), and *per contra* the title of king was refused to the elector of Hesse by the congress of Aix-la-Chapelle (1818). In general the title of king is now taken to imply a sovereign and independent international position. This was implied in the recognition of the title of king in the rulers of Greece, Rumania, Servia and Bulgaria when these countries were declared absolutely independent of Turkey. The fiction of this independent sovereignty is preserved even in the case of the kings of Bavaria, Saxony and Württemberg, who are technically members of a free confederation of sovereign states, but are not independent, since their relations with foreign Powers are practically controlled by the king of Prussia as German emperor.

Divine Right of Kings.

The theory of the "divine right" of kings, as at present understood, is of comparatively modern growth. The principle that the kingship is "descendible in one sacred family," as George Canning put it, is not only still that of the British constitution, as that of all monarchical states, but is practically that of kingship from the beginning. This is, however, quite a different thing from asserting with the modern upholders of the doctrine of "divine right" not only that "legitimate" monarchs derive their authority from, and are responsible to, God alone, but that this authority is by divine ordinance hereditary in a certain order of succession. The power of popular election remained, even though popular choice was by custom or by religious sentiment confined within the limits of a single family. The custom of primogeniture grew up owing to the obvious convenience of a simple rule that should avoid ruinous contests; the so-called "Salic Law" went further, and by excluding females, removed another possible source of weakness. Neither did the Teutonic kingship imply absolute power. The idea of kingship as a theocratic function which played so great a part in the political controversies of the 17th century, is due ultimately to Oriental influences brought to bear through Christianity. The crowning and anointing of the emperors, borrowed from Byzantium and traceable to the influence of the Old Testament, was imitated by lesser potentates; and this "sacring" by ecclesiastical authority gave to the king a character of special sanctity. The Christian king thus became, in a sense, like the Roman *rex*, both king and priest. Shakespeare makes Richard II. say, "Not all the water in the rough rude sea can wash the balm off from an anointed king" (act iii. sc. 2); and this conception of the kingship tended to gather strength with the weakening of the prestige of the papacy and of the clergy generally. Before the Reformation the anointed king was, within his realm, the accredited vicar of God for secular purposes; after the Reformation he became this in Protestant states for religious purposes also. In England it is not without significance that the sacerdotal vestments, generally discarded by the clergy—dalmatic, alb and stole—continued to be among the insignia of the sovereign (see CORONATION). Moreover, this sacrosanct character he acquired not by virtue of his "sacring," but by hereditary right; the coronation, anointing and vesting were but the outward and visible symbol of a divine grace adherent in the sovereign by virtue of his title. Even Roman Catholic monarchs, like Louis XIV., would never have admitted that their coronation by the archbishop constituted any part of their title to reign; it was no more than the consecration of their title. In England the doctrine of the divine right of kings was developed to its extremest logical conclusions during the political controversies of the 17th century. Of its exponents the most distinguished was Hobbes, the most exaggerated Sir Robert Filmer. It was the main issue to be decided by the Civil War, the royalists holding that "all Christian kings, princes and governors" derive their authority direct from God, the parliamentarians that this authority is the outcome of a contract, actual or implied, between sovereign and people. In one case the king's power would be unlimited, according to Louis XIV.'s famous saying: "*L'état, c'est moi!*" or limitable only by his own free act; in the other his actions would be governed by the advice and consent of the people, to whom he would be ultimately responsible. The victory of this latter principle was proclaimed to all the world by the execution of Charles I. The doctrine of divine right, indeed, for a while drew nourishment from the blood of the royal "martyr"; it was the guiding principle of the Anglican Church of the Restoration; but it suffered a rude blow when James II. made it impossible for the clergy to obey both their conscience and their king; and the revolution of 1688 made an end of it as a great political force. These events had effects far beyond England. They served as precedents for the crusade of republican France against kings, and later for the substitution of the democratic kingship of Louis Philippe, "king of the French by the grace of God and the will of the people," for the "legitimate" kingship of Charles X., "king of France by the grace of God."

The theory of the crown in Britain, as held by descent modified and modifiable by parliamentary action, and yet also "by the grace of God," is in strict accordance with the earliest traditions of the English kingship; but the rival theory of inalienable divine right is not dead. It is strong in Germany and especially in Prussia; it survives as a militant force among the Carlists in Spain and the Royalists in France (see LEGITIMISTS); and even in England a remnant of enthusiasts still maintain the claims of a remote descendant of Charles I. to the throne (see JACOBITES).

See J. Neville Figgis, *Theory of the Divine Right of Kings* (Cambridge, 1896). (W. A. P.)

KING-BIRD, the *Lanius tyrannus* of Linnaeus, and the *Tyrannus carolinensis* or *T. pipiri* of most later writers, a common and characteristic inhabitant of North America, ranging as high as 57° N. lat. or farther, and westward to the Rocky Mountains, beyond which it is found in Oregon, in Washington (State), and in British Columbia, though apparently not occurring in California. In Canada and the northern states of the Union it is a summer visitor, wintering in the south, but also reaching Cuba; and, passing through Central America, it has been found in Bolivia and eastern Peru. Both the scientific and common names of this species are taken from the way in which the cock will at times assume despotic authority over other birds, attacking them furiously as they fly, and forcing them to divert or altogether desist from their course. Yet it is love of his mate or his young that prompts this bellicose behaviour, for it is only in the breeding season that he indulges in it; but then almost every large bird that approaches his nest, from an eagle downwards, is assaulted, and those alone that possess greater command of flight can escape from his repeated charges, which are accompanied by loud and shrill cries. On these occasions it may be that the king-bird displays the emblem of his dignity, which is commonly concealed; for, being otherwise rather plainly coloured—dark-ashy grey above and white beneath—the erectile feathers of the crown of the head, on being parted, form as it were a deep furrow, and reveal their base, which is of a bright golden-orange in front, deepening into scarlet, and then passing into silvery white. This species seems to live entirely on insects, which it captures on the wing; it is in bad repute with bee-keepers,[1] though, according to Dr E. Coues, it "destroys a thousand noxious insects for every bee it eats." It builds, often in an exposed situation, a rather large nest, coarsely constructed outside, but neatly lined with fine roots or grasses, and lays five or six eggs of a pale salmon colour, beautifully marked with blotches and spots of purple, brown and orange, generally disposed in a zone near the larger end.

Nearly akin to the king-bird is the petchary or chicherce, so called from its loud and petulant cry, *T. dominicensis*, or *T. griseus*, one of the most characteristic and conspicuous birds of the West Indies, and the earliest to give notice of the break of day. In habits, except that it eats a good many berries, it is the very counterpart of its congener, and is possibly even more jealous of any intruder. At all events its pugnacity extends to

[1] It is called in some parts the bee-martin.

animals from which it could not possibly receive any harm, and is hardly limited to any season of the year.

In several respects both of these birds, with several of their allies, resemble some of the shrikes; but it must be clearly understood that the likeness is but of analogy, and that there is no near affinity between the two families *Laniidae* and *Tyrannidae*, which belong to wholly distinct sections of the great Passerine

King-Bird.

order; and, while the former is a comparatively homogeneous group, much diversity of form and habits is found among the latter. Similarly many of the smaller *Tyrannidae* bear some analogy to certain *Muscicapidae*, with which they were at one time confounded (see FLYCATCHER), but the difference between them is deep seated.[1] Nor is this all, for out of the seventy genera, or thereabouts, into which the *Tyrannidae* have been divided, comprehending perhaps three hundred and fifty species, all of which are peculiar to the New World, a series of forms can be selected which find a kind of parallel to a series of forms to be found in the other group of *Passeres*; and the genus *Tyrannus*, though that from which the family is named, is by no means a fair representative of it; but it would be hard to say which genus should be so accounted. The birds of the genus *Muscisaxicola* have the habits and almost the appearance of wheat-ears; the genus *Alectorurus* calls to mind a water-wagtail; *Euscarthmus* may suggest a titmouse, *Elainea* perhaps a willow-wren; but the greatest number of forms have no analogous bird of the Old World with which they can be compared; and, while the combination of delicate beauty and peculiar external form possibly attains its utmost in the long-tailed *Milvulus*, the glory of the family may be said to culminate in the king of king-birds, *Muscivora regia*. (A. N.)

KING-CRAB, the name given to an Arachnid, belonging to the order Xiphosurae, of the grade Delobranchia or Hydropneustea. King-crabs, of which four, possibly five, existing species are known, were formerly referred to the genus *Limulus*, a name still applied to them in all zoological textbooks. It has recently been shown, however, that the structural differences between some of the species are sufficiently numerous and important to warrant the recognition of three genera—*Xiphosura*, of which *Limulus* is a synonym, *Tachypleus* and *Carcinoscorpius*. In *Xiphosura* the genital operculum structurally resembles the gill-bearing appendages in that the inner branches consist of three distinct segments, the distal of which is lobate and projects freely beyond the margin of the adjacent distal segment of the outer branch; the entosternite (see ARACHNIDA) has two pairs of antero-lateral processes, and in the male only the ambulatory appendages of the second pair are modified as claspers. In *Tachypleus* and *Carcinoscorpius*, on the other hand, the genital operculum differs from the gill-bearing appendages in that the inner branches consist of two segments, the distal of which are apically pointed, partially or completely fused in the middle line, and do not project beyond the distal segments of the outer branches; the entosternite has only one pair of antero-lateral processes, and in the male the second and third pairs of ambulatory limbs are modified as claspers. *Tachypleus* differs from *Carcinoscorpius* in possessing a long movable spur upon the fourth segment of the sixth ambulatory limb, in having the postanal spine triangular in section instead of round, and the claspers in the male hemichelate, owing to the suppression of the immovable finger, which is well developed in *Carcinoscorpius*. At the present time king-crabs have a wide but discontinuous distribution. *Xiphosura*, of which there is but one species, *X. polyphemus*, ranges along the eastern side of North America from the coast of Maine to Yucatan. *Carcinoscorpius*, which is also represented by a single species, *C. rotundicauda*, extends from the Bay of Bengal to the coast of the Moluccas and the Philippines, while of the two better-known species of *Tachypleus*, *T. gigas* (= *moluccanus*) ranges from Singapore to Torres Straits, and *T. tridentatus* from Borneo to southern Japan. A third species, *T. hoeveni*, has been recorded from the Moluccas. But although *Xiphosura* is now so widely sundered geographically from *Tachypleus* and *Carcinoscorpius*, the occurrence of the remains of extinct species of king-crabs in Europe, both in Tertiary deposits and in Triassic, Jurassic and Cretaceous strata, suggests that there was formerly a continuous coast-line, with tropical or temperate conditions, extending from Europe westward to America, and eastward to southern Asia. There are, however, no grounds for the assumption that the supposed coast-line between America and Europe synchronized with that between Europe and south Asia. King-crabs do not appear to differ from each other in habits. Except in the breeding season they live in water ranging in depth from about two to six fathoms, and creep about the bottom or bury themselves in the sand. Their food consists for the most part of soft marine worms, which are picked up in the nippers, thrust into the mouth, and masticated by the basal segments of the appendages between which the mouth lies. At the approach of the breeding season, which in the case of *Xiphosura polyphemus* is in May, June and July, king-crabs advance in pairs into very shallow water at the time of the high tides, the male holding securely to the back of the female by means of his clasping nippers. No actual union between the sexes takes place, the spawn of the female being fertilized by the male at the time of being laid in the sand or soon afterwards. This act accomplished, the two retreat again into deeper water. Deposited in the mud or sand near high-water mark, the eggs are eventually hatched by the heat of the sun, to which they are exposed every day for a considerable time. The newly hatched young is minute and subcircular in shape, but bears a close resemblance to its parents except in the absence of the caudal spine and in the presence of a fringe of stiff bristles round the margin of the body. During growth it undergoes a succession of moults, making its exit from the old integument through a wide split running round the edge of the carapace. Moulting is effected in exactly the same way in scorpions, Pedipalpi, and normally in spiders. The caudal spine appears at the second moult and gradually increases in length with successive changes of the skin. This organ is of considerable importance, since it enables the king-crab to right itself when overturned by rough water or other causes. Without it the

[1] Two easy modes of discriminating them externally may be mentioned. All the *Laniidae* and *Muscicapidae* have but *nine* primary quills in their wings, and their tarsi are covered with scales in front only; while in the *Tyrannidae* there are *ten* primaries, and the tarsal scales extend the whole way round. The more recondite distinction in the structure of the trachea seems to have been first detected by Macgillivray, who wrote the anatomical descriptions published in 1839 by Audubon (*Orn. Biography*, v. 421, 422); but its value was not appreciated till the publication of Johannes Müller's classical treatise on the vocal organs of Passerine birds (*Abhandl. k. Akad. Wissensch. Berlin*, 1845, pp. 321, 405).

animal would remain helpless like an upturned turtle, because it is unable to reach the ground with its legs when lying on its back. Before the tail is sufficiently developed to be used for that purpose, the young king-crab succeeds in regaining the normal position by flapping its flattened abdominal appendages and rising in the water by that means. The king-crab fishery

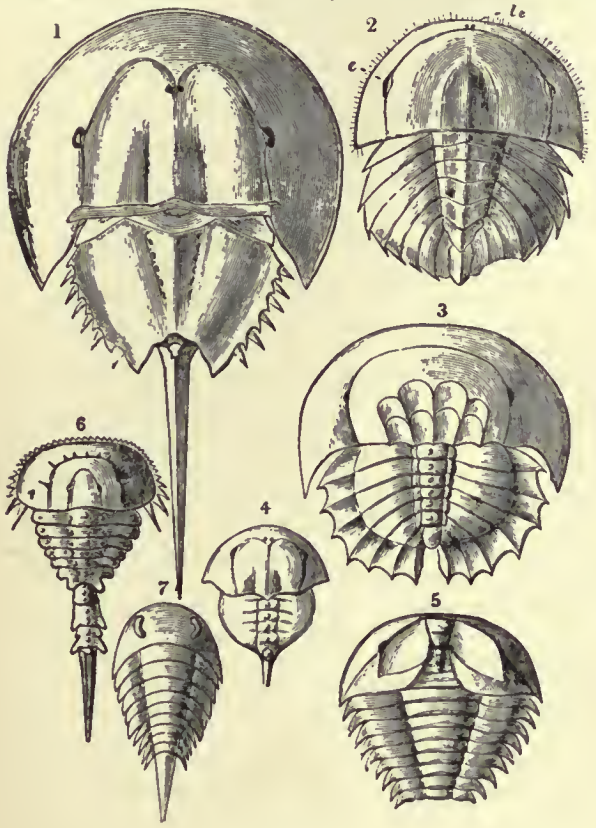


FIG. 1.

1, *Limulus polyphemus*, adult (dorsal aspect).
2, *Limulus polyphemus*, young (dorsal aspect).
3, *Prestwichia rotundata*, Coal M., Shropshire.
4, *Prestwichia Birtwelli*, Coal M., Lancashire.
5, *Neolimulus falcatus*, U. Silurian, Lanark.
6, *Hemiaspis limuloides*, L. Ludlow, Leintwardine, Shropshire.
7, *Pseudoniscus aculeatus*, U. Silurian, Russia.

is an industry of some importance in the United States, and in the East Indies the natives eat the animal and tip their lances and arrows with the caudal spine. They also use the hollow empty shell as a water-ladle or pan—hence the name "pan-fish" or "saucepan-crab" by which the animal is sometimes known. Fossil king-crabs have been recorded from strata of the Tertiary and Secondary epochs, and related but less specialized types of the same order are found in rocks of Palaeozoic age. Of these the most important are *Belinurus* of the Carboniferous, *Protolimulus* of the Devonian, and *Hemiaspis* of the Silurian periods. These ancient forms differ principally from true king-crabs in having the segments of the opisthosoma or hinder half of the body distinctly defined instead of welded into a hexagonal shield. (R. I. P.)

KINGFISHER (Ger.[1] *Königsfischer;* Walloon *Roi-pêheux=pêcheur*), the *Alcedo ispida* of ornithologists, one of the most beautiful and well-known of European birds, being found, though nowhere very abundantly, in every European country, as well as in North Africa and South-Western Asia as far as Sindh. Its blue-green back and rich chestnut breast render it conspicuous as it frequents the streams and ponds whence it procures its food, by plunging almost perpendicularly into the water, and emerging a moment after with the prey—whether a small fish, crustacean, or an aquatic insect—it has captured. In hard frosts it resorts to the sea-shore, but a severe winter is sure to occasion a great mortality in the species, for many of its individuals seem unable to reach the tidal waters where only in such a season they could obtain sustenance; and to this cause rather than any other is perhaps to be ascribed its general scarcity. Very early in the year it prepares its nest, which is at the end of a tunnel bored by itself in a bank, and therein the six or eight white, glossy, translucent eggs are laid, sometimes on the bare soil, but often on the fishbones which, being indigestible, are thrown up in pellets by the birds; and, in any case, before incubation is completed these *rejectamenta* accumulate so as to form a pretty cup-shaped structure that increases in bulk after the young are hatched, but, mixed with their fluid excretions and with decaying fishes brought for their support, soon becomes a dripping fetid mass.

The kingfisher is the subject of a variety of legends and superstitions, both classical and medieval. Of the latter one of the most curious is that having been originally a plain grey bird it acquired its present bright colours by flying towards the sun on its liberation from Noah's ark, when its upper surface assumed the hue of the sky above it and its lower plumage was scorched by the heat of the setting orb to the tint it now bears.[2] More than this, the kingfisher was supposed to possess many virtues. Its dried body would avert thunderbolts, and if kept in a wardrobe would preserve from moths the woollen stuffs therein laid, or hung by a thread to the ceiling of a chamber would point with its bill to the quarter whence the wind blew. All readers of Ovid (*Metam.*, bk. xi.) know how the faithful but unfortunate Ceyx and Alcyone were changed into kingfishers—birds which bred at the winter solstice, when through the influence of Aeolus, the wind-god and father of the fond wife, all gales were hushed and the sea calmed so that their floating nest might ride uninjured over the waves during the seven proverbial "Halcyon days"; while a variant or further development of the fable assigned to the halcyon itself the power of quelling storms.[3]

The common kingfisher of Europe is the representative of a well-marked family of birds, the *Alcedinidae* or *Halcyonidae* of ornithologists, which is considered by most authorities[4] to be closely related to the *Bucerotidae* (see HORNBILL); but the affinity can scarcely be said as yet to be proved. Be that as it may, the present family forms the subject of an important work by Bowdler Sharpe.[5] Herein are described one hundred and twenty-five species, nearly all of them being beautifully figured by Keulemans, and that number may be taken even now as approximately correct; for, while the validity of a few has been denied by some eminent men, nearly as many have since been made known, and it seems likely that two or three more described by older writers may yet be rediscovered. These one hundred and twenty-five species Sharpe groups in nineteen genera, and divides into two sub-families, *Alcedininae* and *Daceloninae*,[6] the one containing five and the other fourteen genera. With existing anatomical materials perhaps no better arrangement could have been made, but the method afterwards published by Sundevall (*Tentamen*, pp. 95, 96) differs from it not inconsiderably. Here, however, it will be convenient to follow Sharpe. Externally, which is almost all we can at present say, kingfishers present a great uniformity of structure. One of their most remarkable features is the feebleness of their feet, and the union (syndactylism) of the third and fourth digits for the greater part of their length; while, as if still

[1] But more commonly called *Eisvogel*, which finds its counterpart in the Anglo-Saxon *Isern* or *Isen*.

[2] Rolland, *Faune populaire de la France*, ii. 74.

[3] In many of the islands of the Pacific Ocean the prevalent kingfisher is the object of much veneration.

[4] Cf. Eyton, *Contrib. Ornithology* (1850), p. 80; Wallace, *Ann. Nat. History*, series 2, vol. xviii. pp. 201, 205; and Huxley, *Proc. Zool. Society* (1867), p. 467.

[5] *A Monograph of the Alcedinidae or Family of the Kingfishers*, by R. B. Sharpe, 4to (London, 1868–1871). Some important anatomical points were briefly noticed by Professor Cunningham (*Proc. Zool. Soc.*, 1870, p. 280).

[6] The name of this latter sub-family as constituted by Sharpe would seem to be more correctly *Ceycinae*—the genus *Ceyx*, founded in 1801 by Lacépède, being the oldest included in it. The word *Dacelo*, invented by Leach in 1815, is simply an anagram of *Alcedo*, and, though of course without any etymological meaning, has been very generally adopted.

further to show the comparatively functionless character of these members, in two of the genera, *Alcyone* and *Ceyx*, the second digit is aborted, and the birds have but three toes. In most forms the bill does not differ much from that of the common *Alcedo ispida*, but in *Syma* its edges are serrated, while in *Carcineutes*, *Dacelo* and *Melidora* the maxilla is prolonged, becoming in the last a very pronounced hook. Generally the wings are short and rounded, and the tail is in many forms inconspicuous; but in *Tanysiptera*, one of the most beautiful groups, the middle pair of feathers is greatly elongated and spatulate, while this genus possesses only ten rectrices, all the rest having twelve. Sundevall relies on a character not noticed by Sharpe, and makes his principal divisions depend on the size of the scapulars, which in one form a mantle, and in the other are so small as not to cover the back. The *Alcedinidae* are a cosmopolitan family, but only one genus, *Ceryle*, is found in America, and that extends as well over a great part of the Old World, though not into the Australian region, which affords by far the greater number both of genera and species, having no fewer than ten of the former and fifty-nine of the latter peculiar to it.[1]

In habits kingfishers display considerable diversity, though all, it would seem, have it in common to sit at times motionless on the watch for their prey, and on its appearance to dart upon it, seize it as they fly or dive, and return to a perch where it may be conveniently swallowed. But some species, and especially that which is the type of the family, are not always content to await at rest their victim's showing itself. They will hover like a hawk over the waters that conceal it, and, in the manner already described, precipitate themselves upon it. This is particularly the way with those that are fishers in fact as well as in name; but no inconsiderable number live almost entirely in forests, feeding on insects, while reptiles furnish the chief sustenance of others. The last is characteristic of at least one Australian form, which manages to thrive in the driest districts of that country, where not a drop of water is to be found for miles, and the air is at times heated to a degree that is insupportable by most animals. The belted kingfisher of North America, *Ceryle alcyon*, is a characteristic bird of that country, though its habits greatly resemble those of the European species; and the so-called "laughing jackass" of New South Wales and South Australia, *Dacelo gigas*—with its kindred forms, *D. leachi*, *D. cervina* and *D. occidentalis*, from other parts of the country—deserve special mention. Attention must also be called to the speculations of Dr Bowdler Sharpe (*op. cit.*, pp. xliv.–xlvii.) on the genetic affinity of the various forms of *Alcedinidae*, and it is to be regretted that hitherto no light has been shed by palaeontologists on this interesting subject, for the only fossil referred to the neighbourhood of the family is the *Halcyornis toliapicus* of Sir R. Owen (*Br. Foss. Mamm. and Birds*, p. 554) from the Eocene of Sheppey—the very specimen said to have been previously placed by König (*Icon. foss. sectiles*, fig. 153) in the genus *Larus*. (A. N.)

KINGHORN, a royal and police burgh of Fifeshire, Scotland. Pop. (1901), 1550. It is situated on the Firth of Forth, 2¼ m. E. by N. of Burntisland, on the North British railway. The public buildings include a library and town-hall. It enjoys some repute as a summer resort. The leading industries are ship-building, bleaching and the making of flax and glue. At the time of his visit Daniel Defoe found thread-making in vogue, which employed the women while the men were at sea. Alexander III. created Kinghorn a burgh, but his connexion with the town proved fatal to him. As he was riding from Inverkeithing on the 12th of March 1286 he was thrown by his horse and fell over the cliffs, since called King's Wud End, a little to the west of the burgh, and killed. A monument was erected in 1887 to mark the supposed scene of the accident. The Witch Hill used to be the place of execution of those poor wretches. Kinghorn belongs to the Kirkcaldy district group of parliamentary burghs. At PETTYCUR, 1 m. to the south, is a good harbour for its size, and at Kinghorn Ness a battery has been established in connexion with the fortifications on Inchkeith. The hill above the battery was purchased by government in 1903 and is used as a point of observation. About 1 m. to the north of Kinghorn is the estate of Grange, which belonged to Sir William Kirkcaldy. INCHKEITH, an island in the fairway of the Firth of Forth, 2½ m. S. by E. of Kinghorn and 3½ m. N. by E. of Leith, belongs to the parish of Kinghorn. It has a north-westerly and south-easterly trend, and is nearly 1 m. long and ¼ m. wide. It is a barren rock, on the summit of which stands a lighthouse visible at night for 21 m. In 1881 forts connected by a military road were erected on the northern, western and southern headlands.

[1] Cf. Wallace, *Geog. Distr. Animals*, ii. 315.

KINGLAKE, ALEXANDER WILLIAM (1809–1891), English historian and traveller, was born at Taunton on the 5th of August 1809. His father, a successful solicitor, intended his son for a legal career. Kinglake went to Eton and Trinity College, Cambridge, where he matriculated in 1828, being a contemporary and friend of Tennyson and Thackeray. After leaving Cambridge he joined Lincoln's Inn, and was called to the bar in 1837. While still a student he travelled, in 1835, throughout the East, and the impression made upon him by his experiences was so powerful that he was seized with a desire to record them in literature. *Eothen*, a sensitive and witty record of impressions keenly felt and remembered, was published in 1844, and enjoyed considerable reputation. In 1854 he went to the Crimea, and was present at the battle of the Alma. During the campaign he made the acquaintance of Lord Raglan, who was so much attracted by his talents that he suggested to Kinglake the plan for an elaborate *History of the Crimean War*, and placed his private papers at the writer's disposal. For the rest of his life Kinglake was engaged upon the task of completing this monumental history. Thirty-two years elapsed between its commencement and the publication of the last volume, and eight volumes in all appeared at intervals between 1863 and 1887. Kinglake lived principally in London, and sat in parliament for Bridgwater from 1857 until the disfranchisement of the borough in 1868. He died on the 2nd of January 1891. Kinglake's life-work, *The History of the Crimean War*, is in scheme and execution too minute and conscientious to be altogether in proportion, but it is a wonderful example of painstaking and talented industry. It is not without errors of partisanship, but it shows remarkable skill in the moulding of vast masses of despatches and technical details into an absorbingly interesting narrative; it is illumined by natural descriptions and character-sketches of great fidelity and acumen; and, despite its length, it remains one of the most picturesque, most vivid and most actual pieces of historical narrative in the English language.

KINGLET, a name applied in many books to the bird called by Linnaeus *Motacilla regulus*, and by most modern ornithologists *Regulus cristatus*, the golden-crested or golden-crowned wren of ordinary persons. This species is the type of a small group which has been generally placed among the *Sylviidae* or true warblers, but by certain systematists it is referred to the titmouse family, *Paridae*. That the kinglets possess many of the habits and actions of the latter is undeniable, but on the other hand they are not known to differ in any important points of organization or appearance from the former—the chief distinction being that the nostril is covered by a single bristly feather directed forwards. The golden-crested wren is the smallest of British birds, its whole length being about 3½ in., and its wing measuring only 2 in. from the carpal joint. Generally of an olive-green colour, the top of its head is bright yellow, deepening into orange, and bounded on either side by a black line, while the wing coverts are dull black, and some of them tipped with white, forming a somewhat conspicuous bar. The cock has a pleasant but weak song. The nest is a beautiful object, thickly felted of the softest moss, wool, and spiders' webs, lined with feathers, and usually built under and near the end of the branch of a yew, fir or cedar, supported by the interweaving of two or three laterally diverging and pendent twigs, and sheltered by the rest. The eggs are from six to ten in number, of a dull white sometimes finely freckled with reddish-brown. The species is particularly social, living for the most part of the

year in family parties, and often joining bands of any species of titmouse in a common search for food. Though to be met with in Britain at all seasons, the bird in autumn visits the east coast in enormous flocks, apparently emigrants from Scandinavia, while hundreds perish in crossing the North Sea, where they are well known to the fishermen as "woodcock's pilots." A second and more local European species is the fire-crested wren, *R. ignicapillus*, easily recognizable by the black streak on each side of the head, before and behind the eye, as well as by the deeper colour of its crown. A third species, *R. maderensis*, inhabits the Madeiras, to which it is peculiar; and examples from the Himalayas and Japan have been differentiated as *R. himalayensis* and *R. japonicus*. North America has two well-known species, *R. satrapa*, very like the European *R. ignicapillus*, and the ruby-crowned wren, *R. calendula*, which is remarkable for a loud song that has been compared to that of a canary-bird or a skylark, and for having the characteristic nasal feather in a rudimentary or aborted condition. (A. N.)

KINGS, FIRST AND SECOND BOOKS OF, two books of the Bible, the last of the series of Old Testament histories known as the Earlier or Former Prophets. They were originally reckoned as a single book (Josephus; Origen *ap.* Eus., *H.E.* vi. 25; Peshitta; Talmud), though modern Bibles follow the bipartition which is derived from the Septuagint. In that version they are called the third and fourth books of "kingdoms" (βασιλειῶν), the first and second being our books of Samuel. The division into two books is not felicitous, and even the old Hebrew separation between Kings and Samuel must not be taken to mean that the history from the birth of Samuel to the exile was treated by two distinct authors in independent volumes. We cannot speak of the author of Kings or Samuel, but only of an editor or of successive editors whose main work was to arrange in a continuous form extracts or abstracts from earlier sources. The introduction of a chronological scheme and of a series of editorial comments and additions, chiefly designed to enforce the religious meaning of the history, gives a kind of unity to the book of Kings as we now read it; but beneath this we can still distinguish a variety of documents, which, though sometimes mutilated in the process of piecing together, retain sufficient individuality of style and colour to prove their original independence.

Of these documents one of the best defined is the vivid picture of David's court at Jerusalem (2 Sam. ix.–xx.) from which the first two chapters of 1 Kings manifestly cannot be separated. As it would be unreasonable to suppose that the editor of the history of David closed his work abruptly before the death of the king, breaking off in the middle of a valuable memoir which lay before him, this observation leads us to conclude that the books of Samuel and Kings are not independent histories. They have at least one source in common, and a single editorial hand was at work on both. From an historical point of view, however, the division which makes the beginning of Solomon's reign the beginning of a new book is very convenient. The conquest of Palestine by the Israelite tribes, recounted in the book of Joshua, leads up to the era of the "judges" (Judg. ii. 6–23; iii. sqq.), and the books of Samuel follow with the institution of the monarchy and the first kings. The books of Kings bring to a close the life of David (*c.* 975 B.C.), which forms the introduction to the reign of Solomon (1 Kings ii. 12–xi.), the troubles in whose time prepared the way for the separation into the two distinct kingdoms, viz. Judah and the northern tribes of Israel (xii. sqq.). After the fall of Samaria, the history of these Israelites is rounded off with a review (2 Kings xvii.–xviii. 12). The history of the surviving kingdom of Judah is then carried down to the destruction of Jerusalem and the exile (5 and 6), and, after an account of the Chaldean governorship, concludes with the release of the captive king Jehoiachin (561 B.C.) and with an allusion to his kind treatment during the rest of his lifetime.

The most noticeable feature in the book is the recurring interest in the centralization of worship in the Temple at Jerusalem as prescribed in Deuteronomy and enforced by Josiah. Amidst the great variety in style and manner which marks the several parts of the history, features which are imbued with the teaching of Deuteronomy recur regularly in similar stereotyped forms. They point in fact to a specific redaction, and thus it would seem that the editor who treated the foundation of the Temple, the central event of Solomon's life, as a religious epoch of the first importance, regarded this as the beginning of a new era—the history of Israel under the one sanctuary.

When we assume that the book of Kings was thrown into its present form by a Deuteronomistic redactor we do not affirm that he was the first who digested the sources of the history into a continuous work, nor must we ascribe absolute finality to his work. He gave the book a definite shape and character, but the recognized methods of Hebrew literature left it open to additions and modifications by later hands. Even the redaction in the spirit of Deuteronomy seems itself to have had more than one stage, as Ewald long ago recognized. ***Successive Redactions.***

The evidence to be detailed presently shows that there was a certain want of definiteness about the redaction. The mass of disjointed materials, not always free from inconsistencies, which lay before the editor in separate documents or in excerpts already partially arranged by an earlier hand, could not have been reduced to real unity without critical sifting, and an entire recasting of the narrative in a way foreign to the ideas and literary habits of the Hebrews. The unity which the editor aimed at was limited to (*a*) chronological continuity in the events recorded and (*b*) a certain uniformity in the treatment of the religious meaning of the narrative. Even this could not be perfectly attained in the circumstances, and the links of the history were not firmly enough riveted to prevent disarrangement or rearrangement of details by later scribes.

(*a*) The continued efforts of successive redactors can be traced in the chronology of the book. The chronological method of the narrative appears most clearly in the history after Solomon, where the events of each king's reign are thrown into a kind of stereotyped framework on this type: "In the twentieth year of Jeroboam, king of Israel, Asa began to reign over Judah, and reigned in Jerusalem forty-one years." . . . "In the third year of Asa, king of Judah, Baasha began to reign over Israel in Tirzah twenty-four years." The history moves between Judah and Israel according to the date of each accession; as soon as a new king has been introduced, everything that happened in his reign is discussed, and wound up by another stereotyped formula as to the death and burial of the sovereign; and to this mechanical arrangement the natural connexion of events is often sacrificed. In this scheme the elaborate synchronisms between contemporary monarchs of the north and south give an aspect of great precision to the chronology. But in reality the data for Judah and Israel do not agree, and remarkable deviations are sometimes found. The key to the chronology is 1 Kings vi. 1, which, as Wellhausen has shown, was not found in the original Septuagint, and contains internal evidence of post-Chaldean date. In fact the system as a whole is necessarily later than 535 B.C., the fixed point from which it counts back, and although the numbers for the duration of the reigns may be based upon early sources, the synchronisms appear to have been inserted at a much later stage in the history of the text.

(*b*) Another aspect in the redaction may be called theological. Its characteristic is the retrospective application to the history of a standard belonging to the later developments of Old Testament religion. Thus the redactor regards the sins of Jeroboam as the real cause of the downfall of Israel (2 Kings xvii. 21 seq.), and passes an unfavourable judgment upon all its rulers, not merely to the effect that they did evil in the sight of Yahweh but that they followed in the way of Jeroboam. But his opinion was manifestly not shared by Elijah or Elisha, nor by the original narrator of the lives of these prophets. Moreover, the redactor in 1 Kings iii. 2 seq. regards worship at the high places as sinful after the building of the Temple, although even the best kings before Hezekiah made no attempt to suppress these shrines. This feature in the redaction displays itself not only in occasional comments or homiletical excursuses, but in that part of the narrative in which all ancient historians allowed themselves free scope for the development of their reflections—the speeches placed in the mouths of actors in the history. Here also there is often textual evidence that the theological element is somewhat loosely attached to the earlier narrative and underwent successive additions.

Consequently it is necessary to distinguish between the older sources and the peculiar setting in which the history has been placed; between earlier records and that specific colouring which, from its affinity to Deuteronomy and to other portions of the Old Testament which appear to have been similarly treated under the influence of its teaching, may be conveniently termed "Deuteronomistic." For ***General Structure.***

his sources the compiler refers chiefly to two distinct works, the "words" or "chronicles" of the kings of Israel and those of the kings of Judah. Precisely how much is copied from these works and how much has been expressed in the compiler's own language is of course uncertain. It is found on inspection that the present history consists usually of an epitome of each reign. It states the king's age at succession (so Judah only), length of reign, death and burial, with allusions to his buildings, wars, and other political events.[1] In the case of Judah, also, the name of the royal or queen-mother is specifically mentioned. The references to the respective "chronicles," made as though they were still accessible, are wanting in the case of Jehoram and Hoshea of Israel, and of Solomon, Ahaziah, Athaliah, Jehoahaz, Jehoiachin and Zedekiah of Judah. But for Solomon the authority cited, "book of the acts of Solomon" (1 Kings xi. 41), presumably presupposes Judaean chronicles, and the remaining cases preserve details of an annalistic character. Moreover, distinctive annalistic material is found for the Israelite kings Saul and Ishbosheth in 1 Sam. xiii. 1; xiv. 47–51; 2 Sam. ii. 8–10*a* (including even their age at accession), and for David in 2 Sam. ii. 11 and parts of v. and viii.

The use which the compiler makes of his sources shows that his aim was not the *history* of the past but its *religious significance.* It is rare that even qualified praise is bestowed upon the kings of Israel (Jehoram, 2 Kings iii. 2; Jehu x. 30; Hoshea xvii. 2). Kings of great historical importance are treated with extreme brevity (Omri, Jeroboam (2), Uzziah), and similar meagreness of historical information is apparent when the editorial details and the religious judgments are eliminated from the accounts of Nadab, Baasha, and the successors of Jeroboam (2) in Israel or of Abijam and Manasseh in Judah.

To gain a more exact idea of the character of the book we may divide the history into three sections: (1) the life of Solomon, (2) the kingdoms of Ephraim (or Samaria)[2] and Judah, and (3) the separate history of Judah after the fall of Samaria. I. *Solomon.*—The events which lead up to the death of David and the accession of Solomon(1 Kings i., ii.) are closely connected with 2 Sam. ix.–xx. The unity is broken by the appendix 2 Sam. xxi. xxi.–xxiv. which is closely connected, as regards general subject-matter, with ibid. v.–viii.; the literary questions depend largely upon the structure of the books of Samuel (*q.v.*). It is evident, at least, that either the compiler drew upon other sources for the occasion and has been remarkably brief elsewhere, or that his epitomes have been supplemented by the later insertion of material not necessarily itself of late origin. At present 1 Kings i., ii. are both the close of David's life (no source is cited) and the necessary introduction to Solomon. But Lucian's recension of the Septuagint (ed. Lagarde), as also Josephus, begin the book at ii. 12, thus separating the annalistic accounts of the two. Since the contents of 1 Kings iii.–xi. do not form a continuous narrative, the compiler's authority ("Acts of S." xi. 41) can hardly have been an ordinary chronicle. The chapters comprise (*a*) sundry notices of the king's prosperous and peaceful career, severed by (*b*) a description of the Temple and other buildings; and they conclude with (*c*) some account of the external troubles which prove to have unsettled the whole of his reign. After an introduction (iii.), *a* contains generalizing statements of Solomon's might, wealth and wisdom (iv. 20 seq., 25, 29–34; x. 23–25, 27) and stories of a distinctly late and popular character (iii. 16–28, x. 1–10, 13). The present lack of unity can in some cases be remedied by the Septuagint, which offers many deviations from the Hebrew text; this feature together with the present form of the parallel texts in Chronicles will exemplify the persistence of fluctuation to a late period (4th–2nd cent. B.C.).

Solomon.

Thus iii. 2 seq. cannot be by the same hand as *v.* 4, and *v.* 2 is probably a later Deut. gloss upon *v.* 3 (earlier Deut.), which represents the compiler's view and (on the analogy of the framework) comes closely after ii. 12.[3] Ch. iii. 1 can scarcely be severed from ix. 16, and in the Septuagint they appear in iv. in the order: iv. 1–19 (the officers), 27 seq. (their duties), 22–24 (the daily provision), 29–34 (Solomon's reputation), iii. 1; ix. 16–17*a* (alliance with Egypt); iv. 20 seq. 25 are of a generalizing character and recur in the Septuagint with much supplementary matter in ii. Ch. iv. 26 is naturally related to x. 26 (cf. 2 Chron. i. 14) and takes its place in Lucian's recension (cf. 2 Chron. ix. 25). There is considerable variation again in ix. 10–x. 29, and the order ix. 10–14, 26–28, x. 1–22 (so partly Septuagint) has the advantage of recording continuously Solomon's dealings with Hiram. The intervening verses belong to a class of floating notices (in a very unnatural order) which seem to have got stranded almost by chance at different points in the two recensions; contrast also 2 Chron. viii. Solomon's preliminary arrangements with Hiram in ch. v. have been elaborated to emphasize the importance of the Temple (*vv.* 3–5, cf. 2 Sam. vii.); further difficulty is caused by the relation between 13 seq. and 15 seq. (see 2 Chron. ii. 17 seq.) and between both of these and ix. 20 seq. xi. 28. The account of the royal buildings now sandwiched in between the related fragments of *a* is descriptive rather than narrative, and the accurate details might have been obtained by actual observation of the Temple at a date long subsequent to Solomon. It is not all due to a single hand. Ch. vi. 11–14 (with several late phrases) break the connexion and are omitted by the Septuagint; *vv.* 15–22, now untranslatable, appear in a simple and intelligible form in the Septuagint. The account of the dedication contains many signs of a late date; viii. 14–53, 54–61 are due to a Deuteronomic writer, and that they are an expansion of the older narrative (*vv.* 1–13) is suggested by the fact that the ancient fragment, *vv.* 12, 13 (imperfect in the Hebrew) appears in the Septuagint after *v.* 53 in completer form and with a reference to the book of Jashar as source (*βιβλίον τῆς ᾠδῆς* הישר (השיר) ספר). The redactional insertion displaced it in one recension and led to its mutilation in the other. With viii. 27–30, cf. generally Isa. xl.–lvi.; *vv.* 44–51 presuppose the exile, *vv.* 54–61 are wanting in Chron., and even the older parts of this chapter have also been retouched in conformity with later (even post-exilic) ritual and law. The Levites who appear at *v.* 4 in contrast to the priests, in a way unknown to the pre-exilic history, are not named in the Septuagint, which also omits the post-exilic term "congregation" (*'ēdah*) in *v.* 5. There is a general similarity of subject with Deut. xxviii.

The account of the end of Solomon's reign deals with (*a*) his religious laxity (xi. 1–13, now in a Deuteronomic form), as the punishment for which the separation of the two kingdoms is announced; and (*b*) the rise of the adversaries who, according to xi. 25, had troubled the whole of his reign, and therefore cannot have been related originally as the penalty for the sins of his old age. Both, however, form an introduction to subsequent events, and the life of Solomon concludes with a brief annalistic notice of his death, length of reign, successor, and place of burial. (See further SOLOMON.)

II. *Ephraim and Judah.*—In the history of the two kingdoms the redactor follows a fixed scheme determined, as has been seen, by the order of succession. The fluctuation of tradition concerning the circumstances of the schism is evident from a comparison with the Septuagint, and all that is related of Ahijah falls under suspicion of being foreign to the oldest history.[4] The story of the man of God from Judah (xiii.) is shown to be late by its general tone (conceptions of prophetism and revelation),[5] and by the term "cities of Samaria" (*v.* 32, for Samaria as a *province*, cf. 2 Kings xvii. 24, 26; for the building of the city by Omri see 1 Kings xvi. 24). It is a late Judaean narrative inserted after the Deuteronomic redaction, and

The Divided Kingdom.

[1] Cp. the brief annalistic form of the Babylonian chronicles (for a specimen, see C. F. Kent, *Israel's Hist. and Biog. Narratives*, p. 502 seq.). For a synchronistic history of Assyria and Babylonia, prepared for diplomatic purposes, see Schrader's *Keilinschr. Bibl.* i. 194 sqq.; also L. W. King, *Studies in Eastern Hist.* i. (Tukulti-Ninib), pp. 1, 75 seq. (with interesting variant traditions).

[2] The term "Israel" as applied to the northern kingdom is apt to be ambiguous, since as a general national name, with a religious significance, it can include or suggest the inclusion of Judah.

[3] Here and elsewhere a careful study (*e.g.* of the marginal references in the Revised Version) will prove the close relation between the "Deuteronomic" passages and the book of Deuteronomy itself. The bearing of this upon the traditional date of that book should not be overlooked.

[4] See art. JEROBOAM; also W. R. Smith, *Old Test. in Jew. Church*, pp. 117 sqq.; H. Winckler, *Alttest. Untersuchungen*, pp. 1 sqq., and the subsequent criticisms by C. F. Burney (*Kings*, pp. 163 sqq.); J. Skinner (*Kings*, pp. 443 sqq.); and Ed. Meyer (*Israeliten u. Nachbarstämme*, pp. 357 sqq.).

[5] Notice should everywhere be taken of those prophetical stories which have the linguistic features of the Deuteronomic writers, or which differ in style and expression from the prophecies of Amos, Hosea and others, previous to Jeremiah.

breaks the connexion between xii. 31 and xiii. 33 seq. The latter describe the idolatrous worship instituted by the first king of the schismatic north, and the religious attitude occurs regularly throughout the compiler's epitome, however brief the reigns of the kings. In the account of Nadab, xv. 25 seq., 29*b*, 30 seq. are certainly the compiler's, and the synchronism in *v.* 28 must also be editorial; xv. 32 (Septuagint omit) and 16 are duplicates leading up to the Israelite and Judaean accounts of Baasha respectively. But xv. 33–xvi. 7 contains little annalistic information, and the prophecy in xvi. 1–4 is very similar to xiv. 7–11, which in turn breaks the connexion between *vv.* 6 and 12. Ch. xvi. 7 is a duplicate to *vv.* 1–4 and out of place; the Septuagint inserts it in the *middle* of *v.* 8. The brief reign of Elah preserves an important entract in xvi. 9, but the date in *v.* 10*a* (LXX. omits) presupposes the late finished chronological scheme. Zimri's seven days receive the inevitable condemnation, but the older material embedded in the framework (xvi. 15*b*–18) is closely connected with *v.* 9 and is continued in the non-editorial portions of Omri's reign (xvi. 21 seq., length of reign in *v.* 23, and *v.* 24). The achievements of Omri to which the editor refers can fortunately be gathered from external sources (see Omri). Under Omri's son Ahab the separate kingdoms converge.

Next, as to Judah: the vivid account of the accession of Rehoboam in xii. 1–16 is reminiscent of the full narratives in 2 Sam. ix.–xx.; 1 Kings i., ii. (cf. especially *v.* 16 with 2 Sam. xx. 1); xii. 15*b* refers to the prophecy of Ahijah (see above), and "unto this day," *v.* 19, cannot be by a contemporary author.; *v.* 17 (LXX. omits) finds a parallel in 2 Chron. xi. 16 seq., and could represent an Ephraimite standpoint. The Judaean standpoint is prominent in *vv.* 21–24, where (*a*) the inclusion of Benjamin and (*b*) the cessation of war (at the command of Shemaiah) conflict with (*a*) xi. 32, 36, xii. 20 and (*b*) xiv. 30 respectively. Rehoboam's history, resumed by the redactor in xiv. 21–24, continues with a brief account of the spoiling of the Temple and palace by Sheshonk (Shishak). (The incident appears in 2 Chron. xii. in a rather different context, *before* the details which now precede *v.* 21 seq.) The reign of Abijam is entirely due to the editor, whose brief statement of the war in xv. 7*b* is supplemented by a lengthy story in 2 Chron. xiii. (where the name is Abijah). Ch. xv. 5*b* (last clause) and *v.* 6 are omitted by the Septuagint, the former is a unique gloss (see 2 Sam. xi. scq.), the latter is a mere repetition of xiv. 30; with xv. 2 cf. *v.* 10. The account of Asa's long reign contains a valuable summary of his war with Baasha, xv. 16–22; the isolated *v.* 15 is quite obscure and is possibly related to *v.* 18 (but cf. vii. 51). His successor Jehoshaphat is now dealt with completely in xxii. 41–50 after the death of Ahab; but the Septuagint, which follows a different chronological scheme (placing his accession in the reign of Omri), gives the summary (with some variations) after xvi. 28. Another light is thrown upon the incomplete annalistic fragments (xxii. 44, 47–49) by 2 Chron. xx. 35–37: the friendship between Judah and Israel appears to have been displeasing to the redactor of Kings.

Ephraim from Ahab to Jehu.

The history of the few years between the close of Ahab's life and the accession of Jehu covers about one-third of the entire book of Kings. This is due to the inclusion of a number of narratives which are partly of a political character, and partly are interested in the work of contemporary prophets. The climax is reached in the overthrow of Omri's dynasty by the usurper Jehu, when, after a period of close intercourse between Israel and Judah, its two kings perished. The annals of each kingdom would naturally deal independently with these events, but the present literary structure of 1 Kings xvii.–2 Kings xi. is extremely complicated by the presence of the narratives referred to. First as regards the framework, the epitome of Ahab is preserved in xvi. 29–34 and xxii. 39; it contains some unknown references (his ivory house and cities), and a stern religious judgment upon his Phoenician alliance, on which the intervening chapters throw more light. The colourless summary of his son Ahaziah (xxii. 51–53)[1] finds its conclusion in 2 Kings i. 17 seq. where *v.* 18 should precede the accession of his brother Jehoram (*v.* 17b). Jehoram is again introduced in iii. 1–3 (note the variant synchronism), but the usual conclusion is wanting. In Judah, Jehoshaphat was succeeded by his son Jehoram, who had married Athaliah the daughter of Ahab and Jezebel (viii. 16–24); to the annalistic details (*vv.* 20–22) 2 Chron. xxi. 11 sqq. adds a novel narrative. His son Ahaziah (viii. 25 sqq.) is similarly denounced for his relations with Israel. He is again introduced in the isolated ix. 29, while Lucian's recension adds after x. 36 a variant summary of his reign but *without* the regular introduction. Further confusion appears in the Septuagint, which inserts after i. 18 (Jehoram of Israel) a notice corresponding to iii. 1–3, and concludes "and the anger of the Lord was kindled against the house of Ahab." This would be appropriate in a position nearer ix. seq. where the deaths of Jehoram and Ahaziah are described. These and other examples of serious disorder in the framework may be associated with the literary features of the narratives of Elijah and Elisha.

Of the more detailed narratives those that deal with the northern kingdom are scarcely Judaean (see 1 Kings xix. 3), and they do not criticize Elijah's work, as the Judaean compiler denounces the whole history of the north. But they are plainly not of one origin. To supplement the articles Elijah and Elisha, it is to be noticed that the account of Naboth's death in the history of Elijah (1 Kings xxi.) differs in details from that in the history of Elisha and Jehu (2 Kings ix.), and the latter more precise narrative presupposes events recorded in the extant accounts of Elijah but not these events themselves. In 1 Kings xx., xxii. 1–28 (xxi. follows xix. in the LXX.) Ahab is viewed rather more favourably than in the Elijah-narratives (xix., xxi.) or in the compiler's summary. Ch. xxii. 6, moreover, proves that there is some exaggeration in xviii. 4, 13; the great contest between Elijah and the king, between Yahweh and Baal, has been idealized. The denunciation of Ahab in xx. 35–43 has some notable points of contact with xiii. and seems to be a supplement to the preceding incidents. Ch. xxii. is important for its ideas of prophetism (especially *vv.* 19–23; cf. Ezek. xiv. 9; 2 Sam. xxiv. 1 [in contrast to 1 Chron. xxi. 1]); a gloss at the end of *v.* 28, omitted by the Septuagint, wrongly identifies Micaiah with the well-known Micah (i. 2). Although the punishment passed upon Ahab in xxi. 20 sqq. (20*b*-26 betray the compiler's hand; cf. xiv. 10 seq.) is modified in *v.* 29, this is ignored in the account of his death, xxii. 38, which takes place at Samaria (see below).

The episode of Elijah and Ahaziah (2 Kings i.) is marked by the revelation through an angel. The prophet's name appears in an unusual form (viz. *ēliyyah*, not *-yahu*), especially in *vv.* 2–8. The prediction of Ahaziah's fate finds a parallel in 2 Chron. xxi. 12–15; the more supernatural additions have been compared with the late story in 1 Sam. xix. 18–24. The ascension of Elijah (2 Kings ii.) is related as the introduction to the work of Elisha, which apparently begins before the death of Jehoshaphat (see iii. 1, 11 sqq.; contrast 2 Chron. *loc. cit.*). Among the stories of Elisha are some which find him at the head of the prophetic gilds (iv. 1, 38–44, vi. 1–7), whilst in others he has friendly relations with the "king of Israel" and the court. As a personage of almost superhuman dignity he moves in certain narratives where political records appear to have been utilized to describe the activity of the prophets. The Moabite campaign (iii.) concerns a revolt already referred to in the isolated i. 1; there are parallels with the story of Jehoshaphat and Ahab (iii. 7, 11 seq.; cf. 1 Kings xxii. 4 seq., 7 sqq.), contrast, however, xxii. 7 (where Elijah is not even named) and iii. 11 seq. But Jehoshaphat's death has been already recorded (1 Kings xxii. 50), and, while Lucian's recension in 2 Kings iii. reads Ahaziah, i. 17 presupposes the accession of the *Judaean* Jehoram. Other political narratives may underlie the stories of the Aramaean wars; with vi. 24–vii. 20 (after the complete cessation of hostilities in vi. 23) compare the general style of 1 Kings xx., xxii.; with the famine in Samaria, vi. 25; cf. ibid. xvii.; with the victory, cf. ibid. xx. The account of Elisha and Hazael (viii. 7–15) implies friendly relations with Damascus (in *v.* 12 the terrors of war are in the future), but the description of Jehu's accession (ix.) is in the midst of hostilities. Ch. ix. 7–10*a* are a Deuteronomic insertion amplifying the message in *vv.* 3–6 (cf. 1 Kings xxi. 20 seq.). The origin of the repetition in ix. 14–15*a* (cf. viii. 28 seq.) is not clear. The oracle in ix. 25 seq. is not that in 1 Kings xxi. 19 seq., and mentions the additional detail that Naboth's sons were slain. Here his field or portion is located near Jezreel, but in 1 Kings xxi. 18 his vineyard is by the royal palace in Samaria (cf. xxii. 38 and contrast xxi. 1, where the LXX. omits reference to Jezreel). This fluctuation reappears in 2 Kings x. 1, 11 seq., and 17; in ix. 27 compared with 2 Chron. xxii. 9; and in the singular duplication of an historical incident, viz. the war against the Aramaeans at Ramoth-Gilead (*a*) by Jehoshaphat and Ahab, and (*b*) by Ahaziah and Jehoram, in each

[1] The division of the two books at this point is an innovation first made in the LXX. and Vulgate.

case with the death of the Israelite king, at Samaria and Jezreel respectively (see above and observe the contradiction in 1 Kings xxi. 29 and xxii. 38). These and other critical questions in this section are involved with (*a*) the probability that Elisha's work belongs rather to the accession of Jehu, with whose dynasty he was on most intimate terms until his death some forty-five years later (2 Kings xiii. 14–21), and (*b*) the problem of the wars between Israel and Syria which appear to have begun only in the time of Jehu (x. 32). See *Jew. Quart. Rev.* (1908), pp. 597–630, and JEWS: *History*, § 11 seq.

Dynasty of Jehu.

In the annals of Jehu's dynasty the editorial introduction to Jehu himself is wanting (x. 32 sqq.), although Lucian's recension in x. 36 concludes in annalistic manner the lives of Jehoram of Israel and Ahaziah of Judah. The summary mentions the beginning of the Aramaean wars, the continuation of which is found in the redactor's account of his successor Jehoahaz (xiii. 1–9). But xiii. 4–6 modify the disasters, and by pointing to the "saviour" or deliverer (cf. Judg. iii. 9, 15) anticipate xiv. 27. The self-contained account of his son Jehoash (xiii. 10–13) is supplemented (*a*) by the story of the death of Elisha (*vv.* 14–21) and (*b*) by some account of the Aramaean wars (*vv.* 22–25), where *v.* 23, like *vv.* 4–6 (Lucian's recension actually reads it after *v.* 7), is noteworthy for the sympathy towards the northern kingdom. Further (*c*) the defeat of Amaziah of Judah appears in xiv. 8–14 after the annals of Judah, although from an Israelite source (*v.* 11*b* Bethshemesh defined as belonging to Judah, see also *v.* 15, and with the repetition of the concluding statements in *v.* 15 seq., see xiii. 12 seq.). These features and the transference of xiii. 12 seq. after xiii. 25 in Lucian's recension point to late adjustment. In Judaean history, Jehu's reform and the overthrow of Jezebel in the north (ix., x. 15–28) find their counterpart in the murder of Athaliah and the destruction of the temple of Baal in Judah (xi. 18). But the framework is incomplete. The editorial conclusion of the reign of Ahaziah, the introduction to that of Athaliah, and the sources for both are wanting. A lengthy Judaean document is incorporated detailing the accession of Joash and the prominence of the abruptly introduced priest Jehoiada. The interest in the Temple and temple-procedure is obvious; and both xi. and xii. have points of resemblance with xxii. seq. (see below and cf. also xi. 4, 7, 11, 19, with 1 Kings xiv. 27 seq.). The usual epitome is found in xi. 21–xii. 3 (the age at accession should follow the synchronism, so Lucian), with fragments of annalistic matter in xii. 17–21 (another version in 2 Chron. xxiv. 23 sqq.). For Joash's son Amaziah see above; xiv. 6 refers to Deut. xxiv. 16, and 2 Chron. xxv. 5–16 replaces *v.* 7 by a lengthy narrative with some interesting details. · Azariah or Uzziah is briefly summarized in xv. 1–7, hence the notice in xiv. 22 seems out of place; perhaps the usual statements of Amaziah's death and burial (cf. xiv. 20*b*, 22*b*), which were to be expected after *v.* 18, have been supplemented by the account of the rebellion (*vv.* 19, 20*a*, 21).[1] The chronological notes for the accession of Azariah imply different views of the history of Judah after the defeat of Amaziah; with xiv. 17, cf. xiii. 10, xiv. 2, 23, but contrast xv. 1, and again *v.* 8.[2]

The important reign of Jeroboam (2) is dismissed as briefly as that of Azariah (xiv. 23–29). The end of the Aramaean war presupposed by *v.* 25 is supplemented by the sympathetic addition in *v.* 26 seq. (cf. xiii. 4 seq. 23). Of his successors Zechariah, Shallum and Menahem only the briefest records remain, now imbedded in the editorial framework (xv. 8–25). The summary of Pekah (perhaps the same as Pekahiah, the confusion being due to the compiler) contains excerpts which form the continuation of the older material in *v.* 25 (cf. also *vv.* 10, 14, 16, 19, 20). For an apparently similar adjustment of an earlier record to the framework see above on 1 Kings xv. 25–31, xvi. 8–25. The account of Hoshea's conspiracy (xv. 29 seq.) gives the Israelite version with which Tiglath-Pileser's own statement can now be compared. Two accounts of the fall of Samaria are given, one of which is under the reign of the contemporary Judaean Hezekiah (xvii. 1–6, xviii. 9–12); the chronology is again intricate. Reflections on the disappearance of the northern kingdom appear in xvii. 7–23 and xviii. 12; the latter belongs to the Judaean history. The former is composite; xvii. 21–23 (cf. *v.* 18) look back to the introduction of calf-worship by Jeroboam (1), and agree with the compiler's usual standpoint; but *vv.* 19–20 include Judah and presuppose the exile. The remaining verses survey types of idolatry partly of a general kind (*vv.* 9–12, 16*a*), and partly characteristic of Judah in the last years of the monarchy (*vv.* 16*b*, 17). The brief account of the subsequent history of Israel in xvii. 24–41 is not from one source, since the piety of the new settlers (*v.* 32–34*a*, 41) conflicts with the later point of view in 34*b*–40. The last-mentioned supplements the epilogue in xvii. 7–23, forms a solemn conclusion to the history of the northern kingdom, and is apparently aimed at the Samaritans.

Judah.

III. *Later History of Judah.*—The summary of Jotham (xv. 32–38) shows interest in the Temple (*v.* 35) and alludes to the hostility of Pekah (*v.* 37) upon which the Israelite annals are silent. 2. Chron. xxvii. expands the former but replaces the latter by other not unrelated details (see UZZIAH). But xv. 37 is resumed afresh in the account of the reign of Ahaz (xvi. 5 sqq.; the text in *v.* 6 is confused)—another version in 2 Chron. xxviii. 5 sqq. —and is supplemented by a description, evidently from the Temple records, in which the ritual innovations by "king Ahaz" (in contrast to "Ahaz" alone in *vv.* 5–9) are described (*vv.* 10–18). There is further variation of detail in 2 Chron. xxviii. 20–27. The summary of Hezekiah (xviii. 1–8) emphasizes his important religious reforms (greatly expanded in 2 Chron. xxix. seq. from a later standpoint), and includes two references to his military achievements. Of these *v.* 8 is ignored in Chron., and *v.* 7 is supplemented by (*a*) the annalistic extract in *vv.* 13–16, and (*b*) narratives in which the great contemporary prophet Isaiah is the central figure. The latter are later than Isaiah himself (xix. 37 refers to 681 B.C.) and reappear, with some abbreviation and rearrangement, in Isa. xxxvi.–xxxix. (see ISAIAH). They are partly duplicate (cf. xix. 7 with *vv.* 28, 33; *vv.* 10–13 with xviii. 28–35), and consist of two portions, xviii. 17–xix. 8 (Isa. xxxvi. 2–xxxvii. 8) and xix. 9*b*–35 (Isa. xxxvii. 9*b*–36); to which of these xix. 9*a* and *v.* 36 seq. belong is disputed. 2 Chron. xxxii. (where these accounts are condensed) is in general agreement with 2 Kings xviii. 7, as against *vv.* 14–16. The poetical fragment, xix. 21–28, is connected with the sign in *vv.* 29–31; both seem to break the connexion between xix. 20 and 32 sqq. Chap. xx. 1–19 appears to belong to an earlier period in Hezekiah's reign (see *v.* 6 and cf. 2 Chron. xxxii. 25 seq.); with *vv.* 1–11 note carefully the forms in Isa. xxxviii. 1–8, 21 seq., and 2 Chron. xxxii. 24–26; with xx. 12–19 (Isa. xxxix) contrast the brief allusion in 2 Chron. xxxii. 31. In *v.* 17 seq. the exile is foreshadowed. Use has probably been made of a late cycle of Isaiah-stories; such a work is actually mentioned in 2 Chron. xxxii. 32. The accounts of the reactionary kings Manasseh and Amon, although now by the compiler, give some reference to political events (see xxi. 17, 23 seq.); xxi. 7–15 refer to the exile and find a parallel in xxiii. 26 seq., and xxi. 10 sqq. are replaced in 2 Chron. xxxiii. 10–20 by a novel record of Manasseh's penitence (see also ibid. *v.* 23 and note omission of 2 Kings xxiii. 26 from Chron).

Josiah's reign forms the climax of the history. The usual framework (xxii. 1; 2, xxiii. 28, 30*b*) is supplemented by narratives dealing with the Temple repairs and the reforms of Josiah. These are closely related to xi. seq. (cf. xxii. 3–7 with xii. 4 sqq.), but show many signs of revision; xxii. 16 seq., xxiii. 26 seq., point distinctly to the exile, and xxiii. 16–20 is an insertion (the altar in *v.* 16 is already destroyed in *v.* 15) after 1 Kings xiii. But it is difficult elsewhere to distinguish safely between the original records and the later additions. In their present shape the reforms of Josiah are described in terms that point to an acquaintance with the teaching of Deuteronomy which promulgates the reforms themselves.[1]

[1] Both xiv. 22 and xv. 5 presuppose fuller records of which 2 Chron. xxvi. 6–7, 16–20 may represent merely later and less trustworthy versions.

[2] See F. Rühl, *Deutsche Zeit. f. Geschichtwissens.* xii. 54 sqq.; also JEWS: *History*, § 12.

[1] See further the special study by E. Day, *Journ. Bib. Lit.* (1902), pp. 197 sqq.

The annalist c notice in xxiii. 29 seq. (contrast xxii. 20) should precede *v.* 28; 2 Chron. xxxv. 20–27 gives another version in the correct position and ignores 2 Kings xxiii. 24–27 (see however the Septuagint). For the last four kings of Judah, the references to the worship at the high places (presumably abolished by Josiah) are wanting, and the literary source is only cited for Jehoiakim; xxiv. 3 seq. (and probably *v.* 2), which treat the fall of Judah as the punishment for Manasseh's sins, are a Deuteronomistic insertion (2 Chron. xxxvi. 6 sqq. differs widely; see, however, the Septuagint); *v.* 13 seq. and *v.* 15 seq. are duplicates. With xxiv. 18–xxv. 21 cf. Jer. lii. 1-27 (the text of the latter, especially *vv.* 19 sqq. is superior); and the fragments ibid. xxxix. 1–10. Ch. xxv. 22–26 appears in much fuller form in Jer. xl. seq. (see xl. 7–9, xli. 1–3, 17 seq.). It is noteworthy that Jeremiah does not enter into the history in Kings (contrast Isaiah above). The book of Chronicles in general has a briefer account of the last years, and ignores both the narratives which also appear in Jeremiah and the concluding hopeful note struck by the restoration of Jehoiachin (xxv. 27–30). This last, with the addition of statistical data, forms the present conclusion also of the book of Jeremiah.

Conclusions.—A survey of these narratives as a whole strengthens our impression of the merely mechanical character of the redaction by which they are united. Though editors have written something of their own in almost every chapter, generally from the standpoint of religious pragmatism, there is not the least attempt to work the materials into a history in our sense of the word; and in particular the northern and southern histories are practically independent, being merely pieced together in a sort of mosaic in consonance with the chronological system, which we have seen to be really later than the main redaction. It is very probable that the order of the pieces was considerably readjusted by the author of the chronology; of this indeed the Septuagint still shows traces. But with all its imperfections as judged from a modern standpoint, the redaction has the great merit of preserving material nearer to the actual history than would have been the case had narratives been rewritten from much later standpoints—as often in the book of Chronicles.

Questions of date and of the growth of the literary process are still unsettled, but it is clear that there was an independent history of (north) Israel with its own chronological scheme. It was based upon annals and fuller political records, and at some period apparently passed through circles where the purely domestic stories of the prophets (Elisha) were current.[1] This was ultimately taken over by a Judaean editor who was under the influence of the far-reaching reforms ascribed to the 18th year of Josiah (621 B.C.). Certain passages seem to imply that in his time the Temple was still standing and the Davidic dynasty uninterrupted. Also the phrase "unto this day" sometimes apparently presupposes a pre-exilic date. On the other hand, the history is carried down to the end of Jehoiachin's life (xxv. 27 refers to his fifty-fifth year, *vv.* 29 seq. look back on his death), and a number of allusions point decisively to the post-exilic period. Consequently, most scholars are agreed that an original pre-exilic Deuteronomic compilation made shortly after Josiah's reforms received subsequent additions from a later Deuteronomic writer.

These questions depend upon several intricate literary and historical problems. At the outset (*a*) the compiler deals with history from the Deuteronomic standpoint, selecting certain notices and referring further to *separate* chronicles of Israel and Judah. The canonical book of Chronicles refers to such a *combined* work, but is confined to Judah; it follows the religious judgment passed upon the kings, but it introduces new details apparently derived from extant annals, replaces the annalistic excerpts found in Kings by other passages, or uses new narratives which at times are clearly based upon older sources. Next (*b*) the Septuagint proves that Kings did not reach its present form until a very late date; "each represents a stage and not always the same stage in the long protracted labours of the redactors" (Kuenen).[2] In agreement with this are the unambiguous indications of the post-exilic age (especially in the Judaean history) consisting of complete passages, obvious interpolations, and also sporadic phrases in narratives whose pre-exilic origin is sometimes clear and sometimes only to be presumed. Further (*c*), the Septuagint supports the independent conclusion that the elaborate synchronisms belong to a late stage in the redaction. Consequently it is necessary to allow that the previous arrangement of the material may have been different; the actual wording of the introductory notices was necessarily also affected. In general, it becomes ever more difficult to distinguish between passages incorporated by an early redactor and those which may have been inserted later, though possibly from old sources. Where the regular framework is disturbed such considerations become more cogent. The relation of annalistic materials in 1 Sam. (xiii. 1; xiv. 47–51, &c.) to the longer detailed narratives will bear upon the question, as also the relation of 2 Sam. ix-xx. to 1 Kings i. seq. (see SAMUEL, BOOKS OF). Again (*d*) the lengths of the reigns of the Judaean kings form an integral part of the framework, and their total, with fifty years of exile, allows four hundred and eighty years from the beginning of the Temple to the return from Babylon.[3] This round number (cf. again 1 Kings vi. 1) points to a date subsequent to 537, and Robertson Smith has observed that almost all events dated by the years of the kings of Jerusalem have reference to the affairs of the Temple. This suggests a connexion between the chronology and the incorporation of those narratives in which the Temple is clearly the centre of interest. (*e*) But, apart from the question of the origin of the more detailed Judaean records, the arguments for a pre-exilic Judaean Deuteronomic compilation are not quite decisive. The phrase "unto this day" is not necessarily valid (cf. 2 Chron. v. 9, viii. 8, xxi. 10 with 1 Kings viii. 8, ix. 21, 2 Kings viii. 22), and depends largely upon the compiler's sagacity. Also, the existence of the Temple and of the Davidic dynasty (1 Kings viii. 14–53; ix. 3; xi. 36–38; xv. 4; 2 Kings viii. 19; cf. 2 Chron. xiii. 5) is equally applicable to the time of the second temple when Zerubbabel, the Davidic representative, kindled new hopes and aspirations. Indeed, if the object of the Deuteronomic compiler is to show from past history that "the sovereign is responsible for the purity of the national religion" (Moore, *Ency. Bib.* col. 2079), a date somewhere after the death of Jehoiachin (released in 561) in the age of Zerubbabel and the new Temple equally satisfies the conditions. With this is concerned (*f*) the question whether, on historical grounds, the account of the introduction of Deuteronomic reforms by Josiah is trustworthy.[4] Moreover, although a twofold Deuteronomic redaction of Kings is generally recognized, the criteria for the presumably pre-exilic form are not so decisive as those which certainly distinguish the post-exilic portions, and it is frequently very difficult to assign Deuteronomic passages to the earlier rather than to the later. Again, apart from the contrast between the Israelite detailed narratives (relatively early) and those of Judaean origin (often secondary), it is noteworthy that the sympathetic treatment of northern history in 2 Kings xiii. 4 seq. 23, xiv. 26 has literary parallels in the Deuteronomic redaction of Judges (where Israelite tradition is again predominant), but is quite distinct from the hostile feeling to the north which is also Deuteronomic. Even the northern prophet Hosea (*q.v.*) approximates the Deuteronomic standpoint, and the possibility that the first Deuteronomic compilation of Kings could originate outside Judah is

[1] Cf. similarly the prophetic narratives in the books of Samuel (*q.v.*).

[2] "The LXX. of Kings is not a corrupt reproduction of the Hebrew *receptus*, but represents another recension of the text. Neither recension can claim absolute superiority. The defects of the LXX. lie on the surface, and are greatly aggravated by the condition of the Greek text, which has suffered much in transmission, and particularly has in many places been corrected after the later Greek versions that express the Hebrew *receptus* of the 2nd century of our era. Yet the LXX. not only preserves many good readings in detail, but throws much light on the long-continued process of redaction at the hand of successive editors or copyists of which the extant Hebrew of Kings is the outcome. Even the false readings of the Greek are instructive, for both recensions were exposed to corrupting influences of precisely the same kind" (W. R. SMITH).

[3] See W. R. Smith, *Journ. of Philology*, x. 209 sqq.; *Prophets of Israel*, p. 147 seq.; and K. Marti, *Ency. Bib.* art. "Chronology."

[4] Against earlier doubts by Havet (1878), Vernes (1887) and Horst (1888), see W. E. Addis, *Documents of Hexateuch*, ii. 2 sqq.; but the whole question has been reopened by E. Day (*loc. cit.* above) and R. H. Kennett (*Journ. Theol. Stud.*, July 1906, 481 sqq).

strengthened by the fact that an Israelite source could be drawn upon for an impartial account of Judaean history (2 Kings xiv. 8–15). Finally, (*g*) literary and historical problems here converge. Although Judaean writers ultimately rejected as heathen a people who could claim to be followers of Yahweh (Ezra iv. 2; 2 Kings xvii. 28, 33; contrast ibid. 34–40, a *secondary* insertion), the anti-Samaritan feeling had previously been at most only in an incipient stage, and there is reason to infer that relations between the peoples of north and south had been closer.[1] The book of Kings reveals changing historical conditions in its literary features, and it is significant that the very age where the background is to be sought is that which has been (intentionally?) left most obscure: the chronicler's history of the Judaean monarchy (Chron.—Ezra—Nehemiah), as any comparison will show, has its own representation of the course of events, and has virtually superseded both Kings and Jeremiah, which have now an abrupt conclusion. (See further S. A. Cook, *Jew. Quart. Rev.* (1907), pp. 158 sqq.; and the articles JEWS: *History*, §§ 20, 22; PALESTINE: *History*).

LITERATURE.—A. Kuenen, *Einleitung*; J. Wellhausen, *Compos. d. Hexateuch*, pp. 266–302; H. Winckler, *Alttest. Untersuchungen* (1892); and B. Stade, *Akademische Reden* (1899; on 1 Kings v.–vii.; 2 Kings x.–xiv.; xv.–xxi.); S. R. Driver, *Lit. of O. T.* (1909); see also C. Holzhey, *Das Buch. d. Könige* (1899); the commentaries of Benzinger (1899) and Kittel (1900), and especially F. C. Kent, *Israel's Hist. and Biog. Narr.* (1905). The article by W. R. Smith, *Ency. Brit.*, 9th ed. (partly retained here), is revised and supplemented by E. Kautzsch in the *Ency. Bib.* For the Hebrew text see Klostermann's *Sam. u. Könige* (1887); C. F. Burney, *Notes on the Hebrew Text* (1903); and Stade and Schwally's edition in Haupt's *Sacred Books of the Old Testament* (1904). For English readers, J. Skinner's commentary in the *Century Bible*, and W. E. Barnes in the *Cambridge Bible*, are useful introductions. (S. A. C.)

KING'S BENCH, COURT OF, in England, one of the superior courts of common law. This court, the most ancient of English courts—in its correct legal title, "the court of the king before the king himself," *coram ipso rege*—is far older than parliament itself, for it can be traced back clearly, both in character and the essence of its jurisdiction, to the reign of King Alfred. The king's bench, and the two offshoots of the *aula regia*, the common pleas and the exchequer, for many years possessed co-ordinate jurisdiction, although there were a few cases in which each had exclusive authority, and in point of dignity precedence was given to the court of king's bench, the lord chief justice of which was also styled lord chief justice of England, being the highest permanent judge of the Crown. The court of exchequer attended to the business of the revenue, the common pleas to private actions between citizens, and the king's bench retained criminal cases and such other jurisdiction as had not been divided between the other two courts. By an act of 1830 the court of exchequer chamber was constituted as a court of appeal for errors in law in all three courts. Like the court of exchequer, the king's bench assumed by means of an ingenious fiction the jurisdiction in civil matters which properly belonged to the common pleas.

Under the Judicature Act 1873 the court of king's bench became the king's bench division of the High Court of Justice. It consists of the lord chief justice and fourteen puisne judges. It exercises original jurisdiction and also appellate jurisdiction from the county courts and other inferior courts. By the act of 1873 (sec. 45) this appellate jurisdiction is conferred upon the High Court generally, but in practice it is exercised by a divisional court of the king's bench division only. The determination of such appeals by the High Court is final, unless leave to appeal is given by the court which heard the appeal or by the court of appeal. There was an exception to this rule as regards certain orders of quarter sessions, the history of which involves some complication. But by sec. 1 (5) of the Court of Session Act 1894 the rule applies to all cases where there is a right of appeal to the High Court from any court or person. It may be here mentioned that if leave is given to appeal to the court of appeal there is a further appeal to the House of Lords, except in bankruptcy (Bankruptcy Appeals (County Courts) Act 1884), when the decision of the court of appeal on appeal from a divisional court sitting in appeal is made final and conclusive.

There are masters in the king's bench division. Unlike the masters in the chancery division, they have original jurisdiction, and are not attached to any particular judge. They hear applications in chambers, act as taxing masters and occasionally as referees to conduct inquiries, take accounts, and assess damages. There is an appeal from the master to the judge in chambers. Formerly there was an appeal from the judge in chambers to a divisional court in every case and thence to the court of appeal, until the multiplication of appeals in small interlocutory matters became a scandal. Under the Supreme Court of Judicature (Procedure) Act 1894 there is no right of appeal to the court of appeal in any interlocutory matters (except those mentioned in subs. (b)) without the leave of the judge or of the court of appeal, and in matters of "practice and procedure" the appeal lies (with leave) directly to the court of appeal from the judge in chambers.

KINGSBRIDGE, a market town in the Totnes parliamentary division of Devonshire, England, 48 m. S.S.W. of Exeter, on a branch of the Great Western railway. Pop. of urban district (1901), 3025. It lies 6 m. from the English Channel, at the head of an inlet or estuary which receives only small streams, on a sharply sloping site. The church of St Edmund is mainly Perpendicular, but there are Transitional Norman and Early English portions. The town-hall contains a natural history museum. A house called Pindar Lodge stands on the site of the birthplace of John Wolcot ("Peter Pindar," 1738–1819). William Cookworthy (1705–1780), a porcelain manufacturer, the first to exploit the deposits of kaolin in the south-west of England, was also born at Kingsbridge. The township of Dodbrooke, included within the civil parish, adjoins Kingsbridge on the north-east. Some iron-founding and ship-building, with a coasting trade, are carried on.

Kingsbridge (*Kyngysbrygge*) was formerly included in the manor of Churchstow, the first trace of its separate existence being found in the Hundred Roll of 1276, which records that in the manor of Churchstow there is a new borough, which has a Friday market and a separate assize of bread and ale. The name Kingsbridge however does not appear till half a century later. When Kingsbridge became a separate parish is not certainly known, but it was before 1414 when the church was rebuilt and consecrated to St Edmund. In 1461 the abbot of Buckfastleigh obtained a Saturday market at Kingsbridge and a three-days' fair at the feast of St Margaret, both of which are still held. The manor remained in possession of the abbot until the Dissolution, when it was granted to Sir William Petre. Kingsbridge was never represented in parliament or incorporated by charter, the government being by a portreeve, and down to the present day the steward of the manor holds a court leet and court baron and appoints a portreeve and constables. In 1798 the town mills were converted into a woollen manufactory, which up to recent times produced large quantities of cloth, and the serge manufacture was introduced early in the 19th century. The town has been famous from remote times for a beverage called "white ale." Included in Kingsbridge is the little town of Dodbrooke, which at the time of the Domesday Survey had a population of 42, and a flock of 108 sheep and 27 goats; and in 1257 was granted a Wednesday market and a fair at the Feast of St Mary Magdalene.

See "Victoria County History": *Devonshire; Kingsbridge and Sulcombe, with the intermediate Estuary, historically and topographically depicted* (Kingsbridge, 1819); S. F. Fox, *Kingsbridge Estuary* (Kingsbridge, 1864).

KING'S COUNTY, a county of Ireland in the province of Leinster, bounded N. by Meath and Westmeath, W. by Roscommon, Galway and Tipperary (the boundary with the first two counties being the river Shannon); S. by Tipperary and Queen's County, and E. by Kildare. The area is 493,999 acres or about 772 sq. m. The greater part of the county is included in the central plain of Ireland. In the south-east the Slieve Bloom Mountains form the

[1] See Kennett, *Journ. Theol. Stud.* 1905, pp. 169 sqq.; 1906, pp. 488 sqq.; and cf. J. A. Montgomery, *The Samaritans* (1907), pp. 47, 53 seq., 57, 59, 61 sqq.

boundary between King's County and Queen's County, and run into the former county from south-west to north-east for a distance of about 20 m. consisting of a mass of lofty and precipitous crags through which there are two narrow passes, the Black Gap and the Gap of Glandine. In the north-east Croghan Hill, a beautiful green eminence, rises to a height over 700 ft. The remainder of the county is flat, but a range of low hills crosses its north-eastern division to the north of the Barrow. In the centre of the county from east to west a large portion is occupied by the Bog of Allen. The county shares in the advantage of the navigation of the Shannon, which skirts its western side. The Brosna, which issues from Loch Ennell in Westmeath, enters the county near the town of Clara, and flowing south-westwards across its north-west corner, discharges itself into the Shannon after receiving the Clodagh and the Broughill. A small portion of the north-eastern extremity is skirted by the upper Boyne. The Barrow forms the south-eastern boundary with Queen's County. The Little Brosna, which rises in the Slieve Bloom Mountains, forms the boundary of King's County with Tipperary, and falls into the Shannon.

This county lies in the great Carboniferous Limestone plain, with clay-soils and bogs upon its surface, and many drier deposits of esker-gravels rising as green hills above the general level. The Slieve Bloom Mountains, consisting of Old Red Sandstone with Silurian inliers, form a bold feature in the south. North of Philipstown, the prominent mass of Croghan Hill is formed of basic volcanic rocks contemporaneous with the Carboniferous Limestone, and comparable with those in Co. Limerick.

Notwithstanding the large area occupied by bogs, the climate is generally healthy, and less moist than that of several neighbouring districts. The whole of the county would appear to have been covered formerly by a vast forest, and the district bordering on Tipperary is still richly wooded. The soil naturally is not of great fertility except in special cases, but is capable of being rendered so by the judicious application of bog and lime manures according to its special defects. It is generally either a deep bog or a shallow gravelly loam. On the borders of the Slieve Bloom Mountains there are some very rich and fertile pastures, and there are also extensive grazing districts on the borders of Westmeath, which are chiefly occupied by sheep. Along the banks of the Shannon there are some fine tracts of meadow land. With the exception of the tract occupied by the Bog of Allen, the remainder of the county is nearly all under tillage, the most productive portion being that to the north-west of the Hill of Croghan. The percentage of tillage to pasture is roughly as 1 to 2¼. Oats, barley and rye, potatoes and turnips, are all considerably grown; wheat is almost neglected, and the acreage of all crops has a decreasing tendency. Cattle, sheep, pigs and poultry are bred increasingly; dairies are numerous in the north of the county, and the sheep are pastured chiefly in the hilly districts.

The county is traversed from S.E. to N.W. by the Portarlington, Tullamore, Clara and Athlone line of the Great Southern and Western railway, with a branch from Clara to Banagher; from Roscrea (Co. Tipperary) a branch of this company runs to Parsonstown (Birr); while the Midland Great Western has branches from its main line from Enfield (Co. Kildare) to Edenderry, and from Streamstown (Co. Westmeath) to Clara. The Grand Canal runs through the length of the county from east to west, entering the Shannon at Shannon harbour.

The population (65,563 in 1891; 60,187 in 1901), decreasing through emigration, includes about 89% of Roman Catholics. The decrease is rather below the average. The chief towns are Tullamore (the county town, pop. 4639) and Birr or Parsonstown (4438), with Edenderry and Clara. Philipstown near Tullamore was formerly the capital of the county and was the centre of the kingdom of Offaly. The county comprises 12 baronies and 46 civil parishes. It returns two members to parliament, for the Birr and Tullamore divisions respectively. Previous to the Union, King's County returned six members to parliament, two for the county, and two for each of the boroughs of Philipstown and Banagher. Assizes are held at Tullamore and quarter sessions at Parsonstown, Philipstown and Tullamore. The county is divided into the Protestant dioceses of Killaloe, Meath and Ossory; and the Roman Catholic dioceses of Ardagh, Kildare and Leighlin, Ossory and Clonfert.

King's County, with portions of Tipperary, Queen's County and Kildare, at an early period formed one kingdom under the name of Offaly, a title which it retained after the landing of the English. Subsequently it was known as Glenmallery, Western Glenmallery pretty nearly corresponding to the present King's County, and Eastern Glenmallery to Queen's County. By a statute of 1556 the western district was constituted a shire under the name of King's County in honour of Philip, consort of Queen Mary—the principal town, formerly the seat of the O'Connors, being called Philipstown; and the eastern district at the same time received the name of Queen's County in honour of Mary. Perhaps the oldest antiquarian relic is the large pyramid of white stones in the Slieve Bloom Mountains called the Temple of the Sun or the White Obelisk. There are a considerable number of Danish raths, and a chain of moats commanding the passes of the bogs extended throughout the county. On the borders of Tipperary is an ancient causeway leading presumably to a crannog or lake-dwelling. The most important ecclesiastical ruins are those of the seven churches of Clonmacnoise (*q.v.*) on the Shannon in the north-west of the county, where an abbey was founded by St Kieran in 648, and where the remains include those of churches, two round towers, crosses, inscribed stones and a castle. Among the more famous religious houses in addition to Clonmacnoise were Durrow Abbey, founded by St Columba in 550; Monasteroris founded in the 14th century by John Bermingham, earl of Louth; and Seirkyran Abbey, founded in the beginning of the 5th century. The principal old castles are Rathmore, probably the most ancient in the county; Banagher, commanding an important pass on the Shannon; Leap Castle, in the Slieve Bloom Mountains; and Birr or Parsonstown, now the seat of the earl of Rosse.

KINGSDOWN, THOMAS PEMBERTON LEIGH, Baron (1793–1867), the eldest son of Thomas Pemberton, a chancery barrister, was born in London on the 11th of February 1793. He was called to the bar at Lincoln's Inn in 1816, and at once acquired a lucrative equity practice. He sat in parliament for Rye (1831–1832) and for Ripon (1835–1843). He was made a king's counsel in 1829. Of a retiring disposition, he seldom took part in parliamentary debates, although in 1838 in the case of *Stockdale* v. *Hansard* he took a considerable part in upholding the privileges of parliament. In 1841 he accepted the post of attorney-general for the duchy of Cornwall. In 1842 a relative, Sir Robert H. Leigh, left him a life interest in his Wigan estates, amounting to some £15,000 a year; he then assumed the additional surname of Leigh. Having accepted the chancellorship of the duchy of Cornwall and a privy councillorship, he became a member of the judicial committee of the privy council, and for nearly twenty years devoted his energies and talents to the work of that body; his judgments, more particularly in prize cases, of which he took especial charge, are remarkable not only for legal precision and accuracy, but for their form and expression. In 1858, on the formation of Lord Derby's administration, he was offered the Great Seal, but declined; in the same year, however, he was raised to the peerage as Baron Kingsdown. He died at his seat, Lorry Hill, near Sittingbourne, Kent, on the 7th of October 1867. Lord Kingsdown never married, and his title became extinct.

See *Recollections of Life at the Bar and in Parliament*, by Lord Kingsdown (privately printed for friends, 1868); *The Times* (8th of October 1867).

KING'S EVIL, an old, but not yet obsolete, name given to the scrofula, which in the popular estimation was deemed capable of cure by the royal touch. The practice of "touching" for the scrofula, or "King's Evil," was confined amongst the nations of Europe to the two Royal Houses of England and France. As the monarchs of both these countries owned the exclusive right of being anointed with the pure chrism, and not with the ordinary sacred oil, it has been surmised that the common belief in the sanctity of the chrism was in some manner inseparably connected

with faith in the healing powers of the royal touch. The kings both of France and England claimed a sole and special right to this supernatural gift: the house of France deducing its origin from Clovis (5th century) and that of England declaring Edward the Confessor the first owner of this virtue. That the Saxon origin of the royal power of healing was the popular theory in England is evident from the striking and accurate description of the ceremony in *Macbeth* (act vi. scene iii.). Nevertheless the practice of this rite cannot be traced back to an earlier date than the reign of Edward III. in England, and of St Louis (Louis IX.) in France; consequently, it is believed that the performance of healing by the touch emanated in the first instance from the French Crusader-King, whose miraculous powers were subsequently transmitted to his descendant and representative, Isabella of Valois, wife of Edward II. of England. In any case, Queen Isabella's son and heir, Edward III., claimant to the French throne through his mother, was the first English king to order a public display of an attribute that had hitherto been associated with the Valois kings alone. From his reign dates the use of the "touch-piece," a gold medal given to the sufferer as a kind of talisman, which was originally the angel coin, stamped with designs of St Michael and of a three-masted ship.

The actual ceremony seems first to have consisted of the sovereign's personal act of washing the diseased flesh with water, but under Henry VII. the use of an ablution was omitted, and a regular office was drawn up for insertion in the Service Book. At the "Ceremonies for the Healing" the king now merely touched his afflicted subject in the presence of the court chaplain who offered up certain prayers and afterwards presented the touch-piece, pierced so that it might be suspended by a ribbon round the patient's neck. Henry VII.'s office was henceforth issued with variations from time to time under successive kings, nor did it disappear from certain editions of the Book of Common Prayer until the middle of the 18th century. The practice of the Royal Healing seems to have reached the height of its popularity during the reign of Charles II., who is stated on good authority to have touched over 100,000 strumous persons. So great a number of applicants becoming a nuisance to the Court, it was afterwards enacted that special certificates should in future be granted to individuals demanding the touch, and such certificates are occasionally to be found amongst old parish registers of the close of the 17th century. After the Revolution, William of Orange refused to touch, and referred all applicants to the exiled James II. at St Germain; but Queen Anne touched frequently, one of her patients being Dr Samuel Johnson in his infancy. The Hanoverian kings declined to touch, and there exists no further record of any ceremony of healing henceforward at the English court. The practice, however, was continued by the exiled Stuarts, and was constantly performed in Italy by James Stuart, "the Old Pretender," and by his two sons, Charles and Henry (Cardinal York). (H. M. V.)

KINGSFORD, WILLIAM (1819–1898), British engineer and Canadian historian, was born in London on the 23rd of December 1819. He first studied architecture, but disliking the confinement of an office enlisted in the 1st Dragoon Guards, obtaining his discharge in Canada in 1841. After serving for a time in the office of the city surveyor of Montreal he made a survey for the Lachine canal (1846–1848), and was employed in the United States in the building of the Hudson River railroad in 1849, and in Panama on the railroad being constructed there in 1851. In 1853 he was surveyor and, afterwards district superintendent for the Grand Trunk railroad, remaining in the employment of that company until 1864. The following year he went to England but returned to Canada in 1867 in the hope of taking part in the construction of the Intercolonial Railway. In this he was unsuccessful, but from 1872 to 1879 he held a government post in charge of the harbours of the Great Lakes and the St Lawrence. He had previously written books on engineering and topographical subjects, and in 1880 he began to study the records of Canadian history at Ottawa. Among other books he published *Canadian Archaeology* (1886) and *Early Bibliography of Ontario* (1892). But the great work of his life was a *History of Canada* in 10 volumes (1887–1897), ending with the union of Upper and Lower Canada in 1841. Kingsford died on the 28th of September 1898.

KINGSLEY, CHARLES (1819–1875), English clergyman, poet and novelist, was born on the 12th of June 1819, at Holne vicarage, Dartmoor, Devon. His early years were spent at Barnack in the Fen country and at Clovelly in North Devon. The scenery of both made a great impression on his mind, and was afterwards described with singular vividness in his writings. He was educated at private schools and at King's College, London, after his father's promotion to the rectory of St Luke's, Chelsea. In 1838 he entered Magdalene College, Cambridge, and in 1842 he was ordained to the curacy of Eversley in Hampshire, to the rectory of which he was not long afterwards presented, and this, with short intervals, was his home for the remaining thirty-three years of his life. In 1844 he married Fanny, daughter of Pascoe Grenfell, and in 1848 he published his first volume, *The Saint's Tragedy*. In 1859 he became chaplain to Queen Victoria; in 1860 he was appointed to the professorship of modern history at Cambridge, which he resigned in 1869; and soon after he was appointed to a canonry at Chester. In 1873 this was exchanged for a canonry at Westminster. He died at Eversley on the 23rd of January 1875.

With the exception of occasional changes of residence in England, generally for the sake of his wife's health, one or two short holiday trips abroad, a tour in the West Indies, and another in America to visit his eldest son settled there as an engineer, his life was spent in the peaceful, if active, occupations of a clergyman who did his duty earnestly, and of a vigorous and prolific writer. But in spite of this apparently uneventful life, he was for many years one of the most prominent men of his time, and by his personality and his books he exercised considerable influence on the thought of his generation. Though not profoundly learned, he was a man of wide and various information, whose interests and sympathies embraced many branches of human knowledge. He was an enthusiastic student in particular of natural history and geology. Sprung on the father's side from an old English race of country squires, and on his mother's side from a good West Indian family who had been slaveholders for generations, he had a keen love of sport and a genuine sympathy with country-folk, but he had at the same time something of the scorn for lower races to be found in the members of a dominant race.

With the sympathetic organization which made him keenly sensible of the wants of the poor, he threw himself heartily into the movement known as Christian Socialism, of which Frederick Denison Maurice was the recognized leader, and for many years he was considered as an extreme radical in a profession the traditions of which were conservative. While in this phase he wrote his novels *Yeast* and *Alton Locke*, in which, though he pointed out unsparingly the folly of extremes, he certainly sympathized not only with the poor, but with much that was done and said by the leaders in the Chartist movement. Yet even then he considered that the true leaders of the people were a peer and a dean, and there was no real inconsistency in the fact that at a later period he was among the most strenuous defenders of Governor Eyre in the measures adopted by him to put down the Jamaican disturbances. He looked rather to the extension of the co-operative principle and to sanitary reform for the amelioration of the condition of the people than to any radical political change. His politics might therefore have been described as Toryism tempered by sympathy, or as Radicalism tempered by hereditary scorn of subject races. He was bitterly opposed to what he considered to be the medievalism and narrowness of the Oxford Tractarian Movement. In *Macmillan's Magazine* for January 1864 he asserted that truth for its own sake was not obligatory with the Roman Catholic clergy, quoting as his authority John Henry Newman (*q.v.*). In the ensuing controversy Kingsley was completely discomfited. He was a broad churchman, who held what would be called a liberal theology, but the Church, its organization, its creed, its dogma, had ever an increasing hold upon him. Although at one

period he certainly shrank from reciting the Athanasian Creed in church, he was towards the close of his life found ready to join an association for the defence of this formulary. The more orthodox and conservative elements in his character gained the upper hand as time went on, but careful students of him and his writings will find a deep conservatism underlying the most radical utterances of his earlier years, while a passionate sympathy for the poor, the afflicted and the weak held possession of him till the last hour of his life.

Both as a writer and in his personal intercourse with men, Kingsley was a thoroughly stimulating teacher. As with his own teacher, Maurice, his influence on other men rather consisted in inducing them to think for themselves than in leading them to adopt his own views, never, perhaps, very definite. But his healthy and stimulating influence was largely due to the fact that he interpreted the thoughts which were stirring in the minds of many of his contemporaries.

As a preacher he was vivid, eager and earnest, equally plain-spoken and uncompromising when preaching to a fashionable congregation or to his own village poor. One of the very best of his writings is a sermon called *The Message of the Church to Working Men*; and the best of his published discourses are the *Twenty-five Village Sermons* which he preached in the early years of his Eversley life.

As a novelist his chief power lay in his descriptive faculties. The descriptions of South American scenery in *Westward Ho!*, of the Egyptian desert in *Hypatia*, of the North Devon scenery in *Two Years Ago*, are among the most brilliant pieces of word-painting in English prose-writing; and the American scenery is even more vividly and more truthfully described when he had seen it only by the eye of his imagination than in his work *At Last*, which was written after he had visited the tropics. His sympathy for children taught him how to secure their interests. His version of the old Greek stories entitled *The Heroes*, and *Water-babies* and *Madam How and Lady Why*, in which he deals with popular natural history, take high rank among books for children.

As a poet he wrote but little, but there are passages in *The Saint's Tragedy* and many isolated lyrics, which are worthy of a place in all standard collections of English literature. *Andromeda* is a very successful attempt at naturalizing the hexameter as a form of English verse, and reproduces with great skill the sonorous roll of the Greek original.

In person Charles Kingsley was tall and spare, sinewy rather than powerful, and of a restless excitable temperament. His complexion was swarthy, his hair dark, and his eye bright and piercing. His temper was hot, kept under rigid control; his disposition tender, gentle and loving, with flashing scorn and indignation against all that was ignoble and impure; he was a good husband, father and friend. One of his daughters, Mary St Leger Kingsley (Mrs Harrison), has become well known as a novelist under the pseudonym of "Lucas Malet."

Kingsley's life was written by his widow in 1877, entitled *Charles Kingsley, his Letters and Memories of his Life*, and presents a very touching and beautiful picture of her husband, but perhaps hardly does justice to his humour, his wit, his overflowing vitality and boyish fun.

The following is a list of Kingsley's writings:—*Saint's Tragedy*, a drama (1848); *Alton Locke*, a novel (1849); *Yeast*, a novel (1849) *Twenty-five Village Sermons* (1849); *Phaeton, or Loose Thoughts for Loose Thinkers* (1852); *Sermons on National Subjects* (1st series, 1852); *Hypatia*, a novel (1853); *Glaucus, or the Wonders of the Shore* (1855); *Sermons on National Subjects* (2nd series, 1854); *Alexandria and her Schools* (1854); *Westward Ho!* a novel (1855); *Sermons for the Times* (1855); *The Heroes*, Greek fairy tales (1856); *Two Years Ago*, a novel (1857); *Andromeda and other Poems* (1858); *The Good News of God*, sermons (1859); *Miscellanies* (1859); *Limits of Exact Science applied to History* (Inaugural Lectures, 1860); *Town and Country Sermons* (1861); *Sermons on the Pentateuch* (1863); *Water-babies* (1863); *The Roman and the Teuton* (1864); *David and other Sermons* (1866); *Hereward the Wake*, a novel (1866); *The Ancient Régime* (Lectures at the Royal Institution, 1867); *Water of Life and other Sermons* (1867); *The Hermits* (1869); *Madam How and Lady Why* (1869); *At last* (1871); *Town Geology* (1872); *Discipline and other Sermons* 1872); *Prose Idylls* (1873); *Plays and Puritans* (1873); *Health and Education* (1874); *Westminster Sermons* (1874); *Lectures delivered in America* (1875). He was a large contributor to periodical literature; many of his essays are included in *Prose Idylls* and other works in the above list. But no collection has been made of some of his more characteristic writings in the *Christian Socialist* and *Politics for the People*, many of them signed by the pseudonym he then assumed, "Parson Lot."

KINGSLEY, HENRY (1830–1876), English novelist, younger brother of Charles Kingsley, was born at Barnack, Northamptonshire, on the 2nd of January 1830. In 1853 he left Oxford, where he was an undergraduate at Worcester College, for the Australian goldfields. This venture, however, was not a success, and after five years he returned to England. He achieved considerable popularity with his *Recollections of Geoffrey Hamlyn* (1859), a novel of Australian life. This was the first of a series of novels of which *Ravenshoe* (1861) and *The Hillyars and The Burtons* (1865) are the best known. These stories are characterized by much vigour, abundance of incident, and healthy sentiment. He edited for eighteen months the *Edinburgh Daily Review*, for which he had acted as war correspondent during the Franco-German War. He died at Cuckfield, Sussex, on the 24th of May 1876.

KINGSLEY, MARY HENRIETTA (1862–1900), English traveller, ethnologist and author, daughter of George Henry Kingsley (1827–1892), was born in Islington, London, on the 13th of October 1862. Her father, though less widely known than his brothers, Charles and Henry (see above), was a man of versatile abilities, with a passion for travelling which he managed to indulge in combination with his practice as a doctor. He wrote one popular book of travel, *South Sea Bubbles, by the Earl and the Doctor* (1872), in collaboration with the 13th earl of Pembroke. Mary Kingsley's reading in history, poetry and philosophy was wide if desultory, but she was most attracted to natural history. Her family moved to Cambridge in 1886, where she studied the science of sociology. The loss of both parents in 1892 left her free to pursue her own course, and she resolved to study native religion and law in West Africa with a view to completing a book which her father had left unfinished. With her study of "raw fetish" she combined that of a scientific collector of fresh-water fishes. She started for the West Coast in August 1893; and at Kabinda, at Old Calabar, Fernando Po and on the Lower Congo she pursued her investigations, returning to England in June 1894. She gained sufficient knowledge of the native customs to contribute an introduction to Mr R. E. Dennett's *Notes on the Folk Lore of the Fjort* (1898). Miss Kingsley made careful preparations for a second visit to the same coast; and in December 1894, provided by the British Museum authorities with a collector's equipment, she proceeded via Old Calabar to French Congo, and ascended the Ogowé River. From this point her journey, in part across country hitherto untrodden by Europeans, was a long series of adventures and hairbreadth escapes, at one time from the dangers of land and water, at another from the cannibal Fang. Returning to the coast Miss Kingsley went to Corisco and to the German colony of Cameroon, where she made the ascent of the Great Cameroon (13,760 ft.) from a direction until then unattempted. She returned to England in October 1895. The story of her adventures and her investigations in fetish is vividly told in her *Travels in West Africa* (1897). The book aroused wide interest, and she lectured to scientific gatherings on the fauna, flora and folk-lore of West Africa, and to commercial audiences on the trade of that region and its possible developments, always with a protest against the lack of detailed knowledge characteristic of modern dealings with new fields of trade. In both cases she spoke with authority, for she had brought back a considerable number of new specimens of fishes and plants, and had herself traded in rubber and oil in the districts through which she passed. But her chief concern was for the development of the negro on African, not European, lines and for the government of the British possessions on the West Coast by methods which left the native "a free unsmashed man—not a whitewashed slave or an enemy." With undaunted energy Miss Kingsley made preparations for a third journey to the West Coast, but the Anglo-Boer War changed her plans, and she

decided to go first to South Africa to nurse fever cases. She died of enteric fever at Simon's Town, where she was engaged in tending Boer prisoners, on the 3rd of June 1900. Miss Kingsley's works, besides her *Travels*, include *West African Studies*, *The Story of West Africa*, a memoir of her father prefixed to his *Notes on Sport and Travel* (1899), and many contributions to the study of West African law and folk-lore. To continue the investigation of the subjects Miss Kingsley had made her own "The African Society" was founded in 1901.

Valuable biographical information from the pen of Mr George A. Macmillan is prefixed to a second edition (1901) of the *Studies*.

KING'S LYNN (Lynn or Lynn Regis), a market town, seaport and municipal and parliamentary borough of Norfolk, England, on the estuary of the Great Ouse near its outflow into the Wash. Pop. (1901), 20,288. It is 97 m. N. by E. from London by the Great Eastern railway, and is also served by the Midland and Great Northern joint line. On the land side the town was formerly defended by a fosse, and there are still considerable remains of the old wall, including the handsome South Gate of the 15th century. Several by-channels of the river, passing through the town, are known as fleets, recalling the similar *flethe* of Hamburg. The Public Walks forms a pleasant promenade parallel to the wall, and in the centre of it stands a picturesque octagonal Chapel of the Red Mount, exhibiting ornate Perpendicular work, and once frequented by pilgrims. The church of St Margaret, formerly the priory church, is a fine building with two towers at the west end, one of which was formerly surmounted by a spire, blown down in 1741. Norman or transitional work appears in the base of both towers, of which the southern also shows Early English and Decorated work, while the northern is chiefly Perpendicular. There is a fine Perpendicular east window of circular form. The church possesses two of the finest monumental brasses in existence, dated respectively 1349 and 1364. St Nicholas chapel, at the north end of the town, is also of rich Perpendicular workmanship, with a tower of earlier date. All Saints' church in South Lynn is a beautiful Decorated cruciform structure. Of a Franciscan friary there remains the Perpendicular Grey Friars' Steeple, and the doorway remains of a priests' college founded in 1502. At the grammar school, founded in the reign of Henry VIII., but occupying modern buildings, Eugene Aram was usher. Among the other public buildings are the guildhall, with Renaissance front, the corn exchange, the picturesque custom-house of the 17th century, the athenaeum (including a museum, hall and other departments), the Stanley Library and the municipal buildings. The fisheries of the town are important, including extensive mussel-fisheries under the jurisdiction of the corporation, and there are also breweries, corn-mills, iron and brass foundries, agricultural implement manufactories, ship-building yards, rope and sail works. Lynn Harbour has an area of 30 acres and an average depth at low tide of 10 ft. There is also good anchorage in the roads leading from the Wash to the docks. There are two docks of $6\frac{3}{4}$ and 10 acres area respectively. A considerable traffic is carried on by barges on the Ouse. The municipal and parliamentary boroughs of Lynn are co-extensive; the parliamentary borough returns one member. The town is governed by a mayor, 6 aldermen and 18 councillors. Area, 3061 acres.

As Lynn (Lun, Lenne, Bishop's Lynn) owes its origin to the trade which its early settlers carried by the Ouse and its tributaries its history dates from the period of settled occupation by the Saxons. It belonged to the bishops of Thetford before the Conquest and remained with the see when it was translated to Norwich. Herbert de Losinga (*c.* 1054–1119) granted its jurisdiction to the cathedral of Norwich but this right was resumed by a later bishop, John de Gray, who in 1204 had obtained from John a charter establishing Lynn as a free borough. A fuller grant in 1206 gave the burgesses a gild merchant, the husting court to be held once a week only, and general liberties according to the customs of Oxford, saving the rights of the bishop and the earl of Arundel, whose ancestor William D'Albini had received from William II. the moiety of the tolbooth. Among numerous later charters one of 1268 confirmed the privilege granted to the burgesses by the bishop of choosing a mayor; another of 1416 re-established his election by the aldermen alone. Henry VIII. granted Lynn two charters, the first (1524) incorporating it under mayor and aldermen; the second (1537) changing its name to King's Lynn and transferring to the corporation all the rights hitherto enjoyed by the bishop. Edward VI. added the possessions of the gild of the Trinity, or gild merchant, and St George's gild, while Queen Mary annexed South Lynn. Admiralty rights were granted by James I. Lynn, which had declared for the Crown in 1643, surrendered its privileges to Charles II. in 1684, but recovered its charter on the eve of the Revolution. A fair held on the festival of St Margaret (July 20) was included in the grant to the monks of Norwich about 1100. Three charters of John granting the bishop fairs on the feasts of St Nicholas, St Ursula and St Margaret are extant, and another of Edward I., changing the last to the feast of St Peter ad Vincula (Aug. 1). A local act was passed in 1558–1559 for keeping a mart or fair once a year. In the eighteenth century besides the pleasure fair, still held in February, there was another in October, now abolished. A royal charter of 1524 established the cattle, corn and general provisions market, still held every Tuesday and Saturday. Lynn has ranked high among English seaports from early times.

See E. M. Beloe, *Our Borough* (1899); H. Harrod, *Report on Deeds, &c., of King's Lynn* (1874); *Victoria County History: Norfolk.*

KING'S MOUNTAIN, a mountainous ridge in Gaston county, North Carolina and York county, South Carolina, U.S.A. It is an outlier of the Blue Ridge running parallel with it, *i.e.* N.E. and S.W., but in contrast with the other mountains of the Blue Ridge, King's Mountain has a crest marked with sharp and irregular notches. Its highest point and great escarpment are in North Carolina. About $1\frac{1}{2}$ m. S. of the line between the two states, where the ridge is about 60 ft. above the surrounding country and very narrow at the top, the battle of King's Mountain was fought on the 7th of October 1780 between a force of about 100 Provincial Rangers and about 1000 Loyalist militia under Major Patrick Ferguson (1744-1780), and an American force of about 900 backwoodsmen under Colonels William Campbell (1745–1781), Benjamin Cleveland (1738–1806), Isaac Shelby, John Sevier and James Williams (1740–1780), in which the Americans were victorious. The British loss is stated as 119 killed (including the commander), 123 wounded, and 664 prisoners; the American loss was 28 killed (including Colonel Williams) and 62 wounded. The victory largely contributed to the success of General Nathanael Greene's campaign against Lord Cornwallis. There has been some dispute as to the exact site of the engagement, but the weight of evidence is in favour of the position mentioned above, on the South Carolina side of the line. A monument erected in 1815 was replaced in 1880 by a much larger one, and a monument for which Congress appropriated $30,000 in 1906, was completed in 1909.

See L. C. Draper, *King's Mountain and its Heroes* (Cincinnati, 1881); and Edward McCrady, *South Carolina in the Revolution 1775–1780* (New York, 1901).

KINGSTON, ELIZABETH, Duchess of (1720–1788), sometimes called countess of Bristol, was the daughter of Colonel Thomas Chudleigh (d. 1726), and was appointed maid of honour to Augusta, princess of Wales, in 1743, probably through the good offices of her friend, William Pulteney, earl of Bath. Being a very beautiful woman Miss Chudleigh did not lack admirers, among whom were James, 6th duke of Hamilton, and Augustus John Hervey, afterwards 3rd earl of Bristol. Hamilton, however, left England, and on the 4th of August 1744 she was privately married to Hervey at Lainston, near Winchester. Both husband and wife being poor, their union was kept secret to enable Elizabeth to retain her post at court, while Hervey, who was a naval officer, rejoined his ship, returning to England towards the close of 1746. The marriage was a very unhappy one, and the pair soon ceased to live together; but when it appeared probable that Hervey would succeed his brother as earl

of Bristol, his wife took steps to obtain proof of her marriage. This did not, however, prevent her from becoming the mistress of Evelyn Pierrepont, 2nd duke of Kingston, and she was not only a very prominent figure in London society, but in 1765 in Berlin she was honoured by the attentions of Frederick the Great. By this time Hervey wished for a divorce from his wife; but Elizabeth, although equally anxious to be free, was unwilling to face the publicity attendant upon this step. However she began a suit of jactitation against Hervey. This case was doubtless collusive, and after Elizabeth had sworn she was unmarried, the court in February 1769 pronounced her a spinster. Within a month she married Kingston, who died four years later, leaving her all his property on condition that she remained a widow. Visiting Rome the duchess was received with honour by Clement XIV.; after which she hurried back to England to defend herself from a charge of bigamy, which had been preferred against her by Kingston's nephew, Evelyn Meadows (d. 1826). The house of Lords in 1776 found her guilty, and retaining her fortune she hurriedly left England to avoid further proceedings on the part of the Meadows family, who had a reversionary interest in the Kingston estates. She lived for a time in Calais, and then repaired to St Petersburg, near which city she bought an estate which she named "Chudleigh." Afterwards she resided in Paris, Rome, and elsewhere, and died in Paris on the 26th of August 1788. The duchess was a coarse and licentious woman, and was ridiculed as Kitty Crocodile by the comedian Samuel Foote in a play *A Trip to Calais*, which, however, he was not allowed to produce. She is said to have been the original of Thackeray's characters, Beatrice and Baroness Bernstein.

There is an account of the duchess in J. H. Jesse's *Memoirs of the Court of England 1688–1760*, vol. iv. (1901).

KINGSTON, WILLIAM HENRY GILES (1814–1880), English novelist, son of Lucy Henry Kingston, was born in London on the 28th of February 1814. Much of his youth was spent at Oporto, where his father was a merchant, but when he entered the business, he made his headquarters in London. He early wrote newspaper articles on Portuguese subjects. These were translated into Portuguese, and the author received a Portuguese order of knighthood and a pension for his services in the conclusion of the commercial treaty of 1842. In 1844 his first book, *The Circassian Chief*, appeared, and in 1845 *The Prime Minister, a Story of the Days of the Great Marquis of Pombal*. The *Lusitanian Sketches* describe Kingston's travels in Portugal. In 1851 *Peter the Whaler*, his first book for boys, came out. These books proved so popular that Kingston retired from business, and devoted himself to the production of tales of adventure for boys. Within thirty years he wrote upwards of one hundred and thirty such books. He had a practical knowledge of seamanship, and his stories of the sea, full of thrilling adventures and hairbreadth escapes, exactly hit the taste of his boy readers. Characteristic specimens of his work are *The Three Midshipmen*; *The Three Lieutenants*; *The Three Commanders*; and *The Three Admirals*. He also wrote popular accounts of famous travellers by land and sea, and translated some of the stories of Jules Verne.

In all philanthropic schemes Kingston took deep interest; he was the promoter of the mission to seamen; and he acted as secretary of a society for promoting an improved system of emigration. He was editor of the *Colonist* for a short time in 1844 and of the *Colonial Magazine and East Indian Review* from 1849 to 1851. He was a supporter of the volunteer movement in England from the first. He died at Willesden on the 5th of August 1880.

KINGSTON, the chief city of Frontenac county, Ontario, Canada, at the north-eastern extremity of Lake Ontario, and the mouth of the Cataraqui River. Pop. (1901), 17,961. It is an important station on the Grand Trunk railway, the terminus of the Kingston & Pembroke railway, and has steamboat communication with other ports on Lake Ontario and the Bay of Quinte, on the St Lawrence and the Rideau canal. It contains a fine stone graving dock, 280 ft. long, 100 ft. wide, and with a depth of 16 ft. at low water on the sill. The fortifications, which at one time made it one of the strongest fortresses in Canada, are now out of date. The sterility of the surrounding country, and the growth of railways have lessened its commercial importance, but it still contains a number of small factories, and important locomotive works and ship-building yards. As an educational and residential centre it retains high rank, and is a popular summer resort. It is the seat of an Anglican and of a Roman Catholic bishopric, of the Royal Military College (founded by the Dominion government in 1875), of an artillery school, and of Queen's University, an institution founded in 1839 under the nominal control of the Presbyterian church, now including about 1200 students. In the suburbs are a Dominion penitentiary, and a provincial lunatic asylum. Founded by the French in 1673, under the name of Kateracoui, soon changed to Fort Frontenac, it played an important part in the wars between English and French. Taken and destroyed by the English in 1758, it was refounded in 1782 under its present name, and was from 1841 to 1844 the capital of Canada.

KINGSTON, a city and the county-seat of Ulster county, New York, U.S.A., on the Hudson River, at the mouth of Rondout Creek, about 90 m. N. of New York and about 53 m. S. of Albany. Pop. (1900), 24,535—3551 being foreign-born; (1910 census) 25,908. It is served by the West Shore (which here crosses Rondout Creek on a high bridge), the New York Ontario & Western, the Ulster & Delaware, and the Wallkill Valley railways, by a ferry across the river to Rhinecliff, where connexion is made with the New York Central & Hudson River railroad, and by steamboat lines to New York, Albany and other river points. The principal part of the city is built on a level plateau about 150 ft. above the river; other parts of the site vary from flatlands to rough highlands. To the N.W. is the mountain scenery of the Catskills, to the S.W. the Shawangunk Mountains and Lake Mohonk, and in the distance across the river are the Berkshire Hills. The most prominent public buildings are the post office and the city hall; in front of the latter is a Soldiers' and Sailors' Monument. The city has a Carnegie library. The "Senate House"—now the property of the state, with a colonial museum—was erected about 1676; it was the meeting place of the first State Senate in 1777, and was burned (except the walls) in October of that year. The court house (1818) stands on the site of the old court house, in which Governor George Clinton was inaugurated in July 1777, and in which Chief Justice John Jay held the first term of the New York Supreme Court in September 1777. The Elmendorf Tavern (1723) was the meeting-place of the New York Council of Safety in October 1777. Kingston Academy was organized in 1773, and in 1864 was transferred to the Kingston Board of Education and became part of the city's public school system; its present building dates from 1806. Kingston's principal manufactures are tobacco, cigars and cigarettes, street railway cars and boats; other manufactures are Rosendale cement, bricks, shirts, lace curtains, brushes, motor wheels, sash and blinds. The city ships large quantities of building and flag stones quarried in the vicinity. The total value of the factory product in 1905 was $5,000,922, an increase of 26·5 % since 1900.

In 1614 a small fort was built by the Dutch at the mouth of Rondout Creek, and in 1652 a settlement was established in the vicinity and named Esopus after the Esopus Indians, who were a subdivision of the Munsee branch of the Delawares, and whose name meant "small river," referring possibly to Rondout Creek. The settlement was deserted in 1655-56 on account of threatened Indian attacks. In 1658 a stockade was built by the order of Governor Peter Stuyvesant, and from this event the actual founding of the city is generally dated. In 1659 the massacre of several drunken Indians by the soldiers caused a general rising of the Indians, who unsuccessfully attacked the stockade, killing some of the soldiers and inhabitants, and capturing and torturing others. Hostilities continued into the following year. In 1661 the governor named the place Wiltwyck and gave it a municipal charter. In 1663 it suffered from another Indian attack, a number of the inhabitants being slain or taken prisoners. The English took possession

in 1664, and in 1669 Wiltwyck was named Kingston, after Kingston Lisle, near Wantage, England, the family seat of Governor Francis Lovelace. In the same year the English garrison was removed. In 1673–1674 Kingston was again temporarily under the control of the Dutch, who called it Swanenburg. In 1777 the convention which drafted the new state constitution met in Kingston, and during part of the year Kingston was the seat of the new state government. On the 16th of October 1777 the British under General Sir John Vaughan (1748–95) sacked it and burned nearly all its buildings. In 1908 the body of George Clinton was removed from Washington, D.C., and reinterred in Kingston on the 250th anniversary of the building of the stockade. In 1787 Kingston was one of the places contemplated as a site for the national capital. In 1805 it was incorporated as a village, and in 1872 it absorbed the villages of Rondout and Wilbur and was made a city.

See M. Schoonmaker, *History of Kingston* (New York, 1888).

KINGSTON, a borough of Luzerne county, Pennsylvania, U.S.A., on the North Branch of the Susquehanna river, opposite Wilkes-Barré. Pop. (1900), 3846 (1039 foreign-born); (1910) 6449. Kingston is served by the Delaware, Lackawanna & Western and the Lehigh Valley railways. It is the seat of Wyoming Seminary (1844; co-educational), a well-known secondary school. Anthracite coal is mined here; there are railway repair and machine-shops; and among the borough's manufactures are hosiery, silk goods, underwear and adding machines. Kingston (at first called "Kingstown," from Kings Towne, Rhode Island) was commonly known in its early days as the "Forty Township," because the first permanent settlement was made by forty pioneers from Connecticut, who were sent out by the Susquehanna Company and took possession of the district in its name in 1769. In 1772 the famous "Forty Fort," a stockade fortification, was built here, and in 1777 it was rebuilt, strengthened and enlarged. Here on the 3rd of July 1778 about 400 men and boys met, and under the command of Colonel Zebulon Butler (1731–95) went out to meet a force of about 1100 British troops and Indians, commanded by Major John Butler and Old King (Sayenqueraghte). The Americans were defeated in the engagement that followed, and many of the prisoners taken were massacred or tortured by the Indians. A monument near the site of the fort commemorates the battle and massacre. Kingston was incorporated as a borough in 1857. (See Wyoming Valley.)

KINGSTON, the capital and chief port of Jamaica, West Indies. Pop. (1901), 46,542, mostly negroes. It is situated in the county of Surrey, in the south-east of the island, standing on the north shore of a land-locked harbour—for its size one of the finest in the world—and with its suburbs occupying an area of 1080 acres. The town contains the principal government offices. It has a good water supply, a telephone service and a supply of both gas and electric light, while electric trams ply between the town and its suburbs. The Institute of Jamaica maintains a public library, museum and art gallery especially devoted to local interests. The old parish church in King Street, dating probably from 1692 was the burial-place of William Hall (1699) and Admiral Benbow (1702). The suburbs are remarkable for their beauty. The climate is dry and healthy, and the temperature ranges from 93° to 66° F. Kingston was founded in 1693, after the neighbouring town of Port Royal had been ruined by an earthquake in 1692. In 1703, Port Royal having been again laid waste by fire, Kingston became the commercial, and in 1872 the political, capital of the island. On several occasions Kingston was almost entirely consumed by fire, the conflagrations of 1780, 1843, 1862 and 1882 being particularly severe. On the 14th of January 1907 it was devastated by a terrible earthquake. A long immunity had led to the erection of many buildings not specially designed to withstand such shocks, and these and the fire which followed were so destructive that practically the whole town had to be rebuilt. (See Jamaica.)

KINGSTON-ON-THAMES, a market town and municipal borough in the Kingston parliamentary division of Surrey, England, 11 m. S.W. of Charing Cross, London; on the London and South-Western railway. Pop. (1901), 34,375. It has a frontage with public walks and gardens upon the right bank of the Thames, and is in close proximity to Richmond and Bushey Parks, its pleasant situation rendering it a favourite residential district. The ancient wooden bridge over the river, which was in existence as early as 1223, was superseded by a structure of stone in 1827. The parish church of All Saints, chiefly Perpendicular in style, contains several brasses of the 15th century, and monuments by Chantrey and others; the grammar school, rebuilt in 1878, was originally founded as a chantry by Edward Lovekyn in 1305, and converted into a school by Queen Elizabeth. Near the parish church stood the chapel of St Mary, where it is alleged the Saxon kings were crowned. The ancient stone said to have been used as a throne at these coronations was removed to the market-place in 1850. At Norbiton, within the borough, is the Royal Cambridge Asylum for soldiers' widows (1854). At Kingston Hill is an industrial and training school for girls, opened in 1892. There are large market gardens in the neighbourhood, and the town possesses oil-mills, flour-mills, breweries and brick and tile works. The borough is under a mayor, 8 aldermen and 24 councillors. Area, 1133 acres.

The position of Kingston (*Cyningestun, Chingestune*) on the Thames where there was probably a ford accounts for its origin; its later prosperity was due to the bridge which existed in 1223 and possibly long before. In 836 or 838 it was the meeting-place of the council under Ecgbert, and in the 10th century some if not all of the West Saxon kings were crowned at Kingston. In the time of Edward the Confessor it was a royal manor, and in 1086 included a church, five mills and three fisheries. Domesday also mentions bedels in Kingston. The original charters were granted by John in 1200 and 1209, by which the free men of Kingston were empowered to hold the town in fee-farm for ever, with all the liberties that it had while in the king's hands. Henry III. sanctioned the gild-merchant which had existed previously, and granted other privileges. These charters were confirmed and extended by many succeeding monarchs down to Charles I. Henry VI. incorporated the town under two bailiffs. Except for temporary surrenders of their corporate privileges under Charles II. and James II. the government of the borough continued in its original form until 1835, when it was reincorporated under the title of mayor, aldermen and burgesses. Kingston returned two members to parliament in 1311, 1313, 1353 and 1373, but never afterwards. The market, still held on Saturdays, was granted by James I., and the Wednesday market by Charles II. To these a cattle-market on Thursdays has been added by the corporation. The only remaining fair, now held on the 13th of November, was granted by Henry III., and was then held on the morrow of All Souls and seven days following.

KINGSTON-UPON-HULL, EARLS AND DUKES OF. These titles were borne by the family of Pierrepont, or Pierrepoint, from 1628 to 1773.

Robert Pierrepont (1584–1643), second son of Sir Henry Pierrepont of Holme Pierrepont, Nottinghamshire, was member of parliament for Nottingham in 1601, and was created Baron Pierrepont and Viscount Newark in 1627, being made earl of Kingston-upon-Hull in the following year. He remained neutral on the outbreak of the Civil War; but afterwards he joined the king, and was appointed lieutenant-general of the counties of Lincoln, Rutland, Huntingdon, Cambridge and Norfolk. Whilst defending Gainsborough he was taken prisoner, and was accidentally killed on the 25th of July 1643 while being conveyed to Hull. The earl had five sons, one of whom was Francis Pierrepont (d. 1659), a colonel in the parliamentary army and afterwards a member of the Long Parliament; and another was William Pierrepont (*q.v.*), a leading member of the parliamentary party.

His son Henry Pierrepont (1606–1680), 2nd earl of Kingston and 1st marquess of Dorchester, was member of parliament for Nottinghamshire, and was called to the House of Lords as Baron Pierrepont in 1641. During the earlier part of the Civil War he was at Oxford in attendance upon the king, whom he represented at the negotiations at Uxbridge. In 1645 he was made a privy

councillor and created marquess of Dorchester; but in 1647 he compounded for his estates by paying a large fine to the parliamentarians. Afterwards the marquess, who was always fond of books, spent his time mainly in London engaged in the study of medicine and law, his devotion to the former science bringing upon him a certain amount of ridicule and abuse. After the Restoration he was restored to the privy council, and was made recorder of Nottingham and a fellow of the Royal Society. Dorchester had two daughters, but no sons, and when he died in London on the 8th of December 1680 the title of marquess of Dorchester became extinct. He was succeeded as 3rd earl of Kingston by Robert (d. 1682), a son of Robert Pierrepont of Thoresby, Nottinghamshire, and as 4th earl by Robert's brother William (d. 1690).

EVELYN PIERREPONT (*c.* 1655–1726), 5th earl and 1st duke of Kingston, another brother had been member of parliament for East Retford before his accession to the peerage. While serving as one of the commissioners for the union with Scotland he was created marquess of Dorchester in 1706, and took a leading part in the business of the House of Lords. He was made a privy councillor and in 1715 was created duke of Kingston; afterwards serving as lord privy seal and lord president of the council. The duke, who died on the 5th of March 1726, was a prominent figure in the fashionable society of his day. He was twice married, and had five daughters, among whom was Lady Mary Wortley Montagu (*q.v.*), and one son, William, earl of Kingston (d. 1713).

The latter's son, EVELYN PIERREPONT (1711–1773), succeeded his grandfather as second duke of Kingston. When the rebellion of 1745 broke out he raised a regiment called "Kingston's light horse," which distinguished itself at Culloden. The duke, who attained the rank of general in the army, is described by Horace Walpole as "a very weak man, of the greatest beauty and finest person in England." He is chiefly famous for his connexion with Elizabeth Chudleigh, who claimed to be duchess of Kingston (*q.v.*). The Kingston titles became extinct on the duke's death without children on the 23rd of September 1773, but on the death of the duchess in 1788 the estates came to his nephew Charles Meadows (1737–1816), who took the name of Pierrepont and was created Baron Pierrepont and Viscount Newark in 1796, and Earl Manvers in 1806. His descendant, the present Earl Manvers, is thus the representative of the dukes of Kingston.

KINGSTOWN, a seaport of Co. Dublin, Ireland, in the south parliamentary division, at the south-eastern extremity of Dublin Bay, 6 m. S.E. from Dublin by the Dublin & South-Eastern railway. Pop. of urban district (1901), 17,377. It is a large seaport and favourite watering-place, and possesses several fine streets, with electric trams, and terraces commanding picturesque sea views. The original name of Kingstown was Dunleary, which was exchanged for the present designation after the embarkation of George IV. at the port on his return from Ireland in 1821, an event which is also commemorated by a granite obelisk erected near the harbour. The town was a mere fishing village until the construction of an extensive harbour, begun in 1817 and finally completed in 1859. The eastern pier has a length of 3500 ft. and the western of 4950 ft., the total area enclosed being about 250 acres, with a varying depth of from 15 to 27 ft. Kingstown is the station of the City of Dublin Steam Packet Company's mail steamers to Holyhead in connexion with the London & North-Western railway. It has large export and import trade both with Great Britain and foreign countries. The principal export is cattle, and the principal imports corn and provisions. Kingstown is the centre of an extensive sea-fishery; and there are three yacht clubs: the Royal Irish, Royal St George and Royal Alfred.

KING-TÊ CHÊN, a town near Fu-liang Hien, in the province of Kiang-si, China, and the principal seat of the porcelain manufacture in that empire. Being situated on the south bank of the river Chang, it was in ancient times known as *Chang-nan Chên*, or "town on the south of the river Chang." It is unwalled, and straggles along the bank of the river. The streets are narrow, and crowded with a population which is reckoned at a million, the vast majority of whom find employment at the porcelain factories. Since the Ch'in dynasty (557–589) this has been the great trade of the place, which was then called by its earlier name. In the reign of King-tê (Chên-tsung) of the Sung dynasty, early in the 11th century A.D., a manufactory was founded there for making vases and objects of art for the use of the emperor. Hence its adoption of its present title. Since the time of the Ming dynasty a magistrate has been specially appointed to superintend the factories and to despatch at regulated intervals the imperial porcelain to Peking. The town is situated on a vast plain surrounded by mountains, and boasts of three thousand porcelain furnaces. These constantly burning fires are the causes of frequent conflagrations, and at night give the city the appearance of a place on fire. The people are as a rule orderly, though they have on several occasions shown a hostile bearing towards foreign visitors. This is probably to be accounted for by a desire to keep their art as far as possible a mystery, which appears less unreasonable when it is remembered that the two kinds of earth of which the porcelain is made are not found at King-tê Chên, but are brought from K'i-mun in the neighbouring province of Ngan-hui, and that there is therefore no reason why the trade should be necessarily maintained at that place. The two kinds of earth are known as pai-tun-tsze, which is a fine fusible quartz powder, and kao-lin, which is not fusible, and is said to give strength to the ware. Both materials are prepared in the shape of bricks at K'i-mun, and are brought down the Chang to the seat of the manufacture.

KINGUSSIE, a town of Inverness-shire, Scotland. Pop. (1901), 987. It lies at a height of 750 ft. above sea-level, on the left bank of the Spey, here crossed by a bridge, 46½ m. S. by S.E. of Inverness by the Highland railway. It was founded towards the end of the 18th century by the duke of Gordon, in the hope of its becoming a centre of woollen manufactures. This expectation, however, was not realized, but in time the place grew popular as a health resort, the scenery in every direction being remarkably picturesque. On the right bank of the river is Ruthven, where James Macpherson was born in 1736, and on the left bank, some 2½ m. from Kingussie, is the house of Belleville (previously known as Raitts) which he acquired from Mackintosh of Borlum and where he died in 1796. The mansion, renamed Balavil by Macpherson's great-grandson, was burned down in 1903, when the fine library (including some MSS. of Sir David Brewster, who had married the poet's second daughter) was destroyed. Of Ruthven Castle, one of the residences of the Comyns of Badenoch, only the ruins of the walls remain. Here the Jacobites made an ineffectual rally under Lord George Murray after the battle of Culloden.

KING WILLIAM'S TOWN, a town of South Africa, in the Cape province and on the Buffalo River, 42 m. by rail W.N.W. of the port of East London. Pop. (1904), 9506, of whom 5987 were whites. It is the headquarters of the Cape Mounted Police. "King," as the town is locally called, stands 1275 ft. above the sea at the foot of the Amatola Mountains, and in the midst of a thickly populated agricultural district. The town is well laid out and most of the public buildings and merchants' stores are built of stone. There are manufactories of sweets and jams, candles, soap, matches and leather, and a large trade in wool, hides and grains is done with East London. "King" is also an important entrepôt for trade with the natives throughout Kaffraria, with which there is direct railway communication. Founded by Sir Benjamin D'Urban in May 1835 during the Kaffir War of that year, the town is named after William IV. It was abandoned in December 1836, but was reoccupied in 1846 and was the capital of British Kaffraria from its creation in 1847 to its incorporation in 1865 with Cape Colony. Many of the colonists in the neighbouring districts are descendants of members of the German legion disbanded after the Crimean War and provided with homes in Cape Colony; hence such names as Berlin, Potsdam, Braunschweig, Frankfurt, given to settlements in this part of the country.

KINKAJOU (*Cercoleptes caudivolvulus* or *Potos flavus*), the single species of an aberrant genus of the raccoon family (*Procyonidae*). It has been split up into a number of local races. A

native of the forests of the warmer parts of South and Central America, the kinkajou is about the size of a cat, of a uniform pale, yellowish-brown colour, nocturnal and arboreal in its habits, feeding on fruit, honey, eggs and small birds and mammals, and is of a tolerably gentle disposition and easily tamed. (See CARNIVORA.)

KINKEL, JOHANN GOTTFRIED (1815–1882), German poet, was born on the 11th of August 1815 at Obercassel near Bonn. Having studied theology at Bonn and afterwards in Berlin, he established himself at Bonn in 1836 as *privat docent* of theology, later became master at the gymnasium there, and was for a short time assistant preacher in Cologne. Changing his religious opinions, he abandoned theology and delivered lectures on the history of art, in which he had become interested on a journey to Italy in 1837. In 1846 he was appointed extraordinary professor of the history of art at Bonn University. For his share in the revolution in the Palatinate in 1849 Kinkel was arrested and, sentenced to penal servitude for life, was interned in the fortress of Spandau. His friend Carl Schurz contrived in November 1850 to effect his escape to England, whence he went to the United States. Returning to London in 1853, he for several years taught German and lectured on German literature, and in 1858 founded the German paper *Hermann*. In 1866 he accepted the professorship of archaeology and the history of art at the Polytechnikum in Zürich, in which city he died on the 13th of November 1882.

The popularity which Kinkel enjoyed in his day was hardly justified by his talent; his poetry is of the sweetly sentimental type which was much in vogue in Germany about the middle of the 19th century. His *Gedichte* first appeared in 1843, and have gone through several editions. He is to be seen to most advantage in the verse romances, *Otto der Schütz, eine rheinische Geschichte in zwölf Abenteuern* (1846) which in 1896 had attained its 75th edition, and *Der Grobschmied von Antwerpen* (1868). Among Kinkel's other works may be mentioned the tragedy *Nimrod* (1857), and his history of art, *Geschichte der bildenden Künste bei den christlichen Völkern* (1845). Kinkel's first wife, Johanna, *née* Mockel (1810–1858), assisted her husband in his literary work, and was herself an author of considerable merit. Her admirable autobiographical novel *Hans Ibeles in London* was not published until 1860, after her death. She also wrote on musical subjects.

See A. Strodtmann, *Gottfried Kinkel* (2 vols., Hamburg, 1851); and O. Henne am Rhyn, *G. Kinkel, ein Lebensbild* (Zürich, 1883).

KINNING PARK, a southern suburb of Glasgow, Scotland. Pop. (1901), 13,852. It is situated on the left bank of the Clyde between Glasgow, with which it is connected by tramway and subway, and Govan. Since 1850 it has grown from a rural village to a busy centre mainly inhabited by artisans and labourers. Its principal industries are engineering, bread and biscuit baking, soap-making and paint-making.

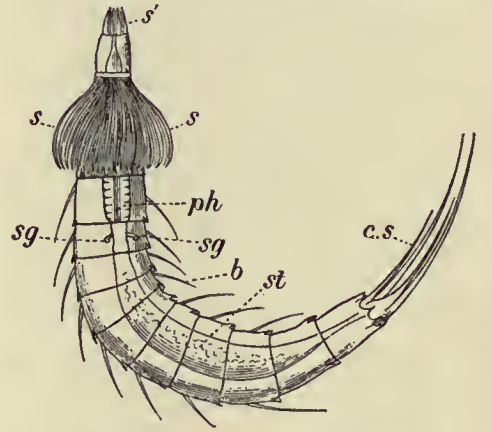
KINNOR (Gr. κινύρα), the Hebrew name for an ancient stringed instrument, the first mentioned in the Bible (Gen. iv. 21), where it is now always translated "harp." The identification of the instrument has been much discussed, but, from the standpoint of the history of musical instruments, the weight of evidence is in favour of the view that the Semitic *kinnor* is the Greek *cithara* (*q.v.*). This instrument was already in use before 2000 B.C. among the Semitic races and in a higher state of development than it ever attained in Greece during the best classic period. It is unlikely that an instrument (which also appears on Hebrew coins) so widely known and used in various parts of Asia Minor in remote times, and occurring among the Hittite sculptures, should pass unmentioned in the Bible, with the exception of the verses in Dan. iii.

KINO, the West African name of an astringent drug introduced into European medicine in 1757 by John Fothergill. When described by him it was believed to have been brought from the river Gambia in West Africa, and when first imported it was sold in England as *Gummi rubrum astringens gambiense*. It was obtained from *Pterocarpus erinaceus*. The drug now recognized as the legitimate kind is East Indian, Malabar or Amboyna kino, which is the evaporated juice obtained from incisions in the trunk of *Pterocarpus Marsupium* (Leguminosae), though Botany Bay or eucalyptus kino is used in Australia. When exuding from the tree it resembles red-currant jelly, but hardens in a few hours after exposure to the air and sun. When sufficiently dried it is packed into wooden boxes for exportation. When these are opened it breaks up into angular brittle fragments of a blackish-red colour and shining surface. In cold water it is only partially dissolved, leaving a pale flocculent residue which is soluble in boiling water but deposited again on cooling. It is soluble in alcohol and caustic alkalis, but not in ether.

The chief constituent of the drug is kino-tannic acid, which is present to the extent of about 75%; it is only very slightly soluble in cold water. It is not absorbed at all from the stomach and only very slowly from the intestine. Other constituents are gum, pyrocatechin, and kinoin, a crystalline neutral principle. Kino-red is also present in small quantity, being an oxidation product of kino-tannic acid. The useful preparations of this drug are the tincture (dose ½–1 drachm), and the *pulvis kino compositus* (dose 5–20 gr.) which contains one part of opium in twenty. The drug is frequently used in diarrhoea, its value being due to the relative insolubility of kino-tannic acid, which enables it to affect the lower part of the intestine. In this respect it is parallel with catechu. It is not now used as a gargle, antiseptics being recognized as the rational treatment for sore-throat.

KINORHYNCHA, an isolated group of minute animals containing the single genus *Echinoderes* F. Dujardin, with some eighteen species. They occur in mud and on sea-weeds at the bottom of shallow seas below low-water mark and devour organic débris.

The body is enclosed in a stout cuticle, prolonged in places into spines and bristles. These are especially conspicuous in two rings



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b, bristle; *cs*, caudal spine; *ph*, pharynx; *s* & *s'*, the spines on the two segments of the proboscis; *sg*, salivary glands; *st*, stomach.

round the proboscis and in the two posterior caudal spines. The body is divided into eleven segments and the protrusible proboscis apparently into two, and the cuticle of the central segment is thickened to form three plates, one dorsal and two ventrolateral. The cuticle is secreted by an epidermis in which no cell boundaries are to be seen; it sends out processes into the bristles. The mouth opens at the tip of the retractile proboscis; it leads into a short thin-walled tube which opens into an oval muscular gizzard lined with a thick cuticle; at the posterior end of this are some minute glands and then follows a large stomach slightly sacculated in each segment, this tapers through the rectum to the terminal anus. A pair of pear-shaped, ciliated glands inside lie in the eighth segment and open on the ninth. They are regarded as kidneys. The nervous system consists of a ganglion or brain, which lies dorsally about the level of the junction of the pharynx and the stomach, a nerve ring and a segmented neutral cord. The only sense organs described are eyes, which occur in some species, and may number one to four pairs.

The Kinorhyncha are dioecious. The testes reach forward to the fifth and even to the second segment, and open one each side of the anus. The ovaries open in a similar position but never reach farther forward than the fourth segment. The external openings in the male are armed with a pair of hollowed spines. The animals are probably oviparous.

LITERATURE.—F. Dujardin, *Ann. Sci. Nat.*, 3rd series, Zool. xv. 1851, p. 158; W. Reinhard, *Zeitschr. wiss. Zool.* xlv. 1887, pp. 401–467, t. xx.–xxii.; C. Zelinka, *Verh. d. Deutsch. Zool. Ges.*, 1894.
(A. E. S.)

KINROSS-SHIRE, a county of Scotland, bounded N. and W. by Perthshire, on the extreme S.W. by Clackmannanshire and S. and E. by Fifeshire. Its area is 52,410 acres or 81·9 sq. m. Excepting Clackmannan it is the smallest county in Scotland both in point of area and of population. On its confines the shire is hilly. To the N. and W. are several peaks of the Ochils, the highest being Innerdouny (1621 ft.) and Mellock (1573); to the E. are the heights of the Lomond group, such as White Craigs (1492 ft.) and Bishop Hill; to the S. are Benarty (1131 ft.) on the Fife border and farther west the Cleish Hills, reaching in Dumglow an altitude of 1241 ft. With the exception of the Leven, which drains Loch Leven and of which only the first mile of its course belongs to the county, all the streams are short. Green's Burn, the North and South Queich, and the Gairney are the principal. Loch Leven, the only lake, is remarkable rather for its associations than its natural features. The scenery on the Devon, west of the Crook, the river here forming the boundary with Perthshire, is of a lovely and romantic character. At one place the stream rushes through the rocky gorge with a loud clacking sound which has given to the spot the name of the Devil's Mill, and later it flows under the Rumbling Bridge. In reality there are two bridges, one built over the other, in the same vertical line. The lower one dates from 1713 and is unused; but the loftier and larger one, erected in 1816, commands a beautiful view. A little farther west is the graceful cascade of the Caldron Linn, the fall of which was lessened, however, by a collapse of the rocks in 1886.

Geology.—The northern higher portion of the county is occupied by the Lower Old Red Sandstone volcanic lavas and agglomerates of the Ochils. The coarse character of some of the lower agglomerate beds is well seen in the gorge at Rumbling Bridge. The beds dip gently towards the S.S.E.; in a north-easterly direction they contain more sandy sediments, and the agglomerates and breccias frequently become conglomerates. The plain of Kinross is occupied by the soft sandstones, marls and conglomerates of the upper Old Red Sandstone, which rest unconformably upon the lower division with a strong dip. Southward and eastward these rocks dip conformably beneath the Lower Carboniferous cement stone series of the Calciferous Sandstone group. The overlying Carboniferous limestone occupies only a small area in the south and east of the county. Intrusive basalt sheets have been intercalated between some of the Carboniferous strata, and the superior resisting power of this rock has been the cause of the existence of West Lomond, Benarty, Cleish Hills and Bishop Hill, which are formed of soft marls and sandstones capped by basalt. The Hurlet limestone is worked on the Lomond and Bishop Hills. East- and west-running dikes of basalt are found in the north-east of the county, traversing the Old Red volcanic rocks. Kames of gravel and sand and similar glacial detritus are widely spread over the older rocks.

Climate and Industries.—The lower part of the county is generally well sheltered and adapted to all kinds of crops; and the climate, though wet and cold, offers no hindrance to high farming. The average annual rainfall is 35·5 inches, and the temperature for the year is 48° F., for January 38° F. and for July 59°·5 F. More than half of the holdings exceed 50 acres each. Much of the land has been reclaimed, the mossy tracts when drained and cultivated being very fertile. Barley is the principal crop, and oats also is grown largely, but the acreage under wheat is small. Turnips and potatoes are the chief green crops, the former the more important. The raising of livestock is pursued with great enterprise, the hilly land being well suited for this industry, although many cattle are pastured on the lowland farms. The cattle are mainly a native breed, which has been much improved by crossing. The number of sheep is high for the area. Although most of the horses are used for agricultural work, a considerable proportion are kept solely for breeding. Tartans, plaids and other woollens, and linen are manufactured at Kinross and Milnathort, which is besides an important centre for livestock sales. Brewing and milling are also carried on in the county town, but stock-raising and agriculture are the staple interests. The North British railway company's lines, from the south and west run through the county via Kinross, and the Mid-Fife line branches off at Mawcarse Junction.

Population and Government.—The population was 6673 in 1891 and 6981 in 1901, when 55 persons spoke Gaelic and English. The only towns are Kinross (pop. in 1901, 2136) and Milnathort (1052). Kinross is the county town, and of considerable antiquity. The county unites with Clackmannanshire to return one member to parliament. It forms a sheriffdom with Fifeshire and a sheriff-substitute sits at Kinross. The shire is under school-board jurisdiction.

History.—For several centuries the shire formed part of Fife, and during that period shared its history. Towards the middle of the 13th century, however, the parishes of Kinross and Orwell seem to have been constituted into a shire, which, at the date (1305) of Edward I.'s ordinance for the government of Scotland, had become an hereditary sheriffdom, John of Kinross then being named for the office. James I. dispensed with the attendance of small barons in 1427 and introduced the principle of representation, when the shire returned one member to the Scots parliament. The inclusion of the Fife parishes of Portmoak, Cleish and Tullibole in 1685, due to the influence of Sir William Bruce, the royal architect and heritable sheriff, converted the older shire into the modern county. Excepting, however, the dramatic and romantic episodes connected with the castle of Loch Leven, the annals of the shire, so far as the national story is concerned, are vacant. As to its antiquities, there are traces of an ancient fort or camp on the top of Dumglow, and on a hill on the northern boundary of the parish of Orwell a remarkable cairn, called Cairn-a-vain, in the centre of which a stone cist was discovered in 1810 containing an urn full of bones and charcoal. Close to the town of Kinross, on the margin of Loch Leven, stands Kinross House, which was built in 1685 by Sir William Bruce as a residence for the Duke of York (James II.) in case the Exclusion Bill should debar him from the throne of England. The mansion, however, was never occupied by royalty.

See Æ. J.G. Mackay, *History of Fife and Kinross* (Edinburgh, 1896); W. J. N. Liddall, *The Place Names of Fife and Kinross* (Edinburgh, 1895); C. Ross, *Antiquities of Kinross-shire* (Perth, 1886); R. B. Begg, *History of Lochleven Castle* (Kinross, 1887).

KINSALE, a market town and seaport of Co. Cork, Ireland, in the south-east parliamentary division, on the east shore of Kinsale Harbour (the estuary of the Bandon river) 24 m. south of Cork by the Cork Bandon & South Coast railway, the terminus of a branch line. Pop. of urban district (1901), 4250. The town occupies chiefly the acclivity of Compass Hill, and while of picturesque appearance is built in a very irregular manner, the streets being narrow and precipitous. The Charles Fort was completed by the duke of Ormonde in 1677 and captured by the earl of Marlborough in 1690. The parish church of St Multose is an ancient but inelegant structure, said to have been founded as a conventual church in the 12th century by the saint to whom it is dedicated. Kinsale, with the neighbouring villages of Scilly and Cove, is much frequented by summer visitors, and is the headquarters of the South of Ireland Fishing Company, with a fishery pier and a commodious harbour with 6 to 8 fathoms of water; but the general trade is of little importance owing to the proximity of Queenstown and Cork. The Old Head of Kinsale, at the west of the harbour entrance, affords fine views of the coast, and is commonly the first British land sighted by ships bound from New York, &c., to Queenstown.

Kinsale is said to derive its name from *cean taile*, the headland in the sea. At an early period the town belonged to the De Courcys, a representative of whom was created baron of Kinsale or Kingsale in 1181. It received a charter of incorporation from Edward III., having previously been a borough by prescription, and its privileges were confirmed and extended by

various subsequent sovereigns. For several centuries previous to the Union it returned two members to the Irish parliament. It was the scene of an engagement between the French and English fleets in 1380, was forcibly entered by the English in 1488, captured by the Spaniards and retaken by the English in 1601, and entered by the English in 1641, who expelled the Irish inhabitants. Finally, it was the scene of the landing of James II. and of the French army sent to his assistance in 1689, and was taken by the English in the following year.

KINTORE, a royal and police burgh of Aberdeenshire, Scotland. Pop. (1901), 789. It is situated on the Don, 13¼ m. N.W. of Aberdeen by the Great North of Scotland railway. It is a place of some antiquity, having been made a royal burgh in the reign of William the Lion (d. 1214). Kintore forms one of the Elgin group of parliamentary burghs, the others being Banff, Cullen, Elgin, Inverurie and Peterhead. One mile to the south-west are the ruins of Hallforest Castle, of which two storeys still exist, once a hunting-seat of Robert Bruce and afterwards a residence of the Keiths, earls marischal. There are several examples of sculptured stones and circles in the parish, and 2 m. to the north-west is the site of Bruce's camp, which is also ascribed to the period of the Romans. Near it is Thainston House, the residence of Sir Andrew Mitchell (1708–1771), the British envoy to Frederick the Great. Kintore gives the title of earl in the Scottish, and of baron in the British peerage to the head of the Keith-Falconer family.

KIOTO (Kyoto), the former capital of Japan, in the province of Yamashiro, in 35° 01′ N., 135° 46′ E. Pop. (1903), 379,404. The Kamo-gawa, upon which it stands, is a mere rivulet in ordinary times, trickling through a wide bed of pebbles; but the city is traversed by several aqueducts, and was connected with Lake Biwa in 1890 by a canal 6⅞ m. long, which carries an abundance of water for manufacturing purposes, brings the great lake and the city into navigable communication, and forms with the Kamo-gawa canal and the Kamo-gawa itself a through route to Osaka, from which Kioto is 25 m. distant by rail. Founded in the year 793, Kioto remained the capital of the empire during nearly eleven centuries. The emperor Kwammu, when he selected this remarkably picturesque spot for the residence of his court, caused the city to be laid out with mathematical accuracy, after the model of the Tang dynasty's capital in China. Its area, 3 m. by 3½, was intersected by 18 principal thoroughfares, 9 running due north and south, and 9 due east and west, the two systems being connected at intervals by minor streets. At the middle of the northern face stood the palace, its enclosure covering three-quarters of a square mile, and from it to the centre of the south face ran an avenue 283 ft. wide and 3½ m. long. Conflagrations and subsequent reconstructions modified the regularity of this plan, but much of it still remains, and its story is perpetuated in the nomenclature of the streets. In its days of greatest prosperity Kioto contained only half a million inhabitants, thus never even approximating to the size of the Tokugawa metropolis, Yedo, or the Hojo capital Kamakura. The emperor Kwammu called it Heian-jo, or the "city of peace," when he made it the seat of government; but the people knew it as Miyako, or Kyoto, terms both of which signify "capital," and in modern times it is often spoken of as Saikyo, or western capital, in opposition to Tokyo, or eastern capital. Having been so long the imperial, intellectual, political and artistic metropolis of the realm, the city abounds with evidences of its unique career. Magnificent temples and shrines, grand monuments of architectural and artistic skill, beautiful gardens, gorgeous festivals, and numerous *ateliers* where the traditions of Japanese art are obeyed with attractive results, offer to the foreign visitor a fund of interest. Clear water ripples everywhere through the city, and to this water Kioto owes something of its importance, for nowhere else in Japan can fabrics be bleached so white or dyed in such brilliant colours. The people, like their neighbours of Osaka, are full of manufacturing energy. Not only do they preserve, amid all the progress of the age, their old-time eminence as producers of the finest porcelain, faience, embroidery, brocades, bronze, *cloisonné* enamel, fans, toys and metal-work of all kinds, but they have also adapted themselves to the foreign market, and weave and dye quantities of silk fabrics, for which a large and constantly growing demand is found in Europe and America. Nowhere else can be traced with equal clearness the part played in Japanese civilization by Buddhism, with its magnificent paraphernalia and imposing ceremonial spectacles; nowhere else, side by side with this luxurious factor, can be witnessed in more striking juxtaposition the austere purity and severe simplicity of the Shinto cult; and nowhere else can be more intelligently observed the fine faculty of the Japanese for utilizing, emphasizing and enhancing the beauties of nature. The citizens' dwellings and the shops, on the other hand, are insignificant and even sombre in appearance, their exterior conveying no idea of the pretty chambers within or of the tastefully laid-out grounds upon which they open behind. Kioto is celebrated equally for its cherry and azalea blossoms in the spring, and for the colours of its autumn foliage.

KIOWAS, a tribe and stock of North American Indians. Their former range was around the Arkansas and Canadian rivers, in Indian Territory (Oklahoma), Colorado and New Mexico. A fierce people, they made raids upon the settlers in western Texas until 1868, when they were placed on a reservation in Indian Territory. In 1874 they broke out again, but in the following year were finally subdued. In number about 1200, and settled in Oklahoma, they are the sole representatives of the Kiowan linguistic stock.

See J. Mooney, "Calendar History of the Kiowa Indians," *17th Report of Bureau of American Ethnology* (Washington, 1898).

KIPLING, RUDYARD (1865–1936), British author, was born in Bombay on the 30th of December 1865. His father, John Lockwood Kipling (1837–1911), an artist of considerable ability, was from 1875 to 1893 curator of the Lahore museum in India. His mother was Miss Alice Macdonald of Birmingham, two of whose sisters were married respectively to Sir E. Burne-Jones and Sir Edward Poynter. He was educated at the United Services College, Westward Ho, North Devon, of which a somewhat lurid account is given in his story *Stalky and Co.* On his return to India he became at the age of seventeen the sub-editor of the Lahore *Civil and Military Gazette.* In 1886, in his twenty-first year, he published *Departmental Ditties,* a volume of light verse chiefly satirical, only in two or three poems giving promise of his authentic poetical note. In 1887 he published *Plain Tales from the Hills,* a collection mainly of the stories contributed to his own journal. During the next two years he brought out, in six slim paper-covered volumes of Wheeler's Railway Library (Allahabad), *Soldiers Three, The Story of the Gadsbys, In Black and White, Under the Deodars, The Phantom 'Rickshaw* and *Wee Willie Winkee,* at a rupee apiece. These were in form and substance a continuation of the *Plain Tales.* This series of tales, all written before the author was twenty-four, revealed a new master of fiction. A few, but those the best, he afterwards said that his father gave him. The rest were the harvest of his own powers of observation vitalized by imagination. In method they owed something to Bret Harte; in matter and spirit they were absolutely original. They were unequal, as his books continued to be throughout; the sketches of Anglo-Indian social life being generally inferior to the rest. The style was to some extent disfigured by jerkiness and mannered tricks. But Mr Kipling possessed the supreme spell of the story-teller to entrance and transport. The freshness of the invention, the variety of character, the vigour of narrative, the raciness of dialogue, the magic of atmosphere, were alike remarkable. The soldier-stories, especially the exuberant vitality of the cycle which contains the immortal Mulvaney, established the author's fame throughout the world. The child-stories and tales of the British official were not less masterly, while the tales of native life and of adventure "beyond the pale" disclosed an even finer and deeper vein of romance. India, which had been an old story for generations of Englishmen, was revealed in these brilliant pictures as if seen for the first time in its variety, colour and passion, vivid as mirage, enchanting as the *Arabian Nights.* The new author's talent was quickly

recognized in India, but it was not till the books reached England that his true rank was appreciated and proclaimed. Between 1887 and 1889 he travelled through India, China, Japan and America, finally arriving in England to find himself already famous. His travel sketches, contributed to *The Civil and Military Gazette* and *The Pioneer*, were afterwards collected (the author's hand having been forced by unauthorized publication) in the two volumes *From Sea to Sea* (1899). A further set of Indian tales, equal to the best, appeared in *Macmillan's Magazine* and were republished with others in *Life's Handicap* (1891). In *The Light that Failed* (1891, after appearing with a different ending in *Lippincott's Magazine*) Mr Kipling essayed his first long story (dramatized 1905), but with comparative unsuccess. In his subsequent work his delight in the display of descriptive and verbal technicalities grew on him. His polemic against "the sheltered life" and "little Englandism" became more didactic. His terseness sometimes degenerated into abruptness and obscurity. But in the meanwhile his genius became prominent in verse. Readers of the *Plain Tales* had been impressed by the snatches of poetry prefixed to them for motto, certain of them being subscribed "Barrack Room Ballad." Mr Kipling now contributed to the *National Observer*, then edited by W. E. Henley, a series of *Barrack Room Ballads*. These vigorous verses in soldier slang, when published in a book in 1892, together with the fine ballad of "East and West" and other poems, won for their author a second fame, wider than he had attained as a story-teller. In this volume the Ballads of the "Bolivar" and of the "Clampherdown," introducing Mr Kipling's poetry of the ocean and the engine-room, and "The Flag of England," finding a voice for the Imperial sentiment, which—largely under the influence of Mr Kipling's own writings—had been rapidly gaining force in England, gave the key-note of much of his later verse. In 1898 Mr Kipling paid the first of several visits to South Africa and became imbued with a type of imperialism that reacted on his literature, not altogether to its advantage. Before finally settling in England Mr Kipling lived some years in America and married in 1892 Miss Caroline Starr Balestier, sister of the Wolcott Balestier to whom he dedicated *Barrack Room Ballads*, and with whom in collaboration he wrote the *Naulakka* (1891), one of his less successful books. The next collection of stories, *Many Inventions* (1893), contained the splendid Mulvaney extravaganza, "My Lord the Elephant"; a vividly realized tale of metempsychosis, "The Finest Story in the World"; and in that fascinating tale "In the Rukh," the prelude to the next new exhibition of the author's genius. This came in 1894 with *The Jungle Book*, followed in 1895 by *The Second Jungle Book*. With these inspired beast-stories Kipling conquered a new world and a new audience, and produced what many critics regard as his most flawless work. His chief subsequent publications were *The Seven Seas* (poems), 1896; *Captains Courageous* (a yarn of deep-sea fishery), 1897; *The Day's Work* (collected stories), 1898; *A Fleet in Being* (an account of a cruise in a man-of-war), 1898; *Stalky and Co.* (mentioned above), 1899; *From Sea to Sea* (mentioned above), 1899; *Kim*, 1901; *Just So Stories* (for children), 1902; *The Five Nations* (poems, concluding with what proved Mr Kipling's most universally known and popular poem, "Recessional," originally published in *The Times* on the 17th of July 1897 on the occasion of Queen Victoria's second jubilee), 1903; *Traffics and Discoveries* (collected stories), 1904; *Puck of Pook's Hill* (stories), 1906; *Actions and Reactions* (stories), 1909. Of these *Kim* was notable as far the most successful of Mr Kipling's longer narratives, though it is itself rather in the nature of a string of episodes. But everything he wrote, even to a farcical extravaganza inspired by his enthusiasm for the motor-car, breathed the meteoric energy that was the nature of the man. A vigorous and unconventional poet, a pioneer in the modern phase of literary Imperialism, and one of the rare masters in English prose of the art of the short story, Mr Kipling had already by the opening of the 20th century won the most conspicuous place among the creative literary forces of his day. His position in English literature was recognized in 1907 by the award to him of the Nobel prize.

See Rudyard Kipling's chapter in *My First Book* (Chatto, 1894); "A Bibliography of Rudyard Kipling," by John Lane, in *Rudyard Kipling: a Criticism*, by Richard de Gallienne; "Mr Kipling's Short Stories" in *Questions at Issue*, by Edmund Gosse (1893); "Mr Kipling's Stories" in *Essays in Little*, by Andrew Lang; "Mr Kipling's Stories," by J. M. Barrie in the *Contemporary Review* (March 1891); articles in the *Quarterly Review* (July 1892) and *Edinburgh Review* (Jan. 1898); and section on Kipling in *Poets of the Younger Generation*, by William Archer (1902). See also for bibliography to 1903 *English Illustrated Magazine*, new series, vol. xxx. pp. 298 and 429–432. (W. P. J.)

KIPPER, properly the name by which the male salmon is known at some period of the breeding season. At the approach of this season the male fish develops a sharp cartilaginous beak, known as the "kip," from which the name "kipper" is said to be derived. The earliest uses of the word (in Old English *cypera* and Middle English *kyprc*) seem to include salmon of both sexes, and there is no certainty as to the etymology. Skeat derives it from the Old English *kippian*, "to spawn." The term has been applied by various writers to salmon both during and after milting; early quotations leave the precise meaning of the word obscure, but generally refer to the unwholesomeness of the fish as food during the whole breeding season. It has been usually accepted, without much direct evidence, that from the practice of rendering the breeding (*i.e.* "kipper") salmon fit for food by splitting, salting and smoke-drying them, the term "kipper" is also used of other fish, particularly herrings cured in the same way. The "bloater" as distinct from the "kipper" is a herring cured whole without being split open.

KIPPIS, ANDREW (1725–1795), English nonconformist divine and biographer, son of Robert Kippis, a silk-hosier, was born at Nottingham on the 28th of March 1725. From school at Sleaford in Lincolnshire he passed at the age of sixteen to the nonconformist academy at Northampton, of which Dr Doddridge was then president. In 1746 Kippis became minister of a church at Boston; in 1750 he removed to Dorking in Surrey; and in 1753 he became pastor of a Presbyterian congregation at Westminster, where he remained till his death on the 8th of October 1795. Kippis took a prominent part in the affairs of his church. From 1763 till 1784 he was classical and philological tutor in Coward's training college at Hoxton; and subsequently for some years at another institution of the same kind at Hackney. In 1778 he was elected a fellow of the Antiquarian Society, and a fellow of the Royal Society in 1779.

Kippis was a very voluminous writer. He contributed largely to *The Gentleman's Magazine*, *The Monthly Review* and *The Library*; and he had a good deal to do with the establishment and conduct of *The New Annual Register*. He published also a number of sermons and occasional pamphlets; and he prefixed a life of the author to a collected edition of Dr Nathaniel Lardner's *Works* (1788). He wrote a life of Dr Doddridge, which is prefixed to Doddridge's *Exposition of the New Testament* (1792). His chief work is his edition of the *Biographia Britannica*, of which, however, he only lived to publish 5 vols. (folio, 1778–1793). In this work he had the assistance of Dr Towers. See notice by A. Rees, D.D., in *The New Annual Register* for 1795.

KIRBY, WILLIAM (1759–1850), English entomologist, was born at Witnesham in Suffolk on the 19th of September 1759. From the village school of Witnesham he passed to Ipswich grammar school, and thence to Caius College, Cambridge, where he graduated in 1781. Taking holy orders in 1782, he spent his entire life in the peaceful seclusion of an English country parsonage at Barham in Suffolk. His favourite study was natural history; and eventually entomology engrossed all his leisure. His first work of importance was his *Monographia Apum Angliae* (2 vols. 8vo, 1802), which as the first scientific treatise on its subject brought him into notice with the leading entomologists of his own and foreign countries. The practical result of a friendship formed in 1805 with William Spence, of Hull, was the jointly written *Introduction to Entomology* (4 vols., 1815–1826; 7th ed., 1856), one of the most popular books of science that have ever appeared. In 1830 he was chosen to write one of the *Bridgewater Treatises*, his subject being *The History, Habits, and Instincts of Animals* (2 vols., 1835). This undeniably fell short of his earlier works in point of scientific value. He died on the 4th of July 1850.

Besides the books already mentioned he was the author of many papers in the *Transactions of the Linnean Society*, the *Zoological Journal* and other periodicals; *Strictures on Sir James Smith's Hypothesis respecting the Lilies of the Field of our Saviour and the Acanthus of Virgil* (1819); *Seven Sermons on our Lord's Temptations* (1829); and he wrote the sections on insects in the *Account of the Animals seen by the late Northern Expedition while within the Arctic Circle* (1821), and in *Fauna Boreali-Americana* (1837). His *Life* by the Rev. John Freeman, published in 1852, contains a list of his works.

KIRCHER, ATHANASIUS (1601–1680), German scholar and mathematician, was born on the 2nd of May 1601, at Geisa near Fulda. He was educated at the Jesuit college of Fulda, and entered upon his noviciate in that order at Mainz in 1618. He became professor of philosophy, mathematics, and Oriental languages at Würzburg, whence he was driven (1631) by the troubles of the Thirty Years' War to Avignon. Through the influence of Cardinal Barberini he next (1635) settled in Rome, where for eight years he taught mathematics in the Collegio Romano, but ultimately resigned this appointment to study hieroglyphics and other archaeological subjects. He died on the 28th of November 1680.

Kircher was a man of wide and varied learning, but singularly devoid of judgment and critical discernment. His voluminous writings in philology, natural history, physics and mathematics often accordingly have a good deal of the historical interest which attaches to pioneering work, however imperfectly performed; otherwise they now take rank as curiosities of literature merely. They include *Ars Magnesia* (1631); *Magnes, sive de arte magnetica opus tripartitum* (1641); and *Magneticum naturae regnum* (1667); *Prodromus Coptus* (1636); *Lingua Aegyptiaca restituta* (1643); *Obeliscus Pamphilius* (1650); and *Oedipus Aegyptiacus, hoc est universalis doctrinae hierogtyphicae instauratio* (1652–1655)—works which may claim the merit of having first called attention to Egyptian hieroglyphics; *Ars magna lucis et umbrae in mundo* (1645–1646); *Musurgia universalis, sive ars magna consoni et dissoni* (1650); *Polygraphia, seu artificium linguarum quo cum omnibus mundi populis poterit quis respondere* (1663); *Mundus subterraneus, quo subterrestris mundi opificium, universae denique naturae divitiae, abditorum effectuum causae demonstrantur* (1665–1678); *China illustrata* (1667); *Ars magna sciendi* (1669); and *Latium* (1669), a work which may still be consulted with advantage. The *Specula Melitensis Encyclica* (1638) gives an account of a kind of calculating machine of his invention. The valuable collection of antiquities which he bequeathed to the Collegio Romano has been described by Buonanni (*Musaeum Kircherianum*, 1709; republished by Battara in 1773).

KIRCHHEIM-UNTER-TECK, a town of Germany, in the kingdom of Württemberg, is prettily situated on the Lauter, at the north-west foot of the Rauhe Alb, 15 m. S.E. of Stuttgart by rail. Pop. (1905), 8830. The town has a royal castle built in 1538, two schools and several benevolent institutions. The manufactures include cotton goods, damask, pianofortes, machinery, furniture, chemicals and cement. The town also has wool-spinning establishments and breweries, and a corn exchange. It is the most important wool market in South Germany, and has also a trade in fruit, timber and pigs. In the vicinity are the ruins of the castle of Teck, the hereditary stronghold of the dukes of that name. Kirchheim has belonged to Württemberg since 1381.

KIRCHHOFF, GUSTAV ROBERT (1824–1887), German physicist, was born at Königsberg (Prussia) on the 12th of March 1824, and was educated at the university of his native town, where he graduated Ph.D. in 1847. After acting as *privat-docent* at Berlin for some time, he became extraordinary professor of physics at Breslau in 1850. Four years later he was appointed professor of physics at Heidelberg, and in 1875 he was transferred to Berlin, where he died on the 17th of October 1887. Kirchhoff's contributions to mathematical physics were numerous and important, his strength lying in his powers of stating a new physical problem in terms of mathematics, not merely in working out the solution after it had been so formulated. A number of his papers were concerned with electrical questions. One of the earliest was devoted to electrical conduction in a thin plate, and especially in a circular one, and it also contained a theorem which enables the distribution of currents in a network of conductors to be ascertained. Another discussed conduction in curved sheets; a third the distribution of electricity in two influencing spheres; a fourth the determination of the constant on which depends the intensity of induced currents; while others were devoted to Ohm's law, the motion of electricity in submarine cables, induced magnetism, &c. In other papers, again, various miscellaneous topics were treated—the thermal conductivity of iron, crystalline reflection and refraction, certain propositions in the thermodynamics of solution and vaporization, &c. An important part of his work was contained in his *Vorlesungen über mathematische Physik* (1876), in which the principles of dynamics, as well as various special problems, were treated in a somewhat novel and original manner. But his name is best known for the researches, experimental and mathematical, in radiation which led him, in company with R. W. von Bunsen, to the development of spectrum analysis as a complete system in 1859–1860. He can scarcely be called its inventor, for not only had many investigators already used the prism as an instrument of chemical inquiry, but considerable progress had been made towards the explanation of the principles upon which spectrum analysis rests. But to him belongs the merit of having, most probably without knowing what had already been done, enunciated a complete account of its theory, and of thus having firmly established it as a means by which the chemical constituents of celestial bodies can be discovered through the comparison of their spectra with those of the various elements that exist on this earth.

KIRCHHOFF, JOHANN WILHELM ADOLF (1826–1908), German classical scholar and epigraphist, was born in Berlin on the 6th of January 1826. In 1865 he was appointed professor of classical philology in the university of his native city. He died on the 26th of February 1908. He is the author of *Die Homerische Odyssee* (1859), putting forward an entirely new theory as to the composition of the *Odyssey*; editions of Plotinus (1856), Euripides (1855 and 1877–1878). Aeschylus (1880), Hesiod (*Works and Days*, 1889), Xenophon, *On the Athenian Constitution* (3rd ed., 1889); *Über die Entstehungszeit des Herodotischen Geschichtswerkes* (2nd ed., 1878); *Thukydides und sein Urkundenmaterial* (1895).

The following works are the result of his epigraphical and palaeographical studies: *Die Umbrischen Sprachdenkmäler* (1851); *Das Stadtrecht von Bantia* (1853), on the tablet discovered in 1790 at Oppido near Banzi, containing a plebiscite relating to the municipal affairs of the ancient Bantia; *Das Gotische Runenalphabet* (1852); *Die Fränkischen Runen* (1855); *Studien zur Geschichte des Griechischen Alphabets* (4th ed., 1887). The second part of vol. iv. of the *Corpus Inscriptionum Graecarum* (1859, containing the Christian inscriptions) and vol. i. of the *C. I. Atticarum* (1873, containing the inscriptions before 403) with supplements thereto (vol. iv. pts. 1–3, 1877–1891) are edited by him.

KIRGHIZ, a large and widespread division of the Turkish family, of which there are two main branches, the Kara-Kirghiz of the uplands and the Kirghiz-Kazaks of the steppe. They jointly number about 3,000,000, and occupy an area of perhaps the same number of square miles, stretching from Kulja westwards to the lower Volga, and from the headstreams of the Ob southwards to the Pamir and the Turkoman country. They seem closely allied ethnically to the Mongolians and in speech to the Tatars. But both Mongols and Tatars belonged themselves originally to one racial stock and formed part of the same hordes or nomadic armies: also the Western Turks have to a large extent lost their original physique and become largely assimilated to the regular "Caucasian" type. But the Kirghiz have either remained nearly altogether unmixed, as in the uplands, or else have intermingled in the steppe mainly with the Volga Kalmucks in the west, and with the Dzungarian nomads in the east, all alike of Mongol stock. Hence they have everywhere to a large extent preserved the common Mongolian features, while retaining their primitive Tatar speech. Physically they are a middle-sized, square-built race, inclined to stoutness, especially in the steppe, mostly with long black hair, scant beard or none, small, black and oblique eyes, though blue or grey also occur in the south, broad Mongoloid features, high cheek-bones, broad, flat nose, small mouth, brachycephalous head, very small hands and feet, dirty brown or swarthy complexion,

often yellowish, but also occasionally fair. These characteristics, while affiliating them directly to the Mongol stock, also betray an admixture of foreign elements, probably due to Finnish influences in the north, and Tajik or Iranian blood in the south. Their speech also, while purely Turkic in structure, possesses, not only many Mongolian and a few Persian and even Arabic words, but also some terms unknown to the other branches of the Mongolo-Tatar linguistic family, and which should perhaps be traced to the Kiang-Kuan, Wu-sun, Ting-ling, and other peoples of South Siberia partly absorbed by them.

The Kara-Kirghiz.—The Kara or "Black" Kirghiz, so called from the colour of their tents, are known to the Russians either as Chernyie (Black) or Dikokammenyie (Wild Stone or Rocky) Kirghiz, and are the Block Kirghiz of some English writers. They are on the whole the purest and best representatives of the race, and properly speaking to them alone belongs the distinctive national name Kirghiz or Krghiz. This term is commonly traced to a legendary chief, Kirghiz, sprung of Oghuz-Khan, ninth in descent from Japheth. It occurs in its present form for the first time in the account of the embassy sent in 569 by the East Roman emperor Justin II. to the Uighur Khan, Dugla-Ditubulu, where it is stated that this prince presented a slave of the Kirghiz tribe to Zemark, head of the mission. In the Chinese chronicles the word assumes the form Ki-li-ki-tz', and the writers of the Yuan dynasty (1280–1367) place the territory of these people 10,000 li north-west of Pekin, about the head-streams of the Yenisei. In the records of the T'ang dynasty (618–907) they are spoken of under the name of Kha-kia-tz' (pronounced Khaka, and sometimes transliterated Haka), and it is mentioned that these Khakas were of the same speech as the Khoei-khu. From this it follows that they were of Mongolo-Tatar stock, and are wrongly identified by some ethnologists with the Kiang-Kuan, Wu-sun, or Ting-ling, all of whom are described as tall, with red hair, "green" or grey eyes, and fair complexion, and must therefore have been of Finnish stock, akin to the present Soyotes of the upper Yenisei.

The Kara-Kirghiz are by the Chinese and Mongolians called *Burut*, where *ut* is the Mongolian plural ending, as in Tangut, Yakut, modified to *yat* in Buryat, the collective name of the Siberian Mongolians of the Baikal district. Thus the term *Bur* is the common Mongolian designation both of the Baikal Mongols and of the Kara-Kirghiz, who occupied this very region and the upper Yenisei valley generally till comparatively recent times. For the original home of their ancestors, the Khakas, lay in the south of the present governments of Yeniseisk and Tomsk, stretching thence southwards beyond the Sayan range to the Tannuola hills in Chinese territory. Here the Russians first met them in the 17th century, and by the aid of the Kazaks exterminated all those east of the Irtish, driving the rest farther west and south-westwards. Most of them took refuge with their kinsmen, the Kara-Kirghiz nomad highlanders, whose homes, at least since the 13th century, have been the Ala-tau range, the Issyk-kul basin, the Tekes, Chu and Talass river valleys, the Tian-shan range, the uplands draining both to the Tarim and to the Jaxartes and Oxus, including Khokand, Karateghin and Shignan southwards to the Pamir table-land, visited by them in summer. They thus occupy most of the uplands along the Russo-Chinese frontier, between 35° and 50° N. lat. and between 70° and 85° E. long.

The Kara-Kirghiz are all grouped in two main sections—the On or "Right" in the east, with seven branches (Bogu, Sary-Bagishch, Son-Bagishch, Sultu or Solye, Cherik, Sayak, Bassinz), and the Sol or "Left" in the west, with four branches (Kokche or Kûchy, Soru, Mundus, Kitai or Kintai). The Sol section occupies the region between the Talass and Oxus headstreams in Ferghana (Khokand) and Bokhara, where they come in contact with the Galchas or Highland Tajiks. The On section lies on both sides of the Tian-shan, about Lake Issyk-kul, and in the Chu, Tekes and Narin (upper Jaxartes) valleys.

The total number of Kara-Kirghiz exceeds 800,000.

All are essentially nomads, occupied mainly with stock breeding, chiefly horses of a small but hardy breed, sheep of the fat-tailed species, oxen used both for riding and as pack animals, some goats, and camels of both species. Agriculture is limited chiefly to the cultivation of wheat, barley and millet, from the last of which a coarse vodka or brandy is distilled. Trade is carried on chiefly by barter, cattle being taken by the dealers from China, Turkestan and Russia in exchange for manufactured goods.

The Kara-Kirghiz are governed by the "manaps," or tribal rulers, who enjoy almost unlimited authority, and may even sell or kill their subjects. In religious matters they differ little from the Kazaks, whose practices are described below. Although generally recognizing Russian sovereignty since 1864, they pay no taxes.

The Kazaks.—Though not unknown to them, the term Kirghiz is never used by the steppe nomads, who always call themselves simply Kazaks, commonly interpreted as riders. The first authentic reference to this name is by the Persian poet and historian Firdousi (1020), who speaks of the Kazak tribes as much dreaded steppe marauders, all mounted and armed with lances. From this circumstance the term Kazak came to be gradually applied to all freebooters similarly equipped, and it thus spread from the Aralo-Caspian basin to South Russia, where it still survives under the form of Cossack, spelt Kazak or Kozak in Russian. Hence though Kazak and Cossack are originally the same word, the former now designates a Mongolo-Tatar nomad race, the latter various members of the Slav family. Since the 18th century the Russians have used the compound expression Kirghiz-Kazak, chiefly in order to distinguish them from their own Cossacks, at that time overrunning Siberia. Siegmund Herberstein (1486–1566) is the first European who mentions them by name, and it is noteworthy that he speaks of them as "Tartars," that is, a people rather of Turki than Mongolian stock.

In their present homes, the so-called "Kirghiz steppes," they are far more numerous and widespread than their Kara-Kirghiz kinsmen, stretching almost uninterruptedly from Lake Balkash round the Aral and Caspian Seas westwards to the lower Volga, and from the river Irtish southwards to the lower Oxus and Ust-Urt plateau. Their domain, which is nearly 2,000,000 sq. m. in extent, thus lies mainly between 45° and 55° N. lat. and from 45° to 80° E. long. Here they came under the sway of Jenghiz Khan, after whose death they fell to the share of his son Juji, head of the Golden Horde, but continued to retain their own khans. When the Uzbegs acquired the ascendancy, many of the former subjects of the Juji and Jagatai hordes fell off and joined the Kazaks. Thus about the year 1500 were formed two powerful states in the Kipchak and Kheta steppes, the Mogul-Ulus and the Kazak, the latter of whom, under their khan Arslane, are said by Sultan Baber to have had as many as 400,000 fighting men. Their numbers continued to be swollen by voluntary or enforced accessions from the fragments of the Golden Horde, such as the Kipchaks, Naimans, Konrats, Jalairs, Kankali, whose names are still preserved in the tribal divisions of the Kazaks. And as some of these peoples were undoubtedly of true Mongolian stock, their names have given a colour to the statement that all the Kazaks were rather of Mongol than of Turki origin. But the universal prevalence of a nearly pure variety of the Turki speech throughout the Kazak steppes is almost alone sufficient to show that the Tatar element must at all times have been in the ascendant. Very various accounts have been given of the relationship of the Kipchak to the Kirghiz, but at present they seem to form a subdivision of the Kirghiz-Kazaks. The Kara-Kalpaks are an allied but apparently separate tribe.

The Kirghiz-Kazaks have long been grouped in three large "hordes" or encampments, further subdivided into a number of so-called "races," which are again grouped in tribes, and these in sections, branches and auls, or communities of from five to fifteen tents. The division into hordes has been traditionally referred to a powerful khan, who divided his states amongst his three sons, the eldest of whom became the founder of the Ulu-Yuz, or Great Horde, the second of the Urta-Yuz, or Middle Horde, and the third of the Kachi-Yuz, or Little Horde. The last two under their common khan Abulkhair voluntarily submitted in 1730 to the Empress Anne. Most of the Great Horde were subdued by Yunus, khan of Ferghana, in 1798, and all the still independent tribes finally accepted Russian sovereignty in 1819.

Since 1801 a fourth division, known as the Inner or Bukeyevskaya Horde, from the name of their first khan, Bukei, has been settled in the Orenburg steppe.

But these divisions affect the common people alone, all the higher orders and ruling families being broadly classed as White and Black Kost or Bones. The White Bones comprise only the khans and their descendants, besides the issue of the khojas or Moslem "saints." The Black Bones include all the rest, except the *Telengut* or servants of the khans, and the *Kûl* or slaves.

The Kazaks are an honest and trustworthy people, but heavy, sluggish, sullen and unfriendly. Even the hospitality enjoined by the Koran is displayed only towards the orthodox Sunnite sect. So essentially nomadic are all the tribes that they cannot adopt a settled life without losing the very sentiment of their nationality, and becoming rapidly absorbed in the Slav population. They dwell exclusively in semicircular tents consisting

of a light wooden framework, and red cloth or felt covering, with an opening above for light and ventilation.

The camp life of the Kazaks seems almost unendurable to Europeans in winter, when they are confined altogether to the tent, and exposed to endless discomforts. In summer the day is spent mostly in sleep or drinking koumiss, followed at night by feasting and the recital of tales, varied with songs accompanied by the music of the flute and balalaika. But horsemanship is the great amusement of all true Kazaks, who may almost be said to be born in the saddle. Hence, though excellent riders, they are bad walkers. Though hardy and long-lived, they are uncleanly in their habits and often decimated by small-pox and Siberian plague. They have no fixed meals, and live mainly on mutton and goat and horse flesh, and instead of bread use the so-called balamyk, a mess of flour fried in dripping and diluted in water. The universal drink is koumiss, which is wholesome, nourishing and a specific against all chest diseases.

The dress consists of the chapân, a flowing robe of which one or two are worn in summer and several in winter, fastened with a silk or leather girdle, in which are stuck a knife, tobacco pouch, seal and a few other trinkets. Broad silk or cloth pantaloons are often worn over the chapân, which is of velvet, silk, cotton or felt, according to the rank of the wearer. Large black or red leather boots, with round white felt pointed caps, complete the costume, which is much the same for both sexes.

Like the Kara-Kirghiz, the Kazaks are nominally Sunnites, but Shamanists at heart, worshipping, besides the Kudai or good divinity, the Shaitan or bad spirit. Their faith is strong in the *talchi* or soothsayer and other charlatans, who know everything, can do everything, and heal all disorders at pleasure. But they are not fanatics, though holding the abstract doctrine that the "Kafir" may be lawfully oppressed, including in this category not only Buddhists and Christians, but even Mahommedans of the Shiah sect. There are no fasts or ablutions, mosques or mollahs, or regular prayers. Although Mussulmans since the beginning of the 16th century, they have scarcely yet found their way to Mecca, their pilgrims visiting instead the more convenient shrines of the "saints" scattered over eastern Turkestan. Unlike the Mongolians, the Kazaks treat their dead with great respect, and the low steppe hills are often entirely covered with monuments raised above their graves.

Letters are neglected to such an extent that whoever can merely write is regarded as a savant, while he becomes a prodigy of learning if able to read the Koran in the original. Yet the Kazaks are naturally both musical and poetical, and possess a considerable number of national songs, which are usually repeated with variations from mouth to mouth.

The Kazaks still choose their own khans, who, though confirmed by the Russian government, possess little authority beyond their respective tribes. The real rulers are the elders or umpires and sultans, all appointed by public election. Brigandage and raids arising out of tribal feuds, which were formerly recognized institutions, are now severely punished, sometimes even with death. Capital punishment, usually by hanging or strangling, is inflicted for murder and adultery, while three, nine or twenty-seven times the value of the stolen property is exacted for theft.

The domestic animals, daily pursuits and industries of the Kazaks differ but slightly from those of the Kara-Kirghiz. Some of the wealthy steppe nomads own as many as 20,000 of the large fat-tailed sheep. Goats are kept chiefly as guides for these flocks; and the horses, though small, are hardy, swift, light-footed and capable of covering from 50 to 60 miles at a stretch. Amongst the Kazaks there are a few workers in silver, copper and iron, the chief arts besides, being skin dressing, wool spinning and dyeing, carpet and felt weaving. Trade is confined mainly to an exchange of live stock for woven and other goods from Russia, China and Turkestan.

Since their subjection to Russia the Kazaks have become less lawless, but scarcely less nomadic. A change of habit in this respect is opposed alike to their tastes and to the climatic and other outward conditions. See also TURKS.

LITERATURE.—Alexis Levshin, *Description des hordes et des steppes des Kirghiz-Kazaks*, translated from the Russian by Ferry de Cigny (1840); W. Radloff, *Proben der Volksliteratur der Türkischen Stämme Südsiberiens*; Ch. de Ujfalvy, *Le Kohistan, le Ferghanah, et Kouldja*; also *Bull. de la Soc. de Géo.* (1878–1879); Semenoff, paper in *Petermann's Mittheilungen* (1859), No. 3; Valikhanov's *Travels in 1858–1859*; Madame de Ujfalvy, papers in *Tour du Monde* (1874); Vambéry, *Die primitive Cultur des Turko-Tatarischen Volkes*; P. S. Pallas, *Observations sur les Kirghiz* (1769; French trans., 1803); Andriev, "La Horde Moyenne," in *Bull. de la Soc. de Géogr. de St Petersburg* (1875); Radomtsev, *Excursion dans le steppe Kirghiz*; Lansdell, *Russian Centralasia* (1885); Jadrinzer, *La Sibérie* (1886). Skrine and Ross, *Heart of Asia* (1899); E. H. Parker, *A Thousand Years of the Tartars* (1895). Various Russian works by Nalivkin, published in Turkestan, contain much valuable information, and N. N. Pantusov, *Specimens of Kirghiz Popular Poetry*, with Russian translations (Kazan, 1903–1904).

KIRIN, a province of central Manchuria, with a capital bearing the same name. The province has an area of 90,000 sq. m., and a population of 6,500,000. The chief towns besides the capital are Kwang-chêng-tsze, 80 m. N.W. of the capital, and Harbin on the Sungari river. The city of KIRIN is situated at the foot of the Lau-Ye-Ling mountains, on the left bank of the Sungari or Girin-ula, there 300 yds. wide, and is served by a branch of the Manchurian railway. The situation is one of exceptional beauty; but the streets are narrow, irregular and indescribably filthy. The western part of the town is built upon a swamp and is under water a great part of the year. The dockyards are supplied with machinery from Europe and are efficient. Tobacco is the principal article of trade, the kind grown in the province being greatly prized throughout the Chinese empire under the name of "Manchu leaf." Formerly ginseng was also an important staple, but the supply from this quarter of the country has been exhausted. Outside the town lies a plain "thickly covered with open coffins containing the dead bodies of Chinese emigrants exposed for identification and removal by their friends; if no claim is made during ten years the remains are buried on the spot." Kirin was chosen by the emperor K'anghi as a military post during the wars with the Eleuths; and it owes its Chinese name of Ch'uen-ch'ang, *i.e.* Naval Yard, to his building there the vessels for the transport of his troops. The population was estimated at 300,000 in 1812; in 1909 it was about 120,000.

KIRK, SIR JOHN (1832–), British naturalist and administrator, son of the Rev. John Kirk, was born at Barry, near Arbroath, on the 19th of December 1832. He was educated at Edinburgh for the medical profession, and after serving on the civil medical staff throughout the Crimean War, was appointed in February 1858 physician and naturalist to David Livingstone's second expedition to Central Africa. He was by Livingstone's side in most of his journeyings during the next five years, and was one of the first four white men to behold Lake Nyassa (Sept. 16, 1859). He was finally invalided home on the 9th of May 1863. The reputation he gained during this expedition led to his appointment in January 1866 as acting surgeon to the political agency at Zanzibar. In 1868 he became assistant political agent, being raised to the rank of consul-general in 1873 and agent in 1880. He retired from that post in 1887. The twenty-one years spent by Kirk in Zanzibar covered the most critical period of the history of European intervention in East Africa; and during the greater part of that time he was the virtual ruler of the country. With Seyyid Bargash, who became sultan in 1870, he had a controlling influence, and after the failure of Sir Bartle Frere's efforts he succeeded in obtaining (June 5, 1873) the sultan's signature to a treaty abolishing the slave trade in his dominions. In 1877 Bargash offered to a British merchant—Sir W. Mackinnon—a lease of his mainland territories, and he gave Kirk a declaration in which he bound himself not to cede territory to any other power than Great Britain, a declaration ignored by the British government. When Germany in 1885 claimed districts considered by the sultan to belong to Zanzibar, Kirk intervened to prevent Bargash going in person to Berlin to protest and induced him to submit to the dismemberment of his dominions. In the delicate negotiations which followed

Kirk used his powers to checkmate the German designs to supplant the British in Zanzibar itself; this he did without destroying the Arab form of government. He also directed the efforts, this time successful, to obtain for Britain a portion of the mainland—Bargash in May 1887 granting to Mackinnon a lease of territory which led to the foundation of British East Africa. Having thus served both Great Britain and Zanzibar, Kirk resigned his post (July 1887), retiring from the consular service. In 1889–1890 he was a plenipotentiary at the slave trade conference in Brussels, and was one of the delegates who fixed the tariff duties to be imposed in the Congo basin. In 1895 he was sent by the British government on a mission to the Niger; and on his return he was appointed a member of the Foreign Office committee for constructing the Uganda railway. As a naturalist Kirk took high rank, and many species of the flora and fauna of Central Africa were made known by him, and several bear his name, *e.g.* the *Otogale kirkii* (a lemuroid), the *Madoqua kirkii* (a diminutive antelope), the *Landolphia kirkii* and the *Clematis kirkii*. For his services to geography he received in 1882 the patrons' medal of the Royal Geographical Society, of which society he became foreign secretary. Kirk was created K.C.B. in 1900. He married, in 1867, Miss Helen Cooke.

KIRKBY, JOHN (d. 1290), English ecclesiastic and statesman, entered the public service as a clerk of the chancery during the reign of Henry III. Under Edward I. he acted as keeper of the great seal during the frequent absences of the chancellor, Robert Burnell, being referred to as vice-chancellor. In 1282 he was employed by the king to make a tour through the counties and boroughs for the purpose of collecting money; this and his other services to Edward were well rewarded, and although not yet ordained priest he held several valuable benefices in the church. In 1283 he was chosen bishop of Rochester, but owing to the opposition of the archbishop of Canterbury, John Peckham, he did not press his claim to this see. In 1286, however, two years after he had become treasurer, he was elected bishop of Ely, and he was ordained priest and then consecrated by Peckham. He died at Ely on the 26th of March 1290. Kirkby was a benefactor to his see, to which he left some property in London, including the locality now known as Ely Place, where for many years stood the London residence of the bishop of Ely.

Kirkby's Quest is the name given to a survey of various English counties which was made under the bishop's direction probably in 1284 and 1285. For this see *Inquisitions and Assessments relating to Feudal Aids, 1284–1431*, vol. i. (London, 1899).

KIRKCALDY (locally pronounced *Kerkawdi*), a royal, municipal and police burgh and seaport of Fifeshire, Scotland. Pop. (1901), 34,079. It lies on the Firth of Forth, 26 m. N. of Edinburgh by the North British railway, via the Forth Bridge. Although Columba is said to have planted a church here, the authoritative history of the town does not begin for several centuries after the era of the saint. In 1240 the church was bestowed by David, bishop of St Andrews, on Dunfermline Abbey, and in 1334 the town with its harbour was granted by David II. to the same abbey, by which it was conveyed to the bailies and council in 1450, when Kirkcaldy was created a royal burgh. In the course of another century it had become an important commercial centre, the salt trade of the district being then the largest in Scotland. In 1644, when Charles I. raised it to a free port, it owned a hundred vessels, and six years later it was assessed as the sixth town in the kingdom. After the Union its shipping fell off, Jacobite troubles and the American War of Independence accelerating the decline. But its linen manufactures, begun early in the 18th century, gradually restored prosperity; and when other industries had taken root its fortunes advanced by leaps and bounds, and there is now no more flourishing community in Scotland. The chief topographical feature of the burgh is its length, from which it is called the "lang toun." Formerly it consisted of little besides High Street, with closes and wynds branching off from it; but now that it has absorbed Invertiel, Linktown and Abbotshall on the west, and Pathhead, Sinclairtown and Gallatown on the east, it has reached a length of nearly 4 m. Its public buildings include the parish church, in the Gothic style, St Brycedale United Free church, with a spire 200 ft. high, a town-hall, corn exchange, public libraries, assembly rooms, fever hospital, sheriff court buildings, people's club and institute, high school (1894)—on the site of the ancient burgh school (1582)—the Beveridge hall and free library, and the Adam Smith memorial hall. To the west lies Beveridge Park of 110 acres, including a large sheet of water, which was presented to the town in 1892. The harbour has an inner and outer division, with wet dock and wharves. Plans for its extension were approved in 1903. They include the extension of the east pier, the construction of a south pier 800 ft. in length, and of a tidal harbour 5 acres in area and a dock of 4 acres. Besides the manufacture of sheeting, towelling, ticks, dowlas and sail-cloth, the principal industries include flax-spinning, net-making, bleaching, dyeing, tanning, brewing, brass and iron founding, and there are potteries, flour-mills, engineering works, fisheries, and factories for the making of oil-cloth and linoleum. In 1847 Michael Nairn conceived the notion of utilizing the fibre of cork and oil-paint in such a way as to produce a floor-covering more lasting than carpet and yet capable of taking a pattern. The result of his experiments was oil-cloth, in the manufacture of which Kirkcaldy has kept the predominance to which Nairn's enterprise entitled it. Indeed, this and the kindred linoleum business (also due to Nairn, who in 1877 built the first linoleum factory in Scotland) were for many years the monopoly of Kirkcaldy. There is a large direct export trade with the United States. Among well-known natives of the town were Adam Smith, Henry Balnaves of Halhill, the Scottish reformer and lord of session in the time of Queen Mary; George Gillespie, the theologian and a leading member of the Westminster Assembly, and his younger brother Patrick (1617–1675), a friend of Cromwell and principal of Glasgow University; John Ritchie (1778–1870), one of the founders of the *Scotsman*; General Sir John Oswald (1771–1840), who had a command at San Sebastian and Vittoria. Sir Michael Scott of Balwearie castle, about 1½ m. W. of the town, was sent with Sir David Wemyss to bring the Maid of Norway to Scotland in 1290; Sir Walter Scott was therefore in error in adopting the tradition that identified him with the wizard of the same name, who died in 1234. Carlyle and Edward Irving were teachers in the town, where Irving spent seven years, and where he made the acquaintance of the lady he afterwards married. Kirkcaldy combines with Dysart, Kinghorn and Burntisland to return one member to parliament.

KIRKCALDY OF GRANGE, SIR WILLIAM (*c.* 1520–1573), Scottish politician, was the eldest son of Sir James Kirkcaldy of Grange (d. 1556), a member of an old Fifeshire family. Sir James was lord high treasurer of Scotland from 1537 to 1543 and was a determined opponent of Cardinal Beaton, for whose murder in 1546 he was partly responsible. William Kirkcaldy assisted to compass this murder, and when the castle of St Andrews surrendered to the French in July 1547 he was sent as a prisoner to Normandy, whence he escaped in 1550. He was then employed in France as a secret agent by the advisers of Edward VI., being known in the cyphers as *Corax*; and later he served in the French army, where he gained a lasting reputation for skill and bravery. The sentence passed on Kirkcaldy for his share in Beaton's murder was removed in 1556, and returning to Scotland in 1557 he came quickly to the front; as a Protestant he was one of the leaders of the lords of the congregation in their struggle with the regent, Mary of Lorraine, and he assisted to harass the French troops in Fife. He opposed Queen Mary's marriage with Darnley, being associated at this time with Murray, and was forced for a short time to seek refuge in England. Returning to Scotland, he was accessory to the murder of Rizzio, but he had no share in that of Darnley; and he was one of the lords who banded themselves together to rescue Mary after her marriage with Bothwell. After the fight at Carberry Hill the queen surrendered herself to Kirkcaldy, and his generalship was mainly responsible for her defeat at Langside.

He seems, however, to have believed that an arrangement with Mary was possible, and coming under the influence of Maitland of Lethington, whom in September 1569 he released by a stratagem from his confinement in Edinburgh, he was soon "vehemently suspected of his fellows." After the murder of Murray Kirkcaldy ranged himself definitely among the friends of the imprisoned queen. About this time he forcibly released one of his supporters from imprisonment, a step which led to an altercation with his former friend John Knox, who called him a "murderer and throat-cutter." Defying the regent Lennox, Kirkcaldy began to strengthen the fortifications of Edinburgh castle, of which he was governor, and which he held for Mary, and early in 1573 he refused to come to an agreement with the regent Morton because the terms of peace did not include a section of his friends. After this some English troops arrived to help the Scots, and in May 1573 the castle surrendered. Strenuous efforts were made to save Kirkcaldy from the vengeance of his foes, but they were unavailing; Knox had prophesied that he would be hanged, and he was hanged on the 3rd of August 1573.

See Sir James Melville's *Memoirs*, edited by T. Thomson (Edinburgh, 1827); J. Grant, *Memoirs and Adventures of Sir W. Kirkaldy* (Edinburgh, 1849); L. A. Barbé, *Kirkcaldy of Grange* (1897); and A. Lang, *History of Scotland*, vol. ii. (1902).

KIRKCUDBRIGHT (pron. *Ker-kū-bri*), a royal and police burgh, and county town of Kirkcudbrightshire, Scotland. Pop. (1901), 2386. It is situated at the mouth of the Dee, 6 m. from the sea and 30 m. S.W. of Dumfries by the Glasgow & South-Western railway, being the terminus of a branch line. The old form of the name of the town was Kilcudbrit, from the Gaelic *Cil Cudbert*, "the chapel of Cuthbert," the saint's body having lain here for a short time during the seven years that lapsed between its exhumation at Lindisfarne and the re-interment at Chester-le-Street. The estuary of the Dee is divided at its head by the peninsula of St Mary's Isle, but though the harbour is the best in south-western Scotland, the great distance to which the tide retreats impairs its usefulness. Among the public buildings are the academy, Johnstone public school, the county buildings, town-hall, museum, Mackenzie hall and market cross, the last-named standing in front of the old court-house, which is now used as a drill hall and fire-station. No traces remain of the Greyfriars' or Franciscan convent founded by Alexander II., nor of the nunnery that was erected in the parish of Kirkcudbright. The ivy-clad ruins of Bomby castle, founded in 1582 by Sir Thomas Maclellan, ancestor of the barons of Kirkcudbright, stand at the end of the chief street. The town, which witnessed much of the international strife and Border lawlessness, was taken by Edward I. in 1300. It received its royal charter in 1455. After the battle of Towton, Henry VI. crossed the Solway (August 1461) and landed at Kirkcudbright to join Queen Margaret at Linlithgow. It successfully withstood the English siege in 1547 under Sir Thomas Carleton, but after the country had been overrun was compelled to surrender at discretion. Lord Maxwell, earl of Morton, as a Roman Catholic, mustered his tenants here to act in concert with the Armada; but on the approach of King James VI. to Dumfries he took ship at Kirkcudbright and was speedily captured. The burgh is one of the Dumfries district group of parliamentary burghs. On St Mary's Isle was situated the seat of the earl of Selkirk, at whose house Robert Burns gave the famous Selkirk grace:—

"Some ha'e meat, and canna eat,
And some wad eat that want it;
But we ha'e meat, and we can eat,
And sae the Lord be thankit."

Fergus, lord of Galloway, a celebrated church-builder of the 12th century, had his principal seat on Palace Isle in a lake called after him Loch Fergus, near St Mary's Isle, where he erected the priory de Trayle, in token of his penitence for rebellion against David I. The priory was afterwards united as a dependent cell to the abbey of Holyrood. DUNDRENNAN ABBEY, 4½ m. S.E., was, however, his greatest achievement. It was a Cistercian house, colonized from Rievaulx, and was built in 1140. There now remain only the transept and choir, a unique example of the Early Pointed style. TONGUELAND (or Tungland), 2½ m. N. by E., has interesting historical associations. It was the site of a Premonstratensian abbey built by Fergus, and it was here that Queen Mary rested in her flight from the field of Langside (May 13, 1568). The well near Tongueland bridge from which she drank still bears the name of the Queen's Well.

KIRKCUDBRIGHTSHIRE (also known as the STEWARTRY OF KIRKCUDBRIGHT and EAST GALLOWAY), a south-western county of Scotland, bounded N. and N.W. by Ayrshire, W. and S.W. by Wigtownshire, S. and S.E. by the Irish Sea and Solway Firth, and E. and N.E. by Dumfriesshire. It includes the small islands of Hestan and Little Ross, which are utilized as lighthouse stations. It has an area of 575,565 acres or 899 sq. m. The north-western part of the shire is rugged, wild and desolate. In this quarter the principal mountains are Merrick (2764 ft.), the highest in the south of Scotland, and the group of the Rinns of Kells, the chief peaks of which are Corscrine (2668), Carlins Cairn (2650), Meikle Millyea (2446) and Millfire (2350). Towards the south-west the chief eminences are Lamachan (2349), Larg (2216), and the bold mass of Cairnsmore of Fleet (2331). In the south-east the only imposing height is Criffel (1866). In the north rises the majestic hill of Cairnsmuir of Carsphairn (2612), and close to the Ayrshire border is the Windy Standard (2287). The southern section of the shire is mostly level or undulating, but characterized by much picturesque scenery. The shore is generally bold and rocky, indented by numerous estuaries forming natural harbours, which however are of little use for commerce owing to the shallowness of the sea. Large stretches of sand are exposed in the Solway at low water and the rapid flow of the tide has often occasioned loss of life. The number of "burns" and "waters" is remarkable, but their length seldom exceeds 7 or 8 m. Among the longer rivers are the Cree, which rises in Loch Moan and reaches the sea near Creetown after a course of about 30 m., during which it forms the boundary, at first of Ayrshire and then of Wigtownshire; the Dee or Black Water of Dee (so named from the peat by which it is coloured), which rises in Loch Dee and after a course mainly S.E. and finally S., enters the sea at St Mary's Isle below Kirkcudbright, its length being nearly 36 m.; the Urr, rising in Loch Urr on the Dumfriesshire border, falls into the sea a few miles south of Dalbeattie 27 m. from its source; the Ken, rising on the confines of Ayrshire, flows mainly in a southerly direction and joins the Dee at the southern end of Loch Ken after a course of 24 m. through lovely scenery; and the Deugh which, rising on the northern flank of the Windy Standard, pursues an extraordinarily winding course of 20 m. before reaching the Ken. The Nith, during the last few miles of its flow, forms the boundary with Dumfriesshire, to which county it almost wholly belongs. The lochs and mountain tarns are many and well distributed; but except Loch Ken, which is about 6 m. long by ½ m. wide, few of them attain noteworthy dimensions. There are several passes in the hill regions, but the only well-known glen is Glen Trool, not far from the district of Carrick in Ayrshire, the fame of which rests partly on the romantic character of its scenery, which is very wild around Loch Trool, and more especially on its associations with Robert Bruce. It was here that when most closely beset by his enemies, who had tracked him to his fastness by sleuth hounds, Bruce with the aid of a few faithful followers won a surprise victory over the English in 1307 which proved the turning-point of his fortunes.

Geology.—Silurian and Ordovician rocks are the most important in this county; they are thrown into oft-repeated folds with their axes lying in a N.E.-S.W. direction. The Ordovician rocks are graptolitic black shales and grits of Llandeilo and Caradoc age. They occupy all the northern part of the county north-west of a line which runs some 3 m. N. of New Galloway and just S. of the Rinns of Kells. South-east of this line graptolitic Silurian shales of Llandovery age prevail; they are found around Dalry, Creetown, New Galloway, Castle Douglas and Kirkcudbright. Overlying the Llandovery beds on the south coast are strips of Wenlock rocks; they extend from Bridgehouse Bay to Auchinleck and are well exposed in Kirkcudbright Bay, and they can be traced farther round the coast between the granite and the younger rocks. Carboniferous rocks appear in small faulted tracts, unconformable on the Silurian, on

the shores of the Solway Firth. They are best developed about Kirkbean, where they include a basal red breccia followed by conglomerates, grits and cement stones of Calciferous Sandstone age. Brick-red sandstones of Permian age just come within the county on the W. side of the Nith at Dumfries. Volcanic necks occur in the Permian and basalt dikes penetrate the Silurian at Borgue, Kirkandrews, &c. Most of the highest ground is formed by the masses of granite which have been intruded into the Ordovician and Silurian rocks; the Criffel mass lies about Dalbeattie and Bengairn, another mass extends east and west between the Cairnsmore of Fleet and Loch Ken, another lies N.W. and S.E. between Loch Doon and Loch Dee and a small mass forms the Cairnsmore of Carsphairn. Glacial deposits occupy much of the low ground; the ice, having travelled in a southerly or south-easterly direction, has left abundant striae on the higher ground to indicate its course. Radiation of the ice streams took place from the heights of Merrick, Kells, &c.; local moraines are found near Carsphairn and in the Deagh and Minnoch valleys. Glacial drumlins of boulder clay lie in the vales of the Dee, Cree and Urr.

Climate and Agriculture.—The climate and soil are better fitted for grass and green crops than for grain. The annual rainfall averages 45·7 in. The mean temperature for the year is 48° F.; for January 38·5°; for July 59°. The major part of the land is either waste or poor pasture. More than half the holdings consist of 50 acres and over. Oats is the predominant grain crop, the acreage under barley being small and that under wheat insignificant. Turnips are successfully cultivated, and potatoes are the only other green crop raised on a moderately large scale. Sheep-rearing has been pursued with great enterprise. The average is considerably in excess of that for Scotland. Black-faced and Cheviots are the most common on the high ground, and a cross of Leicester with either is also in favour. Cattle-breeding is followed with steady success; the black polled Galloway is the general breed, but Aryshires have been introduced for dairying, cheese-making occupying much of the farmers' attention. Horses are extensively raised, a breed of small-sized hardy and spirited animals being specifically known as Galloways. Most of the horses are used in agricultural work, but a large number are also kept for stock; Clydesdales are bred to some extent. Pig-rearing is an important pursuit, pork being supplied to the English markets in considerable quantities. During the last quarter of the 19th century the number of pigs increased 50%. Bee-keeping has been followed with special care and the honey of the shire is consequently in good repute. The proportion of woodland in the county is small.

Industries.—The shire ranks next to Aberdeen as a granite-yielding county and the quarries occupy a large number of hands. In some towns and villages there are manufactures of linen, woollen and cotton goods; at various places distilling, brewing, tanning and paper-making are carried on, and at Dalbeattie there are brick and tile works. There is a little ship-building at Kirkcudbright. The Solway fishery is of small account, but salmon fishing is prosecuted at the mouth of certain rivers, the Dee fish being notable for their excellence.

The only railway communication is by the Glasgow & South-Western railway running from Dumfries to Castle Douglas, from which there is a branch to Kirkcudbright, and the Portpatrick and Wigtownshire railway, beginning at Castle Douglas and leaving the county at Newton Stewart. These are supplemented by coaches between various points, as from New Galloway to Carsphairn, from Dumfries to New Abbey and Dalbeattie, and from Auchencairn to Dalbeattie.

Population and Government.—The population was 39,985 in 1891 and 39,383 in 1901, when 98 persons spoke Gaelic and English. The chief towns are Castle Douglas (pop. in 1901, 3018), Dalbeattie (3469), Kirkcudbright (2386), Maxwelltown (5796) with Crectown (991), and Gatehouse of Fleet (1013). The shire returns one member to parliament, and the county town (Kirkcudbright) belongs to the Dumfries district group of parliamentary burghs, and Maxwelltown is combined with Dumfries. The county forms part of the sheriffdom of Dumfries and Galloway, and there is a resident sheriff-substitute at Kirkcudbright. The county is under school-board jurisdiction. There is an academy at Kirkcudbright, high schools at Dumfries and Newton Stewart, and technical classes at Kirkcudbright, Dalbeattie, Castle Douglas and Dumfries.

History.—The country west of the Nith was originally peopled by a tribe of Celtic Gaels called Novantae, or Atecott Picts, who, owing to their geographical position, which prevented any ready intermingling with the other Pictish tribes farther north, long retained their independence. After Agricola's invasion in A.D. 79 the country nominally formed part of the Roman province, but the evidence is against there ever having been a prolonged effective Roman occupation. After the retreat of the Romans the Novantae remained for a time under their own chiefs, but in the 7th century accepted the overlordship of Northumbria. The Saxons, soon engaged in struggles with the Norsemen, had no leisure to look after their tributaries, and early in the 9th century the Atecotts made common cause with the Vikings. Henceforward they were styled, probably in contempt, *Gall-gaidhel*, or stranger Gaels (*i.e.* Gaels who fraternized with the foreigners), the Welsh equivalent for which, *Gallwyddel*, gave rise to the name of *Galloway* (of which Galway is a variant), which was applied to their territory and still denotes the Stewartry of Kirkcudbright and the shire of Wigtown. When Scotland was consolidated under Kenneth MacAlpine (crowned at Scone in 844), Galloway was the only district in the south that did not form part of the kingdom; but in return for the services rendered to him at this crisis Kenneth gave his daughter in marriage to the Galloway chief, Olaf the White, and also conferred upon the men of Galloway the privilege of marching in the van of the Scottish armies, a right exercised and recognized for several centuries. During the next two hundred years the country had no rest from Danish and Saxon incursions and the continual lawlessness of the Scandinavian rovers. When Malcolm Canmore defeated and slew Macbeth in 1057 he married the dead king's widow Ingibiorg, a Pictish princess, an event which marked the beginning of the decay of Norse influence. The Galloway chiefs hesitated for a time whether to throw in their lot with the Northumbrians or with Malcolm; but language, race and the situation of their country at length induced them to become lieges of the Scottish king. By the close of the 11th century the boundary between England and Scotland was roughly delimited on existing lines. The feudal system ultimately destroyed the power of the Galloway chiefs, who resisted the innovation to the last. Several of the lords or "kings" of Galloway, a line said to have been founded by Fergus, the greatest of them all, asserted in vain their independence of the Scottish crown; and in 1234 the line became extinct in the male branch on the death of Fergus's great-grandson Alan. One of Alan's daughters, Dervorguila, had married John de Baliol (father of the John de Baliol who was king of Scotland from 1292 until his abdication in 1296), and the people, out of affection for Alan's daughter, were lukewarm in support of Robert Bruce. In 1308 the district was cleared of the English and brought under allegiance to the king, when the lordship of Galloway was given to Edward Bruce. Later in the 14th century Galloway espoused the cause of Edward Baliol, who surrendered several counties, including Kirkcudbright, to Edward III. In 1372 Archibald the Grim, a natural son of Sir James Douglas "the Good," became Lord of Galloway and received in perpetual fee the Crown lands between the Nith and Cree. He appointed a steward to collect his revenues and administer justice, and there thus arose the designation of the *Stewartry* of Kirkcudbright. The high-handed rule of the Douglases created general discontent, and when their treason became apparent their territory was overrun by the king's men in 1455; Douglas was attainted, and his honours and estates were forfeited. In that year the great stronghold of the Thrieve, the most important fortress in Galloway, which Archibald the Grim had built on the Dee immediately to the west of the modern town of Castle Douglas, was reduced and converted into a royal keep. (It was dismantled in 1640 by order of the Estates in consequence of the hostility of its keeper, Lord Nithsdale, to the Covenant.) The famous cannon Mons Meg, now in Edinburgh Castle, is said, apparently on insufficient evidence, to have been constructed in order to aid James III. in this siege. As the Douglases went down the Maxwells rose, and the debateable land on the south-east of

Dumfriesshire was for generations the scene of strife and raid, not only between the two nations but also among the leading families, of whom the Maxwells, Johnstones and Armstrongs were always conspicuous. After the battle of Solway Moss (1542) the shires of Kirkcudbright and Dumfries fell under English rule for a short period. The treaty of Norham (March 24, 1550) established a truce between the nations for ten years; and in 1552, the Wardens of the Marches consenting, the debateable land ceased to be matter for debate, the parish of Canonbie being annexed to Dumfriesshire, that of Kirkandrews to Cumberland. Though at the Reformation the Stewartry became fervent in its Protestantism, it was to Galloway, through the influence of the great landowners and the attachment of the people to them, that Mary owed her warmest adherents, and it was from the coast of Kirkcudbright that she made her luckless voyage to England. Even when the crowns were united in 1603 turbulence continued; for trouble arose over the attempt to establish episcopacy, and nowhere were the Covenanters more cruelly persecuted than in Galloway. After the union things mended slowly but surely, curious evidence of growing commercial prosperity being the enormous extent to which smuggling was carried on. No coast could serve the "free traders" better than the shores of Kirkcudbright, and the contraband trade flourished till the 19th century. The Jacobite risings of 1715 and 1745 elicited small sympathy from the inhabitants of the shire.

See Sir Herbert Maxwell, *History of Dumfries and Galloway* (Edinburgh, 1896); Rev. Andrew Symson. *A Large Description of Galloway* (1684; new ed., 1823); Thomas Murray, *The Literary History of Galloway* (1822); Rev. William Mackenzie, *History of Galloway* (1841); P. H. McKerlie, *History of the Lands and their Owners in Galloway* (Edinburgh, 1870–1879); *Galloway Ancient and Modern* (Edinburgh, 1891); J. A. H. Murray, *Dialect of the Southern Counties of Scotland* (London, 1873).

KIRKE, PERCY (*c.* 1646–1691), English soldier, was the son of George Kirke, a court official to Charles I. and Charles II. In 1666 he obtained his first commission in the Lord Admiral's regiment, and subsequently served in the Blues. He was with Monmouth at Maestricht (1673), and was present during two campaigns with Turenne on the Rhine. In 1680 he became lieutenant-colonel, and soon afterwards colonel of one of the Tangier regiments (afterwards the King's Own Royal Lancaster Regt.) In 1682 Kirke became governor of Tangier, and colonel of the old Tangier regiment (afterwards the Queen's Royal West Surrey). He distinguished himself very greatly as governor, though he gave offence by the roughness of his manners and the wildness of his life. On the evacuation of Tangier "Kirke's Lambs" (so called from their badge) returned to England, and a year later their colonel served as a brigadier in Faversham's army. After Sedgemoor the rebels were treated with great severity; but the charges so often brought against the "Lambs" are now known to be exaggerated, though the regiment shared to the full in the ruthless hunting down of the fugitives. It is often stated that it formed Jeffreys's escort in the "Bloody Assize," but this is erroneous. Brigadier Kirke took a notable part in the Revolution three years later, and William III. promoted him. He commanded at the relief of Derry, and made his last campaign in Flanders in 1691. He died, a lieutenant-general, at Brussels in October of that year. His eldest son, Lieut.-General Percy Kirke (1684–1741), was also colonel of the "Lambs."

KIRKEE (or KIRKI), a town and military cantonment of British India in Poona district, Bombay, 4 m. N.W. of Poona city. Pop. (1901), 10,797. It is the principal artillery station in the Bombay presidency, and has a large ammunition factory. It was the scene of a victory over Baji Rao, the last peshwa, in 1817.

KIRKINTILLOCH, a municipal and police burgh of Dumbartonshire, Scotland. Pop. (1901), 10,680. It is situated 8 m. N.E. of Glasgow, by the North British railway, a portion of the parish extending into Lanarkshire. It lies on the Forth & Clyde canal, and the Kelvin—from which Lord Kelvin, the distinguished scientist, took the title of his barony—flows past the town, where it receives from the north the Glazert and from the south the Luggie, commemorated by David Gray. The Wall of Antoninus ran through the site of the town, the Gaelic name of which (*Caer*, a fort, not *Kirk*, a church) means "the fort at the end of the ridge." The town became a burgh of barony under the Comyns in 1170. The cruciform parish church with crow-stepped gables dates from 1644. The public buildings include the town-hall, with a clock tower, the temperance hall, a convalescent home, the Broomhill home for incurables (largely due to Miss Beatrice Clugston, to whom a memorial was erected in 1891), and the Westermains asylum. In 1898 the burgh acquired as a private park the Peel, containing traces of the Roman Wall, a fort, and the foundation of Comyn's Castle. The leading industries are chemical manufactures, iron-founding, muslin-weaving, coal mining and timber sawing. LENZIE, a suburb, a mile to the south of the old town, contains the imposing towered edifice in the Elizabethan style which houses the Barony asylum. David Gray, the poet, was born at Merkland, near by, and is buried in Kirkintilloch churchyard, where a monument was erected to his memory in 1865.

KIRK-KILISSEH (KIRK-KILISSE or KIRK-KILISSIA), a town of European Turkey, in the vilayet of Adrianople, 35 m. E. of Adrianople. Pop. (1905), about 16,000, of whom about half are Greeks, and the remainder Bulgarians, Turks and Jews. Kirk-Kilisseh is built near the headwaters of several small tributaries of the river Ergene, and on the western slope of the Istranja Dagh. It owes its chief importance to its position at the southern outlet of the Fakhi defile over these mountains, through which passes the shortest road from Shumla to Constantinople. The name Kirk-Kilisseh signifies "four churches," and the town possesses many mosques and Greek churches. It has an important trade with Constantinople in butter and cheese, and also exports wine, brandy, cereals and tobacco.

KIRKSVILLE, a city and the county-seat of Adair county, Missouri, U.S.A., about 129 m. N. by W. of Jefferson City. Pop. (1900), 5966, including 112 foreign-born and 291 negroes; (1910), 6347. It is served by the Wabash and the Quincy, Omaha & Kansas City railways. It lies on a rolling prairie at an elevation of 975 ft. above the sea. It is the seat of the First District Missouri State Normal School (1870); of the American School of Osteopathy (opened 1892); and of the related A. T. Still Infirmary (incorporated 1895), named in honour of its founder, Andrew Taylor Still (b. 1820), the originator of osteopathic treatment, who settled here in 1875. In 1908 the School of Osteopathy had 18 instructors and 398 students. Grain and fruit are grown in large quantities, and much coal is mined in the vicinity of Kirksville. Its manufactures are shoes, bricks, lumber, ice, agricultural implements, wagons and handles. Kirksville was laid out in 1842, and was named in honour of Jesse Kirk. It was incorporated as a town in 1857 and chartered as a city of the third class in 1892. In April 1899 a cyclone caused serious damage to the city.

KIRKWALL (Norse, *Kirkjuvagr*, "church bay"), a royal, municipal and police burgh, seaport and capital of the Orkney Islands, county of Orkney, Scotland. Pop. (1901), 3711. It is situated at the head of a bay of the same name on the east of the island of Pomona, or Mainland, 247 m. N. of Leith and 54 m. N. of Wick by steamer. Much of the city is quaint-looking and old-fashioned, its main street (nearly 1 m. long) being in parts so narrow that two vehicles cannot pass each other. The more modern quarters are built with great regularity and the suburbs contain several substantial villas surrounded by gardens. Kirkwall has very few manufactures. The linen trade introduced in the middle of the 18th century is extinct, and a like fate has overtaken the kelp and straw-plaiting industries. Distilling however prospers, and the town is important not only as regards its shipping and the deep-sea fishery, but also as a distributing centre for the islands and the seat of the superior law courts. The port has two piers. Kirkwall received its first charter from James III. in 1486, but the provisions of this instrument being disregarded by such men as Robert (d. 1592) and Patrick Stewart (d. 1614), 1st and 2nd earls of Orkney, and others, the Scottish

parliament passed an act in 1670 confirming the charter granted by Charles II. in 1661. The prime object of interest is the cathedral of St Magnus, a stately cruciform red sandstone structure in the severest Norman, with touches of Gothic. It was founded by Jarl Rognvald (Earl Ronald) in 1137 in memory of his uncle Jarl Magnus who was assassinated in the island of Egilshay in 1115, and afterwards canonized and adopted as the patron saint of the Orkneys. The remains of St Magnus were ultimately interred in the cathedral. The church is 234 ft. long from east to west and 56 ft. broad, 71 ft. high from floor to roof, and 133 ft. to the top of the present spire—the transepts being the oldest portion. The choir was lengthened and the beautiful eastern rose window added by Bishop Stewart in 1511, and the porch and the western end of the nave were finished in 1540 by Bishop Robert Reid. Saving that the upper half of the original spire was struck by lightning in 1671, and not rebuilt, the cathedral is complete at all points, but it underwent extensive repairs in the 19th century. The disproportionate height and narrowness of the building lend it a certain distinction which otherwise it would have lacked. The sandstone has not resisted the effects of weather, and much of the external decorative work has perished. The choir is used as the parish church. The *skellat*, or fire-bell, is not rung now. The church of St Olaf, from which the town took its name, was burned down by the English in 1502; and of the church erected on its site by Bishop Reid—the greatest building the Orkneys ever had—little more than the merest fragment survives. Nothing remains of the old castle, a fortress of remarkable strength founded by Sir Henry Sinclair (d. 1400), earl and prince of Orkney and 1st earl of Caithness, its last vestiges having been demolished in 1865 to provide better access to the harbour; and the earthwork to the east of the town thrown up by the Cromwellians has been converted into a battery of the Orkney Artillery Volunteers. Adjoining the cathedral are the ruins of the bishop's palace, in which King Haco died after his defeat at Largs in 1263. The round tower, which still stands, was added in 1550 by Bishop Reid. It is known as the Mass Tower and contains a niche in which is a small effigy believed to represent the founder, who also endowed the grammar school which is still in existence. To the east of the remains of the bishop's palace are the ruins of the earl's palace, a structure in the Scottish Baronial style, built about 1600 for Patrick Stewart, 2nd earl of Orkney, and on his forfeiture given to the bishops for a residence. Tankerness House is a characteristic example of the mansion of an Orkney laird of the olden time. Other public buildings include the municipal buildings, the sheriff court and county buildings, Balfour hospital, and the fever hospital. There is daily communication with Scrabster pier (Thurso), via Scapa pier, on the southern side of the waist of Pomona, about 1½ m. to the S. of Kirkwall; and steamers sail at regular intervals from the harbour to Wick, Aberdeen and Leith. Good roads place the capital in touch with most places in the island and a coach runs twice a day to Stromness. Kirkwall belongs to the Wick district group of parliamentary burghs, the others being Cromarty, Dingwall, Dornoch and Tain.

KIRRIEMUIR, a police burgh of Forfarshire, Scotland. Pop. (1901), 4096. It is situated on a height above the glen through which the Gairie flows, 6¼ m. N.W. of Forfar by a branch line of the Caledonian railway of which it is the terminus. There are libraries, a public hall and a park. The staple industry is linen-weaving. The hand-loom lingered longer here than in any other place in Scotland and is not yet wholly extinct. The Rev. Dr Alexander Whyte (b. 1837) and J. M. Barrie (b. 1860) are natives, the latter having made the town famous under the name of "Thrums." The original Secession church—the kirk of the Auld Lichts—was founded in 1806 and rebuilt in 1893. Kinnordy, 1½ m. N.W., was the birthplace of Sir Charles Lyell the geologist; and Cortachy castle, a fine mansion in the Scottish Baronial style, about 4 m. N., is the seat of the earl of Airlie.

KIRSCH (or KIRSCHENWASSER), a potable spirit distilled from cherries. Kirsch is manufactured chiefly in the Black Forest in Germany, and in the Vosges and Jura districts in France. Generally the raw material consists of the wild cherry known as *Cerasus avium*. The cherries are subjected to natural fermentation and subsequent distillation. Occasionally a certain quantity of sugar and water are added to the cherries after crushing, and the mass so obtained is filtered or pressed prior to fermentation. The spirit is usually "run" at a strength of about 50% of absolute alcohol. Compared with brandy or whisky the characteristic features of kirsch are (*a*) that it contains relatively large quantities of higher alcohols and compound ethers, and (*b*) the presence in this spirit of small quantities of hydrocyanic acid, partly as such and partly in combination as benzaldehydecyanhydrine, to which the distinctive flavour of kirsch is largely due.

KIR-SHEHER, the chief town of a sanjak of the same name in the Angora vilayet of Asia Minor, situated on a tributary of the Kizil Irmak (*Halys*), on the Angora-Kaisarieh road. It is on the line of the projected railway from Angora to Kaisarieh. The town gives its name to the excellent carpets made in the vicinity. On the outskirts there is a hot chalybeate spring. Population about 9000 (700 Christians, mostly Armenians). Kir-sheher represents the ancient *Mocissus*, a small town which became important in the Byzantine period: it was enlarged by the emperor Justinian, who re-named it *Justinianopolis*, and made it the capital of a large division of Cappadocia, a position it still retains.

KIRWAN, RICHARD (1733–1812), Irish scientist, was born at Cloughballymore, Co. Galway, in 1733. Part of his early life was spent abroad, and in 1754 he entered the Jesuit novitiate either at St Omer or at Hesdin, but returned to Ireland in the following year, when he succeeded to the family estates through the death of his brother in a duel. In 1766, having conformed to the established religion two years previously, he was called to the Irish bar, but in 1768 abandoned practice in favour of scientific pursuits. During the next nineteen years he resided chiefly in London, enjoying the society of the scientific men living there, and corresponding with many savants on the continent of Europe, as his wide knowledge of languages enabled him to do with ease. His experiments on the specific gravities and attractive powers of various saline substances formed a substantial contribution to the methods of analytical chemistry, and in 1782 gained him the Copley medal from the Royal Society, of which he was elected a fellow in 1780; and in 1784 he was engaged in a controversy with Cavendish in regard to the latter's experiments on air. In 1787 he removed to Dublin, where four years later he became president of the Royal Irish Academy. To its proceedings he contributed some thirty-eight memoirs, dealing with meteorology, pure and applied chemistry, geology, magnetism, philology, &c. One of these, on the primitive state of the globe and its subsequent catastrophe, involved him in a lively dispute with the upholders of the Huttonian theory. His geological work was marred by an implicit belief in the universal deluge, and through finding fossils associated with the trap rocks near Portrush he maintained basalt was of aqueous origin. He was one of the last supporters in England of the phlogistic hypothesis, for which he contended in his *Essay on Phlogiston and the Constitution of Acids* (1787), identifying phlogiston with hydrogen. This work, translated by Madame Lavoisier, was published in French with critical notes by Lavoisier and some of his associates; Kirwan attempted to refute their arguments, but they proved too strong for him, and he acknowledged himself a convert in 1791. His other books included *Elements of Mineralogy* (1784), which was the first systematic work on that subject in the English language, and which long remained standard; *An Estimate of the Temperature of Different Latitudes* (1787); *Essay of the Analysis of Mineral Waters* (1799), and *Geological Essays* (1799). In his later years he turned to philosophical questions, producing a paper on human liberty in 1798, a treatise on logic in 1807, and a volume of metaphysical essays in 1811, none of any worth. Various stories are told of his eccentricities as well as of his conversational powers. He died in Dublin in June 1812.

KISFALUDY, KÁROLY [CHARLES] (1788–1830), Hungarian author, was born at Téte, near Raab, on the 6th of February

1788. His birth cost his mother her life and himself his father's undying hatred. He entered the army as a cadet in 1804; saw active service in Italy, Servia and Bavaria (1805–1809), especially distinguishing himself at the battle of Leoben (May 25, 1809), and returned to his quarters at Pest with the rank of first lieutenant. It was during the war that he composed his first poems, *e.g.* the tragedy *Gyilkos* ("The Murder," 1808), and numerous martial songs for the encouragement of his comrades. It was now, too, that he fell hopelessly in love with the beautiful Katalin Heppler, the daughter of a wealthy tobacco merchant. Tiring of the monotony of a soldier's life, yet unwilling to sacrifice his liberty to follow commerce or enter the civil service, Kisfaludy, contrary to his father's wishes, now threw up his commission and made his home at the house of a married sister at Vörröck, where he could follow his inclinations. In 1812 he studied painting at the Vienna academy and supported himself precariously by his brush and pencil, till the theatre at Vienna proved a still stronger attraction. In 1812 he wrote the tragedy *Klára Zách*, and in 1815 went to Italy to study art more thoroughly. But he was back again within six months, and for the next three years flitted from place to place, living on the charity of his friends, lodging in hovels and dashing off scores of daubs which rarely found a market. The united and repeated petitions of the whole Kisfaludy family failed to bring about a reconciliation between the elder Kisfaludy and his prodigal son. It was the success of his drama *Ilka*, written for the Fehérvár dramatic society, that first made him famous and prosperous. The play was greeted with enthusiasm both at Fehérvár and Buda (1819). Subsequent plays, *The Voivode Stiber* and *The Petitioners* (the first original Magyar dramas), were equally successful. Kisfaludy's fame began to spread. He had found his true vocation as the creator of the Hungarian drama. In May 1820 he wrote three new plays for the dramatic society (he could always turn out a five-act drama in four days) which still further increased his reputation. From 1820 onwards, under the influence of the great critic Kazinczy, he learnt to polish and refine his style, while his friend and adviser György Gaal (who translated some of his dramas for the Vienna stage) introduced him to the works of Shakespeare and Goethe. By this time Kisfaludy had evolved a literary theory of his own which inclined towards romanticism; and in collaboration with his elder brother Alexander (see below) he founded the periodical *Aurora* (1822), which he edited to the day of his death. The *Aurora* was a notable phenomenon in Magyar literature. It attracted towards it many of the rising young authors of the day (including Vörösmarty, Bajza and Czuczor) and speedily became the oracle of the romanticists. Kisfaludy's material position had now greatly improved, but he could not shake off his old recklessness and generosity, and he was never able to pay a tithe of his debts. The publication of *Aurora* so engrossed his time that practically he abandoned the stage. But he contributed to *Aurora* ballads, epigrams, short epic pieces, and, best of all, his comic stories. Kisfaludy was in fact the founder of the school of Magyar humorists and his comic types amuse and delight to this day. When the folk-tale became popular in Europe, Kisfaludy set to work upon folk-tales also and produced (1828) some of the masterpieces of that genre. He died on the 21st of November 1830. Six years later the great literary society of Hungary, the *Kisfaludy Társaság*, was founded to commemorate his genius. Apart from his own works it is the supreme merit of Kisfaludy to have revived and nationalized the Magyar literature, giving it a range and scope undreamed of before his time.

The first edition of Kisfaludy's works, in 10 volumes, appeared at Buda in 1831, shortly after his death, but the 7th edition (Budapest 1893) is the best and fullest. See Ferenc Toldy, *Lives of the Magyar Poets* (Hung.) (Budapest, 1870); Zsolt Beöthy, *The Father of Hungarian Comedy* (Budapest, 1882); Tamás Szana, *The Two Kisfaludys* (Hung.) (Budapest, 1876). Kisfaludy's struggles and adventures are also most vividly described in Jókai's novel, *Eppur si muove* (Hung.).

SÁNDOR [ALEXANDER] KISFALUDY (1772–1844), Hungarian poet, elder brother of the preceding, was born at Zala on the 27th of September 1772, educated at Raab, and graduated in philosophy and jurisprudence at Pressburg. He early fell under the influence of Schiller and Kleist, and devoted himself to the resuscitation of the almost extinct Hungarian literature. Disgusted with his profession, the law, he entered the Life Guards (1793) and plunged into the gay life of Vienna, cultivating literature, learning French, German and Italian, painting, sketching, assiduously frequenting the theatre, and consorting on equal terms with all the literary celebrities of the Austrian capital. In 1796 he was transferred to the army in Italy for being concerned with some of his brother officers of the Vienna garrison in certain irregularities. When Milan was captured by Napoleon Kisfaludy was sent a prisoner of war to Vaucluse, where he studied Petrarch with enthusiasm and fell violently in love with Caroline D'Esclapon, a kindred spirit to whom he addressed his melancholy *Himfy Lays*, the first part of the subsequently famous sonnets. On returning to Austria he served with some distinction in the campaigns of 1798 and 1799 on the Rhine and in Switzerland; but tiring of a military life and disgusted at the slowness of his promotion, he quitted the army in September 1799, and married his old love Rózá Szegedy at the beginning of 1800. The first five happy years of their life were passed at Kám in Vás county, but in 1805 they removed to Sümeg where Kisfaludy gave himself up entirely to literature.

At the beginning of the 19th century he had published a volume of erotics which made him famous, and his reputation was still further increased by his *Regék* or Tales. During the troublous times of 1809, when the gentry of Zala county founded a confederation, the palatine appointed Kisfaludy one of his adjutants. Subsequently, by command, he wrote an account of the movement for presentation to King Francis, which was committed to the secret archives, and Kisfaludy was forbidden to communicate its contents. In 1820 the Marczebánya Institute crowned his *Tales* and the palatine presented him with a prize of 400 florins in the hall of the Pest county council. In 1822 he started the *Aurora* with his younger brother Károly (see above). When the academy was founded in 1830 Kisfaludy was the first county member elected to it. In 1835 he resigned because he was obliged to share the honour of winning the academy's grand prize with Vörösmarty. After the death of his first wife (1832) he married a second time, but by neither of his wives had he any child. The remainder of his days were spent in his Tusculum among the vineyards of Sümeg and Somla. He died on the 28th of October 1844. Alexander Kisfaludy stands alone among the rising literary schools of his day. He was not even influenced by his friend the great critic Kazinczy, who gave the tone to the young classical writers of his day. Kisfaludy's art was self-taught, solitary and absolutely independent. If he imitated any one it was Petrarch; indeed his famous *Himfy szerelmei* ("The Loves of Himfy"), as his collected sonnets are called, have won for him the title of "The Hungarian Petrarch." But the passion of Kisfaludy is far more sincere and real than ever Petrarch's was, and he completely Magyarized everything he borrowed. After finishing the sonnets Kisfaludy devoted himself to more objective writing, as in the incomparable *Regék*, which reproduce the scenery and the history of the delightful counties which surround Lake Balaton. He also contributed numerous tales and other pieces to *Aurora*. Far less successful were his plays, of which *Hunyádi János* (1816), by far the longest drama in the Hungarian language, need alone be mentioned.

The best critical edition of Sándor Kisfaludy's works is the fourth complete edition, by David Angyal, in eight volumes (Budapest, 1893). See Tamás Szana, *The two Kisfaludys* (Hung.) (Budapest, 1876); Imre Sándor, *The Influence of the Italian on the Hungarian Literature* (Hung.) (Budapest, 1878); Kálmán Sümegi, *Kisfaludy and his Tales* (Hung.) (Budapest, 1877). (R. N. B.)

KĪSH, or KAIS (the first form is Persian and the second Arabic), an island in the Persian Gulf. It is mentioned in the 12th century as being the residence of an Arab pirate from Oman, who exacted a tribute from the pearl fisheries of the gulf and had the title of "King of the Sea," and it rose to importance in the

13th century with the fall of Siraf as a transit station of the trade between India and the West. In the 14th century it was supplanted by Hormuz and lapsed into its former insignificance. The island is nearly 10 m. long and 5 m. broad, and contains a number of small villages, the largest, Mashi, with about 100 houses, being situated on its north-eastern corner in 26° 34′ N. and 54° 2′ E. The highest part of the island has an elevation of 120 ft. The inhabitants are Arabs, and nearly all pearl fishers, possessing many boats, which they take to the pearl banks on the Arabian coast. The water supply is scanty and there is little vegetation, but sufficient for sustaining some flocks of sheep and goats and some cattle. Near the centre of the north coast are the ruins of the old city, now known as Harira, with remains of a mosque, with octagonal columns, masonry, water-cisterns (two 150 ft. long, 40 ft. broad, 24 ft. deep) and a fine underground canal, or aqueduct, half a mile long and cut in the solid rock 20 ft. below the surface. Fragments of glazed tiles and brown and blue pottery, of thin white and blue Chinese porcelain, of green céladon (some with white scroll-work or figures in relief), glass beads, bangles, &c., are abundant. Kīsh is the Kataia of Arrian; Chisi and Quis of Marco Polo; Quixi, Queis, Caez, Cais, &c., of Portuguese writers; and Khenn, or Kenn, of English.

KISHANGARH, a native state of India, in the Rajputana agency. Area, 858 sq. m.; pop. (1901), 90,970, showing a decrease of 27% in the decade, due to the famine of 1899–1900; estimated revenue, £34,000; there is no tribute. The state was founded in the reign of the emperor Akbar, by a younger son of the raja of Jodhpur. In 1818 Kishangarh first came into direct relations with the British government, by entering into a treaty, together with the other Rajput states, for the suppression of the Pindari marauders by whom the country was at that time overrun. The chief, whose title is maharaja, is a Rajput of the Rathor clan. Maharaja Madan Singh ascended the throne in 1900 at the age of sixteen, and attended the Delhi Durbar of 1903 as a cadet in the Imperial Cadet Corps. The administration, under the *diwan*, is highly spoken of. Irrigation from tanks and wells has been extended; factories for ginning and pressing cotton have been started; and the social reform movement, for discouraging excessive expenditure on marriages, has been very successful. The state is traversed by the Rajputana railway. The town of KISHANGARH is 18 m. N.W. of Ajmere by rail. Pop. (1901), 12,663. It is the residence of many Jain merchants.

KISHINEV (*Kishlanow* of the Moldavians), a town of south-west Russia, capital of the government of Bessarabia, situated on the right bank of the Byk, a tributary of the Dniester, and on the railway between Odessa and Jassy in Rumania, 120 m. W.N.W. from the former. At the beginning of the 19th century it was but a poor village, and in 1812 when it was acquired by Russia from Moldavia it had only 7000 inhabitants; twenty years later its population numbered 35,000, while in 1862 it had with its suburbs 92,000 inhabitants, and in 1900 125,787, composed of the most varied nationalities—Moldavians, Walachians, Russians, Jews (43%), Bulgarians, Tatars, Germans and Gypsies. A massacre (*pogrom*) of the Jews was perpetrated here in 1903. The town consists of two parts—the old or lower town, on the banks of the Byk, and the new or upper town, situated on high crags, 450 to 500 ft. above the river. The wide suburbs are remarkable for their gardens, which produce great quantities of fruits (especially plums, which are dried and exported), tobacco, mulberry leaves for silkworms, and wine. The buildings of the town are sombre, shabby and low, but built of stone; and the streets, though wide and shaded by acacias, are mostly unpaved. Kishinev is the seat of the archbishop of Bessarabia, and has a cathedral, an ecclesiastical seminary with 800 students, a college, and a gardening school, a museum, a public library, a botanic garden, and a sanatorium with sulphur springs. The town is adorned with statues of Tsar Alexander II. (1886) and the poet Pushkin (1885). There are tallow-melting houses, steam flour-mills, candle and soap works, distilleries and tobacco factories. The trade is very active and increasing, Kishinev being a centre for the Bessarabian trade in grain, wine, tobacco, tallow, wool and skins, exported to Austria and to Odessa. The town played an important part in the war between Russia and Turkey in 1877–78, as the chief centre of the Russian invasion.

KISHM (also Arab. *Jazīrat ut-tawīlah*, Pers. *Jazarīh i darāz*, *i.e.* Long Island), an island at the mouth of the Persian Gulf, separated from the Persian mainland by the Khor-i-Jafari, a strait which at its narrowest point is less than 2 m. broad. On British Admiralty charts it figures as "Clarence Strait," the name given to it by British surveyors in 1828 in honour of the duke of Clarence (William IV.). The island is 70 m. long, its main axis running E.N.E. by W.S.W. Its greatest breadth is 22 m. and the mean breadth about 7 m. A range of hills from 300 to 600 ft. high, with strongly marked escarpments, runs nearly parallel to the southern coast; they are largely composed, like those of Hormuz and the neighbouring mainland, of rock salt, which is regularly quarried in several places, principally at Nimakdan (*i.e.* salt-cellar) and Salakh on the south coast, and forms one of the chief products of the island, finding its way to Muscat, India and Zanzibar. In the centre of the island some hills, consisting of sandstone and marl, rise to an elevation of 1300 ft. In its general aspect the island is parched and barren-looking, like the south of Persia, but it contains fertile portions, which produce grain, dates, grapes, melons, &c. Traces of naphtha were observed near Salakh, but extensive boring operations in 1892 did not lead to any result. The town of Kishm (pop. 5000) is on the eastern extremity of the island. The famous navigator, William Baffin, was killed here in January 1622 by a shot from the Portuguese castle close by, which a British force was then besieging. Lafit (Laft, Leit), the next place in importance (reduced by a British fleet in 1809), is situated about midway on the northern coast in the most fertile part of the island. There are also many flourishing villages. At Basidu or Bassadore (correct name Baba Sa'idu), on the western extremity of the island, the British government maintained until 1879 a sanatorium for the crews of their gunboats in the gulf, with barracks for a company of sepoys belonging to the marine battalion at Bombay, workshops, hospital, &c. The village is still British property, but its occupants are reduced to a couple of men in charge of a coal depot, a provision store and about 90 villagers. In December 1896 a terrible earthquake destroyed about four-fifths of the houses on the island and over 1000 persons lost their lives. The total population is generally estimated at about 15,000 to 20,000, but the German Admiralty's *Segelhandbuch für den Persischen Golf* for 1907 has 40,000.

Kishm is the ancient *Oaracta*, or *Uorochta*, a name said to have survived until recently in a village called Brokt, or Brokht. It was also called the island of the Beni Kavan, from an Arab tribe of that name which came from Oman. (A. H.-S.)

KISKUNFÉLEGYHÁZA, a town of Hungary, in the county of Pest-Pilis-Solt-Kiskun, 80 m. S.S.E. of Budapest by rail. Pop. (1900), 33,242. Among the principal buildings are a fine town hall, a Roman Catholic gymnasium and a modern large parish church. The surrounding country is covered with vineyards, fruit gardens, and tobacco and corn fields. The town itself, which is an important railway junction, is chiefly noted for its great cattle-market. Numerous Roman urns and other ancient relics have been dug up in the vicinity. In the 17th century the town was completely destroyed by the Turks, and it was not recolonized and rebuilt till 1743.

KISLOVODSK, a town and health-resort of Russian Caucasia, in the province of Terek, situated at an altitude of 2690 ft., in a deep caldron-shaped valley on the N. side of the Caucasus, 40 m. by rail S.W. of Pyatigorsk. Pop. (1897), 4078. The limestone hills which surround the town rise by successive steps or terraces, and contain numerous caves. The mineral waters are strongly impregnated with carbonic acid gas and have a temperature of 51° F. The principal spring is known as Narsan, and its water is called by the Circassians the "drink of heroes."

KISMET, fate, destiny, a term used by Mahommedans to express all the incidents and details of man's lot in life. The

word is the Turkish form of the Arabic *gismal*, from *gasama*, to divide.

KISS, the act of pressing or touching with the lips, cheek, hand or lips of another, as a sign or expression of love, affection, reverence or greeting. Skeat (*Etym. Dict.*, 1898) connects the Teut. base *kussa* with Lat. *gustus*, taste, and with Goth. *kustus*, test, from *kinsan*, to choose, and takes "kiss" as ultimately a doublet of "choice."

For the liturgical *osculum pacis* or "kiss of peace," see PAX. See further C. Nyrop, *The Kiss and its History*, trans. by W. F. Harvey (1902); J. J. Claudius, *Dissertatio de salutationibus veterum* (Utrecht, 1702); and "Baisers d'étiquette" (1689) in *Archives curieuses de l'histoire de France* (1834–1890, series ii. tom. 12).

KISSAR, or GYTARAH BARBARYEH, the ancient Nubian lyre, still in use in Egypt and Abyssinia. It consists of a body having instead of the traditional tortoiseshell back a shallow, round bowl of wood, covered with a sound-board of sheepskin, in which are three small round sound-holes. The arms, set through the sound-board at points distant about the third of the diameter from the circumference, have the familiar fan shape. Five gut strings, knotted round the bar and raised from the sound-board by means of a bridge tailpiece similar to that in use on the modern guitar, are plucked by means of a plectrum by the right hand for the melody, while the left hand sometimes twangs some of the strings as a soft drone accompaniment.

KISSINGEN, a town and watering-place of Germany, in the kingdom of Bavaria, delightfully situated in a broad valley surrounded by high and well-wooded hills, on the Franconian Saale, 656 ft. above sea-level, 62 m. E. of Frankfort-on-Main, and 43 N.E. of Würzburg by rail. Pop. (1900), 4757. Its streets are regular and its houses attractive. It has an Evangelical, an English, a Russian and three Roman Catholic churches, a theatre, and various benevolent institutions, besides all the usual buildings for the lodging, cure and amusement of the numerous visitors who are attracted to this, the most popular watering-place in Bavaria. In the Kurgarten, a tree-shaded expanse between the Kurhaus and the handsome colonnaded Konversations-Saal, are the three principal springs, the Rákóczy, the Pandur and the Maxbrunnen, of which the first two, strongly impregnated with iron and salt, have a temperature of 51·26° F.; the last (50·72°) is like Selters or Seltzer water. At short distances from the town are the intermittent artesian spring Solensprudel, the Schönbornsprudel and the Theresienquelle; and in the same valley as Kissingen are the minor spas of Bocklet and Brückenau. The waters of Kissingen are prescribed for both internal and external use in a great variety of diseases. They are all highly charged with salt, and productive government salt-works were at one time stationed near Kissingen. The number of persons who visit the place amounts to about 20,000 a year. The manufactures of the town, chiefly carriages and furniture, are unimportant; there is also a trade in fruit and wine.

The salt springs were known in the 9th century, and their medicinal properties were recognized in the 16th, but it was only during the 19th century that Kissingen became a popular resort. The town belonged to the counts of Henneberg until 1394, when it was sold to the bishop of Würzburg. With this bishopric it passed later to Bavaria. On the 10th of July 1866 the Prussians defeated the Bavarians with great slaughter near Kissingen. On the 13th of July 1874 the town was the scene of the attempt of the fanatic Kullmann to assassinate Prince Bismarck, to whom a statue has been erected. There are also monuments to Kings Louis I. and Maximilian I. of Bavaria.

See Balling, *Die Heilquellen und Bäder zu Kissingen* (Kissingen, 1886); A. Sotier, *Bad Kissingen* (Leipzig, 1883); Werner, *Bad Kissingen als Kurort* (Berlin, 1904); Leusser, *Kissingen für Herzkranke* (Würzburg, 1902); Diruf, *Kissingen und seine Heilquellen* (Würzburg, 1892); and Roth, *Bad Kissingen* (Würzburg, 1901).

KISTNA, or KRISHNA, a large river of southern India. It rises near the Bombay sanatorium of Mahabaleshwar in the Western Ghats, only about 40 m. from the Arabian Sea, and, as it discharges into the Bay of Bengal, it thus flows across almost the entire peninsula from west to east. It has an estimated basin area of 97,000 sq. m., and its length is 800 m. Its source is held sacred, and is frequented by pilgrims in large numbers. From Mahabaleshwar the Kistna runs southward in a rapid course into the nizam's dominions, then turns to the east, and ultimately falls into the sea by two principal mouths, carrying with it the waters of the Bhima from the north and the Tungabadhra from the south-west. Along this part of the coast runs an extensive strip of land which has been entirely formed by the detritus washed down by the Kistna and Godavari. The river channel is throughout too rocky and the stream too rapid to allow navigation even by small native craft. In utility for irrigation the Kistna is also inferior to its two sister streams, the Godavari and Cauvery. By far the greatest of its irrigation works is the Bezwada anicut, begun by Sir Arthur Cotton in 1852. Bezwada is a small town at the entrance of the gorge by which the Kistna bursts through the Eastern Ghats and immediately spreads over the alluvial plain. The channel there is 1300 yds. wide. During the dry season the depth of water is barely 6 ft., but sometimes it rises to as much as 36 ft., the maximum flood discharge being calculated at 1,188,000 cub. ft. per second. Of the two main canals connected with the dam, that on the left bank breaks into two branches, the one running 39 m. to Ellore, the other 49 m. to Masulipatam. The canal on the right bank proceeds nearly parallel to the river, and also sends off two principal branches, to Nizampatam and Comamur. The total length of the main channels is 372 m. and the total area irrigated in 1903–1904 was about 700,000 acres.

KISTNA (or KRISHNA), a district of British India, in the N.E. of the Madras Presidency. Masulipatam is the district headquarters. Area, 8490 sq. m. The district is generally a flat country, but the interior is broken by a few low hills, the highest being 1857 ft. above sea-level. The principal rivers are the Kistna, which cuts the district into two portions, and the Munyeru, Paleru and Naguleru (tributaries of the Gundlakamma and the Kistna); the last only is navigable. The Kolar lake, which covers an area of 21 by 14 m., and the Romparu swamp are natural receptacles for the drainage on the north and south sides of the Kistna respectively.

In 1901 the population was 2,154,803, showing an increase of 16% in the decade. Subsequently the area of the district was reduced by the formation of the new district of Guntur (*q.v.*), though Kistna received an accretion of territory from Godavari district. The population in 1901 on the area as reconstituted (5899 sq. m.) was 1,744,138. The Kistna delta system of irrigation canals, which are available also for navigation, connect with the Godavari system. The principal crops are rice, millets, pulse, oil-seeds, cotton, indigo, tobacco and a little sugar-cane. There are several factories for ginning and pressing cotton. The cigars known in England as Lunkas are partly made from tobacco grown on *lankas* or islands in the Kistna. The manufacture of chintzes at Masulipatam is a decaying industry, but cotton is woven everywhere for domestic use. Salt is evaporated, under government supervision, along the coast. Bezwada, at the head of the delta, is a place of growing importance, as the central junction of the East Coast railway system, which crosses the inland portion of the district in three directions. Some seaborne trade, chiefly coasting, is carried on at the open roadsteads of Masulipatam and Nizampatam, both in the delta. The Church Missionary Society supports a college at Masulipatam.

The early history of Kistna is inseparable from that of the northern Circars. Dharanikota and the adjacent town of Amravati were the seats of early Hindu and Buddhist governments; and the more modern Rajahmundry owed its importance to later dynasties. The Chalukyas here gave place to the Cholas, who in turn were ousted by the Reddi kings, who flourished during the 14th century, and built the forts of Bellamkonda, Kondavi and Kondapalli in the north of the district, while the Gajapati dynasty of Orissa ruled in the north. Afterwards the entire district passed to the Kutb Shahis of Golconda, until annexed to the Mogul empire by Aurangzeb in 1687. Meantime the English had in 1611 established a small factory at Masulipatam, where they traded with varying fortune from 1759, when,

Masulipatam being captured from the French by Colonel Forde, with a force sent by Lord Clive from Calcutta, the power of the English in the greater part of the district was complete.

KIT (1). (probably an adaptation of the Middle Dutch *kitte*, a wooden tub, usually with a lid and handles; in modern Dutch *kit* means a tankard), a tub, basket or pail used for holding milk, butter, eggs, fish and other goods; also applied to similar receptacles for various domestic purposes, or for holding a workman's tools, &c. By transference "kit" came to mean the tools themselves, but more commonly personal effects such as clothing, especially that of a soldier or sailor, the word including the knapsack or other receptacle in which the effects are packed. (2) The name (perhaps a corruption of "cittern" Gr. κιθάρα) of a small violin, about 16 in. long, and played with a bow of nearly the same length, much used at one time by dancing-masters. The French name is *pochette*, the instrument being small enough to go into the pocket.

KITAZATO, SHIBASABURO (1856–), Japanese doctor of medicine, was born at Kumamoto in 1856 and studied in Germany under Koch from 1885 to 1891. He became one of the foremost bacteriologists of the world, and enjoyed the credit of having discovered the bacilli of tetanus, diphtheria and plague, the last in conjunction with Dr Aoyama, who accompanied him to Hong-Kong in 1894 during an epidemic at that place.

KIT-CAT CLUB, a club of Whig wits, painters, politicians and men of letters, founded in London about 1703. The name was derived from that of Christopher Cat, the keeper of the pie-house in which the club met in Shire Lane, near Temple Bar. The meetings were afterwards held at the Fountain tavern in the Strand, and latterly in a room specially built for the purpose at Barn Elms, the residence of the secretary, Jacob Tonson, the publisher. In summer the club met at the Upper Flask, Hampstead Heath. The club originally consisted of thirty-nine, afterwards of forty-eight members, and included among others the duke of Marlborough, Lords Halifax and Somers, Sir Robert Walpole, Vanbrugh, Congreve, Steele and Addison. The portraits of many of the members were painted by Sir Godfrey Kneller, himself a member, of a uniform size suited to the height of the Barn Elms room in which the club dined. The canvas, 36 × 28 in., admitted of less than a half-length portrait but was sufficiently long to include a hand, and this is known as the kit-cat size. The club was dissolved about 1720.

KITCHEN (O.E. *cycene*; this and other cognate forms, such as Dutch *keuken*, Ger. *Küche*, Dan. *kökken*, Fr. *cuisine*, are formed from the Low Lat. *cucina*, Lat. *coquina*, *coquere*, to cook), the room or place in a house set apart for cooking, in which the culinary and other domestic utensils are kept. The range or cooking-stove fitted with boiler for hot water, oven and other appliances, is often known as a "kitchener" (see COOKERY and HEATING). Archaeologists have used the term "kitchen-midden," *i.e.* kitchen rubbish-heap (Danish *kökken-mödding*) for the rubbish heaps of prehistoric man, containing bones, remains of edible shell-fish, implements, &c. (see SHELL-HEAPS). "Midden," in Middle English *mydding*, is a Scandinavian word, from *myg*, muck, filth, and *dyng*, heap; the latter word gives the English "dung."

KITCHENER, HORATIO HERBERT KITCHENER, VISCOUNT (1850–), British field marshal, was the son of Lieut.-Colonel H. H. Kitchener and was born at Bally Longford, Co. Kerry, on the 24th of June 1850. He entered the Royal Military Academy, Woolwich, in 1868, and was commissioned second lieutenant, Royal Engineers, in 1871. As a subaltern he was employed in survey work in Cyprus and Palestine, and on promotion to captain in 1883 was attached to the Egyptian army, then in course of re-organization under British officers. In the following year he served on the staff of the British expeditionary force on the Nile, and was promoted successively major and lieutenant-colonel by brevet for his services. From 1886 to 1888 he was commandant at Suakin, commanding and receiving a severe wound in the action of Handub in 1888. In 1888 he commanded a brigade in the actions of Gamaizieh and Toski. From 1889 to 1892 he served as adjutant-general of the army. He had become brevet-colonel in the British army in 1888, and he received the C.B. in 1889 after the action of Toski. In 1892 Colonel Kitchener succeeded Sir Francis (Lord) Grenfell as sirdar of the Egyptian army, and three years later, when he had completed his predecessor's work of re-organizing the forces of the khedive, he began the formation of an expeditionary force on the vexed military frontier of Wady Halfa. The advance into the Sudan (see EGYPT, *Military Operations*) was prepared by thorough administrative work on his part which gained universal admiration. In 1896 Kitchener won the action of Ferket (June 7) and advanced the frontier and the railway to Dongola. In 1897 Sir Archibald Hunter's victory of Abu Hamed (Aug. 7) carried the Egyptian flag one stage farther, and in 1898 the resolve to destroy the Mahdi's power was openly indicated by the despatch of a British force to co-operate with the Egyptians. The sirdar, who in 1896 became a British major-general and received the K.C.B., commanded the united force, which stormed the Mahdist zareba on the river Atbara on the 8th of April, and, the outposts being soon afterwards advanced to Metemmeh and Shendy, the British force was augmented to the strength of a division for the final advance on Khartum. Kitchener's work was crowned and the power of the Mahdists utterly destroyed by the victory of Omdurman (Sept. 2), for which he was raised to the peerage as Baron Kitchener of Khartoum, received the G.C.B., the thanks of parliament and a grant of £30,000. Little more than a year afterwards, while still sirdar of the Egyptian army, he was promoted lieutenant-general and appointed chief-of-staff to Lord Roberts in the South African War (see TRANSVAAL, *History*). In this capacity he served in the campaign of Paardeberg, the advance on Bloemfontein and the subsequent northward advance to Pretoria, and on Lord Roberts' return to England in November 1900 succeeded him as commander-in-chief, receiving at the same time the local rank of general. In June 1902 the long and harassing war came to its close, and Kitchener was rewarded by advancement to the dignity of viscount, promotion to the substantive rank of general "for distinguished service," the thanks of parliament and a grant of £50,000. He was also included in the Order of Merit.

Immediately after the peace he went to India as commander-in-chief in the East Indies, and in this position, which he held for seven years, he carried out not only many far-reaching administrative reforms but a complete re-organization and strategical redistribution of the British and native forces. On leaving India in 1909 he was promoted field marshal, and succeeded the duke of Connaught as commander-in-chief and high commissioner in the Mediterranean. This post, not of great importance in itself, was regarded as a virtual command of the colonial as distinct from the home and the Indian forces, and on his appointment Lord Kitchener (after a visit to Japan) undertook a tour of inspection of the forces of the empire, and went to Australia and New Zealand in order to assist in drawing up local schemes of defence. In this mission he was highly successful, and earned golden opinions. But soon after his return to England in April 1910 he declined to take up his Mediterranean appointment, owing to his dislike of its inadequate scope, and he was succeeded in June by Sir Ian Hamilton.

KITE,[1] the *Falco milvus* of Linnaeus and *Milvus ictinus* of modern ornithologists, once probably the most familiar bird of prey in Great Britain, and now one of the rarest. Three or four hundred years ago foreigners were struck with its abundance in the streets of London. It was doubtless the scavenger in ordinary of that and other large towns (as kindred species now are in Eastern lands), except where its place was taken by the raven; for Sir Thomas Browne (*c.* 1662) wrote of the latter at Norwich—"in good plentie about the citty which makes so few kites to be seen hereabout." John Wolley has well remarked of the modern Londoners that few "who see the paper toys hovering over the parks in fine days of summer, have any idea that the bird from which they derive their name used to float all day in hot weather high over the heads of their ancestors." Even at the beginning of the 19th century the kite formed a feature of many

[1] In O.E. is *cýta*; no related word appears in cognate languages. Glede, cognate with "glide," is also another English name.

a rural landscape in England, as they had done in the days when the poet Cowper wrote of them. But an evil time soon came upon the species. It must have been always hated by the henwife, but the resources of civilization in the shape of the gun and the gin were denied to her. They were, however, employed with fatal zeal by the gamekeeper; for the kite, which had long afforded the supremest sport to the falconer, was now left friendless,"[1] and in a very few years it seems to have been exterminated throughout the greater part of England, certain woods in the Western Midlands, as well as Wales, excepted. In these latter a small remnant still exists; but the well-wishers of this beautiful species are naturally chary of giving information that might lead to its further persecution. In Scotland there is no reason to suppose that its numbers suffered much diminution until about 1835, or even later, when the systematic destruction of "vermin" on so many moors was begun. In Scotland, however, it is now as much restricted to certain districts as in England or Wales, and those districts it would be most inexpedient to indicate.

The kite is, according to its sex, from 25 to 27 in. in length, about one half of which is made up by its deeply forked tail, capable of great expansion, and therefore a powerful rudder, enabling the bird while soaring on its wide wings, more than 5 ft. in extent, to direct its circling course with scarcely a movement that is apparent to the spectator below. Its general colour is pale reddish-brown or cinnamon, the head being greyish-white, but almost each feather has the shaft dark. The tail feathers are broad, of a light red, barred with deep brown, and furnish the salmon fisher with one of the choicest materials of his "flies." The nest, nearly always built in the crotch of a large tree, is formed of sticks intermixed with many strange substances collected as chance may offer, but among them rags[2] seem always to have a place. The eggs, three or four in number, are of a dull white, spotted and blotched with several shades of brown, and often lilac. It is especially mentioned by old authors that in Great Britain the kite was resident throughout the year; whereas on the Continent it is one of the most regular and marked migrants, stretching its wings towards the south in autumn, wintering in Africa, and returning in spring to the land of its birth.

There is a second European species, not distantly related, the *Milvus migrans* or *M. ater* of most authors,[3] smaller in size, with a general dull blackish-brown plumage and a less forked tail. In some districts this is much commoner than the red kite, and on one occasion it has appeared in England. Its habits are very like those of the species already described, but it seems to be more addicted to fishing. Nearly allied to this black kite are the *M. aegyptius* of Africa, the *M. govinda* (the common pariah kite of India),[4] the *M. melanotis* of Eastern Asia, and the *M. affinis* and *M. isurus*; the last is by some authors removed to another genus or sub-genus as *Lophoictinia*, and is peculiar to Australia, while *M. affinis* also occurs in Ceylon, Burma, and some of the Malay countries as well. All these may be considered true kites, while those next to be mentioned are more aberrant forms. First there is *Elanus*, the type of which is *E. caeruleus*, a beautiful little bird, the black-winged kite of English authors, that comes to the south of Europe from Africa, and has several congeners—*E. axillaris* and *E. scriptus* of Australia being most worthy of notice. An extreme development of this form is found in the African *Nauclerus riocourii*, as well as in *Elanoides furcatus*, the swallow-tailed kite, a widely-ranging bird in America, and remarkable for its length of wing and tail, which gives it a marvellous power of flight, and serves to explain the unquestionable fact of its having twice appeared in Great Britain. To *Elanus* also *Ictinia*, another American form, is allied, though perhaps more remotely, and it is represented by *I. mississippiensis*, the Mississippi kite, which is by some considered to be but the northern race of the Neotropical *I. plumbea*. *Gampsonyx*, *Rostrhamus* and *Cymindis*, all belonging to the Neotropical region, complete the series of forms that seem to compose the sub-family *Milvinae*, though there may be doubt about the last, and some systematists would thereto add the perns or honey-buzzards, *Perninae*.

(A. N.)

KITE-FLYING, the art of sending up into the air, by means of the wind, light frames of varying shapes covered with paper or cloth (called kites, after the bird—in German *Drache*, dragon), which are attached to long cords or wires held in the hand or wound on a drum. When made in the common diamond form, or triangular with a semicircular head, kites usually have a pendulous tail appended for balancing purposes. The tradition is that kites were invented by Archytas of Tarentum four centuries before the Christian era, but they have been in use among Asiatic peoples and savage tribes like the Maoris of New Zealand from time immemorial. Kite-flying has always been a national pastime of the Koreans, Chinese, Japanese, Tonkinese, Annamese, Malays and East Indians. It is less popular among the peoples of Europe. The origin of the sport, although obscure, is usually ascribed to religion. With the Maoris it still retains a distinctly religious character, and the ascent of the kite is accompanied by a chant called the kite-song. The Koreans attribute its origin to a general, who, hundreds of years ago, inspirited his troops by sending up a kite with a lantern attached, which was mistaken by his army for a new star and a token of divine succour. Another Korean general is said to have been the first to put the kite to mechanical uses by employing one to span a stream with a cord, which was then fastened to a cable and formed the nucleus of a bridge. In Korea, Japan and China, and indeed throughout Eastern Asia, even the tradespeople may be seen indulging in kite-flying while waiting for customers. Chinese and Japanese kites are of many shapes, such as birds, dragons, beasts and fishes. They vary in size, but are often as much as 7 ft. in height or breadth, and are constructed of bamboo strips covered with rice paper or very thin silk. In China the ninth day of the ninth month is "Kites' Day," when men and boys of all classes betake themselves to neighbouring eminences and fly their kites. Kite-fighting is a feature of the pastime in Eastern Asia. The cord near the kite is usually stiffened with a mixture of glue and crushed glass or porcelain. The kite-flyer manœuvres to get his kite to windward of that of his adversary, then allows his cord to drift against his enemy's, and by a sudden jerk to cut it through and bring its kite to grief. The Malays possess a large variety of kites, mostly without tails. The Sultan of Johor sent to the Columbian Exposition at Chicago in 1893 a collection of fifteen different kinds. Asiatic musical kites bear one or more perforated reeds or bamboos which emit a plaintive sound that can be heard for great distances. The ignorant, believing that these kites frighten away evil spirits, often keep them flying all night over their houses.

[1] George, third earl of Orford, died in 1791, and Colonel Thornton, who with him had been the latest follower of this highest branch of the art of falconry, broke up his hawking establishment not many years after. There is no evidence that the pursuit of the kite was in England or any other country reserved to kings or privileged persons, but the taking of it was quite beyond the powers of the ordinary trained falcons, and in older days practically became limited to those of the sovereign. Hence the kite had attached to it, especially in France, the epithet of "royal," which has still survived in the specific appellation of *regalis* applied to it by many ornithologists. The scandalous work of Sir Antony Weldon (*Court and Character of King James*, p. 104) bears witness to the excellence of the kite as a quarry in an amusing story of the "British Solomon," whose master-falconer, Sir Thomas Monson, being determined to outdo the performance of the French king's falconer, who, when sent to England to show sport, "could not kill one kite, ours being more magnanimous than the French kite," at last succeeded, after an outlay of £1000, in getting a cast of hawks that took nine kites running—"never missed one." On the strength of this, James was induced to witness a flight at Royston, "but the kite went to such a mountee as all the field lost sight of kite and hawke and all, and neither kite nor hawke were either seen or heard of to this present."

[2] Thus justifying the advice of Shakespeare's Autolycus (*Winter's Tale*, iv. 3)—"When the kite builds, look to lesser linen"—very necessary in the case of the laundresses in olden time, when the bird commonly frequented their drying-grounds.

[3] Dr R. Bowdler Sharpe (*Cat. Birds Brit. Mus.* i. 322) calls it *M. korschun*, but the figure of S. G. Gmelin's *Accipiter Korschun*, whence the name is taken, unquestionably represents the moor-buzzard (*Circus aeruginosus*).

[4] The Brahminy kite of India, *Haliastur Indus*, seems to be rather a fishing eagle.

There are various metaphorical uses of the term "kite-flying," such as in commercial slang, when "flying a kite" means raising money on credit (cf. "raising the wind"), or in political slang for seeing "how the wind blows." And "flying-kites," in nautical language, are the topmost sails.

Kite-flying for scientific purposes began in the middle of the 18th century. In 1752 Benjamin Franklin made his memorable kite experiment, by which he attracted electricity from the air and demonstrated the electrical nature of lightning. A more systematic use of kites for scientific purposes may, however, be said to date from the experiments made in the last quarter of the 19th century. (E. B.)

Meteorological Use.—Many European and American meteorological services employ kites regularly, and obtain information not only of the temperature, but also of the humidity and velocity of the air above. The kites used are mostly modifications of the so-called box-kites, invented by L. Hargrave. Roughly these kites may be said to resemble an ordinary box with the two ends removed, and also the middle part of each of the four sides. The original Hargrave kite, the form generally used, has a rectangular section; in Russia a semicircular section with the curved part facing the wind is most in favour; in England the diamond-shaped section is preferred for meteorological purposes owing to its simplicity of construction. Stability depends on a multitude of small details of construction, and long practice and experience are required to make a really good kite. The sizes most in use have from 30 to 80 sq. ft. of sail area. There is no difficulty about raising a kite to a vertical height of one or even two miles on suitable days, but heights exceeding three miles are seldom reached. On the 29th of November 1905 at Lindenberg, the Prussian Aeronautical Observatory, the upper one of a train of six kites attained an altitude of just four miles. The total lifting surface of these six kites was nearly 300 sq. ft., and the length of wire a little over nine miles. The kites are invariably flown on a steel wire line, for the hindrance to obtaining great heights is not due so much to the weight of the line as to the wind pressure upon it, and thus it becomes of great importance to use a material that possesses the greatest possible strength, combined with the smallest possible size. Steel piano wire meets this requirement, for a wire of $\frac{1}{32}$ in. diameter will weigh about 16 lb to the mile, and stand a strain of some 250–280 lb before it breaks. Some stations prefer to use one long piece of wire of the same gauge throughout without a join, others prefer to start with a thin wire and join on thicker and thicker wire as more kites are added. The process of kite-flying is as follows. The first kite is started either with the self-recording instruments secured in it, or hanging from the wire a short distance below it. Wire is then paid out, whether quickly or slowly depends on the strength of the wind, but the usual rate is from two to three miles per hour. The quantity that one kite will take depends on the kite and on the wind, but roughly speaking it may be said that each 10 sq. ft. of lifting surface on the kite should carry 1000 ft. of $\frac{1}{32}$ in. wire without difficulty. When as much wire as can be carried comfortably has run out another kite is attached to the line, and the paying out is continued; after a time a third is added, and so on. Each kite increases the strain upon the wire, and moreover adds to the height and makes it more uncertain what kind of wind the upper kites will encounter; it also adds to the time that is necessary to haul in the kites. In each way the risk of their breaking away is increased, for the wind is very uncertain and is liable to alter in strength. Since to attain an exceptional height the wire must be strained nearly to its breaking point, and under such conditions a small increase in the strength of the wind will break the wire, it follows that great heights can only be attained by those who are willing to risk the trouble and expense of frequently having their wire and train of kites break away. The weather is the essential factor in kite-flying. In the S.E. of England in winter it is possible on about two days out of three, and in summer on about one day out of three. The usual cause of failure is want of wind, but there are a few days when the wind is too strong. (For meteorological results, &c., see METEOROLOGY.) (W. H. Di.)

Military Use.—A kite forms so extremely simple a method of lifting anything to a height in the air that it has naturally been suggested as being suitable for various military purposes, such as signalling to a long distance, carrying up flags, or lamps, or semaphores. Kites have been used both in the army and in the navy for floating torpedoes on hostile positions. As much as two miles of line have been paid out. For purposes of photography a small kite carrying a camera to a considerable height may be caused to float over a fort or other place of which a bird's-eye view is required, the shutter being operated by electric wire, or slow match, or clockwork. Many successful photographs have been thus obtained in England and America.

The problem of lifting a man by means of kites instead of by a captive balloon is a still more important one. The chief military advantages to be gained are: (1) less transport is required; (2) they can be used in a strong wind; (3) they are not so liable to damage, either from the enemy's fire or from trees, &c., and are easier to mend; (4) they can be brought into use more quickly; (5) they are very much cheaper, both in construction and in maintenance, not requiring any costly gas.

Captain B. F. S. Baden-Powell, of the Scots Guards, in June 1894 constructed, at Pirbright Camp, a huge kite 36 ft. high, with which he successfully lifted a man on different occasions. He afterwards improved the contrivance, using five or six smaller kites attached together in preference to one large one. With this arrangement he frequently ascended as high as 100 ft. The kites were hexagonal, being 12 ft. high and 12 ft. across. The apparatus, which could be packed in a few minutes into a simple roll, weighed in all about 1 cwt. This appliance was proved to be capable of raising a man even during a dead calm, the retaining line being fixed to a wagon and towed along. Lieut. H.D. Wise made some trials in America in 1897 with some large kites of the Hargrave pattern (Hargrave having previously himself ascended in Australia), and succeeded in lifting a man 40 ft. above the ground. In the Russian army a military kite apparatus has also been tried, and was in evidence at the manœuvres in 1898. Experiments have also been carried out by most of the European powers. (B. F. S. B.-P.)

KIT-FOX (*Canis* [*Vulpes*] *velox*), a small fox, from north-western America, measuring less than a yard in length, with a tail of nearly a third this length. There is a good deal of variation in the colour of the fur, the prevailing tint being grey. A specimen in the Zoological Gardens of London had the back and tail dark grey, the tail tipped with black, and a rufous wash on the cheeks, shoulders, flanks and outer surface of the limbs, with the under surface white. The specific name was given on account of the extraordinary swiftness of the animal. (See CARNIVORA.)

KITTO, JOHN (1804–1854), English biblical scholar, was the son of a mason at Plymouth, where he was born on the 4th of December 1804. An accident brought on deafness, and in November 1819 he was sent to the workhouse, where he was employed in making list shoes. In 1823 a fund was raised on his behalf, and he was sent to board with the clerk of the guardians, having his time at his own disposal, and the privilege of making use of a public library. After preparing a small volume of miscellanies, which was published by subscription, he studied dentistry with Anthony Norris Groves in Exeter. In 1825 he obtained congenial employment in the printing office of the Church Missionary Society at Islington, and in 1827 was transferred to the same society's establishment at Malta. There he remained for eighteen months, but shortly after his return to England he accompanied Groves and other friends on a private missionary enterprise to Bagdad, where he obtained personal knowledge of Oriental life and habits which he afterwards applied with tact and skill in the illustration of biblical scenes and incidents. Plague broke out, the missionary establishment was broken up, and in 1832 Kitto returned to England. On arriving in London he was engaged in the preparation of various serial publications of the Society for the Diffusion of Useful Knowledge, the most important of which were the *Pictorial History of Palestine* and the *Pictorial Bible*. The *Cyclopaedia of Biblical Literature*,

edited under his superintendence, appeared in two volumes in 1843–1845 and passed through three editions. His *Daily Bible Illustrations* (8 vols. 1849–1853) received an appreciation which is not yet extinct. In 1850 he received an annuity of £100 from the civil list. In August 1854 he went to Germany for the waters of Cannstatt on the Neckar, where on the 25th of November he died.

See Kitto's own work, *The Lost Senses* (1845); J. E. Ryland's *Memoirs of Kitto* (1856); and John Eadie's *Life of Kitto* (1857).

KITTUR, a village of British India, in the Belgaum district of Bombay; pop. (1901), 4922. It contains a ruined fort, formerly the residence of a Mahratta chief. In connexion with a disputed succession to this chiefship in 1824, St John Thackeray, an uncle of the novelist, was killed when approaching the fort under a flag of truce; and a nephew of Sir Thomas Munro, governor of Madras, fell subsequently when the fort was stormed.

KITZINGEN, a town of Germany, in the kingdom of Bavaria on the Main, 95 m. S.E. of Frankfort-on-Main by rail, at the junction of the main-lines to Passau, Würzburg and Schweinfurt. Pop. (1900), 8489. A bridge, 300 yards long, connects it with its suburb Etwashausen on the left bank of the river. A railway bridge also spans the Main at this point. Kitzingen is still surrounded by its old walls and towers, and has an Evangelical and two Roman Catholic churches, two municipal museums, a town-hall, a grammar school, a richly endowed hospital and two old convents. Its chief industries are brewing, cask-making and the manufacture of cement and colours. Considerable trade in wine, fruit, grain and timber is carried on by boats on the Main. Kitzingen possessed a Benedictine abbey in the 8th century, and later belonged to the bishopric of Würzburg.

See F. Bernbeck, *Kitzinger Chronik 745–1565* (Kitzingen, 1899).

KIU-KIANG FU, a prefecture and prefectural city in the province of Kiang-si, China. The city, which is situated on the south bank of the Yangtsze-kiang, 15 m. above the point where the Kan Kiang flows into that river from the Po-yang lake, stands in 29° 42′ N. and 116° 8′ E. The north face of the city is separated from the river by only the width of a roadway, and two large lakes lie on its west and south fronts. The walls are from 5 to 6 m. in circumference, and are more than usually strong and broad. As is generally the case with old cities in China, Kiu-Kiang has repeatedly changed its name. Under the Tsin dynasty (A.D. 265–420), it was known as Sin-Yang, under the Liang dynasty (502–557) as Kiang Chow, under the Suy dynasty (589–618) as Kiu-Kiang, under the Sung dynasty (960–1127) as Ting-Kiang, and under the Ming dynasty (1368–1644) it assumed the name it at present bears. Kiu-Kiang has played its part in the history of the empire, and has been repeatedly besieged and sometimes taken, the last time being in February 1853, when the T'ai-p'ing rebels gained possession of the city. After their manner they looted and utterly destroyed it, leaving only the remains of a single street to represent the once flourishing town. The position of Kiu-Kiang on the Yangtsze-kiang and its proximity to the channels of internal communication through the Po-yang lake, more especially to those leading to the green-tea-producing districts of the provinces of Kiang-si and Ngan-hui, induced Lord Elgin to choose it as one of the treaty ports to be opened under the terms of his treaty (1861). Unfortunately, however, it stands above instead of below the outlet of the Po-yang lake, and this has proved to be a decided drawback to its success as a commerical port. The immediate effect of opening the town to foreign trade was to raise the population in one year from 10,000 to 40,000. The population in 1908, exclusive of foreigners, was officially estimated at 36,000. The foreign settlement extends westward from the city, along the bank of the Yangtsze-kiang, and is bounded on its extreme west by the P'un river, which there runs into the Yangtsze. The bund, which is 500 yards long, was erected by the foreign community. The climate is good, and though hot in the summer months is invariably cold and bracing in the winter. According to the customs returns the value of the trade of the port amounted in 1902 to £2,854,704, and in 1904 to £3,489,816, of which £1,726,506 were imports and £1,763,310 exports. In 1904 322,266 lb. of opium were imported.

KIUSTENDIL, the chief town of a department in Bulgaria, situated in a mountainous country, on a small affluent of the Struma, 43 m. S.W. of Sofia by rail. Pop. (1906), 12,353. The streets are narrow and uneven, and the majority of the houses are of clay or wood. The town is chiefly notable for its hot mineral springs, in connexion with which there are nine bathing establishments. Small quantities of gold and silver are obtained from mines near Kiustendil, and vines, tobacco and fruit are largely cultivated. Some remains survive of the Roman period, when the town was known as Pautalia, Ulpia Pautalia, and Pautalia Aurelii. In the 10th century it became the seat of a bishopric, being then and during the later middle ages known by the Slavonic name of Velbuzhd. After the overthrow of the Servian kingdom it came into the possession of Constantine, brother of the despot Yovan Dragash, who ruled over northern Macedonia. Constantine was expelled and killed by the Turks in 1394. In the 15th century Kiustendil was known as Velbushka Banya, and more commonly as Konstantinova Banya (Constantine's Bath), from which has developed the Turkish name Kiustendil.

KIVU, a considerable lake lying in the Central African (or Albertine) rift-valley, about 60 m. N. of Tanganyika, into which it discharges its waters by the Rusizi River. On the north it is separated from the basin of the Nile by a line of volcanic peaks. The length of the lake is about 55 m., and its greatest breadth over 30, giving an area, including islands, of about 1100 sq. m. It is about 4830 ft. above sea-level and is roughly triangular in outline, the longest side lying to the west. The coast-line is much broken, especially on the south-east, where the indentations present a fjord-like character. The lake is deep, and the shores are everywhere high, rising in places in bold precipitous cliffs of volcanic rock. A large island, Kwijwi or Kwichwi, oblong in shape and traversed by a hilly ridge, runs in the direction of the major axis of the lake, south-west of the centre, and there are many smaller islands. The lake has many fish, but no crocodiles or hippopotami. South of Kivu the rift-valley is blocked by huge ridges, through which the Rusizi now breaks its way in a succession of steep gorges, emerging from the lake in a foaming torrent, and descending 2000 ft. to the lacustrine plain at the head of Tanganyika. The lake fauna is a typically fresh-water one, presenting no affinities with the marine or "halolimnic" fauna of Tanganyika and other Central African lakes, but is similar to that shown by fossils to have once existed in the more northern parts of the rift-valley. The former outlet or extension in this direction seems to have been blocked in recent geological times by the elevation of the volcanic peaks which dammed back the water, causing it finally to overflow to the south. This volcanic region is of great interest and has various names, that most used being Mfumbiro (*q.v.*), though this name is sometimes restricted to a single peak. Kivu and Mfumbiro were first heard of by J. H. Speke in 1861, but not visited by a European until 1894, when Count von Götzen passed through the country on his journey across the continent. The lake and its vicinity were subsequently explored by Dr R. Kandt, Captain Bethe, E. S. Grogan, J. E. S. Moore, and Major St Hill Gibbons. The ownership of Kivu and its neighbourhood was claimed by the Congo Free State and by Germany, the dispute being settled in 1910, after Belgium had taken over the Congo State. The frontier agreed upon was the west bank of the Rusizi, and the west shore of the lake. The island of Kwijwi also fell to Belgium.

See R. Kandt, *Caput Nili* (Berlin, 1904), and *Karte des Kivusees*, 1: 285,000, with text by A. v. Bockelmann (Berlin, 1902); E. S. Grogan and A. H. Sharpe, *From the Cape to Cairo* (London, 1900); J. E. S. Moore, *To the Mountains of the Moon* (London, 1901); A. St H. Gibbons, *Africa from South to North*, ii. (London, 1904).

KIWI, or KIWI-KIWI, the Maori name—first apparently introduced to zoological literature by Lesson in 1828 (*Man.*

d'Ornithologie, ii. 210, or *Voy. de la "Coquille," zoologie*, p. 418), and now very generally adopted in English—of one of the most characteristic forms of New Zealand birds, the *Apteryx* of scientific writers. This remarkable bird was unknown till George Shaw described and figured it in 1813 (*Nat. Miscellany*, pls. 1057, 1058) from a specimen brought to him from the southern coast of that country by Captain Barcley of the ship "Providence." At Shaw's death, in the same year, it passed

Kiwi.

into the possession of Lord Stanley, afterwards 13th earl of Derby, and president of the Zoological Society, and it is now with the rest of his collection in the Liverpool Museum. Considering the state of systematic ornithology at the time, Shaw's assignment of a position to this new and strange bird, of which he had but the skin, does him great credit, for he said it seemed "to approach more nearly to the Struthious and Gallinaceous tribes than to any other." And his credit is still greater when we find the venerable John Latham, who is said to have examined the specimen with Shaw, placing it some years later among the penguins (*Gen. Hist. Birds*, x. 394), being apparently led to that conclusion through its functionless wings and the backward situation of its legs. In this false allocation, James Francis Stephens also in 1826 acquiesced (*Gen. Zoology*, xiii. 70). Meanwhile in 1820 K. J. Temminck, who had never seen a specimen, had assorted it with the dodo in an order to which he applied the name of *Inertes* (*Man. d'Ornithologie*, i. cxiv.). In 1831 R. P. Lesson, who had previously (*loc. cit.*) made some blunders about it, placed it (*Traité d'Ornithologie*, p. 12), though only, as he says, "par analogie et *a priori*," in his first division of birds, "Oiseaux Anomaux," which is equivalent to what we now call *Ratitae*, making of it a separate family "Nullipennes." At that time no second example was known, and some doubt was felt, especially on the Continent, as to the very existence of such a bird[1]—though Lesson had himself when in the Bay of Islands in April 1824 (*Voy. "Coquille," ut supra*) heard of it; and a few years later J. S. C. Dumont d'Urville had seen its skin, which the naturalists of his expedition procured, worn as a tippet by a Maori chief at Tolaga Bay (Houa-houa),[2] and in 1830 gave what proves to be on the whole very accurate information concerning it (*Voy. "Astrolabe,"* ii. 107). To put all suspicion at rest, Lord Derby sent his unique specimen for exhibition at a meeting of the Zoological Society, on the 12th of February 1833 (*Proc. Zool. Society*, 1833, p. 24), and a few months later (*tom. cit.*, p. 80) William Yarrell communicated to that body a complete description of it, which was afterwards published in full with an excellent portrait (*Trans. Zool. Society*, vol. i. p. 71, pl. 10). Herein the systematic place of the species, as akin to the Struthious birds, was placed beyond cavil, and the author called upon all interested in zoology to aid in further research as to this singular form. In consequence of this appeal a legless skin was within two years sent to the society (*Proceedings*, 1835, p. 61) obtained by W. Yate of Waimate, who said it was the second he had seen, and that he had kept the bird alive for nearly a fortnight, while in less than another couple of years additional information (*op. cit.*, 1837, p. 24) came from T. K. Short to the effect that he had seen two living, and that all Yarrell had said was substantially correct, except underrating its progressive powers. Not long afterwards Lord Derby received and in March 1838 transmitted to the same society the trunk and viscera of an *Apteryx*, which, being entrusted to Sir R. Owen, furnished that eminent anatomist, in conjunction with other specimens of the same kind received from Drs Lyon and George Bennett, with the materials of the masterly monograph laid before the society in instalments, and ultimately printed in its *Transactions* (ii. 257; iii. 277). From this time the whole structure of the kiwi has certainly been far better known than that of nearly any other bird, and by degrees other examples found their way to England, some of which were distributed to the various museums of the Continent and of America.[3]

In 1847 much interest was excited by the reported discovery of another species of the genus (*Proceedings*, 1847, p. 51), and though the story was not confirmed, a second species was really soon after made known by John Gould (*tom. cit.*, p. 93; *Transactions*, vol. iii. p. 379, pl. 57) under the name of *Apteryx oweni*—a just tribute to the great master who had so minutely explained the anatomy of the group. Three years later A. D. Bartlett drew attention to the manifest difference existing among certain examples, all of which had hitherto been regarded as specimens of *A. australis*, and the examination of a large series led him to conclude that under that name two distinct species were confounded. To the second of these, the third of the genus (according to his views), he gave the name of *A. mantelli* (*Proceedings*, 1850, p. 274), and it soon turned out that to this new form the majority of the specimens already obtained belonged. In 1851 the first kiwi known to have reached England alive was presented to the Zoological Society by Eyre, then lieutenant-governor of New Zealand. This was found to belong to the newly described *A. mantelli*, and some careful observations on its habits in captivity were published by John Wolley and another (*Zoologist*, pp. 3409, 3605).[4] Subsequently the society has received several other live examples of this form, besides one of the real *A. australis* (*Proceedings*, 1872, p. 861), some of *A. oweni*, and one of a supposed fourth species, *A. haasti*, characterized in 1871 by Potts (*Ibis*, 1872, p. 35; *Trans. N. Zeal. Institute*, iv. 204; v. 195).[5]

The kiwis form a group of the subclass *Ratitae* to which the rank of an order may fitly be assigned, as they differ in many important particulars from any of the other existing forms of Ratite birds. The most obvious feature the *Apteryges* afford is the presence of a back toe, while the extremely aborted condition of the wings, the position of the nostrils—almost at the tip of the maxilla—and the absence of an after-shaft in the feathers, are characters nearly as manifest, and others not less determinative, though more recondite, will be found on examination. The kiwis are peculiar to New Zealand, and it

[1] Cuvier in the second edition of his *Règne Animal* only referred to it in a footnote (i. 498).

[2] Cruise in 1822 (*Journ. Residence in New Zealand*, p. 313) had spoken of an "emeu" found in that island, which must of course have been an *Apteryx*.

[3] In 1842, according to Broderip (*Penny Cyclopaedia*, xxiii. 146), two had been presented to the Zoological Society by the New Zealand Company, and two more obtained by Lord Derby, one of which he had given to Gould. In 1844 the British Museum possessed three, and the sale catalogue of the Rivoli Collection, which passed in 1846 to the Academy of Natural Sciences at Philadelphia, includes a single specimen—probably the first taken to America.

[4] This bird in 1859 laid an egg, and afterwards continued to lay one or two more every year. In 1865 a male of the same species was introduced, but though a strong disposition to breed was shown on the part of both, and the eggs, after the custom of the *Ratitae*, were incubated by him, no progeny was hatched (*Proceedings*, 1868, p. 329).

[5] A fine series of figures of all these supposed species is given by Rowley (*Orn. Miscellany*, vol. i. pls. 1–6). Some others, as *A. maxima*, *A. mollis*, and *A. fusca* have also been indicated, but proof of their validity has yet to be adduced.

is believed that *A. mantelli* is the representative in the North Island of the southern *A. australis*, both being of a dark reddish-brown, longitudinally striped with light yellowish-brown, while *A. oweni*, of a light greyish-brown transversely barred with black, is said to occur in both islands. About the size of a large domestic fowl, they are birds of nocturnal habit, sleeping, or at least inactive, by day, feeding mostly on earth-worms, but occasionally swallowing berries, though in captivity they will eat flesh suitably minced. Sir Walter Buller writes (*B. of New Zealand*, p. 362):—

"The kiwi is in some measure compensated for the absence of wings by its swiftness of foot. When running it makes wide strides and carries the body in an oblique position, with the neck stretched to its full extent and inclined forwards. In the twilight it moves about cautiously and as noiselessly as a rat, to which, indeed, at this time it bears some outward resemblance. In a quiescent posture, the body generally assumes a perfectly rotund appearance; and it sometimes, but only rarely, supports itself by resting the point of its bill on the ground. It often yawns when disturbed in the daytime, gaping its mandibles in a very grotesque manner. When provoked it erects the body, and, raising the foot to the breast, strikes downwards with considerable force and rapidity, thus using its sharp and powerful claws as weapons of defence. . . . While hunting for its food the bird makes a continual sniffing sound through the nostrils, which are placed at the extremity of the upper mandible. Whether it is guided as much by touch as by smell I cannot safely say; but it appears to me that both senses are used in the action. That the sense of touch is highly developed seems quite certain, because the bird, although it may not be audibly sniffing, will always first touch an object with the point of its bill, whether in the act of feeding or of surveying the ground; and when shut up in a cage or confined in a room it may be heard, all through the night, tapping softly at the walls. . . . It is interesting to watch the bird, in a state of freedom, foraging for worms, which constitute its principal food: it moves about with a slow action of the body; and the long, flexible bill is driven into the soft ground, generally home to the very root, and is either immediately withdrawn with a worm held at the extreme tip of the mandibles, or it is gently moved to and fro, by an action of the head and neck, the body of the bird being perfectly steady. It is amusing to observe the extreme care and deliberation with which the bird draws the worm from its hiding-place, coaxing it out as it were by degrees, instead of pulling roughly or breaking it. On getting the worm fairly out of the ground, it throws up its head with a jerk, and swallows it whole."

The foregoing extract refers to *A. mantelli*, but there is little doubt of the remarks being equally applicable to *A. australis*, and probably also to *A. oweni*, though the different proportion of the bill in the last points to some diversity in the mode of feeding. (A. N.)

KIZILBASHES (Turkish, "Red-Heads"), the nickname given by the Orthodox Turks to the Shiitic Turkish immigrants from Persia, who are found chiefly in the plains from Kara-Hissar along Tokat and Amasia to Angora. During the wars with Persia the Turkish sultans settled them in these districts. They are strictly speaking persianized Turks, and speak pure Persian. There are many Kizilbashes in Afghanistan. Their immigration dates only from the time of Nadir Shah (1737). They are an industrious honest folk, chiefly engaged in trade and as physicians, scribes, and so on. They form the bulk of the amir's cavalry. Their name seems to have been first used in Persia of the Shiites in allusion to their red caps.

See Ernest Chantre, *Recherches anthropologiques dans l'Asie occidentale* (Lyons, 1895).

KIZIL IRMAK, *i.e.* "Red River" (anc. *Halys*), the largest river in Asia Minor, rising in the Kizil Dagh at an altitude of 6500 ft., and running south-west past Zara to Sivas. Below Sivas it flows south to the latitude of Kaisarieh, and then curves gradually round to the north. Finally, after a course of about 600 m., it discharges its waters into the Black Sea between Sinope and Samsun, where it forms a large delta. The only important tributaries are the Delije Irmak on the right and the Geuk Irmak on the left bank.

KIZLYAR (Kizliar, or Kizlar), a town of Russia, in Caucasia, in the province of Terek, 120 m. N.E. of Vladikavkaz, in the low-lying delta of the river Terek, about 35 m. from the Caspian. The population decreased from 8309 in 1861 to 7353 in 1897. The town lies to the left of the main stream between two of the larger secondary branches, and is subject to flooding. The town proper, which spreads out round the citadel, has Tatar, Georgian and Armenian quarters. The public buildings include the Greek cathedral, dating from 1786; a Greek nunnery, founded by the Georgian chief Daniel in 1736; the Armenian church of SS Peter and Paul, remarkable for its size and wealth. The population is mainly supported by the gardens and vineyards irrigated by canals from the river. A government vineyard and school of viticulture are situated 3½ m. from the town. About 1,200,000 gallons of Kizlyar wine are sold annually at the fair of Nizhniy-Novgorod. Silk and cotton are woven. Kizlyar is mentioned as early as 1616, but the most notable accession of inhabitants (Armenians, Georgians and Persians) took place in 1715. Its importance as a fortress dates from 1736, but the fortress is no longer kept in repair.

KIZYL-KUM, a desert of Western Asia, stretching S.E. of the Aral Lake between the river Syr-darya on the N.E. and the river Amu-darya on the S.W. It measures some 370 by 220 m., and is in part covered with drift-sand or dunes, many of which are advancing slowly but steadily towards the S.W. In character they resemble those of the neighbouring Kara-kum desert (see Kara-kum). On the whole the Kizyl-kum slopes S.W. towards the Aral Lake, where its altitude is only about 160 ft. as compared with 2000 in the S.E. In the vicinity of that lake the surface is covered with Aralo-Caspian deposits; but in the S.E., as it ascends towards the foothills of the Tian-shan system, it is braided with deep accumulations of fertile loess.

KJERULF, HALFDAN (1815–1868), Norwegian musical composer, the son of a high government official, was born at Christiania on the 15th of September 1815. His early education was at Christiania University, for a legal career, and not till he was nearly 26—on the death of his father—was he able to devote himself entirely to music. As a fact, he actually started on his career as a music teacher and composer of songs before ever having seriously studied music at all, and not for ten years did he attract any particular notice. Then, however, his Government paid for a year's instruction for him at Leipzig. For many years after his return to Norway Kjerulf tried in vain to establish serial classical concerts, while he himself was working with Björnson and other writers at the composition of lyrical songs. His fame rests almost entirely on his beautiful and manly national part-songs and solos; but his pianoforte music is equally charming and simple. Kjerulf died at Grefsen, on the 11th of August 1868.

KJERULF, THEODOR (1825–1888), Norwegian geologist, was born at Christiania on the 30th of March 1825. He was educated in the university at Christiania, and subsequently studied at Heidelberg, working in Bunsen's laboratory. In 1858 he became professor of geology in the university of his native city, and he was afterwards placed in charge of the geological survey of the country, then established mainly through his influence. His contributions to the geology of Norway were numerous and important, especially in reference to the southern portion of the country, and to the structure and relations of the Archaean and Palaeozoic rocks, and the glacial phenomena. His principal results were embodied in his work *Udsigt over det sydlige Norges Geologi* (1879). He was author also of some poetical works. He died at Christiania on the 25th of October 1888.

KLADNO, a mining town of Bohemia, Austria, 18 m. W.N.W. of Prague by rail. Pop. (1900), 18,600, mostly Czech. It is situated in a region very rich in iron-mines and coal-fields and possesses some of the largest iron and steel works in Bohemia. Near it is the mining town of Buschtěhrad (pop. 3510), situated in the centre of very extensive coal-fields. Buschtěhrad was originally the name of the castle only. This was from the 15th century to 1630 the property of the lords of Kolovrat, and came by devious inheritance through the grand-dukes of Tuscany, to the emperor Francis Joseph. The name Buschtěhrad was first given to the railway, and then to the town, which had been called Buckow since its foundation in 1700. There is another castle of Buschtěhrad near Hořic. Kladno, which for centuries had been a village of no importance, was sold in 1705 by the grand-duchess Anna Maria of Tuscany to the cloister in

Břewnow, to which it still belongs. The mining industry began in 1842.

KLAFSKY, KATHARINA (1855–1896), Hungarian operatic singer, was born at Szt János, Wieselburg, of humble parents. Being employed at Vienna as a nurserymaid, her fine soprano voice led to her being engaged as a chorus singer, and she was given good lessons in music. By 1882 she became well-known in Wagnerian rôles at the Leipzig theatre, and she increased her reputation at other German musical centres. In 1892 she appeared in London, and had a great success in Wagner's operas, notably as Brünnhilde and as Isolde, her dramatic as well as vocal gifts being of an exceptional order. She sang in America in 1895, but died of brain disease in 1896.

A *Life*, by L. Ordemann, was published in 1903 (Leipzig).

KLAGENFURT (Slovene, *Celovec*), the capital of the Austrian duchy of Carinthia, 212 m. S.W. of Vienna by rail. Pop. (1900), 24,314. It is picturesquely situated on the river Glan, which is in communication with the Wörther-see by the 3 m. long Lend canal. Among the more noteworthy buildings are the parish church of St Ægidius (1709), with a tower 298 ft. in height; the cathedral of SS Peter and Paul (1582–1593, burnt 1723, restored 1725); the churches of the Benedictines (1613), of the Capuchins (1646), and of the order of St Elizabeth (1710). To these must be added the palace of the prince-bishop of Gurk, the *burg* or castle, existing in its present form since 1777; and the *Landhaus* or house of assembly, dating from the end of the 14th century, and containing a museum of natural history, and collection of minerals, antiquities, seals, paintings and sculptures. The most interesting public monument is the great *Lindwurm* or Dragon, standing in the principal square (1590). The industrial establishments comprise white lead factories, machine and iron foundries, and commerce is active, especially in the mineral products of the region.

Upon the Zollfeld to the north of the city once stood the ancient Roman town of Virunum. During the Middle Ages Klagenfurt became the property of the crown, but by a patent of Maximilian I. of the 24th of April 1518, it was conceded to the Carinthian estates, and has since then taken the place of St Veit as capital of Carinthia. In 1535, 1636, 1723 and 1796 Klagenfurt suffered from destructive fires, and in 1690 from the effects of an earthquake. On the 29th of March 1797 the French took the city, and upon the following day it was occupied by Napoleon as his headquarters.

KLAJ (latinized CLAJUS), **JOHANN** (1616–1656), German poet, was born at Meissen in Saxony. After studying theology at Wittenberg he went to Nuremberg as a "candidate for holy orders," and there, in conjunction with Georg Philipp Harsdörffer, founded in 1644 the literary society known as the Pegnitz order. In 1647 he received an appointment as master in the Sebaldus school in Nuremberg, and in 1650 became preacher at Kitzingen, where he died in 1656. Klaj's poems consist of dramas, written in stilted language and redundant with adventures, among which are *Höllen- und Himmelfahrt Christi* (Nuremberg, 1644), and *Herodes, der Kindermörder* (Nuremberg, 1645), and a poem, written jointly with Harsdörffer, *Pegnesische Schäfergedicht* (1644), which gives in allegorical form the story of his settlement in Nuremberg.

See Tittmann, *Die Nürnberger Dichterschule* (Göttingen, 1847).

KLAMATH, a small tribe of North American Indians of Lutuamian stock. They ranged around the Klamath river and lakes, and are now on the Klamath reservation, southern Oregon.

See A. S. Gatschet, "Klamath Indians of Oregon," *Contributions to North American Ethnology*, vol. ii. (Washington, 1890).

KLAPKA, GEORG (1820–1892), Hungarian soldier, was born at Temesvár on the 7th of April 1820, and entered the Austrian army in 1838. He was still a subaltern when the Hungarian revolution of 1848 broke out, and he offered his services to the patriot party. He served in important staff appointments during the earlier part of the war which followed; then, early in 1849, he was ordered to replace General Mészáros, who had been defeated at Kaschau, and as general commanding an army corps he had a conspicuous share in the victories of Kapólna, Isaszeg, Waitzen, Nagy Sarlo and Komárom. Then, as the fortune of war turned against the Hungarians, Klapka, after serving for a short time as minister of war, took command at Komárom, from which fortress he conducted a number of successful expeditions until the capitulation of Világos in August put an end to the war in the open field. He then brilliantly defended Komárom for two months, and finally surrendered on honourable terms. Klapka left the country at once, and lived thenceforward for many years in exile, at first in England and afterwards chiefly in Switzerland. He continued by every means in his power to work for the independence of Hungary, especially at moments of European war, such as 1854, 1859 and 1866, at which an appeal to arms seemed to him to promise success. After the war of 1866 (in which as a Prussian major-general he organized a Hungarian corps in Silesia) Klapka was permitted by the Austrian government to return to his native country, and in 1867 was elected a member of the Hungarian Chamber of Deputies, in which he belonged to the Deák party. In 1877 he made an attempt to reorganize the Turkish army in view of the war with Russia. General Klapka died at Budapest on the 17th of May 1892. A memorial was erected to his memory at Komárom in 1896.

He wrote *Memoiren* (Leipzig, 1850); *Der Nationalkrieg in Ungarn*, &c. (Leipzig, 1851); a history of the Crimean War, *Der Krieg im Orient . . . bis Ende Juli 1855* (Geneva, 1855); and *Aus meinen Erinnerungen* (translated from the Hungarian, Zürich, 1887).

KLAPROTH, HEINRICH JULIUS (1783–1835), German Orientalist and traveller, was born in Berlin on the 11th of October 1783, the son of the chemist Martin Heinrich Klaproth (*q.v.*). He devoted his energies in quite early life to the study of Asiatic languages, and published in 1802 his *Asiatisches Magazin* (Weimar, 1802–1803). He was in consequence called to St Petersburg and given an appointment in the academy there. In 1805 he was a member of Count Golovkin's embassy to China. On his return he was despatched by the academy to the Caucasus on an ethnographical and linguistic exploration (1807–1808), and was afterwards employed for several years in connexion with the academy's Oriental publications. In 1812 he moved to Berlin; but in 1815 he settled in Paris, and in 1816 Humboldt procured him from the king of Prussia the title and salary of professor of Asiatic languages and literature, with permission to remain in Paris as long as was requisite for the publication of his works. He died in that city on the 28th of August 1835.

The principal feature of Klaproth's erudition was the vastness of the field which it embraced. His great work *Asia polyglotta* (Paris, 1823 and 1831, with *Sprachatlas*) not only served as a *résumé* of all that was known on the subject, but formed a new departure for the classification of the Eastern languages, more especially those of the Russian Empire. To a great extent, however, his work is now superseded. The *Itinerary of a Chinese Traveller* (1821), a series of documents in the military archives of St Petersburg purporting to be the travels of George Ludwig von ——, and a similar series obtained from him in the London foreign office, are all regarded as spurious.

Klaproth's other works include: *Reise in den Kaukasus und Georgien in den Jahren 1807 und 1808* (Halle, 1812–1814; French translation, Paris, 1823); *Geographisch-historische Beschreibung des östlichen Kaukasus* (Weimar, 1814); *Tableaux historiques de l'Asie* (Paris, 1826); *Mémoires relatifs à l'Asie* (Paris, 1824–1828); *Tableau historique, géographique, ethnographique et politique de Caucase* (Paris, 1827); and *Vocabulaire et grammaire de la langue géorgienne* (Paris, 1827).

KLAPROTH, MARTIN HEINRICH (1743–1817), German chemist, was born at Wernigerode on the 1st of December 1743. During a large portion of his life he followed the profession of an apothecary. After acting as assistant in pharmacies at Quedlinburg, Hanover, Berlin and Danzig successively he came to Berlin on the death of Valentin Rose the elder in 1771 as manager of his business, and in 1780 he started an establishment on his own account in the same city, where from 1782 he was pharmaceutical assessor of the Ober-Collegium Medicum. In 1787 he was appointed lecturer in chemistry to the Royal Artillery, and when the university was founded in 1810 he was selected to be the professor of chemistry. He died in Berlin on the 1st of January 1817. Klaproth was the leading chemist of his time in Germany.

An exact and conscientious worker, he did much to improve and systematize the processes of analytical chemistry and mineralogy, and his appreciation of the value of quantitative methods led him to become one of the earliest adherents of the Lavoisierian doctrines outside France. He was the first to discover uranium, zirconium and titanium, and to characterize them as distinct elements, though he did not obtain any of them in the pure metallic state; and he elucidated the composition of numerous substances till then imperfectly known, including compounds of the then newly recognized elements: tellurium, strontium, cerium and chromium.

His papers, over 200 in number, were collected by himself in *Beiträge zur chemischen Kenntniss der Mineralkörper* (5 vols., 1795–1810) and *Chemische Abhandlungen gemischten Inhalts* (1815). He also published a *Chemisches Wörterbuch* (1807–1810), and edited a revised edition of F. A. C. Gren's *Handbuch der Chemie* (1806).

KLÉBER, JEAN BAPTISTE (1753–1800), French general, was born on the 9th of March 1753, at Strassburg, where his father was a builder. He was trained, partly at Paris, for the profession of architect, but his opportune assistance to two German nobles in a tavern brawl obtained for him a nomination to the military school of Munich. Thence he obtained a commission in the Austrian army, but resigned it in 1783 on finding his humble birth in the way of his promotion. On returning to France he was appointed inspector of public buildings at Belfort, where he studied fortification and military science. In 1792 he enlisted in the Haut-Rhin volunteers, and was from his military knowledge at once elected adjutant and soon afterwards lieutenant-colonel. At the defence of Mainz he so distinguished himself that though disgraced along with the rest of the garrison and imprisoned, he was promptly reinstated, and in August 1793 promoted general of brigade. He won considerable distinction in the Vendéan war, and two months later was made a general of division. In these operations began his intimacy with Marceau, with whom he defeated the Royalists at Le Mans and Savenay. For openly expressing his opinion that lenient measures ought to be pursued towards the Vendéans he was recalled; but in April 1794 he was once more reinstated and sent to the Army of the Sambre-and-Meuse. He displayed his skill and bravery in the numerous actions around Charleroi, and especially in the crowning victory of Fleurus, after which in the winter of 1794–95 he besieged Mainz. In 1795 and again in 1796 he held the chief command of an army temporarily, but declined a permanent appointment as commander-in-chief. On the 13th of October 1795 he fought a brilliant rearguard action at the bridge of Neuwied, and in the offensive campaign of 1796 he was Jourdan's most active and successful lieutenant. Having, after the retreat to the Rhine (see FRENCH REVOLUTIONARY WARS), declined the chief command, he withdrew into private life early in 1798. He accepted a division in the expedition to Egypt under Bonaparte, but was wounded in the head at Alexandria in the first engagement, which prevented his taking any further part in the campaign of the Pyramids, and caused him to be appointed governor of Alexandria. In the Syrian campaign of 1799, however, he commanded the vanguard, took El-Arish, Gaza and Jaffa, and won the great victory of Mount Tabor on the 15th of April 1799. When Napoleon returned to France towards the end of 1799 he left Kléber in command of the French forces. In this capacity, seeing no hope of bringing his army back to France or of consolidating his conquests, he made the convention of El-Arish. But when Lord Keith, the British admiral, refused to ratify the terms, he attacked the Turks at Heliopolis, though with but 10,000 men against 60,000, and utterly defeated them on the 20th of March 1800. He then retook Cairo, which had revolted from the French. Shortly after these victories he was assassinated at Cairo by a fanatic on the 14th of June 1800, the same day on which his friend and comrade Desaix fell at Marengo. Kléber was undoubtedly one of the greatest generals of the French revolutionary epoch. Though he distrusted his powers and declined the responsibility of supreme command, there is nothing in his career to show that he would have been unequal to it. As a second in command he was not excelled by any general of his time. His conduct of affairs in Egypt at a time when the treasury was empty and the troops were discontented for want of pay, shows that his powers as an administrator were little—if at all—inferior to those he possessed as a general.

Ernouf, the grandson of Jourdan's chief of staff, published in 1867 a valuable biography of Kléber. See also Reynaud, *Life of Merlin de Thionville*; Ney, *Memoirs*; Dumas, *Souvenirs*; Las Casas, *Memorial de Ste Hélène*; J. Charavaray, *Les Généraux morts pour la patrie*; General Pajol, *Kléber*; lives of Marceau and Desaix; M. F. Rousseau, *Kléber et Menou en Egypte* (Paris, 1900).

KLEIN, JULIUS LEOPOLD (1810–1876), German writer of Jewish origin, was born at Miskolcz, in Hungary. He was educated at the gymnasium in Pest, and studied medicine in Vienna and Berlin. After travelling in Italy and Greece, he settled as a man of letters in Berlin, where he remained until his death on the 2nd of August 1876. He was the author of many dramatic works, among others the historical tragedies *Maria von Medici* (1841); *Luines* (1842); *Zenobia* (1847); *Moreto* (1859); *Maria* (1860); *Strafford* (1862) and *Heliodora* (1867); and the comedies *Die Herzogin* (1848); *Ein Schützling* (1850); and *Voltaire* (1862). The tendency of Klein as a dramatist was to become bombastic and obscure, but many of his characters are vigorously conceived, and in nearly all his tragedies there are passages of brilliant rhetoric. He is chiefly known as the author of the elaborate though uncompleted *Geschichte des Dramas* (1865–1876), in which he undertook to record the history of the drama from the earliest times. He died when about to enter upon the Elizabethan period, to the treatment of which he had looked forward as the chief part of his task. The work, which is in thirteen bulky volumes, gives proof of immense learning, but is marred by eccentricities of style and judgment.

Klein's *Dramatische Werke* were collected in 7 vols. (1871–1872).

KLEIST, BERND HEINRICH WILHELM VON (1777–1811), German poet, dramatist and novelist, was born at Frankfort-on-Oder on the 18th of October 1777. After a scanty education, he entered the Prussian army in 1792, served in the Rhine campaign of 1796 and retired from the service in 1799 with the rank of lieutenant. He next studied law and philosophy at the university of Frankfort-on-Oder, and in 1800 received a subordinate post in the ministry of finance at Berlin. In the following year his roving, restless spirit got the better of him, and procuring a lengthened leave of absence he visited Paris and then settled in Switzerland. Here he found congenial friends in Heinrich Zschokke (*q.v.*) and Ludwig Friedrich August Wieland (1777–1819), son of the poet; and to them he read his first drama, a gloomy tragedy, *Die Familie Schroffenstein* (1803), originally entitled *Die Familie Ghonorez*. In the autumn of 1802 Kleist returned to Germany; he visited Goethe, Schiller and Wieland in Weimar, stayed for a while in Leipzig and Dresden, again proceeded to Paris, and returning in 1804 to his post in Berlin was transferred to the *Domänenkammer* (department for the administration of crown lands) at Königsberg. On a journey to Dresden in 1807 Kleist was arrested by the French as a spy, and being sent to France was kept for six months a close prisoner at Châlons-sur-Marne. On regaining his liberty he proceeded to Dresden, where in conjunction with Adam Heinrich Müller (1779–1829) he published in 1808 the journal *Phöbus*. In 1809 he went to Prague, and ultimately settled in Berlin, where he edited (1810–1811) the *Berliner Abendblätter*. Captivated by the intellectual and musical accomplishments of a certain Frau Henriette Vogel, Kleist, who was himself more disheartened and embittered than ever, agreed to do her bidding and die with her, carrying out this resolution by first shooting the lady and then himself on the shore of the Wannsee near Potsdam, on the 21st of November 1811. Kleist's whole life was filled by a restless striving after ideal and illusory happiness, and this is largely reflected in his work. He was by far the most important North German dramatist of the Romantic movement, and no other of the Romanticists approaches him in the energy with which he expresses patriotic indignation.

His first tragedy, *Die Familie Schroffenstein*, has been already referred to; the material for the second, *Penthesilea* (1808), queen of the Amazons, is taken from a Greek source and presents a picture of wild passion. More successful than either of these was his romantic play, *Das Käthchen von Heilbronn, oder Die Feuerprobe* (1808), a poetic drama full of medieval bustle and mystery, which has retained its popularity. In comedy, Kleist made a name with *Der zerbrochene Krug* (1811), while *Amphitryon* (1808), an adaptation of Molière's comedy, is of less importance. Of Kleist's other dramas, *Die Hermannschlacht* (1809) is a dramatic treatment of an historical subject and is full of references to the political conditions of his own times. In it he gives vent to his hatred of his country's oppressors. This, together with the drama *Prinz Friedrich von Homburg*, the latter accounted Kleist's best work, was first published by Ludwig Tieck in *Kleists hinterlassene Schriften* (1821). *Robert Guiskard*, a drama conceived on a grand plan, was left a fragment. Kleist was also a master in the art of narrative, and of his *Gesammelte Erzählungen* (1810–1811), *Michael Kohlhaas*, in which the famous Brandenburg horse dealer in Luther's day (see KOHLHASE) is immortalized, is one of the best German stories of its time. He also wrote some patriotic lyrics. His *Gesammelte Schriften* were published by Ludwig Tieck (3 vols. 1826) and by Julian Schmidt (new ed. 1874); also by F. Muncker (4 vols. 1882); by T. Zolling (4 vols. 1885); by K. Siegen, (4 vols. 1895); and in a critical edition by E. Schmidt (5 vols. 1904–1905). His *Ausgewählte Dramen* were published by K. Siegen (Leipzig, 1877); and his letters were first published by E. von Bülow, *Heinrich von Kleists Leben und Briefe* (1848).

See further A. Wilbrandt, *Heinrich von Kleist* (1863); O. Brahm, *Heinrich von Kleist* (1884); R. Bonafous, *Henri de Kleist, sa vie et ses œuvres* (1894); H. Conrad, *Heinrich von Kleist als Mensch und Dichter* (1896); G. Minde-Pouet, *Heinrich von Kleist, seine Sprache und sein Stil* (1897); R. Steig, *Heinrich von Kleists Berliner Kämpfe* (1901); F. Servaes, *Heinrich von Kleist* (1902); S. Wukadinowic, *Kleist-Studien* (1904); S. Rahmer, *H. von Kleist als Mensch und Dichter* (1909).

KLEIST, EWALD CHRISTIAN VON (1715–1759), German poet, was born at Zeblin, near Köslin in Pomerania, on the 7th of March 1715. After attending the Jesuit school in Deutschkrona and the gymnasium in Danzig, he proceeded in 1731 to the university of Königsberg, where he studied law and mathematics. On the completion of his studies, he entered the Danish army, in which he became an officer in 1736. Recalled to Prussia by Frederick II. in 1740, he was appointed lieutenant in a regiment stationed at Potsdam, where he became acquainted with J. W. L. Gleim (*q.v.*), who interested him in poetry. After distinguishing himself at the battle of Mollwitz (April 10, 1741) and the siege of Neisse (1741), he was promoted captain in 1749 and major in 1756. Quartered during the winter of 1757–1758 in Leipzig, he found relief from his irksome military duties in the society of Gotthold Ephraim Lessing (*q.v.*). Shortly afterwards in the battle of Kunersdorf, on the 12th of August 1759, he was mortally wounded while leading the attack, and died at Frankfort-on-Oder on the 24th of August following.

Kleist's chief work is a poem in hexameters, *Der Frühling* (1749), for which Thomson's *Seasons* largely supplied ideas. In his description of the beauties of nature Kleist shows real poetical genius, an almost modern sentiment and fine taste. He also wrote some charming odes, idylls and elegies, and a small epic poem *Cissides und Paches* (1759), the subject being two Thessalian friends who die an heroic death for their country in a battle against the Athenians.

Kleist published in 1756 the first collection of his *Gedichte*, which was followed by a second in 1758. After his death his friend Karl Wilhelm Ramler (*q.v.*) published an edition of *Kleists sämtliche Werke* in 2 vols. (1760). A critical edition was published by A. Sauer, in 3 vols. (1880–1882). Cf. further, A. Chuquet, *De Ewaldi Kleistii vita et scriptis* (Paris, 1887), and H. Pröhle, *Friedrich der Grosse und die deutsche Literatur* (1872).

KLERKSDORP, a town of the Transvaal, 118 m. S.W. of Johannesburg and 192 m. N.E. of Kimberley by rail. Pop. (1904), 4276 of whom 2203 were whites. The town, built on the banks of the Schoonspruit 10 m. above its junction with the Vaal, possesses several fine public buildings. In the neighbourhood are gold-mines, the reef appearing to form the western boundary of the Witwatersrand basin. Diamonds (green in colour) and coal are also found in the district. Klerksdorp was one of the villages founded by the first Boers who crossed the Vaal, dating from 1838. The modern town, which is on the side of the *spruit* opposite the old village, was founded in 1888.

KLESL (or KHLESL), **MELCHIOR** (1552–1630), Austrian statesman and ecclesiastic, was the son of a Protestant baker, and was born in Vienna. Under the influence of the Jesuits he was converted to Roman Catholicism, and having finished his education at the universities of Vienna and Ingolstadt, he was made chancellor of the university of Vienna; and as official and vicar-general of the bishop of Passau he exhibited the zeal of a convert in forwarding the progress of the counter-reformation in Austria. He became bishop of Vienna in 1598; but more important was his association with the archduke Matthias which began about the same time. Both before and after 1612, when Matthias succeeded his brother Rudolph II. as emperor, Klesl was the originator and director of his policy, although he stoutly opposed the concessions to the Hungarian Protestants in 1606. He assisted to secure the election of Matthias to the imperial throne, and sought, but without success, to strengthen the new emperor's position by making peace between the Catholics and the Protestants. When during the short reign of Matthias the question of the imperial succession demanded prompt attention, the bishop, although quite as anxious as his opponents to retain the empire in the house of Habsburg and to preserve the dominance of the Roman Catholic Church, advised that this question should be shelved until some arrangement with the Protestant princes had been reached. This counsel was displeasing to the archduke Maximilian and to Ferdinand, afterwards the emperor Ferdinand II. who believed that Klesl was hostile to the candidature of the latter prince. It was, however, impossible to shake his influence with the emperor; and in June 1618, a few months before the death of Matthias, he was seized by order of the archdukes and imprisoned at Ambras in Tirol. In 1622 Klesl, who had been a cardinal since 1615, was transferred to Rome by order of Pope Gregory XV., and was released from imprisonment. In 1627 Ferdinand II. allowed him to return to his episcopal duties in Vienna, where he died on the 18th of September 1630.

See J. Freiherr von Hammer-Purgstall, *Khlesls Leben* (Vienna, 1847–1851); A. Kerschbaumer, *Kardinal Klesl* (Vienna, 1865); and *Klesls Briefe an Rudolfs II. Obersthofmeister A. Freiherr von Dietrichstein*, edited by V. Bibl. (Vienna, 1900).

KLINGER, FRIEDRICH MAXIMILIAN VON (1752–1831), German dramatist and novelist, was born of humble parentage at Frankfort-on-Main, on the 17th of February 1752. His father died when he was a child, and his early years were a hard struggle. He was enabled, however, in 1774 to enter the university of Giessen, where he studied law; and Goethe, with whom he had been acquainted since childhood, helped him in many ways. In 1775 Klinger gained with his tragedy *Die Zwillinge* a prize offered by the Hamburg theatre, under the auspices of the actress Sophie Charlotte Ackermann (1714–1792) and her son the famous actor and playwright, Friedrich Ludwig Schröder (1744–1816). In 1776 Klinger was appointed *Theaterdichter* to the "Seylersche Schauspiel-Gesellschaft" and held this post for two years. In 1778 he entered the Austrian military service and took part in the Bavarian war of succession. In 1780 he went to St Petersburg, became an officer in the Russian army, was ennobled and attached to the Grand Duke Paul, whom he accompanied on a journey to Italy and France. In 1785 he was appointed director of the corps of cadets, and having married a natural daughter of the empress Catharine, was made praeses of the Academy of Knights in 1799. In 1803 Klinger was nominated by the emperor Alexander curator of the university of Dorpat, an office he held until 1817; in 1811 he became lieutenant-general. He then gradually gave up his official posts, and after living for many years in honourable retirement, died at Dorpat on the 25th of February 1831.

Klinger was a man of vigorous moral character and full of fine feeling, though the bitter experiences and deprivations of his youth are largely reflected in his dramas. It was one of his earliest works, *Sturm und Drang* (1776), which gave its name to this literary epoch. In addition to this tragedy and *Die Zwillinge* (1776), the chief plays of his early period of passionate fervour and restless "storm and stress" are *Die neue Arria* (1776), *Simsone Grisaldo* (1776) and *Stilpo und seine Kinder* (1780). To

a later period belongs the fine double tragedy of *Medea in Korinth* and *Medea auf dem Kaukasos* (1791). In Russia he devoted himself mainly to the writing of philosophical romances, of which the best known are *Fausts Leben, Taten und Höllenfahrt* (1791), *Geschichte Giafars des Barmeciden* (1792) and *Geschichte Raphaels de Aquillas* (1793). This series was closed in 1803 with *Betrachtungen und Gedanken über verschiedene Gegenstände der Welt und der Literatur*. In these works Klinger gives calm and dignified expression to the leading ideas which the period of *Sturm und Drang* had bequeathed to German classical literature.

Klinger's works were published in twelve volumes (1809–1815), also 1832–1833 and 1842. The most recent edition is in eight volumes (1878–1880); but none of these is complete. A selection will be found in A. Sauer, *Stürmer und Dränger*, vol. i. (1883). See E. Schmidt, *Lenz und Klinger* (1878); M. Rieger, *Klinger in der Sturm- und Drangperiode* (1880); and *Klinger in seiner Reife* (1896).

KLINGER, MAX (1857–), German painter, etcher and sculptor, was born at Plagwitz near Leipzig. He attended the classes at the Carlsruhe art school in 1874, and went in the following year to Berlin, where in 1878 he created a sensation at the Academy exhibition with two series of pen-and-ink drawings—the "Series upon the Theme of Christ" and "Fantasies upon the Finding of a Glove." The daring originality of these imaginative and eccentric works caused an outburst of indignation, and the artist was voted insane; nevertheless the "Glove" series was bought by the Berlin National Gallery. His painting of "The Judgment of Paris" caused a similar storm of indignant protest in 1887, owing to its rejection of all conventional attributes and the naïve directness of the conception. His vivid and somewhat morbid imagination, with its leaning towards the gruesome and disagreeable, and the Goyaesque turn of his mind, found their best expression in his "cycles" of etchings: "Deliverances of Sacrificial Victims told in Ovid," "A Brahms Phantasy," "Eve and the Future," "A Life," and "Of Death"; but in his use of the needle he does not aim at the technical excellence of the great masters; it supplies him merely with means of expressing his ideas. After 1886 Klinger devoted himself more exclusively to painting and sculpture. In his painting he aims neither at classic beauty nor modern truth, but at grim impressiveness not without a touch of mysticism. His "Pietà" at the Dresden Gallery, the frescoes at the Leipzig University, and the "Christ in Olympus," at the Modern Gallery in Vienna, are characteristic examples of his art. The Leipzig Museum contains his sculptured "Salome" and "Cassandra." In sculpture he favours the use of varicoloured materials in the manner of the Greek chryselephantine sculpture. His "Beethoven" is a notable instance of his work in this direction.

KLIPSPRINGER, the Boer name of a small African mountain-antelope (*Oreotragus saltator*), ranging from the Cape through East Africa to Somaliland and Abyssinia, and characterized by its blunt rounded hoofs, thick pithy hair and gold-spangled colouring. The klipspringer represents a genus by itself, the various local forms not being worthy of more than racial distinction. The activity of these antelopes is marvellous.

KLONDIKE, a district in Yukon Territory, north-western Canada, approximately in 64° N. and 140° W. The limits are rather indefinite, but the district includes the country to the south of the Klondike River, which comes into the Yukon from the east and has several tributaries, as well as Indian River, a second branch of the Yukon, flowing into it some distance above the Klondike. The richer gold-bearing gravels are found along the creeks tributary to these two rivers within an area of about 800 sq. m. The Klondike district is a dissected peneplain with low ridges of rounded forms rising to 4250 ft. above the sea at the Dome which forms its centre. All of the gold-bearing creeks rise not far from the Dome and radiate in various directions toward the Klondike and Indian rivers, the most productive being Bonanza with its tributary Eldorado, Hunker, Dominion and Gold Run. Of these, Eldorado, for the two or three miles in which it was gold-bearing, was much the richest, and for its length probably surpassed any other known placer deposit. Rich gravel was discovered on Bonanza Creek in 1896, and a wild rush to this almost inaccessible region followed, a population of 30,000 coming in within the next three or four years with a rapidly increasing output of gold, reaching in 1900 the climax of $22,000,000. Since then the production has steadily declined, until in 1906 it fell to $5,600,000. The richest gravels were worked out before 1910, and most of the population had left the Klondike for Alaska and other regions; so that Dawson, which for a time was a bustling city of more than 10,000, dwindled to about 3000 inhabitants. As the ground was almost all frozen, the mines were worked by a thawing process, first by setting fires, afterwards by using steam, new methods being introduced to meet the unusual conditions. Later dredges and hydraulic mining were resorted to with success.

The Klondike, in spite of its isolated position, brought together miners and adventurers from all parts of the world, and it is greatly to the credit of the Canadian government and of the mounted police, who were entrusted with the keeping of order, that life and property were as safe as elsewhere and that no lawless methods were adopted by the miners as in placer mining camps in the western United States. The region was at first difficult of access, but can now be reached with perfect comfort in summer, travelling by well-appointed steamers on the Pacific and the Yukon River. Owing to its perpetually frozen soil, summer roads were excessively bad in earlier days, but good wagon roads have since been constructed to all the important mining centres. Dawson itself has all the resources of a civilized city in spite of being founded on a frozen peat-bog; and is supplied with ordinary market vegetables from farms just across the river. During the winter, when for some time the sun does not appear above the hills, the cold is intense, though usually without wind, but the well-chinked log houses can be kept comfortably warm. When winter travel is necessary dog teams and sledges are generally made use of, except on the stage route south to White Horse, where horses are used. A telegraph line connects Dawson with British Columbia, but the difficulties in keeping it in order are so great over the long intervening wilderness that communication is often broken. Gold is practially the only economic product of the Klondike, though small amounts of tin ore occur, and lignite coal has been mined lower down on the Yukon. The source of the gold seems to have been small stringers of quartz in the siliceous and sericitic schists which form the bed rock of much of the region, and no important quartz veins have been discovered; so that unlike most other placer regions the Klondike has not developed lode mines to continue the production of gold when the gravels are exhausted.

KLOPP, ONNO (1822–1903), German historian, was born at Leer on the 9th of October 1822, and was educated at the universities of Bonn, Berlin and Göttingen. For a few years he was a teacher at Leer and at Osnabrück; but in 1858 he settled at Hanover, where he became intimate with King George V., who made him his *Archivrat*. Thoroughly disliking Prussia, he was in hearty accord with George in resisting her aggressive policy; and after the annexation of Hanover in 1866 he accompanied the exiled king to Hietzing. He became a Roman Catholic in 1874. He died at Penzing, near Vienna, on the 9th of August 1903. Klopp is best known as the author of *Der Fall des Hauses Stuart* (Vienna, 1875–1888), the fullest existing account of the later Stuarts.

His *Der König Friedrich II. und seine Politik* (Schaffhausen, 1867) and *Geschichte Ostfrieslands* (Hanover, 1854–1858) show his dislike of Prussia. His other works include *Der dreissigjährige Krieg bis zum Tode Gustav Adolfs* (Paderborn, 1891–1896); a revised edition of his *Tilly im dreissigjährigen Kriege* (Stuttgart, 1861); a life of George V., *König Georg V.* (Hanover, 1878); *Phillipp Melanchthon* (Berlin, 1897). He edited *Corrispondenza epistolare tra Leopoldo I. imperatore ed il P. Marco l'Aviano capuccino* (Gratz, 1888). Klopp also wrote much in defence of George V. and his claim to Hanover, including the *Offizieller Bericht über die Kriegsereignisse zwischen Hannover und Preussen im Juni 1866* (Vienna, 1867), and he edited the works of Leibnitz in eleven volumes (1861–1884).

See W. Klopp, *Onno Klopp: ein Lebenslauf* (Wehberg, 1907).

KLOPSTOCK, GOTTLIEB FRIEDRICH (1724–1803), German poet, was born at Quedlinburg, on the 2nd of July 1724, the eldest

son of a lawyer, a man of sterling character and of a deeply religious mind. Both in his birthplace and on the estate of Friedeburg on the Saale, which his father later rented, young Klopstock passed a happy childhood; and more attention having been given to his physical than to his mental development he grew up a strong healthy boy and was an excellent horseman and skater. In his thirteenth year Klopstock returned to Quedlinburg where he attended the gymnasium, and in 1739 proceeded to the famous classical school of Schulpforta. Here he soon became an adept in Greek and Latin versification, and wrote some meritorious idylls and odes in German. His original intention of making the emperor Henry I. (" The Fowler ") the hero of an epic, was, under the influence of Milton's *Paradise Lost*, with which he became acquainted through Bodmer's translation, abandoned in favour of the religious epic. While yet at school, he had already drafted the plan of *Der Messias*, upon which his fame mainly rests. On the 21st of September 1745 he delivered on quitting school a remarkable " leaving oration " on epic poetry—*Abschiedsrede über die epische Poesie, kultur- und literargeschichtlich erläutert*—and next proceeded to Jena as a student of theology, where he elaborated the first three cantos of the *Messias* in prose. The life at this university being uncongenial to him, he removed in the spring of 1746 to Leipzig, and here joined the circle of young men of letters who contributed to the *Bremer Beiträge*. In this periodical the first three cantos of the *Messias* in hexameters were anonymously published in 1748. A new era in German literature had commenced, and the name of the author soon became known. In Leipzig he also wrote a number of odes, the best known of which is *An meine Freunde* (1747), afterwards recast as *Wingolf* (1767). He left the university in 1748 and became a private tutor in the family of a relative at Langensalza. Here unrequited love for a cousin (the " Fanny " of his odes) disturbed his peace of mind. Gladly therefore he accepted in 1750 an invitation from Jakob Bodmer (*q.v.*), the translator of *Paradise Lost*, to visit him in Zürich. Here Klopstock was at first treated with every kindness and respect and rapidly recovered his spirits. Bodmer, however, was disappointed to find in the young poet of the *Messias* a man of strong worldly interests, and a coolness sprang up between the two friends.

At this juncture Klopstock received from Frederick V. of Denmark, on the recommendation of his minister Count von Bernstorff (1712–1772), an invitation to settle at Copenhagen, with an annuity of 400 talers, with a view to the completion of the *Messias*. The offer was accepted; on his way to the Danish capital Klopstock met at Hamburg the lady who in 1754 became his wife, Margareta (Meta) Moller, (the " Cidli " of his odes), an enthusiastic admirer of his poetry. His happiness was short; she died in 1758, leaving him almost broken-hearted. His grief at her loss finds pathetic expression in the 15th canto of the *Messias*. The poet subsequently published his wife's writings, *Hinterlassene Werke von Margareta Klopstock* (1759), which give evidence of a tender, sensitive and deeply religious spirit. Klopstock now relapsed into melancholy; new ideas failed him, and his poetry became more and more vague and unintelligible. He still continued to live and work at Copenhagen, and next, following Heinrich Wilhelm von Gerstenberg (*q.v.*), turned his attention to northern mythology, which he conceived should replace classical subjects in a new school of German poetry. In 1770, on the dismissal by King Christian VII. of Count Bernstorff from office, he retired with the latter to Hamburg, but retained his pension together with the rank of councillor of legation. Here, in 1773, he issued the last five cantos of the *Messias*. In the following year he published his strange scheme for the regeneration of German letters, *Die Gelehrtenrepublik* (1774). In 1775 he travelled south, and making the acquaintance of Goethe on the way, spent a year at the court of the margrave of Baden at Karlsruhe. Thence, in 1776, with the title of *Hofrat* and a pension from the margrave, which he retained together with that from the king of Denmark, he returned to Hamburg where he spent the remainder of his life. His latter years he passed, as had always been his inclination, in retirement, only occasionally relieved by association with his most intimate friends, busied with philological studies, and hardly interesting himself in the new developments of German literature. The American War of Independence and the Revolution in France aroused him, however, to enthusiasm. The French Republic sent him the diploma of honorary citizenship; but, horrified at the terrible scenes the Revolution had enacted in the place of liberty, he returned it. When 67 years of age he contracted a second marriage with Johanna Elisabeth von Winthem, a widow and a niece of his late wife, who for many years had been one of his most intimate friends. He died at Hamburg on the 14th of March 1803, mourned by all Germany, and was buried with great pomp and ceremony by the side of his first wife in the churchyard of the village of Ottensen.

Klopstock's nature was best attuned to lyrical poetry, and in it his deep, noble character found its truest expression. He was less suited for epic and dramatic representation; for, wrapt up in himself, a stranger to the outer world, without historical culture, and without even any interest in the events of his time, he was lacking in the art of plastic representation such as a great epic requires. Thus the *Messias*, despite the magnificent passages which especially the earlier cantos contain, cannot satisfy the demands such a theme must necessarily make. The subject matter, the Redemption, presented serious difficulties to adequate epic treatment. The Gospel story was too scanty, and what might have been imported from without and interwoven with it was rejected by the author as profane. He had accordingly to resort to Christian mythology; and here again, circumscribed by the dogmas of the Church, he was in danger of trespassing on the fundamental truths of the Christian faith. The personality of Christ could scarcely be treated in an individual form, still less could angels and devils—and in the case of God Himself it was impossible. The result was that, despite the groundwork—the Gospels, the *Acts of the Apostles*, the *Revelation of St John*, and the model ready to hand in Milton's *Paradise Lost*—material elements are largely wanting and the actors in the poem, Divine and human, lack plastic form. That the poem took twenty-five years to complete could not but be detrimental to its unity of design; the original enthusiasm was not sustained until the end, and the earlier cantos are far superior to the later. Thus the intense public interest the work aroused in its commencement had almost vanished before its completion. It was translated into seventeen languages and led to numerous imitations. In his odes Klopstock had more scope for his peculiar talent. Among the best are *An Fanny*; *Der Zürchersee*; *Die tote Klarissa*; *An Cidli*; *Die beiden Musen*; *Der Rheinwein*; *Die frühen Gräber*; *Mein Vaterland*. His religious odes mostly take the form of hymns, of which the most beautiful is *Die Frühlingsfeier*. His dramas, in some of which, notably *Hermanns Schlacht* (1769) and *Hermann und die Fürsten* (1784), he celebrated the deeds of the ancient German hero Arminius, and in others, *Der Tod Adams* (1757) and *Salomo* (1764), took his materials from the Old Testament, are essentially lyrical in character and deficient in action. In addition to *Die Gelehrtenrepublik*, he was also the author of *Fragmente über Sprache und Dichtkunst* (1779) and *Grammatische Gespräche* (1794), works in which he made important contributions to philology and to the history of German poetry.

Klopstock's *Werke* first appeared in seven quarto volumes (1798–1809). At the same time a more complete edition in twelve octavo volumes was published (1798–1817), to which six additional volumes were added in 1830. More recent editions were published in 1844–1845, 1854–1855, 1879 (ed. by R. Boxberger), 1884 (ed. by R. Hamel) and 1893 (a selection edited by F. Muncker). A critical edition of the *Odes* was published by F. Muncker and J. Pawel in 1889; a commentary on these by H. Düntzer (1860; 2nd ed., 1878). For Klopstock's correspondence see K. Schmidt, *Klopstock und seine Freunde* (1810); C. A. H. Clodius, *Klopstocks Nachlass* (1821); J. M. Lappenberg, *Briefe von und an Klopstock* (1867). Cf. further K. F. Cramer, *Klopstock, er und über ihn* (1780–1792); J. G. Gruber, *Klopstocks Leben* (1832); R. Hamel, *Klopstock-Studien* (1879–1880); F. Muncker, *F. G. Klopstock*, the most authoritative biography, (1888); E. Bailly, *Étude sur la vie et les œuvres de Klopstock* (Paris, 1888).

KLOSTERNEUBURG, a town of Austria, in Lower Austria, 5½ m. N.W. of Vienna by rail. Pop. (1900), 11,595. It is situated on the right bank of the Danube, at the foot of the Kahlenberg, and is divided by a small stream into an upper and a lower town. As an important pioneer station Klosterneuburg has various military buildings and stores, and among the schools it possesses an academy of wine and fruit cultivation.

On a hill rising directly from the banks of the Danube stand the magnificent buildings (erected 1730–1834) of the Augustine canonry, founded in 1106 by Margrave Leopold the Holy. This foundation is the oldest and richest of the kind in Austria; it

owns much of the land upon which the north-western suburbs of Vienna stand. Among the points of interest within it are the old chapel of 1318, with Leopold's tomb and the altar of Verdun, dating from the 12th century, the treasury and relic-chamber, the library with 30,000 volumes and many MSS., the picture gallery, the collection of coins, the theological hall, and the wine-cellar, containing an immense tun like that at Heidelberg. The inhabitants of Klosterneuburg are mainly occupied in making wine, of excellent quality. There is a large cement factory outside the town. In Roman times the castle of Citium stood in the region of Klosterneuburg. The town was founded by Charlemagne, and received its charter as a town in 1298.

KLOTZ, REINHOLD (1807–1870), German classical scholar, was born near Chemnitz in Saxony on the 13th of March 1807. In 1849 he was appointed professor in the university of Leipzig in succession to Gottfried Hermann, and held this post till his death on the 10th of August 1870. Klotz was a man of unwearied industry, and devoted special attention to Latin literature.

He was the author of editions of several classical authors, of which the most important were: the complete works of Cicero (2nd ed., 1869–1874); Clement of Alexandria (1831–1834); Euripides (1841–1867), in continuation of Pflugk's edition, but unfinished; Terence (1838–1840), with the commentaries of Donatus and Eugraphius. Mention should also be made of: *Handwörterbuch der lateinischen Sprache* (5th ed., 1874); *Römische Litteraturgeschichte* (1847), of which only the introductory volume appeared; an edition of the treatise *De Graecae linguae particulis* (1835–1842) of Matthaeus Deverius (Devares), a learned Corfiote (*c.* 1500–1570), and corrector of the Greek MSS. in the Vatican; the posthumous *Index Ciceronianus* (1872) and *Handbuch der lateinischen Stilistik* (1874). From 1831–1855 Klotz was editor of the *Neue Jahrbücher für Philologie* (Leipzig). During the troubled times of 1848 and the following years he showed himself a strong conservative.

A memoir by his son Richard will be found in the *Jahrbücher* for 1871, pp. 154–163.

KNARESBOROUGH, a market town in the Ripon parliamentary division of the West Riding of Yorkshire, England, 16½ m. W. by N. from York by a branch of the North Eastern railway. Pop. of urban district (1901), 4979. Its situation is most picturesque, on the steep left bank of the river Nidd, which here follows a well-wooded valley, hemmed in by limestone cliffs. The church of St John the Baptist is Early English, but has numerous Decorated and Perpendicular additions; it is a cruciform building containing several interesting monuments. Knaresborough Castle was probably founded in 1070 by Serlo de Burgh. Its remains, however, are of the 14th century, and include a massive keep rising finely from a cliff above the Nidd. After the battle of Marston Moor it was taken by Fairfax, and in 1648 it was ordered to be dismantled. To the south of the castle is St Robert's chapel, an excavation in the rock constructed into an ecclesiastical edifice in the reign of Richard I. Several of the excavations in the limestone, which is extensively quarried, are incorporated in dwelling-houses. A little farther down the river is St Robert's cave, which is supposed to have been the residence of the hermit, and in 1744 was the scene of the murder of Daniel Clarke by Eugene Aram, whose story is told in Lytton's well-known novel. Opposite the castle is the Dropping Well, the waters of which are impregnated with lime and have petrifying power, this action causing the curious and beautiful incrustations formed where the water falls over a slight cliff. The Knaresborough free grammar school was founded in 1616. There is a large agricultural trade, and linen and leather manufactures and the quarries also employ a considerable number of persons.

Knaresborough (*Canardesburg, Cnarreburc, Cknareburg*), which belonged to the Crown before the Conquest, formed part of William the Conqueror's grant to his follower Serlo de Burgh. Being forfeited by his grandson Eustace FitzJohn in the reign of Stephen, Knaresborough was granted to Robert de Stuteville, from whose descendants it passed through marriage to Hugh de Morville, one of the murderers of Thomas Becket, who with his three accomplices remained in hiding in the castle for a whole year. During the 13th and 14th centuries the castle and lordship changed hands very frequently; they were granted successively to Hubert de Burgh, whose son forfeited them after the battle of Evesham, to Richard, earl of Cornwall, whose son Edmund died without issue; to Piers Gaveston, and lastly to John of Gaunt, duke of Lancaster, and so to the Crown as parcel of the duchy of Lancaster. In 1317 John de Lilleburn, who was holding the castle of Knaresburgh for Thomas duke of Lancaster against the king, surrendered under conditions to William de Ros of Hamelak, but before leaving the castle managed to destroy all the records of the liberties and privileges of the town which were kept in the castle. In 1368 an inquisition was taken to ascertain these privileges, and the jurors found that the burgesses held "all the soil of their borough yielding 7s. 4d. yearly and doing suit at the king's court." In the reign of Henry VIII. Knaresborough is said by Leland to be "no great thing and meanely builded but the market there is quik." During the civil wars Knaresborough was held for some time by the Royalists, but they were obliged to surrender, and the castle was among those ordered to be destroyed by parliament in 1646. A market on Wednesday and a fortnightly fair on the same day from the Feast of St Mark to that of St Andrew are claimed under a charter of Charles II. confirming earlier charters. Lead ore was found and worked on Knaresborough Common in the 16th century. From 1555 to 1867 the town returned two members to parliament, but in the latter year the number was reduced to one, and in 1885 the representation was merged in that of the West Riding.

KNAVE (O.E. *cnafa*, cognate with Ger. *Knabe*, boy), originally a male child, a boy (Chaucer, *Canterbury Tales*: "Clerk's Tale," 1. 388). Like Lat. *puer*, the word was early used as a name for any boy or lad employed as a servant, and so of male servants in general (Chaucer: "Pardoner's Tale," 1. 204). The current use of the word for a man who is dishonest and crafty, a rogue, was however an early usage, and is found in Layamon (*c.* 1205). In playing-cards the lowest court card of each suit, the "jack," representing a medieval servant, is called the "knave." (See also VALET.)

KNEBEL, KARL LUDWIG VON (1744–1834), German poet and translator, was born at the castle of Wallerstein in Franconia on the 30th of November 1744. After having studied law for a short while at Halle, he entered the regiment of the crown prince of Prussia in Potsdam and was attached to it as officer for ten years. Disappointed in his military career, owing to the slowness of promotion, he retired in 1774, and accepting the post of tutor to Prince Konstantin of Weimar, accompanied him and his elder brother, the hereditary prince, on a tour to Paris. On this journey he visited Goethe in Frankfort-on-Main, and introduced him to the hereditary prince, Charles Augustus. This meeting is memorable as being the immediate cause of Goethe's later intimate connexion with the Weimar court. After Knebel's return and the premature death of his pupil he was pensioned, receiving the rank of major. In 1798 he married the singer Luise von Rudorf, and retired to Ilmenau; but in 1805 he removed to Jena, where he lived until his death on the 23rd of February 1834. Knebel's *Sammlung kleiner Gedichte* (1815), issued anonymously, and *Distichen* (1827) contain many graceful sonnets, but it is as a translator that he is best known. His translation of the elegies of Propertius, *Elegien des Properz* (1798), and that of Lucretius' *De rerum natura* (2 vols., 1831) are deservedly praised. Since their first acquaintance Knebel and Goethe were intimate friends, and not the least interesting of Knebel's writings is his correspondence with the eminent poet, *Briefwechsel mit Goethe* (ed. G. E. Guhrauer, 2 vols., 1851).

Knebel's *Literarischer Nachlass und Briefwechsel* was edited by K. A. Varnhagen von Ense and T. Mundt in 3 vols. (1835; 2nd ed., 1840). See Hugo von Knebel-Döberitz, *Karl Ludwig von Knebel* (1890).

KNEE (O. E. *cnêow*, a word common to Indo-European languages, cf. Ger. *Knie*, Fr. *genou*, Span. *hinojo*, Lat. *genu*, Gr. γόνυ, Sansk. *janu*), in human anatomy, the articulation of the upper and lower parts of the leg, the joint between the femur and the tibia (see JOINTS). The word is also used of articulation resembling the knee-joint in shape or position in other animals; it thus is applied to the carpal articulation of the fore leg of a horse, answering to the ankle in man, or to the tarsal articulation or heel of a bird's foot.

KNELLER, SIR GODFREY (1648–1723), a portrait painter whose celebrity belongs chiefly to England, was born in Lübeck in the duchy of Holstein, of an ancient family, on the 8th of August 1648. He was at first intended for the army, and was sent to Leyden to learn mathematics and fortification. Showing, however, a marked preference for the fine arts, he studied in the school of Rembrandt, and under Ferdinand Bol in Amsterdam. In 1672 he removed to Italy, directing his chief attention to Titian and the Caracci; Carlo Maratta gave him some guidance and encouragement. In Rome, and more especially in Venice, Kneller earned considerable reputation by historical paintings as well as portraits. He next went to Hamburg, painting with still increasing success. In 1674 he came to England at the invitation of the duke of Monmouth, was introduced to Charles II., and painted that sovereign, much to his satisfaction, several times. Charles also sent him to Paris, to take the portrait of Louis XIV. When Sir Peter Lely died in 1680, Kneller, who produced in England little or nothing in the historical department, remained without a rival in the ranks of portrait painting; there was no native-born competition worth speaking of. Charles appointed him court painter; and he continued to hold the same post into the days of George I. Under William III. (1692) he was made a knight, under George I. (1715) a baronet, and by order of the emperor Leopold I. a knight of the Roman Empire. Not only his court favour but his general fame likewise was large: he was lauded by Dryden, Addison, Steele, Prior, Tickell and Pope. Kneller's gains also were very considerable; aided by habits of frugality which approached stinginess, he left property yielding an annual income of £2000. His industry was maintained till the last. His studio had at first been in Covent Garden, but in his closing years he lived in Kneller Hall, Twickenham. He died of fever, the date being generally given as the 7th of November 1723, though some accounts say 1726. He was buried in Twickenham church, and has a monument in Westminster Abbey. An elder brother, John Zachary Kneller, an ornamental painter, had accompanied Godfrey to England, and had died in 1702. The style of Sir Godfrey Kneller as a portrait painter represented the decline of that art as practised by Vandyck; Lely marks the first grade of descent, and Kneller the second. His works have much freedom, and are well drawn and coloured; but they are mostly slight in manner, and to a great extent monotonous, this arising partly from the habit which he had of lengthening the oval of all his heads. The colouring may be called brilliant rather than true. He indulged much in the commonplaces of allegory; and, though he had a quality of dignified elegance not unallied with simplicity, genuine simple nature is seldom to be traced in his works. His fame has greatly declined, and could not but do so after the advent of Reynolds. Among Kneller's principal paintings are the "Forty-three Celebrities of the Kit-Cat Club," and the "Ten Beauties of the Court of William III.," now at Hampton Court; these were painted by order of the queen; they match, but match unequally, the "Beauties of the Court of Charles II.," painted by Lely. He executed altogether the likenesses of ten sovereigns, and fourteen of his works appear in the National Portrait Gallery. It is said that Kneller's own favourite performance was the portrait of the "Converted Chinese" in Windsor Castle. His later works are confined almost entirely to England, not more than two or three specimens having gone abroad after he had settled here.

(W. M. R.)

KNICKERBOCKER, HARMEN JANSEN (*c.* 1650–*c.* 1720), Dutch colonist of New Netherland (New York), was a native of Wyhe (Wie), Overyssel, Holland. Before 1683 he settled near what is now Albany, New York, and there in 1704 he bought through Harme Gansevoort one-fourth of the land in Dutchess county near Red Hook, which had been patented in 1688 to Peter Schuyler, who in 1722 deeded seven (of thirteen) lots in the upper fourth of his patent to the seven children of Knickerbocker. The eldest of these children, Johannes Harmensen, received from the common council of the city of Albany a grant of 50 acres of meadow and 10 acres of upland on the south side of Schaghticoke Creek. This Schaghticoke estate was held by Johannes Harmensen's son Johannes (1723–1802), a colonel in the Continental Army in the War of Independence, and by his son Harmen (1779–1855), a lawyer, a Federalist representative in Congress in 1809–1811, a member of the New York Assembly in 1816, and a famous gentleman of the old school, who for his courtly hospitality in his manor was called "the prince of Schaghticoke" and whose name was borrowed by Washington Irving for use in his (Diedrich) *Knickerbocker's History of New York* (1809). Largely owing to this book, the name "Knickerbockers" has passed into current use as a designation of the early Dutch settlers in New York and their descendants. The son of Johannes, David Buel Knickerbacker (1833–1894), who returned to the earlier spelling of the family name, graduated at Trinity College in 1853 and at the General Theological Seminary in 1856, was a rector for many years at Minneapolis, Minnesota, and in 1883 was consecrated Protestant Episcopal bishop of Indiana.

See the series of articles by W. B. Van Alstyne on "The Knickerbocker Family," beginning in vol. xxix., No. 1 (Jan. 1908) of the *New York Genealogical and Biographical Record*.

KNIFE (O. E. *cnif*, a word appearing in different forms in many Teutonic languages, cf. Du. *knijf*, Ger. *Kneif*, a shoemaker's knife, Swed. *knif*; the ultimate origin is unknown; Skeat finds the origin in the root of "nip," formerly "knip"; Fr. *canif* is also of Teutonic origin), a small cutting instrument, with the blade either fixed to the handle or fastened with a hinge so as to clasp into the handle (see CUTLERY). For the knives chipped from flint by prehistoric man see ARCHAEOLOGY and FLINT IMPLEMENTS.

KNIGGE, ADOLF FRANZ FRIEDRICH, FREIHERR VON (1752–1796), German author, was born on the family estate of Bredenbeck near Hanover on the 16th of October 1752. After studying law at Göttingen he was attached successively to the courts of Hesse-Cassel and Weimar as gentleman-in-waiting. Retiring from court service in 1777, he lived a private life with his family in Frankfort-on-Main, Hanau, Heidelberg and Hanover until 1791, when he was appointed *Oberhauptmann* (civil administrator) in Bremen, where he died on the 6th of May 1796. Knigge, under the name "Philo," was one of the most active members of the *Illuminati*, a mutual moral and intellectual improvement society founded by Adam Weishaupt (1748–1830) at Ingolstadt, and which later became affiliated to the Freemasons. Knigge is known as the author of several novels, among which *Der Roman meines Lebens* (1781–1787; new ed., 1805) and *Die Reise nach Braunschweig* (1792), the latter a rather coarsely comic story, are best remembered. His chief literary achievement was, however, *Über den Umgang mit Menschen* (1788), in which he lays down rules to be observed for a peaceful, happy and useful life; it has been often reprinted.

Knigge's *Schriften* were published in 12 volumes (1804–1806). See K. Goedeke, *Adolf, Freiherr von Knigge* (1844); and H. Klencke, *Aus einer alten Kiste* (*Briefe, Handschriften und Dokumente aus dem Nachlasse Knigges*) (1853).

KNIGHT, CHARLES (1791–1873), English publisher and author, the son of a bookseller and printer at Windsor, was born on the 15th of March 1791. He was apprenticed to his father; but on the completion of his indentures he took up journalism and interested himself in several newspaper speculations. In 1823, in conjunction with friends he had made as publisher (1820–1821) of *The Etonian*, he started *Knight's Quarterly Magazine*, to which W. M. Praed, Derwent Coleridge and Macaulay contributed. The venture was brought to a close with its sixth number, but it initiated for Knight a career as publisher and author which extended over forty years. In 1827 Knight was compelled to give up his publishing business, and became the superintendent of the publications of the Society for the Diffusion of Useful Knowledge, for which he projected and edited *The British Almanack and Companion*, begun in 1828. In 1829 he resumed business on his own account with the publication of *The Library of Entertaining Knowledge*, writing several volumes of the series himself. In 1832 and 1833 he started *The Penny Magazine* and

The Penny Cyclopaedia, both of which had a large circulation. *The Penny Cyclopaedia*, however, on account of the heavy excise duty, was only completed in 1844 at a great pecuniary sacrifice. Besides many illustrated editions of standard works, including in 1842 *The Pictorial Shakespeare*, which had appeared in parts (1838–1841), Knight published a variety of illustrated works, such as *Old England* and *The Land we Live in*. He also undertook the series known as *Weekly Volumes*. He himself contributed the first volume, a biography of William Caxton. Many famous books, Miss Martineau's *Tales*, Mrs Jameson's *Early Italian Painters* and G. H. Lewes's *Biographical History of Philosophy*, appeared for the first time in this series. In 1853 he became editor of *The English Cyclopaedia*, which was practically only a revision of *The Penny Cyclopaedia*, and at about the same time he began his *Popular History of England* (8 vols., 1856–1862). In 1864 he withdrew from the business of publisher, but he continued to write nearly to the close of his long life, publishing *The Shadows of the Old Booksellers* (1865), an autobiography under the title *Passages of a Working Life during Half a Century* (2 vols., 1864–1865), and an historical novel, *Begg'd at Court* (1867). He died at Addlestone, Surrey, on the 9th of March 1873.

See A. A. Clowes, *Knight, a Sketch* (1892); and F. Espinasse, in *The Critic* (May 1860).

KNIGHT, DANIEL RIDGWAY (1845–), American artist, was born at Philadelphia, Penn., in 1845. He was a pupil at the École des Beaux-Arts, Paris, under Gleyre, and later worked in the private studio of Meissonier. After 1872 he lived in France, having a house and studio at Poissy on the Seine. He painted peasant women out of doors with great popular success. He was awarded the silver medal and cross of the Legion of Honour, Exposition Universelle, Paris, 1889, and was made a knight of the Royal Order of St Michael of Bavaria, Munich, 1893, receiving the gold medal of honour from the Pennsylvania Academy of Fine Arts, Philadelphia, 1893. His son, Ashton Knight, is also known as a landscape painter.

KNIGHT, JOHN BUXTON (1843–1908), English landscape painter, was born at Sevenoaks, Kent; he started as a schoolmaster, but painting was his hobby, and he subsequently devoted himself to it. In 1861 he had his first picture hung at the Academy. He was essentially an open-air painter, constantly going on sketching tours in the most picturesque spots of England, and all his pictures were painted out of doors. He died at Dover on the 2nd of January 1908. The Chantrey trustees bought his "December's Bareness Everywhere" for the nation in the following month. Most of his best pictures had passed into the collection of Mr Iceton of Putney (including "White Walls of Old England" and "Hereford Cathedral"), Mr Walter Briggs of Burley in Wharfedale (especially "Pinner"), and Mr S. M. Phillips of Wrotham (especially two water-colours of Richmond Bridge).

KNIGHTHOOD and **CHIVALRY.** These two words, which are nearly but not quite synonymous, designate a single subject of inquiry, which presents itself under three different although connected and in a measure intermingled aspects. It may be regarded in the first place as a mode or variety of feudal tenure, in the second place as a personal attribute or dignity, and in the third place as a scheme of manners or social arrangements. The first of these aspects is discussed under the headings FEUDALISM and KNIGHT SERVICE: we are concerned here only with the second and third. For the more important religious as distinguished from the military orders of knighthood or chivalry the reader is referred to the headings ST JOHN OF JERUSALEM, KNIGHTS OF; TEUTONIC KNIGHTS; and TEMPLARS.

"The growth of knighthood" (writes Stubbs) "is a subject on which the greatest obscurity prevails": and, though J. H. Round has done much to explain the introduction of the system into England,[1] its actual origin on the continent of Europe is still obscure in many of its most important details.

The words *knight* and *knighthood* are merely the modern forms of the Anglo-Saxon or Old English *cniht* and *cnihthād*. Of these the primary signification of the first was a boy or youth, and of the second that period of life which intervenes between childhood and manhood. But some time before the middle of the 12th century they had acquired the meaning they still retain of the French *chevalier* and *chevalerie*. In a secondary sense *cniht* meant a servant or attendant answering to the German *Knecht*, and in the Anglo-Saxon Gospels a disciple is described as a *leorning cniht*. In a tertiary sense the word appears to have been occasionally employed as equivalent to the Latin *miles*—usually translated by *thegn*—which in the earlier middle ages was used as the designation of the domestic as well as of the martial officers or retainers of sovereigns and princes or great personages.[2] Sharon Turner suggests that *cniht* from meaning an attendant simply may have come to mean more especially a military attendant, and that in this sense it may have gradually superseded the word thegn.[3] But the word thegn itself, that is, when it was used as the description of an attendant of the king, appears to have meant more especially a military attendant. As Stubbs says "the thegn seems to be primarily the warrior gesith"—the gesithas forming the chosen band of companions (*comites*) of the German chiefs (*principes*) noticed by Tacitus—"he is probably the gesith who had a particular military duty in his master's service"; and he adds that from the reign of Athelstan "the gesith is lost sight of except very occasionally, the more important class having become thegns, and the lesser sort sinking into the rank of mere servants of the king."[4] It is pretty clear, therefore, that the word *cniht* could never have superseded the word thegn in the sense of a military attendant, at all events of the king. But besides the king, the ealdormen, bishops and king's thegns themselves had their thegns, and to these it is more than probable that the name of *cniht* was applied.

Around the Anglo-Saxon magnates were collected a crowd of retainers and dependants of all ranks and conditions; and there is evidence enough to show that among them were some called *cnihtas* who were not always the humblest or least considerable of their number.[5] The testimony of Domesday also establishes the existence in the reign of Edward the Confessor of what Stubbs describes as a "large class"[6] of landholders who had commended themselves to some lord, and he regards it as doubtful whether their tenure had not already assumed a really feudal character. But in any event it is manifest that their condition was in many respects similar to that of a vast number of unquestionably feudal and military tenants who made their appearance after the Norman Conquest. If consequently the former were called *cnihtas* under the Anglo-Saxon régime, it seems sufficiently probable that the appellation should have been continued to the latter—practically their successors—under the Anglo-Norman régime. And if the designation of knights was first applied to the military tenants of the earls, bishops and barons—who although they held their lands of mesne lords owed their services to the king—the extension of that designation to the whole body of military tenants need not have been a very violent or prolonged process. Assuming, however, that *knight* was originally used to describe the military tenant of a noble person, as *cniht* had sometimes been used to describe the thegn of a noble person, it would, to begin with, have defined rather his social status than the nature of his services. But those whom the English called *knights* the Normans called *chevaliers*, by which term the nature of their services was defined, while their social status was left out of consideration. And at first *chevalier* in its general and honorary signification seems to have been rendered not by *knight* but by *rider*, as may be inferred from the Anglo-Saxon Chronicle, wherein it is recorded under the year 1085 that William the Conqueror "dubbade his sunu Henric to ridere."[6] But, as E. A. Freeman says, "no such title is heard of in the earlier days of England. The thegn, the ealdorman, the king himself, fought on foot; the horse might bear him to the field, but when the fighting

[1] *Feudal England*, pp. 225 sqq.

[2] Du Cange, *Gloss.*, *s.v.* "Miles."
[3] *History of England*, iii. 12.
[4] Stubbs, *Constitutional History*, i. 156.
[5] Ibid. i. 156, 366; Turner, iii. 125–129.
[6] Ingram's edition, p. 290.

itself came he stood on his native earth to receive the onslaught of her enemies."[1] In this perhaps we may behold one of the most ancient of British insular prejudices, for on the Continent the importance of cavalry in warfare was already abundantly understood. It was by means of their horsemen that the Austrasian Franks established their superiority over their neighbours, and in time created the Western Empire anew, while from the word *caballarius*, which occurs in the *Capitularies* in the reign of Charlemagne, came the words for knight in all the Romance languages.[2] In Germany the chevalier was called *Ritter*, but neither *rider* nor *chevalier* prevailed against *knight* in England. And it was long after *knighthood* had acquired its present meaning with us that *chivalry* was incorporated into our language. It may be remarked too in passing that in official Latin, not only in England but all over Europe, the word *miles* held its own against both *eques* and *caballarius*.

Origin of Medieval Knighthood.

Concerning the origin of knighthood or chivalry as it existed in the middle ages—implying as it did a formal assumption of and initiation into the profession of arms—nothing beyond more or less probable conjecture is possible. The medieval knights had nothing to do in the way of derivation with the "equites" of Rome, the knights of King Arthur's Round Table, or the Paladins of Charlemagne. But there are grounds for believing that some of the rudiments of chivalry are to be detected in early Teutonic customs, and that they may have made some advance among the Franks of Gaul. We know from Tacitus that the German tribes in his day were wont to celebrate the admission of their young men into the ranks of their warriors with much circumstance and ceremony. The people of the district to which the candidate belonged were called together; his qualifications for the privileges about to be conferred upon him were inquired into; and, if he were deemed fitted and worthy to receive them, his chief, his father, or one of his near kinsmen presented him with a shield and a lance. Again, among the Franks we find Charlemagne girding his son Louis the Pious, and Louis the Pious girding his son Charles the Bald with the sword, when they arrived at manhood.[3] It seems certain here that some ceremony was observed which was deemed worthy of record not for its novelty, but as a thing of recognized importance. It does not follow that a similar ceremony extended to personages less exalted than the sons of kings and emperors. But if it did we must naturally suppose that it applied in the first instance to the mounted warriors who formed the most formidable portion of the warlike array of the Franks. It was among the Franks indeed, and possibly through their experiences in war with the Saracens, that cavalry first acquired the pre-eminent place which it long maintained in every European country. In early society, where the army is not a paid force but the armed nation, the cavalry must necessarily consist of the noble and wealthy, and cavalry and chivalry, as Freeman observes,[4] will be the same. Since then we discover in the *Capitularies* of Charlemagne actual mention of "caballarii" as a class of warriors, it may reasonably be concluded that formal investiture with arms applied to the "caballarii" if it was a usage extending beyond the sovereign and his heir-apparent. "But," as Hallam says, "he who fought on horseback and had been invested with peculiar arms in a solemn manner wanted nothing more to render him a knight;" and so he concludes, in view of the verbal identity of "chevalier" and "caballarius," that "we may refer chivalry in a general sense to the age of Charlemagne."[5] Yet, if the "caballarii" of the *Capitularies* are really the precursors of the later knights, it remains a difficulty that the Latin name for a knight is "miles," although "caballarius" became in various forms the vernacular designation.

Before it was known that the chronicle ascribed to Ingulf of Croyland is really a fiction of the 13th or 14th century, the knighting of Heward or Hereward by Brand, abbot of Burgh (now Peterborough), was accepted from Selden to Hallam as an historical fact, and knighthood was supposed, not only to have been known among the Anglo-Saxons, but to have had a distinctively religious character which was contemned by the Norman invaders. The genuine evidence at our command altogether fails to support this view. When William of Malmesbury describes the knighting of Athelstan by his grandfather Alfred the Great, that is, his investiture "with a purple garment set with gems and a Saxon sword with a golden sheath," there is no hint of any religious observance. In spite of the silence of our records, Dr Stubbs thinks that kings so well acquainted with foreign usages as Ethelred, Canute and Edward the Confessor could hardly have failed to introduce into England the institution of chivalry then springing up in every country of Europe; and he is supported in this opinion by the circumstance that it is nowhere mentioned as a Norman innovation. Yet the fact that Harold received knighthood from William of Normandy makes it clear either that Harold was not yet a knight, which in the case of so tried a warrior would imply that "dubbing to knighthood" was not yet known in England even under Edward the Confessor, or, as Freeman thinks, that in the middle of the 11th century the custom had grown in Normandy into "something of a more special meaning" than it bore in England.

Knighthood in England.

Regarded as a method of military organization, the feudal system of tenures was always far better adapted to the purposes of defensive than of offensive warfare. Against invasion it furnished a permanent provision both in men-at-arms and strongholds; nor was it unsuited for the campaigns of neighbouring counts and barons which lasted for only a few weeks, and extended over only a few leagues. But when kings and kingdoms were in conflict, and distant and prolonged expeditions became necessary, it was speedily discovered that the unassisted resources of feudalism were altogether inadequate. It became therefore the manifest interest of both parties that personal services should be commuted into pecuniary payments. Then there grew up all over Europe a system of fining the knights who failed to respond to the sovereign's call or to stay their full time in the field; and in England this fine developed, from the reign of Henry II. to that of Edward II., into a regular war-tax called *escuage* or *scutage* (*q.v.*). In this way funds for war were placed at the free disposal of sovereigns, and, although the feudatories and their retainers still formed the most considerable portion of their armies, the conditions under which they served were altogether changed. Their military service was now far more the result of special agreement. In the reign of Edward I., whose warlike enterprises after he was king were confined within the four seas, this alteration does not seem to have proceeded very far, and Scotland and Wales were subjugated by what was in the main, if not exclusively, a feudal militia raised as of old by writ to the earls and barons and the sheriffs.[6] But the armies of Edward III., Henry V. and Henry VI. during the century of intermittent warfare between England and France were recruited and sustained to a very great extent on the principle of contract.[7] On the Continent the systematic employment of mercenaries was both an early and a common practice.

The Crusades.

Besides consideration for the mutual convenience of sovereigns and their feudatories, there were other causes which materially contributed towards bringing about those changes in the military system of Europe which were finally accomplished in the 13th and 14th centuries. During the Crusades vast armies were set on foot in which feudal rights

[1] *Comparative Politics*, p. 74.
[2] Baluze, *Capitularia Regum Francorum*, ii. 794, 1069.
[3] Du Cange, *Gloss.*, *s.v.* "Arma."
[4] Freeman, *Comparative Politics*, p. 73.
[5] Hallam, *Middle Ages*, iii. 392.
[6] Stubbs, *Const. Hist.* ii. 278; also compare Grosse, *Military Antiquities*, i. 65 seq.
[7] There has been a general tendency to ignore the extent to which the armies of Edward III. were raised by compulsory levies even after the system of raising troops by free contract had begun. Luce (ch. vi.) points out how much England relied at this time on what would now be called conscription: and his remarks are entirely borne out by the Norwich documents published by Mr W. Hudson (Norf. and Norwich Archaeological Soc. xiv. 263 sqq.), by a Lynn corporation document of 18th Edw. III. (Hist. MSS. Commission Report XI. Appendix pt. iii. p. 189), and by Smyth's *Lives of the Berkeleys*, i. 312, 319, 320.

and obligations had no place, and it was seen that the volunteers who flocked to the standards of the various commanders were not less but even more efficient in the field than the vassals they had hitherto been accustomed to lead. It was thus established that pay, the love of enterprise and the prospect of plunder—if we leave zeal for the sacred cause which they had espoused for the moment out of sight—were quite as useful for the purpose of enlisting troops and keeping them together as the tenure of land and the solemnities of homage and fealty. Moreover, the crusaders who survived the difficulties and dangers of an expedition to Palestine were seasoned and experienced although frequently impoverished and landless soldiers, ready to hire themselves to the highest bidder, and well worth the wages they received. Again, it was owing to the crusades that the church took the profession of arms under her peculiar protection, and thenceforward the ceremonies of initiation into it assumed a religious as well as a martial character.

Knighthood independent of Feudalism.

To distinguished soldiers of the cross the honours and benefits of knighthood could hardly be refused on the ground that they did not possess a sufficient property qualification—of which perhaps they had denuded themselves in order to their equipment for the Holy War. And thus the conception of knighthood as of something distinct from feudalism both as a social condition and a personal dignity arose and rapidly gained ground. It was then that the analogy was first detected between the order of knighthood and the order of priesthood, and that an actual union of monachism and chivalry was effected by the establishment of the religious orders of which the Knights Templars and the Knights Hospitallers were the most eminent examples. As comprehensive in their polity as the Benedictines or Franciscans, they gathered their members from, and soon scattered their possessions over, every country in Europe. And in their indifference to the distinctions of race and nationality they merely accommodated themselves to the spirit which had become characteristic of chivalry itself, already recognized, like the church, as a universal institution which knit together the whole warrior caste of Christendom into one great fraternity irrespective alike of feudal subordination and territorial boundaries. Somewhat later the adoption of hereditary surnames and armorial bearings marked the existence of a large and noble class who either from the subdivision of fiefs or from the effects of the custom of primogeniture were very insufficiently provided for. To them only two callings were generally open, that of the churchman and that of the soldier, and the latter as a rule offered greater attractions than the former in an era of much licence and little learning. Hence the favourite expedient for men of birth, although not of fortune, was to attach themselves to some prince or magnate in whose military service they were sure of an adequate maintenance and might hope for even a rich reward in the shape of booty or of ransom.[1] It is probably to this period and these circumstances that we must look for at all events the rudimentary beginnings of the military as well as the religious orders of chivalry. Of the existence of any regularly constituted companionships of the first kind there is no trustworthy evidence until between two and three centuries after fraternities of the second kind had been organized. Soon after the greater crusading societies had been formed similar orders, such as those of St James of Compostella, Calatrava and Alcantara, were established to fight the Moors in Spain instead of the Saracens in the Holy Land. But the members of these orders were not less monks than knights, their statutes embodied the rules of the cloister, and they were bound by the ecclesiastical vows of celibacy, poverty and obedience. From a very early stage in the development of chivalry, however, we meet with the singular institution of brotherhood in arms; and from it the ultimate origin if not of the religious fraternities at any rate of the military companionships is usually derived.[2] By this institution a relation was created between two or more monks by voluntary agreement, which was regarded as of far more intimacy and stringency than any which the mere accident of consanguinity implied. Brothers in arms were supposed to be partners in all things save the affections of their "lady-loves." They shared in every danger and in every success, and each was expected to vindicate the honour of another as promptly and zealously as his own. The plot of the medieval romance of *Amis and Amiles* is built entirely on such a brotherhood. Their engagements usually lasted through life, but sometimes only for a specified period or during the continuance of specified circumstances, and they were always ratified by oath, occasionally reduced to writing in the shape of a solemn bond and often sanctified by their reception of the Eucharist together. Romance and tradition speak of strange rites—the mingling and even the drinking of blood—as having in remote and rude ages marked the inception of these martial and fraternal associations.[3] But in later and less barbarous times they were generally evidenced and celebrated by a formal and reciprocal exchange of weapons and armour. In warfare it was customary for knights who were thus allied to appear similarly accoutred and bearing the same badges or cognisances, to the end that their enemies might not know with which of them they were in conflict, and that their friends might be unable to accord more applause to one than to the other for his prowess in the field. It seems likely enough therefore that there should grow up bodies of knights banded together by engagements of fidelity, although free from monastic obligations; wearing a uniform or livery, and naming themselves after some special symbol or some patron saint of their adoption. And such bodies placed under the command of a sovereign or grand master, regulated by statutes, and enriched by ecclesiastical endowments would have been precisely what in after times such orders as the Garter in England, the Golden Fleece in Burgundy, the Annunziata in Savoy and the St Michael and Holy Ghost in France actually were.[4]

Grades of Knighthood.

During the 14th and 15th centuries, as well as somewhat earlier and later, the general arrangements of a European army were always and everywhere pretty much the same.[5] Under the sovereign the constable and the marshal or marshals held the chief commands, their authority being partly joint and partly several. Attendant on them were the heralds, who were the officers of their military court, wherein offences committed in the camp and field were tried and adjudged, and among whose duties it was to carry orders and messages, to deliver challenges and call truces, and to identify and number the wounded and the slain. The main divisions of the army were distributed under the royal and other principal standards, smaller divisions under the banners of some of the greater nobility or of knights banneret, and smaller divisions still under the pennons of knights or, as in distinction from knights banneret they came to be called, knights bachelors. All knights whether bachelors or bannerets were escorted by their squires. But the banner of the banneret always implied a more or less extensive command, while every knight was entitled to bear a pennon and every squire a pencel. All three flags were of such a size as to be conveniently attached to and carried on a lance, and were emblazoned with the arms or some portion of the bearings of their owners. But while the banner was square the pennon, which resembled it in other respects, was either pointed or forked at its extremity, and the pencel, which was considerably less than the others, always terminated in a single tail or streamer.[6]

If indeed we look at the scale of chivalric subordination from another point of view, it seems to be more properly divisible into four than into three stages, of which two may be called provisional and two final. The bachelor and the banneret were both equally knights, only the one was of greater distinction and authority

[1] J. B. de Lacurne de Sainte Palaye, *Mémoires sur l'Ancienne Chevalerie*, i. 363, 364 (ed. 1781).

[2] Du Cange, *Dissertation sur Joinville*, xxi.; Sainte Palaye, *Mémoires*, i. 272; G. F. Beltz, *Memorials of the Order of the Garter* (1841,) p. xxvii.

[3] Du Cange, *Dissertation*, xxi., and *Lancelot du Lac*, among other romances.

[4] Anstis, *Register of the Order of the Garter*, i. 63.

[5] Grose, *Military Antiq.* i. 207 seq.; Stubbs, *Const. Hist.* ii. 276 seq., and iii. 278 seq.

[6] Grose's *Military Antiquities*, ii. 256.

than the other. In like manner the squire and the page were both in training for knighthood, but the first had advanced further in the process than the second. It is true that the squire was a combatant while the page was not, and that many squires voluntarily served as squires all their lives owing to the insufficiency of their fortunes to support the costs and charges of knighthood. But in the ordinary course of a chivalrous education the successive conditions of page and squire were passed through in boyhood and youth, and the condition of knighthood was reached in early manhood. Every feudal court and castle was in fact a school of chivalry, and although princes and great personages were rarely actually pages or squires, the moral and physical discipline through which they passed was not in any important particular different from that to which less exalted candidates for knighthood were subjected.[1] The page, or, as he was more anciently and more correctly called, the "valet" or "damoiseau," commenced his service and instruction when he was between seven and eight years old, and the initial phase continued for seven or eight years longer. He acted as the constant personal attendant of both his master and mistress. He waited on them in their hall and accompanied them in the chase, served the lady in her bower and followed the lord to the camp.[2] From the chaplain and his mistress and her damsels he learnt the rudiments of religion, of rectitude and of love,[3] from his master and his squires the elements of military exercise, to cast a spear or dart, to sustain a shield, and to march with the measured tread of a soldier; and from his master and his huntsmen and falconers the "mysteries of the woods and rivers," or in other words the rules and practices of hunting and hawking. When he was between fifteen and sixteen he became a squire. But no sudden or great alteration was made in his mode of life. He continued to wait at dinner with the pages, although in a manner more dignified according to the notions of the age. He not only served but carved and helped the dishes, proffered the first or principal cup of wine to his master and his guests, and carried to them the basin, ewer or napkin when they washed their hands before and after meat. He assisted in clearing the hall for dancing or minstrelsy, and laid the tables for chess or draughts, and he also shared in the pastimes for which he had made preparation. He brought his master the "vin de coucher" at night, and made his early refection ready for him in the morning. But his military exercises and athletic sports occupied an always increasing portion of the day. He accustomed himself to ride the "great horse," to tilt at the quintain, to wield the sword and battle-axe, to swim and climb, to run and leap, and to bear the weight and overcome the embarrassments of armour. He inured himself to the vicissitudes of heat and cold, and voluntarily suffered the pains or inconveniences of hunger and thirst, fatigue and sleeplessness. It was then too that he chose his "lady-love," whom he was expected to regard with an adoration at once earnest, respectful, and the more meritorious if concealed. And when it was considered that he had made sufficient advancement in his military accomplishments, he took his sword to the priest, who laid it on the altar, blessed it, and returned it to him.[4] Afterwards he either remained with his early master, relegating most of his domestic duties to his younger companions, or he entered the service of some valiant and adventurous lord or knight of his own selection. He now became a "squire of the body," and truly an "armiger" or "scutifer," for he bore the shield and armour of his leader to the field, and, what was a task of no small difficulty and hazard, cased and secured him in his panoply of war before assisting him to mount his courser or charger. It was his function also to display and guard in battle the banner of the baron or banneret or the pennon of the knight he served, to raise him from the ground if he were unhorsed, to supply him with another or his own horse if his was disabled or killed, to receive and keep any prisoners he might take, to fight by his side if he was unequally matched, to rescue him if captured, to bear him to a place of safety if wounded, and to bury him honourably when dead. And after he had worthily and bravely, borne himself for six or seven years as a squire, the time came when it was fitting that he should be made a knight. This, at least, was the current theory; but it is specially dangerous in medieval history to assume too much correspondence between theory and fact. In many castles, and perhaps in most, the discipline followed simply a natural and unwritten code of "fagging" and seniority, as in public schools or on board men-of-war some hundred years or so ago.

Two modes of conferring knighthood appear to have prevailed from a very early period in all countries where chivalry was known. In both of them the essential portion seems to have been the accolade or stroke of the sword. But while in the one the accolade constituted the whole or nearly the whole of the ceremony, in the other it was surrounded with many additional observances. The former and simpler of these modes was naturally that used in war: the candidate knelt before "the chief of the army or some valiant knight," who struck him thrice with the flat of a sword, pronouncing a brief formula of creation and of exhortation which varied at the creator's will.[5] ***Modes of conferring Knighthood.***

In this form a number of knights were made before and after almost every battle between the 11th and the 16th centuries, and its advantages on the score of both convenience and economy gradually led to its general adoption both in time of peace and time of war. On extraordinary occasions indeed the more elaborate ritual continued to be observed. But recourse was had to it so rarely that in England about the beginning of the 15th century it came to be exclusively appropriated to a special king of knighthood. When Segar, garter king of arms, wrote in the reign of Queen Elizabeth, this had been accomplished with such completeness that he does not even mention that there were two ways of creating knights bachelors. "He that is to be made a knight," he says, "is striken by the prince with a sword drawn upon his back or shoulder, the prince saying, 'Soys Chevalier,' and in times past was added 'Saint George.' And when the knight rises the prince sayeth 'Avencez.' This is the manner of dubbing knights at this present, and that term 'dubbing' was the old term in this point, not 'creating.' This sort of knights are by the heralds called knights bachelors." In our days when a knight is personally made he kneels before the sovereign, who lays a sword drawn, ordinarily the sword of state, on either of his shoulders and says, "Rise," calling him by his Christian name with the addition of "Sir" before it.

[1] Sainte Palaye, *Mémoires*, i. 36; Froissart, bk. iii. ch. 9.

[2] Sainte Palaye, *Mémoires*, pt. i. and Mills, *History of Chivalry*, vol. i. ch. 2.

[3] See the long sermon in the romance of *Petit Jehan de Saintré*, pt. i. ch. v., and compare the theory there set forth with the actual behaviour of the chief personages. Even Gautier, while he contends that chivalry did much to refine morality, is compelled to admit the prevailing immorality to which medieval romances testify, and the extraordinary free behaviour of the unmarried ladies. No doubt these romances, taken alone, might give as unfair an idea as modern French novels give of Parisian morals, but we have abundant other evidence for placing the moral standard of the age of chivalry definitely below that of educated society in the present day.

[4] Sainte Palaye, *Mémoires*, i. 11 seq.: "C'est peut-être à cette cérémonie et non à celles de la chevalerie qu'on doit rapporter ce qui se lit dans nos historiens de la première et de la seconde race au sujet des premières armes que les Rois et les Princes remettoient avec solemnité au jeunes Princes leurs enfans."

[5] There are several obscure points as to the relation of the longer and shorter ceremonies, as well as the origin and original relation of their several parts. There is nothing to show whence came "dubbing" or the "accolade." It seems certain that the word "dub" means to strike, and the usage is as old as the knighting of Henry by William the Conqueror (*supra*, pp. 851, 852). So, too, in the Empire a dubbed knight is "ritter geschlagen." The "accolade" may etymologically refer to the embrace, accompanied by a blow with the hand, characteristic of the longer form of knighting. The derivation of "adouber," corresponding to "dub," from "adoptare," which is given by Du Cange, and would connect the ceremony with "adoptio per arma," is certainly inaccurate. The investiture with arms, which formed a part of the longer form of knighting, and which we have seen to rest on very ancient usage, may originally have had a distinct meaning. We have observed that Lanfranc invested Henry I. with arms, while William "dubbed him to rider." If there was a difference in the meaning of the two ceremonies, the difficulty as to the knighting of Earl Harold (*supra*, p. 852) is at least partly removed.

Very different were the solemnities which attended the creation of a knight when the complete procedure was observed. "The ceremonies and circumstances at the giving this dignity," says Selden, "in the elder time were of two kinds especially, which we may call courtly and sacred. The courtly were the feasts held at the creation, giving of robes, arms, spurs and the like. The sacred were the holy devotions and what else was used in the church at or before the receiving of the dignity.[1] But the leading authority on the subject is an ancient tract written in French, which will be found at length either in the original or translated by Segar, Dugdale, Byshe and Nicolas, among other English writers.[2] Daniel explains his reasons for transcribing it, "tant à cause du detail que de la naïveté du stile et encore plus de la bisarrerie des ceremonies que se faisoient pourtant alors fort sérieusement," while he adds that these ceremonies were essentially identical in England, France, Germany, Spain and Italy.

The process of inauguration was commenced in the evening by the placing of the candidate under the care of two "esquires of honour grave and well seen in courtship and nurture and also in the feats of chivalry," who were to be "governors in all things relating to him." Under their direction, to begin with, a barber shaved him and cut his hair. He was then conducted by them to his appointed chamber, where a bath was prepared hung within and without with linen and covered with rich cloths, into which after they had undressed him he entered. While he was in the bath two "ancient and grave knights" attended him "to inform, instruct and counsel him touching the order and feats of chivalry," and when they had fulfilled their mission they poured some of the water of the bath over his shoulders, signing the left shoulder with the cross, and retired. He was then taken from the bath and put into a plain bed without hangings, in which he remained until his body was dry, when the two esquires put on him a white shirt and over that "a robe of russet with long sleeves having a hood thereto like unto that of an hermit." Then the "two ancient and grave knights" returned and led him to the chapel, the esquires going before them "sporting and dancing" with "the minstrels making melody." And when they had been served with wines and spices they went away leaving only the candidate, the esquires, "the priest, the chandler and the watch," who kept the vigil of arms until sunrise, the candidate passing the night "bestowing himself in orisons and prayers." At daybreak he confessed to the priest, heard matins, and communicated in the mass, offering a taper and a piece of money stuck in it as near the lighted end as possible, the first "to the honour of God" and the second "to the honour of the person that makes him a knight." Afterwards he was taken back to his chamber, and remained in bed until the knights, esquires and minstrels went to him and aroused him. The knights then dressed him in distinctive garments, and they then mounted their horses and rode to the hall where the candidate was to receive knighthood; his future squire was to ride before him bareheaded bearing his sword by the point in its scabbard with his spurs hanging from its hilt. And when everything was prepared the prince or subject who was to knight him came into the hall, and, the candidate's sword and spurs having been presented to him, he delivered the right spur to the "most noble and gentle" knight present, and directed him to fasten it on the candidate's right heel, which he kneeling on one knee and putting the candidate's right foot on his knee accordingly did, signing the candidate's knee with the cross, and in like manner by another "noble and gentle" knight the left spur was fastened to his left heel. And then he who was to create the knight took the sword and girded him with it, and then embracing him he lifted his right hand and smote him on the neck or shoulder, saying, "Be thou a good knight," and kissed him. When this was done they all went to the chapel with much music, and the new knight laying his right hand on the altar promised to support and defend the church, and ungirding his sword offered it on the altar. And as he came out from the chapel the master cook awaited him at the door and claimed his spurs as his fee, and said, "If you do anything contrary to the order of chivalry (which God forbid), I shall hack the spurs from your heels."[3]

The full solemnities for conferring knighthood seem to have been so largely and so early superseded by the practice of dubbing or giving the accolade alone that in England it became at last restricted to such knights as were made at coronations and some other occasions of state. And to them the particular name of Knights of the Bath was assigned, while knights made in the ordinary way were called in distinction from them knights of the sword, as they were also called knights bachelors in distinction from knights banneret.[4] It is usually supposed that the first creation of knights of the Bath under that designation was at the coronation of Henry IV.; and before the order of the Bath as a companionship or capitular body was instituted the last creation of them was at the coronation of Charles II. But all knights were also knights of the spur or "equites aurati," because their spurs were golden or gilt,—the spurs of squires being of silver or white metal,—and these became their peculiar badge in popular estimation and proverbial speech. In the form of their solemn inauguration too, as we have noticed, the spurs together with the sword were always employed as the leading and most characteristic ensigns of knighthood.[5]

With regard to knights banneret, various opinions have been entertained as to both the nature of their dignity and the qualifications they were required to possess for receiving it at different periods and in different countries. On the Continent the distinction which is commonly but incorrectly made between the nobility and the gentry has never arisen, and it was unknown here while chivalry existed and heraldry was understood. Here, as elsewhere in the old time, a nobleman and a gentleman meant the same thing, namely, a man who under certain conditions of descent was entitled to armorial bearings. Hence Du Cange divides the medieval nobility of France and Spain into three classes: first, barons or ricos hombres; secondly, chevaliers or caballeros; and thirdly, écuyers or infanzons; and to the first, who with their several special titles constituted the greater nobility of either country, he limits the designation of bannerct and the right of leading their followers to war under a banner, otherwise a "drapeau quarré" or square flag.[6] Selden shows especially from the parliament rolls that the term banneret has been occasionally employed in England as equivalent to baron.[7] In Scotland, even as late as the reign of James VI., lords of parliament were always created bannerets as well as barons at their investiture, "part of the ceremony consisting in the display of a banner, and such 'barones majores' were thereby entitled to the privilege of having one borne by a retainer before them to the field of a quadrilateral form."[8] In Scotland, too, lords of parliament and bannerets were also called bannerents, banrents or baronets, and in England banneret was often corrupted to baronet. "Even in a patent passed to Sir Ralph Fane, knight under Edward VI., he is called 'baronettus' for 'bannerettus.'"[9] In this manner it is not improbable that the title of baronet may have been suggested to the advisers of James I. when the order of Baronets

[1] Selden, *Titles of Honor*, 639.

[2] Daniel, *Histoire de la Milice Françoise*, i. 99–104; Byshe's Upton, *De Studio Militari*, pp. 21–24; Dugdale, *Warwickshire*, ii. 708–710; Segar, *Honor Civil and Military*, pp. 69 seq. and Nicolas, *Orders of Knighthood*, vol. ii. (*Order of the Bath*) pp. 19 seq. . .It is given as "the order and manner of creating Knights of the Bath in time of peace according to the custom of England," and consequently dates from a period when the full ceremony of creating knights bachelors generally had gone out of fashion. But as Ashmole, speaking of Knights of the Bath, says, "if the ceremonies and circumstances of their creation be well considered, it will appear that this king [Henry IV.] did not institute but rather restore the ancient manner of making knights, and consequently that the Knights of the Bath are in truth no other than knights bachelors, that is to say, such as are created with those ceremonies wherewith knights bachelors were formerly created." (Ashmole, *Order of the Garter*, p. 15). See also Selden, *Titles of Honor*, p. 678, and the *Archæological Journal*, v. 258 seq.

[3] As may be gathered from Selden, Favyn, La Colombiers, Menestrier and Sainte Palaye, there were several differences of detail in the ceremony at different times and in different places. But in the main it was everywhere the same both in its military and its ecclesiastical elements. In the *Pontificale Romanum*, the old *Ordo Romanus* and the manual or Common Prayer Book in use in England before the Reformation forms for the blessing or consecration of new knights are included, and of these the first and the last are quoted by Selden.

[4] Selden, *Titles of Honor*, p. 678; Ashmole, *Order of the Garter*, p. 15; Favyn, *Théâtre d'Honneur*, ii. 1035.

[5] "If we sum up the principal ensigns of knighthood, ancient and modern, we shall find they have been or are a horse, gold ring, shield and lance, a belt and sword, gilt spurs and a gold chain or collar." —Ashmole, *Order of the Garter*, pp. 12, 13.

[6] On the banner see Grose, *Military Antiquities*, ii. 257; and Nicolas, *British Orders of Knighthood*, vol. i. p. xxxvii.

[7] *Titles of Honor*, pp. 356 and 608. See also Hallam, *Middle Ages*, iii. 126 seq. and Stubbs, *Const. Hist.* iii. 440 seq.

[8] Riddell's *Law and Practice in Scottish Peerages*, p. 578; also Nisbet's *System of Heraldry*, ii. 49 and Selden's *Titles of Honor*, p. 702.

[9] Selden, *Titles of Honor*, pp. 608 and 657.

was originally created by him, for it was a question whether the recipients of the new dignity should be designated by that or some other name.[1] But there is no doubt that as previously used it was merely a corrupt synonym for banneret, and not the name of any separate dignity. On the Continent, however, there are several recorded examples of bannerets who had an hereditary claim to that honour and its attendant privileges on the ground of the nature of their feudal tenure.[2] And generally, at any rate to commence with, it seems probable that bannerets were in every country merely the more important class of feudatories, the "ricos hombres" in contrast to the knights bachelors, who in France in the time of St Louis were known as "pauvres hommes." In England all the barons or greater nobility were entitled to bear banners, and therefore Du Cange's observations would apply to them as well as to the barons or greater nobility of France and Spain. But it is clear that from a comparatively early period bannerets whose claims were founded on personal distinction rather than on feudal tenure gradually came to the front, and much the same process of substitution appears to have gone on in their case as that which we have marked in the case of simple knights. According to the *Sallade* and the *Division du Monde*, as cited by Selden, bannerets were clearly in the beginning feudal tenants of a certain magnitude and importance and nothing more, and different forms for their creation are given in time of peace and in time of war.[3] But in the French *Gesta Romanorum* the warlike form alone is given, and it is quoted by both Selden and Du Cange. From the latter a more modern version of it is given by Daniel as the only one generally in force.

The knight bachelor whose services and landed possessions entitled him to promotion would apply formally to the commander in the field for the title of banneret. If this were granted, the heralds were called to cut publicly the tails from his pennon: or the commander, as a special honour, might cut them off with his own hands.[4] The earliest contemporary mention of knights banneret is in France, Daniel says, in the reign of Philip Augustus, and in England, Selden says in the reign of Edward I. But in neither case is reference made to them in such a manner as to suggest that the dignity was then regarded as new or even uncommon, and it seems pretty certain that its existence on one side could not have long preceded its existence on the other side of the Channel. Sir Alan Plokenet, Sir Ralph Daubeney and Sir Philip Daubeney are entered as bannerets on the roll of the garrison of Caermarthen Castle in 1282, and the roll of Carlaverock records the names and arms of eighty-five bannerets who accompanied Edward I. in his expedition into Scotland in 1300.

What the exact contingent was which bannerets were expected to supply to the royal host is doubtful.[5] But, however this may be, in the reign of Edward III. and afterwards bannerets appear as the commanders of a military force raised by themselves and marshalled under their banners: their status and their relations both to the crown and to their followers were mainly the consequences of voluntary contract not of feudal tenure. It is from the reigns of Edward III. and Richard II. also that the two best descriptions we possess of the actual creation of a banneret have been transmitted to us.[6] Sir Thomas Smith, writing towards the end of the 16th century, says, after noticing the conditions to be observed in the creation of bannerets, "but this order is almost grown out of use in England";[7] and, during the controversy which arose between the new order of baronets and the crown early in the 17th century respecting their precedence, it was alleged without contradiction in an argument on behalf of the baronets before the privy council that "there are not bannerets now in being, peradventure never shall be."[8] Sir Ralph Fane, Sir Francis Bryan and Sir Ralph Sadler were created bannerets by the Lord Protector Somerset after the battle of Pinkie in 1547, and the better opinion is that this was the last occasion on which the dignity was conferred. It has been stated indeed that Charles I. created Sir John Smith a banneret after the battle of Edgehill in 1642 for having rescued the royal standard from the enemy. But of this there is no sufficient proof. It was also supposed that George III. had created several naval officers bannerets towards the end of the last century, because he knighted them on board ship under the royal standard displayed. This, however, is unquestionably an error.[9]

Existing Orders of Knighthood.

On the continent of Europe the degree of knight bachelor disappeared with the military system which had given rise to it. It is now therefore peculiar to the British Empire, where, although very frequently conferred by letters patent, it is yet the only dignity which is still even occasionally created—as every dignity was formerly created—by means of a ceremony in which the sovereign and the subject personally take part. Everywhere else dubbing or the accolade seems to have become obsolete, and no other species of knighthood, if knighthood it can be called, is known except that which is dependent on admission to some particular order. It is a common error to suppose that baronets are hereditary knights. Baronets are not knights unless they are knighted like anybody else; and, so far from being knights because they are baronets, one of the privileges granted to them shortly after the institution of their dignity was that they, not being knights, and their successors and their eldest sons and heirs-apparent should, when they attained their majority, be entitled if they desired to receive knighthood.[10] It is a maxim of the law indeed that, as Coke says, "the knight is by creation and not by descent," and, although we hear of such designations as the "knight of Kerry" or the "knight of Glin," they are no more than traditional nicknames, and do not by any means imply that the persons to whom they are applied are knights in a legitimate sense. Notwithstanding, however, that simple knighthood has gone out of use abroad, there are innumerable grand crosses, commanders and companions of a formidable assortment of orders in almost every part of the world.[11] (See the section on "Orders of Knighthood" below.)

The United Kingdom has eight orders of knighthood—the Garter, the Thistle, St Patrick, the Bath, the Star of India, St Michael and St George, the Indian Empire and the Royal Victorian Order; and, while the first is undoubtedly the oldest as well as the most illustrious anywhere existing, a fictitious antiquity has been claimed and is even still frequently conceded

[1] See "Project concerninge the conferinge of the title of vidom," wherein it is said that "the title of vidom (vicedominus) was an ancient title used in this kingdom of England both before and since the Norman Conquest" (*State Papers*, James I. Domestic Series, lxiii. 150 B, probable date April 1611).

[2] Selden, *Titles of Honor*, pp. 452 seq.

[3] Ibid. pp. 449 seq.

[4] Du Cange, *Dissertation*, ix.; Selden, *Titles of Honor*, p. 452; Daniel, *Milice Françoise*, i. 86 (Paris, 1721).

[5] Selden, *Titles of Honor*, p. 656; Grose, *Military Antiquities*, ii. 206.

[6] Froissart, Bk. I. ch. 241 and Bk. II. ch. 53. The recipients were Sir John Chandos and Sir Thos. Trivet.

[7] *Commonwealth of England* (ed. 1640), p. 48.

[8] *State Papers*, Domestic Series, James the First, lxvii. 119.

[9] "Thursday, June 24th: His Majesty was pleased to confer the honour of knights banneret on the following flag officers and commanders under the royal standard, who kneeling kissed hands on the occasion: Admirals Pye and Sprye; Captains Knight, Bickerton and Vernon," *Gentleman's Magazine* (1773) xliii. 299. Sir Harris Nicolas remarks on these and the other cases (*British Orders of Knighthood*, vol. xliii.) and Sir William Fitzherbert published anonymously a pamphlet on the subject, *A Short Inquiry into the Nature of the Titles conferred at Portsmouth*, &c., which is very scarce, but is to be found under the name of "Fitzherbert" in the catalogue of the British Museum Library.

[10] "Sir Henry Ferrers, Baronet, was indicted by the name of Sir Henry Ferrers, Knight, for the murther of one Stone whom one Nightingale feloniously murthered, and that the said Sir Henry was present aiding and abetting, &c. Upon this indictment Sir Henry Ferrers being arraigned said he never was knighted, which being confessed, the indictment was held not to be sufficient, wherefore he was indicted *de novo* by the name of Sir Henry Ferrers, Baronet." Brydall, *Jus Imaginis apud Anglos, or the Law of England relating to the Nobility and Gentry* (London, 1675), p. 20. Cf. *Patent Rolls*, 10 Jac. I., pt. x. No. 18; Selden, *Titles of Honor*, p. 687.

[11] Louis XIV. introduced the practice of dividing the members of military orders into several degrees when he established the order of St Louis in 1693.

INSIGNIA OF SOME OF THE PRINCIPAL ORDERS OF KNIGHTHOOD, DRAWN BY GRACIOUS PERMISSION FROM THOSE IN THE POSSESSION OF HIS LATE MAJESTY KING EDWARD VII AND ARRANGED IN ACCORDANCE WITH HIS MAJESTY'S WISHES AND COMMAND.

THE ORDER OF THE GARTER.

(i.) THE GARTER; (ii.) THE COLLAR AND GEORGE; (iii.) THE LESSER GEORGE AND RIBBON; (iv.) STAR.

Drawn by William Gibb.

Niagara Litho. Co., Buffalo, N. Y.

to the second and fourth, although the third, fifth, sixth, seventh, and eighth appear to be as contentedly as they are unquestionably recent.

Order of the Garter.

It is, however, certain that the "most noble" Order of the Garter at least was instituted in the middle of the 14th century, when English chivalry was outwardly brightest and the court most magnificent. But in what particular year this event occurred is and has been the subject of much difference of opinion. All the original records of the order until after 1416 have perished, and consequently the question depends for its settlement not on direct testimony but on inference from circumstances. The dates which have been selected vary from 1344 (given by Froissart, but almost certainly mistaken) to 1351. The evidence may be examined at length in Nicolas and Beltz; it is indisputable that in the wardrobe account from September 1347 to January 1349, the 21st and 23rd Edward III., the issue of certain habits with garters and the motto embroidered on them is marked for St George's Day; that the letters patent relating to the preparation of the royal chapel of Windsor are dated in August 1348; and that in the treasury accounts of the prince of Wales there is an entry in November 1348 of the gift by him of "twenty-four garters to the knights of the Society of the Garter."[1] But that the order, although from this manifestly already fully constituted in the autumn of 1348, was not in existence before the summer of 1346 Sir Harris Nicolas proves pretty conclusively by pointing out that nobody who was not a knight could under its statutes have been admitted to it, and that neither the prince of Wales nor several others of the original companions were knighted until the middle of that year.

Regarding the occasion there has been almost as much controversy as regarding the date of its foundation. The "vulgar and more general story," as Ashmole calls it, is that of the countess of Salisbury's garter. But commentators are not at one as to which countess of Salisbury was the heroine of the adventure, whether she was Katherine Montacute or Joan the Fair Maid of Kent, while Heylyn rejects the legend as "a vain and idle romance derogatory both to the founder and the order, first published by Polydor Vergil, a stranger to the affairs of England, and by him taken upon no better ground than *fama vulgi*, the tradition of the common people, too trifling a foundation for so great a building."[2]

Another legend is that contained in the preface to the Register or Black Book of the order, compiled in the reign of Henry VIII., by what authority supported is unknown, that Richard I., while his forces were employed against Cyprus and Acre, had been inspired through the instrumentality of St George with renewed courage and the means of animating his fatigued soldiers by the device of tying about the legs of a chosen number of knights a leathern thong or garter, to the end that being thereby reminded of the honour of their enterprise they might be encouraged to redoubled efforts for victory. This was supposed to have been in the mind of Edward III. when he fixed on the garter as the emblem of the order, and it was stated so to have been by Taylor, master of the rolls, in his address to Francis I. of France on his investiture in 1527.[3] According to Ashmole the true account of the matter is that "King Edward having given forth his own garter as the signal for a battle which sped fortunately (which with Du Chesne we conceive to be that of Crécy), the victory, we say, being happily gained, he thence took occasion to institute this order, and gave the garter (assumed by him for the symbol of unity and society) pre-eminence among the ensigns of it. But, as Sir Harris Nicolas points out—although Ashmole is not open to the correction—this hypothesis rests for its plausibility on the assumption that the order was established before the invasion of France in 1346. And he further observes that "a great variety of devices and mottoes were used by Edward III.; they were chosen from the most trivial causes and were of an amorous rather than of a military character. Nothing," he adds, "is more likely than that in a crowded assembly a lady should accidentally have dropped her garter; that the circumstance should have caused a smile in the bystanders; and that on its being taken up by Edward he should have reproved the levity of his courtiers by so happy and chivalrous an exclamation, placing the garter at the same time on his own knee, as 'Dishonoured be he who thinks ill of it.' Such a circumstance occurring at a time of general festivity, when devices, mottoes and conceits of all kinds were adopted as ornaments or badges of the habits worn at jousts and tournaments, would naturally have been commemorated as other royal expressions seem to have been by its conversion into a device and motto for the dresses at an approaching hastilude."[4] Moreover, Sir Harris Nicolas contends that the order had no loftier immediate origin than a joust or tournament. It consisted of the king and the Black Prince, and 24 knights divided into two bands of 12 like the tilters in a hastilude—at the head of the one being the first, and of the other the second; and to the companions belonging to each, when the order had superseded the Round Table and had become a permanent institution, were assigned stalls either on the sovereign's or the prince's side of St George's Chapel. That Sir Harris Nicolas is accurate in this conjecture seems probable from the selection which was made of the "founder knights." As Beltz observes, the fame of Sir Reginald Cobham, Sir Walter Manny and the earls of Northampton, Hereford and Suffolk was already established by their warlike exploits, and they would certainly have been among the original companions had the order been then regarded as the reward of military merit only. But, although these eminent warriors were subsequently elected as vacancies occurred, their admission was postponed to that of several very young and in actual warfare comparatively unknown knights, whose claims to the honour may be most rationally explained on the assumption that they had excelled in the particular feats of arms which preceded the institution of the order. The original companionship had consisted of the sovereign and 25 knights, and no change was made in this respect until 1786, when the sons of George III. and his successors were made eligible notwithstanding that the chapter might be complete. In 1805 another alteration was effected by the provision that the lineal descendants of George II. should be eligible in the same manner, except the Prince of Wales for the time being, who was declared to be "a constituent part of the original institution"; and again in 1831 it was further ordained that the privilege accorded to the lineal descendants of George II. should extend to the lineal descendants of George I. Although, as Sir Harris Nicolas observes, nothing is now known of the form of admitting ladies into the order, the description applied to them in the records during the 14th and 15th centuries leaves no doubt that they were regularly received into it. The queen consort, the wives and daughters of knights, and some other women of exalted position, were designated "Dames de la Fraternité de St George," and entries of the delivery of robes and garters to them are found at intervals in the Wardrobe Accounts from the 50th Edward III. (1376) to the 10th of Henry VII. (1495), the first being Isabel, countess of Bedford, the daughter of the one king, and the last being Margaret and Elizabeth, the daughters of the other king. The effigies of Margaret Byron, wife of Sir Robert Harcourt, K.G., at Stanton Harcourt, and of Alice Chaucer, wife of William de la Pole, duke of Suffolk, K.G., at Ewelme, which date from the reigns of Henry VI. and Edward IV., have garters on their left arms. (See further under "Orders of Knighthood" below.)

It has been the general opinion, as expressed by Sainte Palaye and Mills, that formerly all knights were qualified to confer knighthood.[5] But it may be questioned whether the privilege

[1] G. F. Beltz, *Memorials of the Most Noble Order of the Garter* (1841), p. 385.

[2] Heylyn, *Cosmographie and History of the Whole World*, bk. i. p. 286.

[3] Beltz, *Memorials*, p. xlvi.

[4] *Orders of Knighthood*, vol. i. p. lxxxiii.

[5] *Mémoires*, i. 67, i. 22; *History of Chivalry*; Gibbon, *Decline and Fall*, vii. 200.

was thus indiscriminately enjoyed even in the earlier days of chivalry. It is true that as much might be inferred from the testimony of the romance writers; historical evidence, however, tends to limit the proposition, and the sounder conclusion appears to be, as Sir Harris Nicolas says, that the right was always restricted in operation to sovereign princes, to those acting under their authority or sanction, and to a few other personages of exalted rank and station.[1] In several of the writs for distraint of knighthood from Henry III. to Edward III. a distinction is drawn between those who are to be knighted by the king himself or by the sheriffs of counties respectively, and bishops and abbots could make knights in the 11th and 12th centuries.[2] At all periods the commanders of the royal armies had the power of conferring knighthood; as late as the reign of Elizabeth it was exercised among others by Sir Henry Sidney in 1583, and Robert, earl of Essex, in 1595, while under James I. an ordinance of 1622, confirmed by a proclamation of 1623, for the registration of knights in the college of arms, is rendered applicable to all who should receive knighthood from either the king or any of his lieutenants.[3] Many sovereigns, too, both of England and of France, have been knighted after their accession to the throne by their own subjects, as, for instance, Edward III. by Henry, earl of Lancaster, Edward VI. by the lord protector Somerset, Louis XI. by Philip, duke of Burgundy, and Francis I. by the Chevalier Bayard. But when in 1543 Henry VIII. appointed Sir John Wallop to be captain of Guisnes, it was considered necessary that he should be authorized in express terms to confer knighthood, which was also done by Edward VI. in his own case when he received knighthood from the duke of Somerset.[4] But at present the only subject to whom the right of conferring knighthood belongs is the lord-lieutenant of Ireland, and to him it belongs merely by long usage and established custom. But, by whomsoever conferred, knighthood at one time endowed the recipient with the same status and attributes in every country wherein chivalry was recognized. In the middle ages it was a common practice for sovereigns and princes to dub each other knights much as they were afterwards, and are now, in the habit of exchanging the stars and ribbons of their orders. Henry II. was knighted by his great-uncle David I. of Scotland, Alexander III. of Scotland by Henry III., Edward I. when he was prince by Alphonso X. of Castile, and Ferdinand of Portugal by Edmund of Langley, earl of Cambridge.[5] And, long after the military importance of knighthood had practically disappeared, what may be called its cosmopolitan character was maintained: a knight's title was recognized in all European countries, and not only in that country in which he had received it. In modern times, however, by certain regulations, made in 1823, and repeated and enlarged in 1855, not only is it provided that the sovereign's permission by royal warrant shall be necessary for the reception by a British subject of any foreign order of knighthood, but further that such permission shall not authorize "the assumption of any style, appellation, rank, precedence, or privilege appertaining to a knight bachelor of the United Kingdom."[6]

Persons empowered to confer Knighthood.

Since knighthood was accorded either by actual investiture or its equivalent, a counter process of degradation was regarded as necessary for the purpose of depriving anybody who had once received it of the rank and condition it implied.[7] The cases in which a knight has been formally degraded in England are exceedingly few, so few indeed that two only are mentioned by Segar, writing in 1602, and Dallaway says that only three were on record in the College of Arms when he wrote in 1793. The last case was that of Sir Francis Michell in 1621, whose spurs were hacked from his heels, his sword-belt cut, and his sword broken over his head by the heralds in Westminster Hall.[8]

Degradation.

Roughly speaking, the age of chivalry properly so called may be said to have extended from the beginning of the crusades to the end of the Wars of the Roses. Even in the way of pageantry and martial exercise it did not long survive the middle ages. In England tilts and tourneys, in which her father had so much excelled, were patronized to the last by Queen Elizabeth, and were even occasionally held until after the death of Henry, prince of Wales. But on the Continent they were discredited by the fatal accident which befell Henry II. of France in 1559. The golden age of chivalry has been variously located. Most writers would place it in the early 13th century, but Gautier would remove it two or three generations further back. It may be true that, in the comparative scarcity of historical evidence, 12th-century romances present a more favourable picture of chivalry at that earlier time; but even such historical evidence as we possess, when carefully scrutinized, is enough to dispel the illusion that there was any period of the middle ages in which the unselfish championship of "God and the ladies" was anything but a rare exception.

It is difficult to describe the true spirit and moral influence of knighthood, if only because the ages in which it flourished differed so widely from our own. At its very best, it was always hampered by the limitations of medieval society. Moreover, many of the noblest precepts of the knightly code were a legacy from earlier ages, and have survived the decay of knighthood just as they will survive all transitory human institutions, forming part of the eternal heritage of the race. Indeed, the most important of these precepts did not even attain to their highest development in the middle ages. As a conscious effort to bring religion into daily life, chivalry was less successful than later puritanism; while the educated classes of our own day far surpass the average medieval knight in discipline, self-control and outward or inward refinement. Freeman's estimate comes far nearer to the historical facts than Burke's: "The chivalrous spirit is above all things a class spirit. The good knight is bound to endless fantastic courtesies towards men and still more towards women of a certain rank; he may treat all below that rank with any degree of scorn and cruelty. The spirit of chivalry implies the arbitrary choice of one or two virtues to be practised in such an exaggerated degree as to become vices, while the ordinary laws of right and wrong are forgotten. The false code of honour supplants the laws of the commonwealth, the law of God and the eternal principles of right. Chivalry again in its military aspect not only encourages the love of war for its own sake without regard to the cause for which war is waged, it encourages also an extravagant regard for a fantastic show of personal daring which cannot in any way advance the objects of the siege or campaign which is going on. Chivalry in short is in morals very much what feudalism is in law: each substitutes purely personal obligations devised in the interests of an exclusive class, for the more homely duties of an honest man and a good citizen" (*Norman Conquest*, v. 482). The chivalry from which Burke drew his ideas was, so far as it existed at all, the product of a far later age. In its own age, chivalry rested practically, like the highest civilization of ancient Greece and Rome, on slave labour;[9] and if many of its

[1] *Orders of Knighthood*, vol. i. p. xi.
[2] Selden, *Titles of Honor*, p. 638.
[3] Harleian MS. 6063; Hargrave MS. 325.
[4] *Patent Rolls*, 35th Hen. VIII., pt. xvi., No. 24; Burnet, *Hist. of Reformation*, i. 15.
[5] Spelman, "De milite dissertatio," *Posthumous Works*, p. 181.
[6] *London Gazette*, December 6, 1823, and May 15, 1855.
[7] On the Continent very elaborate ceremonies, partly heraldic and partly religious, were observed in the degradation of a knight, which are described by Sainte Palaye, *Mémoires*, i. 316 seq., and after him by Mills, *History of Chivalry*, i. 60 seq. Cf. *Titles of Honor*, p. 653.
[8] Dallaway's *Heraldry*, p. 303.
[9] Even in 13th century England more than half the population were serfs, and as such had no claim to the privileges of Magna Carta; disputes between a serf and his lord were decided in the latter's court, although the king's courts attempted to protect the serf's life and limb and necessary implements of work. By French feudal law, the villein had no appeal from his lord save to God (Pierre de Fontaines, *Conseil*, ch. xxi. art. 8); and, though common sense and natural good feeling set bounds in most cases to the tyranny of the nobles, yet there was scarcely any injustice too gross to be possible. "How mad are they who exult when sons are born to their lords!" wrote Cardinal Jacques de Vitry early in the 13th century (*Exempla*, p. 64, Folk Lore Soc. 1890).

most brilliant outward attractions have now faded for ever, this is only because modern civilization tends so strongly to remove social barriers. The knightly ages will always enjoy the glory of having formulated a code of honour which aimed at rendering the upper classes worthy of their exceptional privileges; yet we must judge chivalry not only by its formal code but also by its practical fruits. The ideal is well summed up by F. W. Cornish: "Chivalry taught the world the duty of noble service willingly rendered. It upheld courage and enterprise in obedience to rule; it consecrated military prowess to the service of the Church, glorified the virtues of liberality, good faith, unselfishness and courtesy, and above all, courtesy to women. Against these may be set the vices of pride, ostentation, love of bloodshed, contempt of inferiors, and loose manners. Chivalry was an imperfect discipline, but it was a discipline, and one fit for the times. It may have existed in the world too long: it did not come into existence too early; and with all its shortcomings it exercised a great and wholesome influence in raising the medieval world from barbarism to civilization" (p. 27). This was the ideal, but to give the reader a clear view of the actual features of knightly society in their contrast with that of our own day, it is necessary to bring out one or two very significant shadows.

Far too much has been made of the extent to which the knightly code, and the reverence paid to the Virgin Mary, raised the position of women (*e.g.* Gautier, p. 360). As Gautier himself admits, the feudal system made it difficult to separate the woman's person from her fief: instead of the freedom of Christian marriage on which the Church in theory insisted, lands and women were handed over together, as a business bargain, by parents or guardians. In theory, the knight was the defender of widows and orphans; but in practice wardships and marriages were bought and sold as a matter of everyday routine like stocks and shares in the modern market. Lord Thomas de Berkeley (1245–1321) counted on this as a regular and considerable source of income (Smyth, *Lives*, i. 157). Late in the 15th century, in spite of the somewhat greater liberty of that age, we find Stephen Scrope writing nakedly to a familiar correspondent "for very need [of poverty], I was fain to sell a little daughter I have for much less than I should have done by possibility," *i.e.* than the fair market price (Gairdner, *Paston Letters*, Introduction, p. clxxvi; cf. ccclxxi). Startling as such words are, it is perhaps still more startling to find how frequently and naturally, in the highest society, ladies were degraded by personal violence. The proofs of this which Schultz and Gautier adduce from the *Chansons de Geste* might be multiplied indefinitely. The Knight of La Tour-Landry (1372) relates, by way of warning to his daughters, a tale of a lady who so irritated her husband by scolding him in company, that he struck her to the earth with his fist and kicked her in the face, breaking her nose. Upon this the good knight moralizes: "And this she had for her euelle and gret langage, that she was wont to saie to her husbonde. And therfor the wiff aught to suffre and lete her husbonde haue the wordes, and to be maister, for that is her worshippe; for it is shame to here striff betwene hem, and in especial before folke. But y saie not but whanne thei be allone, but she may tolle hym with goodly wordes, and counsaile hym to amende yef he do amys" (La Tour, chap. xviii.; cf. xvii. and xix.). The right of wife-beating was formally recognized by more than one code of laws, and it was already a forward step when, in the 13th century, the *Coutumes du Beauvoisis* provided "que le mari ne doit battre sa femme que *raisonnablement*" (Gautier, p. 349). This was a natural consequence not only of the want of self-control which we see everywhere in the middle ages, but also of the custom of contracting child-marriages for unsentimental considerations. Between 1288 and 1500 five marriages are recorded in the direct line of the Berkeley family in which the ten contracting parties averaged less than eleven years of age: the marriage contract of another Lord Berkeley was drawn up before he was six years old. Moreover, the same business considerations which dictated those early marriages clashed equally with the strict theory of knighthood. In the same Berkeley family, the lord Maurice IV. was knighted in 1338 at the age of seven to avoid the possible evils of wardship, and Thomas V. for the same reason in 1476 at the age of five. Smyth's record of this great family shows that, from the middle of the 13th century onwards, the lords were not only statesmen and warriors, but still more distinguished as gentlemen-farmers on a great scale, even selling fruit from the castle gardens, while their ladies would go round on tours of inspection from dairy to dairy. The lord Thomas III. (1326–1361), who was noted as a special lover of tournaments, spent in two years only £90, or an average of about £15 per tournament; yet he was then laying money by at the rate of £450 a year, and, a few years later, at the rate of £1150, or nearly half his income! Indeed, economic causes contributed much to the decay of romantic chivalry. The old families had lost heavily from generation to generation, partly by personal extravagances, but also by gradual alienations of land to the Church and by the enormous expenses of the crusades. Already, in the 13th century, they were hard pressed by the growing wealth of the burghers, and even the greatest nobles could scarcely keep up their state without careful business management. It is not surprising therefore, to find that at least as early as the middle of the 13th century the commercial side of knighthood became very prominent. Although by the code of chivalry no candidate could be knighted before the age of twenty-one, we have seen how great nobles like the Berkeleys obtained that honour for their infant heirs in order to avoid possible pecuniary loss; and French writers of the 14th century complained of this knighting of infants as a common and serious abuse.[1] Moreover, after the knight's liability to personal service in war had been modified in the 12th century by the scutage system, it became necessary in the first quarter of the 13th to compel landowners to take up the knighthood which in theory they should have coveted as an honour—a compulsion which was soon systematically enforced (*Distraint of Knighthood*, 1278), and became a recognized source of royal income. An indirect effect of this system[2] was to break down another rule of the chivalrous code—that none could be dubbed who was not of gentle birth.[3] This rule, however, had often been broken before; even the romances of chivalry speak not infrequently of the knighting of serfs or *jongleurs*;[4] and other causes besides distraint of knighthood tended to level the old distinctions. While knighthood was avoided by poor nobles, it was coveted by rich citizens. It is recorded in 1298 as "an immemorial custom" in Provence that rich burghers enjoyed the honour of knighthood; and less than a century later we find Sacchetti complaining that the dignity is open to any rich upstart, however disreputable his antecedents.[5] Similar causes contributed to the decay of knightly ideas in warfare. Even in the 12th century, when war was still rather the pastime of kings and knights than

[1] Sainte Palaye, ii. 90.

[2] Medley, *English Constitutional History* (2nd ed., pp. 291, 466), suggests that Edward might have deliberately calculated this degradation of the older feudal ideal.

[3] Being made to "ride the barriers" was the penalty for anybody who attempted to take part in a tournament without the qualification of name and arms. Guillim (*Display of Heraldry*, p. 66) and Nisbet (*System of Heraldry*, ii. 147) speak of this subject as concerning England and Scotland. See also Ashmole's *Order of the Garter*, p. 284. But in England knighthood has always been conferred to a great extent independently of these considerations. At almost every period there have been men of obscure and illegitimate birth who have been knighted. Ashmole cites authorities for the contention that knighthood ennobles, insomuch that whosoever is a knight it necessarily follows that he is also a gentleman; "for, when a king gives the dignity to an ignoble person whose merit he would thereby recompense, he is understood to have conferred whatsoever is requisite for the completing of that which he bestows." By the common law, if a villein were made a knight he was thereby enfranchised and accounted a gentleman, and if a person under age and in wardship were knighted both his minority and wardship terminated. (*Order of the Garter*, p. 43; Nicolas, *British Orders of Knighthood*, i. 5.)

[4] Gautier, pp. 21, 249.

[5] Du Cange, *s.v. miles* (ed. Didot, t. iv. p. 402); Sacchetti, *Novella*, cliii. All the medieval *orders* of knighthood, however, insisted in their statutes on the noble birth of the candidate.

a national effort, the strict code of chivalry was more honoured in the breach than in the observance.[1] But when the Hundred Years' War brought a real national conflict between England and France, when archery became of supreme importance, and a large proportion even of the cavalry were mercenary soldiers, then the exigencies of serious warfare swept away much of that outward display and those class-conventions on which chivalry had always rested. Siméon Luce (chap. vi.) has shown how much the English successes in this war were due to strict business methods. Several of the best commanders (*e.g.* Sir Robert Knolles and Sir Thomas Dagworth) were of obscure birth, while on the French side even Du Guesclin had to wait long for his knighthood because he belonged only to the lesser nobility. The tournament again, which for two centuries had been under the ban of the Church, was often almost as definitely discouraged by Edward III. as it was encouraged by John of France; and while John's father opened the Crécy campaign by sending Edward a challenge in due form of chivalry, Edward took advantage of this formal delay to amuse the French king with negotiations while he withdrew his army by a rapid march from an almost hopeless position. A couple of quotations from Froissart will illustrate the extent to which war had now become a mere business. Much as he admired the French chivalry, he recognized their impotence at Crécy. "The sharp arrows ran into the men of arms and into their horses, and many fell, horse and men. . . . And also among the Englishmen there were certain rascals that went afoot with great knives, and they went in among the men of arms, and slew and murdered many as they lay on the ground, both earls, barons, knights and squires, whereof the king of England was after displeased, for he had rather they had been taken prisoners." How far Edward's solicitude was disinterested may be gauged from Froissart's parallel remark about the battle of Aljubarrota, where, as at Agincourt, the handful of victors were obliged by a sudden panic to slay their prisoners. "Lo, behold the great evil adventure that fell that Saturday. For they slew as many good prisoners as would well have been worth, one with another, four hundred thousand franks." In 1402 Lord Thomas de Berkeley bought, as a speculation, 24 Scottish prisoners. Similar practical considerations forced the nobles of other European countries either to conform to less sentimental methods of warfare and to growing conceptions of nationality, or to become mere Ishmaels of the type which outlived the middle ages in Götz von Berlichingen and his compeers.

BIBLIOGRAPHY.—Froissart is perhaps the source from which we may gather most of chivalry in its double aspect, good and bad. The brilliant side comes out most clearly in Joinville, the *Chronique de Du Guesclin*, and the *Histoire de Bayart*; the darker side appears in the earlier chronicles of the crusades, and is especially emphasized by preachers and moralists like Jacques de Vitry, Étienne de Bourbon, Nicole Bozon and John Gower. John Smyth's *Lives of the Berkeleys* (Bristol and Glouc. Archaeol. Soc., 2 vols.) and the *Book of the Knight of La Tour-Landry* (ed. A. de Montaiglon, or in the old English trans. published by the Early English Text Soc.) throw a very vivid light on the inner life of noble families. Of modern books, besides those quoted by their full titles in the notes, the best are A. Schultz, *Höfisches Leben z. Zeit der Minnesänger* (Leipzig, 1879); S. Luce, *Hist. de Du Guesclin et de son Époque* (2nd ed., Paris, 1882), masterly but unfortunately unfinished at the author's death; Léon Gautier, *La Chevalerie* (Paris, 1883), written with a strong apologetic bias, but full and correct in its references; and F. W. Cornish, *Chivalry* (London, 1901), too little reference to the more prosaic historical documents, but candid and without intentional partiality. (G. G. Co.)

ORDERS OF KNIGHTHOOD

When orders ceased to be fraternities and became more and more marks of favour and a means of recognizing meritorious services to the Crown and country, the term "orders" became loosely applied to the insignia and decorations themselves. Thus "orders," irrespective of the title or other specific designation they confer, fall in Great Britain generally into three main categories, according as the recipients are made "knights grand cross," "knights commander," or "companions." In some orders the classes are more numerous, as in the Royal Victorian, for instance, which has five, numerous foreign orders a like number, some six, while the Chinese "Dragon" boasts no less than eleven degrees. Generally speaking, the insignia of the "knights grand cross" consist of a star worn on the left breast and a badge, usually some form either of the cross *patée* or of the Maltese cross, worn suspended from a ribbon over the shoulder or, in certain cases, on days of high ceremonial from a collar. The "commanders" wear the badge from a ribbon round the neck, and the star on the breast; the "companions" have no star and wear the badge from a narrow ribbon at the button-hole.

Orders may, again, be grouped according as they are (1) PRIME ORDERS OF CHRISTENDOM, conferred upon an exclusive class only. Here belong, *inter alia*, the well-known orders of the *Garter* (England), *Golden Fleece* (Austria and Spain), *Annunziata* (Italy), *Black Eagle* (Prussia), *St Andrew* (Russia), *Elephant* (Denmark) and *Seraphim* (Sweden). Of these the first three only, which are usually held to rank *inter se* in the order given, are historically identified with chivalry. (2) FAMILY ORDERS, bestowed upon members of the royal or princely class, or upon humbler individuals according to classes, in respect of "personal" services rendered to the family. To this category belong such orders as the Royal Victorian and the Hohenzollern (Prussia). (3) ORDERS OF MERIT, whether military, civil or joint orders. Such have, as a rule, at least three, oftener five classes, and here belong such as the *Order of the Bath* (British), *Red Eagle* (Prussia), *Legion of Honour* (France). There are also certain orders, such as the recently instituted *Order of Merit* (British), and the *Pour le Mérite* (Prussia), which have but one class, all members being on an equality of rank within the order.

Of the three great military and religious orders, branches survive of two, the Teutonic Order (*Der hohe deutsche Ritter Orden* or *Marianen Orden*) and the Knights of St John of Jerusalem (*Johanniter Orden, Malteser Orden*), for the history of which and the present state see TEUTONIC ORDER and ST JOHN OF JERUSALEM, KNIGHTS OF THE ORDER OF.

Great Britain.—The history and constitution of the "most noble" *Order of the Garter* has been treated above. The officers of the order are five—the prelate, chancellor, registrar, king of arms and usher—the first, third and fifth having been attached to it from the commencement, while the fourth was added by Henry V. and the second by Edward IV. The prelate has always been the bishop of Winchester; the chancellor was formerly the bishop of Salisbury, but is now the bishop of Oxford; the registrarship and the deanery of Windsor have been united since the reign of Charles I.; the king of arms, whose duties were in the beginning discharged by Windsor herald, is Garter Principal King of Arms; and the usher is the gentleman usher of the Black Rod. The chapel of the order is St George's Chapel, Windsor. The insignia of the order are illustrated on Plate I.

The "most ancient" *Order of the Thistle* was founded by James II. in 1687, and dedicated to St Andrew. It consisted of the sovereign and eight knights companions, and fell into abeyance at the Revolution of 1688. In 1703 it was revived by Queen Anne, when it was ordained to consist of the sovereign and 12 knights companions, the number being increased to 16 by statute in 1827. The officers of the order are the dean, the secretary, Lyon King of Arms and the gentleman usher of the Green Rod. The chapel, in St Giles's, Edinburgh, was begun in 1909. The star, badge and ribbon of the order are illustrated on Plate II., figs. 5 and 6. The collar is formed of thistles, alternating with sprigs of rue, and the motto is *Nemo me impune lacessit.*

[1] Lecoy de la Marche (*Chaire française au moyen âge*, 2nd ed., p. 387) gives many instances to prove that "al chevalerie, au xiiie siècle, est déjà sur son déclin." But already about 1160 Peter of Blois had written, "The so-called order of knighthood is nowadays mere disorder" (*ordo militum nunc est, ordinem non tenere.* Ep. xciv.: the whole letter should be read); and, half a century earlier still, Guibert of Nogent gives an equally unflattering picture of contemporary chivalry in his *De vita sua* (Migne, *Pat. Lat.*, tom. clvi.).

INSIGNIA OF SOME OF THE PRINCIPAL ORDERS OF KNIGHTHOOD, DRAWN BY GRACIOUS PERMISSION FROM THOSE IN THE POSSESSION OF HIS LATE MAJESTY KING EDWARD VII AND ARRANGED IN ACCORDANCE WITH HIS MAJESTY'S WISHES AND COMMAND.

THE BATH. (i.) STAR; (ii.) GRAND CROSS (Mil.); (iii.) STAR; (iv.) GRAND CROSS (Civ.) THE THISTLE. (v.) STAR; (vi.) BADGE.
THE ST PATRICK. (vii.) BADGE; (viii.) STAR. THE ST MICHAEL AND ST GEORGE. (ix.(STAR; (x.) GRAND CROSS.

Drawn by William Gibb.

Niagara Litho. Co., Buffalo, N. Y.

The "most illustrious" *Order of St Patrick* was instituted by George III. in 1788, to consist of the sovereign, the lord lieutenant of Ireland as grand master and 15 knights companions, enlarged to 22 in 1833. The chancellor of the order is the chief secretary to the lord lieutenant of Ireland, and the king of arms is Ulster King of Arms; Black Rod is the usher. The chapel is in St Patrick's Cathedral, Dublin. The star, badge and ribbon are illustrated on Plate II., figs. 7 and 8. The collar is formed of alternate roses with red and white leaves, and gold harps linked by gold knots; the badge is suspended from a harp surmounted by an imperial jewelled crown. The motto is *Quis separabit?*

The "most honourable" *Order of the Bath* was established by George I. in 1725, to consist of the sovereign, a grand master and 36 knights companions. This was a pretended revival of an order supposed to have been created by Henry IV. at his coronation in 1399. But, as has been shown in the preceding section, no such order existed. Knights of the Bath, although they were allowed precedence before knights bachelors, were merely knights bachelors who were knighted with more elaborate ceremonies than others and on certain great occasions. In 1815 the order was instituted, in three classes, "to commemorate the auspicious termination of the long and arduous contest in which the Empire has been engaged"; and in 1847 the civil knights commanders and companions were added. Exclusive of the sovereign, royal princes and distinguished foreigners, the order is limited to 55 military and 27 civil knights grand cross, 145 military and 108 civil knights commanders, and 705 military and 298 civil companions. The officers of the order are the dean (the dean of Westminster), Bath King of Arms, the registrar, and the usher of the Scarlet Rod. The ribbon and badges of the knights grand cross (civil and military) and the stars are illustrated on Plate II., figs. 1, 2, 3 and 4.

The "most distinguished" *Order of St Michael and St George* was founded by the prince regent, afterwards George IV., in 1818, in commemoration of the British protectorate of the Ionian Islands, "for natives of the Ionian Islands and of the island of Malta and its dependencies, and for such other subjects of his majesty as may hold high and confidential situations in the Mediterranean." By statute of 1832 the lord high commissioner of the Ionian Islands was to be the grand master, and the order was directed to consist of 15 knights grand crosses, 20 knights commanders and 25 cavaliers or companions. After the repudiation of the British protectorate of the Ionian Islands, the order was placed on a new basis, and by letters patent of 1868 and 1877 it was extended and provided for such of "the natural born subjects of the Crown of the United Kingdom as may have held or shall hold high and confidential offices within her majesty's colonial possessions, and in reward for services rendered to the crown in relation to the foreign affairs of the Empire." It is now (by the enlargement of 1902) limited to 100 knights grand cross, of whom the first or principal is grand master, exclusive of extra and honorary members, of 300 knights commanders and 600 companions. The officers are the prelate, chancellor, registrar, secretary and officer of arms. The chapel of the order, in St Paul's Cathedral, was dedicated in 1906. The badge of the knights grand cross and the ribbon are illustrated on Plate II., figs. 9 and 10. The star of the knights grand cross is a seven-rayed star of silver with a small ray of gold between each, in the centre is a red St George's cross bearing a medallion of St Michael encountering Satan, surrounded by a blue fillet with the motto *Auspicium melioris aevi.*

The *Order of St Michael and St George* ranks between the "most exalted" *Order of the Star of India* and the "most eminent" *Order of the Indian Empire*, of both of which the viceroy of India for the time being is *ex officio* grand master. Of these the first was instituted in 1861 and enlarged in 1876. 1897 and 1903, in three classes, knights grand commanders, knights commanders and companions, and the second was established (for "companions" only) in 1878 and enlarged in 1887, 1892, 1897 and 1903, also in the same three classes, in commemoration of Queen Victoria's assumption of the imperial style and title of the Empress of India. The badges, stars and ribbons of the knights grand commanders of the two orders are illustrated on Plate III., figs. 3, 4, 5 and 6. The collar of the *Star of India* is composed of alternate links of the lotus flower, red and white roses and palm branches enamelled on gold, with an imperial crown in the centre; that of the *Indian Empire* is composed of elephants, peacocks and Indian roses.

The *Royal Victorian Order* was instituted by Queen Victoria on the 25th of April 1896, and conferred for personal services rendered to her majesty and her successors on the throne. It consists of the sovereign, chancellor, secretary and five classes—knights grand commanders, knights commanders, commanders and members of the fourth and fifth classes, the distinction between these last divisions lying in the badge and in the precedence enjoyed by the members. The knights of this order rank in their respective classes immediately after those of the *Indian Empire*, and its numbers are unlimited. The badge, star and ribbon of the knights grand cross are illustrated on Plate III., figs. 1 and 2.

To the class of orders without the titular appellation "knight" belongs the *Order of Merit*, founded by King Edward VII. on the occasion of his coronation. The order is founded on the lines of the Prussian *Ordre pour le mérite* (see below), yet more comprehensive, including those who have gained distinction in the military and naval services of the Empire, and such as have made themselves a great name in the fields of science, art and literature. The number of British members has been fixed at twenty-four, with the addition of such foreign persons as the sovereign shall appoint. The names of the first recipients were: Earl Roberts, Viscount Wolseley, Viscount Kitchener, Sir Henry Keppel, Sir Edward Seymour, Lord Lister, Lord Rayleigh, Lord Kelvin, John Morley, W. E. H. Lecky, G. F. Watts and Sir William Huggins. The only foreign recipients up to 1910 were Field Marshals Yamagata and Oyama and Admiral Togo. A lady, Miss Florence Nightingale, received the order in 1907. The badge is a cross of red and blue enamel surmounted by an imperial crown; the central blue medallion bears the inscription "For Merit" in gold, and is surrounded by a wreath of laurel. The badge of the military and naval members bears two crossed swords in the angles of the cross. The ribbon is garter blue and crimson and is worn round the neck.

The *Distinguished Service Order*, an order of military merit, was founded on the 6th of September 1886 by Queen Victoria, its object being to recognize the special services of officers in the army and navy. Its numbers are unlimited, and its designation the letters D.S.O. It consists of one class only, who take precedence immediately after the 4th class of the Royal Victorian Order. The badge is a white and gold cross with a red centre bearing the imperial crown surrounded by a laurel wreath. The ribbon is red edged with blue. The *Imperial Service Order* was likewise instituted on the 26th of June 1902, and finally revised in 1908, to commemorate King Edward's coronation, and is specially designed as a recognition of faithful and meritorious services rendered to the British Crown by the administrative members of the civil service in various parts of the Empire, and is to consist of companions only. The numbers are limited to 475, of whom 250 belong to the home and 225 to the civil services of the colonies and protectorates (Royal Warrant, June 1909). Women as well as men are eligible. The members of the order have the distinction of adding the letters I.S.O. after their names. In precedence the order ranks after the *Distinguished Service Order.* The badge is a gold medallion bearing the royal cipher and the words "For Faithful Service" in blue; for men it rests on a silver star, for women it is surrounded by a silver wreath. The ribbon is one blue between two crimson stripes.

In addition to the above, there are two British orders confined to ladies. The *Royal Order of Victoria and Albert*, which was instituted in 1862, is a purely court distinction. It consists of four classes, and it has as designation the letters V.A. The *Imperial Order of the Crown of India* is conferred for like purposes as the Order of the Indian Empire. Its primary object is to recognize the services of ladies connected with the court of India. The letters C.I. are its designation.

The sovereign's permission by royal warrant is necessary before a British subject can receive a foreign order of knighthood. For other decorations, see under MEDALS.

The Golden Fleece (*La Toison d'Or*) ranks historically and in distinction as one of the great knightly orders of Europe. It is

now divided into two branches, of Austria and Spain. It was founded on the 10th of January, 1429/30 by Philip the Good, duke of Burgundy, on the day of his marriage with Isabella of Portugal at Bruges, in her honour and dedicated to the Virgin and St Andrew. No certain origin can be given for the name. It seems to have been in dispute even in the early history of the order. Four different sources have been suggested; the classical myth of the voyage of Jason and the Argonauts for the golden fleece, the scriptural story of Gideon, the staple trade of Flanders in wool, and the fleece of golden hair of Marie de Rambrugge, the duke's mistress. Motley (*Rise of Dutch Rep.*, i. 48) says: "What could be more practical and more devout than the conception? Did not the Lamb of God, suspended at each knight's heart, symbolize at once the woollen fabrics to which so much of Flemish wealth and Burgundian power was owing, and the gentle humility of Christ which was ever to characterize the order?" At its constitution the number of the knights was limited to 24, exclusive of the grand master, the sovereign. The members were to be *gentilshommes de nom et d'armes et sans reproche*, not knights of any other order, and vowed to join their sovereign in the defence of the Catholic faith, the protection of Holy Church, and the upholding of virtue and good morals. The sovereign undertook to consult the knights before embarking on a war, all disputes between the knights were to be settled by the order, at each chapter the deeds of each knight were held in review, and punishments and admonitions were dealt out to offenders; to this the sovereign was expressly subject. Thus we find that the emperor Charles V. accepted humbly the criticism of the knights of the Fleece on his over-centralization of the government and the wasteful personal attention to details (E. A. Armstrong, *Charles V.*, 1902, ii. 373). The knights could claim as of right to be tried by their fellows on charges of rebellion, heresy and treason, and Charles V. conferred on the order exclusive jurisdiction over all crimes committed by the knights. The arrest of the offender had to be by warrant signed by at least six knights, and during the process of charge and trial he remained not in prison but *dans l'aimable compagnie du dit ordre*. It was in defiance of this right that Alva refused the claim of Counts Egmont and Horn to be tried by the knights of the Fleece in 1568. During the 16th century the order frequently acted as a consultative body in the state; thus in 1539 and 1540 Charles summons the knights with the council of state and the privy council to decide what steps should be taken in face of the revolt of Ghent (Armstrong, *op. cit.*, i. 302), in 1562 Margaret of Parma, the regent, summons them to Brussels to debate the dangerous condition of the provinces (Motley, i. 48), and they were present at the abdication of Charles in the great hall at Brussels in 1555. The history of the order and its subsequent division into the two branches of Austria and Spain may be briefly summarized. By the marriage of Mary, only daughter of Charles the Bold of Burgundy to Maximilian, archduke of Austria, 1477, the grand mastership of the order came to the house of Habsburg and, with the Netherlands provinces, to Spain in 1504 on the accession of Philip, Maximilian's son, to Castile. On the extinction of the Habsburg dynasty in Spain by the death of Charles II. in 1700 the grand-mastership, which had been filled by the kings of Spain after the loss of the Netherlands, was claimed by the emperor Charles VI., and he instituted the order in Vienna in 1713. Protests were made at various times by Philip V., but the question has never been finally decided by treaty, and the Austrian and Spanish branches have continued as independent orders ever since as the principal order of knighthood in the respective states. It may be noticed that while the Austrian branch excludes any other than Roman Catholics from the order, the Spanish Fleece may be granted to Protestants. The badges of the two branches vary slightly in detail, more particularly in the attachment of fire-stones (*fusils* or *furisons*) and steels by which the fleece is attached to the ribbon of the collar. The Spanish form is given on Plate IV., fig. 2. The collar is composed of alternate links of furisons and double steels interlaced to form the letter B for Burgundy. A magnificent exhibition of relics, portraits of knights and other objects connected with the order of the Golden Fleece was held at Bruges in 1907.

The chief history of the order is Baron de Reiffenberg's *Histoire de l'Ordre de la Toison d'Or* (1830); see also an article by Sir J. Balfour Paul, Lyon King of Arms, in the *Scottish Historical Review* (July 1908).

Austria-Hungary.—The following are the principal orders other than that of the Golden Fleece (*supra*). *The Order of St Stephen of Hungary*, the royal Hungarian order, founded in 1764 by the empress Maria Theresa, consists of the grand master (the sovereign), 20 knights grand cross, 30 knights commanders and 50 knights. The badge is a green enamelled cross with gold borders, suspended from the Hungarian crown; the red enamelled medallion in the centre of the cross bears a white patriarchal cross issuing from a coroneted green mound; on either side of the cross are the letters M.T. in gold, and the whole is surrounded by a white fillet with the legend *Publicum Meritorum Praemium*. The ribbon is green with a crimson central stripe. The collar, only worn by the knights grand cross, is of gold, and consists of Hungarian crowns linked together alternately by the monograms of St Stephen, S.S., and the foundress, M.T.; the centre of the collar is formed by a flying lark encircled by the motto *Stringit amore*. An illustration of the star of the grand cross is given on Plate V. fig. 4. *The Order of Leopold*, for civil and military service, was founded in 1808 by the emperor Francis I. in memory of his father Leopold II. The three classes take precedence next after the corresponding classes of the order of St Stephen. The badge is a red enamelled cross bordered with white and gold and surmounted by the imperial crown; the red medallion in the centre bears the letters F.I.A., and on the encircling white fillet is the inscription *Integritati et Merito*. When conferred for service in war the cross rests on a green laurel wreath. The ribbon is scarlet with two white stripes. The collar consists of imperial crowns, the initials F. and L. and oak wreaths. *The Order of the Iron Crown, i.e.* of Lombardy, was founded by Napoleon as king of Italy in 1809, and refounded as an Austrian order of civil and military merit in 1816 by the emperor Francis I.; the number of knights is limited to 100—20 grand cross, 30 commanders, 50 knights. The badge consists of the double-headed imperial eagle with sword and orb; below it is the jewelled iron crown of Lombardy, and above the imperial crown; on the breast of the eagle is a gold-bordered blue shield with the letter F. in gold. The military decoration for war service also bears two green laurel branches. The ribbon is yellow edged with narrow blue stripes. The collar is formed of Lombard crowns, oak wreaths and the monogram F. P. (*Franciscus Primus*). *The Order of Francis Joseph*, for personal merit of every kind, was founded in 1849 by the emperor Francis Joseph I. It is of the three usual classes and is unlimited in numbers. The badge is a black and gold imperial eagle surmounted by the imperial crown. The eagle bears a red cross with a white medallion, containing the letters F. J., and to the beaks of the two heads of the eagle is attached a chain on which is the legend *Viribus Unitis*. The ribbon is deep red. The *Order of Maria Theresa* was founded by the empress Maria Theresa in 1757. It is a purely military order and is given to officers for personal distinguished conduct in the field. There are three classes. There were originally only two, grand cross and knights. The emperor Joseph II. added a commanders' class in 1765. The badge is a white cross with gold edge, in the centre a red medallion with a white gold-edged *fesse*, surrounded by a fillet with the inscription *Fortitudini*. The ribbon is red with a white central stripe. The *Order of Elizabeth Theresa*, also a military order for officers, was founded in 1750 by the will of Elizabeth Christina, widow of the emperor Charles VI. It was renovated in 1771 by her daughter, the empress Maria Theresa. The order is limited to 21 knights in three divisions. The badge is an oval star with eight points, enamelled half red and white, dependent from a gold imperial crown. The central medallion bears the initials of the founders, with the encircling inscription *M. Theresa parentis gratiam perennem voluit*. The ribbon is black. The *Order of the Starry Cross*, for high-born ladies of the Roman Catholic faith who devote themselves to good works, spiritual and temporal, was founded in 1668 by the empress Eleanor, widow of the emperor Ferdinand III. and mother of Leopold I., to commemorate the recovery of a relic of the true cross from a dangerous fire in the imperial palace at Vienna. The relic was supposed to have been peculiarly treasured by the emperor Maximilian I. and the emperor Frederick III. The patroness of the order must be a princess of the imperial Austrian house. The badge is the black double-headed eagle surrounded by a blue-enamelled ornamented border, with the inscription *Salus et Gloria* on a white fillet; the eagle bears a red Greek cross with gold and blue borders. The *Order of Elizabeth*, also for ladies, was founded in 1898.

Belgium.—The *Order of Leopold*, for civil and military merit, was founded in 1832 by Leopold I., with four classes, a fifth being added in 1838. The badge is a white enamelled cross, with gold borders and balls, suspended from a royal crown and resting on a green laurel and oak wreath. In the centre a medallion, surrounded by a red fillet with the motto of the order, *L'union fait la force*, bears a golden Belgian lion on a black field. The ribbon is watered red.

INSIGNIA OF SOME OF THE PRINCIPAL ORDERS OF KNIGHTHOOD, DRAWN BY GRACIOUS PERMISSION FROM THOSE IN THE POSSESSION OF HIS LATE MAJESTY KING EDWARD VII AND ARRANGED IN ACCORDANCE WITH HIS MAJESTY'S WISHES AND COMMAND.

ROYAL VICTORIAN ORDER. (i.) GRAND CROSS; (ii.) STAR. ORDER OF THE INDIAN EMPIRE. (iii.) BADGE OF KNIGHT GRAND COMMANDER; (iv.) STAR. THE STAR OF INDIA. (v.) STAR; (vi.) BADGE OF KNIGHT GRAND COMMANDER.

Drawn by William Gibb.

Niagara Litho. Co., Buffalo, N. Y.

The *Order of the Iron Cross*, the badge of which is a black cross with gold borders, with a gold centre bearing a lion, was instituted by Leopold II. in 1867 as an order of civil merit. The military cross was instituted in 1885. There are also the following orders instituted by Leopold II. for service in the Congo State: the *Order of the African Star* (1888), the *Royal Order of the Lion* (1891) and the *Congo Star* (1889).

Bulgaria.—The *Order of SS Cyril and Methodius* was instituted in 1909 by King Ferdinand to commemorate the elevation of the principality to the position of an independent kingdom. It now takes precedence of the *Order of St Alexander*, which was founded by Prince Alexander in 1881, and reconstituted by Prince Ferdinand in 1888. There are six classes. The plain white cross, suspended from the Bulgarian crown, bears the name of the patron saint in old Cyrillic letters in the centre.

Denmark.—The *Order of the Elephant*, one of the chief European orders of knighthood, was, it is said, founded by Christian I. in 1462; a still earlier origin has been assigned to it, but its regular institution was that of Christian V. in 1693. The order, exclusive of the sovereign and his sons, is limited to 30 knights, who must be of the Protestant religion. The badge of the order is illustrated on Plate IV. fig. 5. The ribbon is light watered blue, the collar of alternate gold elephants with blue housings and towers, the star of silver with a purple medallion bearing a silver or brilliant cross surrounded by a silver laurel wreath. The motto is *Magnanime pretium*. The *Order of the Dannebrog* is, according to Danish tradition, of miraculous origin, and was founded by Valdemar II. in 1219 as a memorial of a victory over the Esthonians, won by the appearance in the sky of a red banner bearing a white cross. Historically the order dates from the foundation in 1671 by Christian V. at the birth of his son Frederick, the statutes being published in 1693. Originally restricted to 50 knights and granted as a family or court decoration, it was reconstituted as an unlimited order of merit in 1808 by Frederick VI.; alterations have been made in 1811 and 1864. It now consists of three classes—grand cross, commander (two grades), knight, and of one rank of ordinary members (*Dannebrogs maender*). The badge of the order is, with variations for the different classes, a white enamelled Danish cross with red and gold borders, bearing in the centre the letter W (V) and on the four arms the inscription *Gud og Kongen* (For God and King). The ribbon is white with red edging.

France.—*The Legion of Honour*, the only order of France, and one which in its higher grades ranks in estimation with the highest European orders, was instituted by Napoleon Bonaparte on the 19th of May 1802 (29 Floreal of the year X.) as a general military and civil order of merit. All soldiers on whom "swords of honour" had been already conferred were declared *legionaries ipso facto*, and all citizens after 25 years' service were declared eligible, whatever their birth, rank or religion. On admission all were to swear to co-operate so far as in them lay for the assertion of the principles of liberty and equality. The organization as laid down by Napoleon in 1804 was as follows: Napoleon was grand master; a grand council of 7 grand officers administered the order; the order was divided into 15 "cohorts" of 7 grand officers, 20 commanders, 30 officers and 350 legionaries, and at the headquarters of the cohorts, for which the territory of France was separated into 15 divisions, were maintained hospitals for the support of the sick and infirm legionaries. Salaries (*traitements*) varying in each rank were attached to the order. In 1805 the rank of "Grand Eagle" (now Grand Cross, or *Grand Cordon*) was instituted, taking precedence of the grand officers. At the Restoration many changes were made, the old military and religious orders were restored, and the *Legion of Honour*, now *Ordre Royale de la Legion d'Honneur*, took the lowest rank. The revolution of July 1830 restored the order to its unique place. The constitution of the order now rests on the decrees of the 16th of March and 24th of November 1852, the law of the 25th of July 1873, the decree of the 29th of December 1892, and the laws of the 16th of April 1895 and the 28th of January 1897, and a decree of the 26th of June 1900. The president of the republic is the grand master of the order; the administration is in the hands of a grand chancellor, who has a council of the order nominated by the grand master. The chancellery is housed in the *Palais de la Legion de l'Honneur*, which, burnt during the Commune, was rebuilt in 1878. The order consists of the five classes of grand cross (limited to 80), grand officer (200), commander (1000), officers (4000), and chevalier or knight, in which the number is unlimited. These limitations in number do not affect the foreign recipients of the order. Salaries (*traitements*) are attached to the military and naval recipients of the order when on the active list, viz. 3000 francs for grand cross, 2000 francs for grand officers, 1000 francs for commanders, 250 francs for chevaliers. The numbers of the recipients of the order *sans traitement* are limited through all classes. In ordinary circumstances twenty years of military, naval or civil service must have been performed before a candidate can be eligible for the rank of chevalier, and promotions can only be made after definite service in the lower rank. Extraordinary service in time of war and extraordinary services in civil life admit to any rank. Women have been decorated, notably Rosa Bonheur, Madame Curie and Madame Bartet. The Napoleonic form of the grand cross and ribbon is illustrated on Plate IV, fig. 6; the cross from which the drawing was made was given to King Edward VII. when prince of Wales in 1863. In the present order of the French Republic the symbolical head of the Republic appears in the centre, and a laurel wreath replaces the imperial crown; the inscription round the medallion is *République française*. Since 1805 there has existed an institution, *Maison d'éducation de la Legion d'Honneur*, for the education of the daughters, granddaughters, sisters and nieces of members of the Legion of Honour. There are three houses, at Saint Denis, at Écouen and Les Loges (see *Dictionnaire de l'administration française*, by M. Block and E. Magnéro, 1905, *s.v.* "Decorations").

Among the orders swept away at the French Revolution, restored in part at the Restoration, and finally abolished at the revolution of July 1830 were the following: The *Order of St Michael* was founded by Louis XI. in 1469 for a limited number of knights of noble birth. Later the numbers were so much increased under Charles IX. that it became known as *Le Collier à toutes bêtes*. In 1816 the order was granted for services in art and science. In view of the low esteem into which the *Order of St Michael* had fallen, Henry III. founded in 1578 the *Order of the Holy Ghost* (*St Esprit*). The badge of the order was a white Maltese cross decorated in gold, with the gold lilies of France at the angles, in the centre a white dove with wings outstretched, the ribbon was sky blue (*cordon bleu*). The motto of the order was *Duce et auspice*. The *Order of St Louis* was founded by Louis XIV. in 1693 for military merit, and the *Order of Military Merit* by Louis XV. in 1759, originally for Protestant officers.

Germany.—i. *Anhalt.* The *Order of Albert the Bear*, a family order or *Hausorden*, was founded in 1836 by the dukes Henry of Anhalt-Köthen, Leopold Frederick of Anhalt-Dessau and Alexander Charles of Anhalt-Bernburg. Changes in the constitution have been made at various dates. It now consists of five classes, grand cross, commander (2 classes) and knights (2 classes). The badge is a gold oval bearing in gold a crowned and collared bear on a crenellated wall; below the ring by which the badge is attached to the ribbon is a shield with the arms of the house of Anhalt, on the reverse those of the house of Ascania. Round the oval is the motto *Fürchte Gott und folge seine Befehle*. The ribbon is green with two red stripes. The grand master alone wears a collar.

ii. *Baden.* The *Order of Fidelity or Loyalty* (*Hausorden der Treue*) was instituted by William, margrave of Baden-Durlach in 1715, and reconstituted in 1803 by the elector Charles Frederick. There is now only one class, for princes of the reigning house, foreign sovereigns and eminent men of the state. The badge is a red enamelled cross with gold borders and double C's interlaced in the angles; in the centre a white medallion with red monogram over a green mound surmounted by the word *Fidelitas* in black; the cross is suspended from a ducal crown. The ribbon is orange with silver edging. The military *Order of Charles Frederick* was founded in 1807. There are three classes. The badge is a white cross resting on a green laurel wreath, the ribbon is red with a yellow stripe bordered with white. The order is conferred for long and meritorious military service. The *Order of the Zähringen Lion* was founded in 1812 in commemoration of the descent of the reigning house of Baden from the dukes of Zähringen. It has been reconstituted in 1840 and 1877. It now consists of five classes. The badge is a green enamel cross with gold clasps in the angles; in the central medallion an enamelled representation of the ruined castle of Zähringen. The ribbon is green with two orange stripes. Since 1896 the *Order of Berthold I.* has been a distinct order; it was founded in 1877 as a higher class of the *Zähringen Lion*.

iii. *Bavaria.* The *Order of St Hubert*, one of the oldest and most distinguished knightly orders, was founded in 1444 by duke Gerhard V. of Jülich-Berg in honour of a victory over Count Arnold of Egmont at Ravensberg on the 3rd of November, St Hubert's day. The knights wore a collar of golden hunting horns, whence the order was also known as the *Order of the Horn*. Statutes were granted in 1476, but the order fell into abeyance at the extinction of the dynasty in 1609. It was revived in 1708 by the elector palatine, John William of Neuberg, and its constitution was altered at various times, its final form being given by the elector Maximilian Joseph, first king of Bavaria, in 1808. Exclusive of the sovereign and

princes of the blood, and foreign sovereigns and princes, it consists of twelve capitular knights of the rank of count or *Freiherr*. The badge of the order and the ribbon are illustrated in Plate V. fig. 3. The central medallion represents the conversion of St Hubert. The collar is composed of gold and blue enamel figures of the conversion linked by the Gothic monogram I.T.V., *In Trau Vast*, the motto of the order, alternately red and green. The *Order of St George*, said to have been founded in the 12th century as a crusading order and revived by the emperor Maximilian I. in 1494, dates historically from its institution in 1729 by the elector Charles Albert, afterwards the emperor Charles VII. It was confirmed by the elector Charles Theodore in 1778 and by the elector Maximilian Joseph IV. as the second Bavarian order. Various new statutes have been granted from 1827 to 1875. The order is divided into two branches, "of German and foreign languages," and it also has a "spiritual class." The members of the order must be Roman Catholics. The badge is a blue enamelled cross with white and gold edging suspended from the mouth of a gold lion's head; in the angles of the cross are blue lozenges containing the letters V.I.B.I., *Virgini Immaculatae Bavaria Immaculata*. The central medallion contains a figure of the Immaculate Conception. The medallion on the reverse contains a figure of St George and the Dragon and the corresponding initials J.U.P.F., *Justus ut Palma Florebit*, the motto of the order. Besides the above Bavaria possesses the *Military Order of Maximilian Joseph*, 1806, and the *Civil Orders of Merit of St Michael*, 1693, and of the *Bavarian Crown*, 1808, and other minor orders and decorations, civil and military. There are also the two illustrious orders for ladies, the *Order of Elizabeth*, founded in 1766, and the *Order of Theresa*, in 1827. The foundations of *St Anne of Munich* and of *St Anne of Würzburg* for ladies are not properly orders.

iv. *Brunswick.* The *Order of Henry the Lion*, for military and civil merit, was founded by Duke William in 1834. There are five classes, and a cross of merit of two classes. The badge is a blue enamelled cross dependent from a lion surmounted by the ducal crown; the angles of the cross are filled by crowned W's and the centre bears the arms of Brunswick, a crowned pillar and a white horse, between two sickles. The ribbon is deep red bordered with yellow.

v. *Hanover.* The *Order of St George* (one class only) was instituted by King Ernest Augustus I. in 1839 as the family order of the house of Hanover; the *Royal Guelphic Order* (three classes) by George, prince regent, afterwards George IV. of Great Britain, in 1815; and the *Order of Ernest Augustus* by George V. of Hanover in 1865. These orders have not been conferred since 1866, when Hanover ceased to be a kingdom, and the *Royal Guelphic Order*, which from its institution was more British than Hanoverian, not since the death of William IV. in 1837. The last British grand cross was the late duke of Cambridge.

vi. *Hesse.* Of the various orders founded by the houses of Hesse-Cassel and Hesse-Darmstadt the following are still bestowed in the grand duchy of Hesse. The *Order of Louis*, founded by the grand duke Louis I. of Hesse-Darmstadt in 1807; there are five classes; the black, red and gold bordered cross bears the initial L. in the centre, the ribbon is black with red borders; the *Order of Philip the Magnanimous*, founded by the grand duke Louis II. in 1840 has five classes; the white cross of the badge bears the effigy of Philip surrounded by the motto *Si Deus vobiscum quis contra nos*. The *Order of the Golden Lion* was founded in 1770 by the landgrave Frederick II. of Hesse-Cassel, the knights are 41 in number and take precedence of the members of the two former orders. The badge is an open oval of gold with the Hessian lion in the centre. The ribbon is crimson.

vii. *Mecklenburg.* The grand duchies of Mecklenburg-Schwerin and Mecklenburg-Strelitz possess jointly the *Order of the Wendish Crown*, founded in 1864 by the grand dukes Frederick Francis II. of Schwerin and Frederick William of Strelitz; there are four classes, with two divisions of the grand cross, and also an affiliated cross of merit; the grand cross can be granted to ladies. The badge is a white cross bearing on a blue centre the Wendish crown, surrounded by the motto, for the Schwerin knights, *Per aspera ad astra*, for the Strelitz knights, *Avito viret honore*. The *Order of the Griffin*, founded in 1884 by Frederick Francis III. of Schwerin, was made common to the duchies in 1904.

viii. *Oldenberg.* The *Order of Duke Peter Frederick Louis*, a family order and order of merit, was founded by the grand duke Paul Frederick Augustus in memory of his father in 1838. It has two divisions, each of five classes, of capitular knights and honorary members. The badge is a white gold bordered cross suspended from a crown, in the centre the crowned monogram P.F.L. surrounded by the motto *Ein Gott, Ein Recht, Eine Wahrheit*; the ribbon is dark blue bordered with red.

ix. *Prussia.* The *Order of the Black Eagle*, one of the most distinguished of European orders, was founded in 1701 by the elector of Brandenburg, Frederick I., in memory of his coronation as king of Prussia. The order consists of one class only and the original statutes limited the number, exclusive of the princes of the royal house and foreign members, to 30. But the number has been exceeded. It is only conferred on those of royal lineage and upon high officers of state. It confers the nobiliary particle *von*. Only those who have received the *Order of the Red Eagle* are eligible. An illustration of the badge of the order with ribbon is given on Plate IV. fig. 3. The star of silver bears the black eagle on an orange ground surrounded by a silver fillet on which is the motto of the order *Suum Cuique*. The collar is formed of alternate black eagles and a circular medallion with the motto on a white centre surrounded by the initials F.R. repeated in green, the whole in a circle of blue with four gold crowns on the exterior rim. The *Order of the Red Eagle*, the second of the Prussian orders, was founded originally as the *Order of Sincerity* (*L'Ordre de la Sincerité*) in 1705 by George William, hereditary prince of Brandenburg-Bayreuth. The original constitution and insignia are now entirely changed, with the exception of the red eagle which formed the centre of the cross of the badge. The order had almost fallen into oblivion when it was revived in 1734 by the margrave George Frederick Charles as the *Order of the Brandenburg Red Eagle*. It consisted of 30 nobly born knights. The numbers were increased and a grand cross class added in 1759. On the cession of the principality to Prussia in 1791 the order was transferred and King Frederick William raised it to that place in Prussian orders which it has since maintained. The order was divided into four classes in 1810 and there are now five classes with numerous sub-divisions. It is an order of civil and military merit. The grand cross resembles the badge of the Black Eagle, but is white and the eagles in the corners red, the central medallion bearing the initials W.R. (those of William I.) surrounded by a blue fillet with the motto *Sincere et Constanter*. The numerous classes and subdivisions have exceedingly complicated distinguishing marks, some bearing crossed swords, a crown, or an oak-leaf surmounting the cross. The ribbon is white with two orange stripes.

The *Order for Merit* (*Ordre pour le Mérite*), one of the most highly prized of European orders of merit, has now two divisions, military and for science and art. It was originally founded by the electoral prince Frederick, afterwards Frederick I. of Prussia, in 1667 as the *Order of Generosity*; it was given its present name and granted for civil and military distinction by Frederick the Great, 1740. In 1810 the order was made one for military merit against the enemy in the field exclusively. In 1840 the class for distinction for science and art, or peace class (*Friedensklasse*) was founded by Frederick William IV., for those "who have gained an illustrious name by wide recognition in the spheres of science and art." The number is limited to 30 German and 30 foreign members. The *Academy of Sciences and Arts* on a vacancy nominates three candidates, from which one is selected by the king. It is interesting to note that this was the only distinction which Thomas Carlyle would accept. The badge of the military order is a blue cross with gold uncrowned eagles in the angles; on the topmost arm is the initial F., with a crown; on the other arms the inscription *Pour le Mérite*. The ribbon is black with a silver stripe at the edges. In 1866 a special grand cross was instituted for the crown prince (afterwards Frederick III.) and Prince Frederick Charles. It was in 1879 granted to Count von Moltke as a special distinction. The badge of the class for science or art is a circular medallion of white, with a gold eagle in the centre surrounded by a blue border with the inscription *Pour le Mérite*; on the white field the letters FF. II. four times repeated, and four crowns in gold projecting from the rim. The ribbon is the same as for the military class. The *Order of the Crown*, founded by William I. in 1861, ranks with the Red Eagle. There are four classes, with many subdivisions. Other Prussian orders are the *Order of William*, instituted by William II. in 1896; a Prussian branch of the knights of St John of Jerusalem, *Johanniter Orden*, in its present form dating from 1893; and the family *Order of the House of Hohenzollern*, founded in 1851 by Frederick William IV. There are two divisions, military and civil, divided into four classes. The military badge is a white cross with black and gold edging, resting on a green oak and laurel wreath; the central medallion bears the Prussian Eagle with the arms of Hohenzollern, and is surrounded by a blue fillet with the motto *Vom Fels zum Meer*; the civil badge is a black eagle, with the head encircled with a blue fillet with the motto. There are also for ladies the *Order of Service*, founded in 1814 by Frederick William III., in one class, but enlarged in 1850 and in 1865. The decoration of merit for ladies (*Verdienst-kreuz*), founded in 1870, was raised to an order in 1907. For the famous military decoration, the *Iron Cross*, see MEDALS.

x. *Saxony.*—The *Order of the Crown of Rue* (*Rauten Krone*) was founded as a family order by Frederick Augustus I. in 1807. It is of one class only, and the sons and nephews of the sovereign are born knights of the order. It is granted to foreign ruling princes and subjects of high rank. The badge is a pale green enamelled cross resting on a gold crown with eight rue leaves, the centre is white with the crowned monogram of the founder surrounded by a green circlet of rue; the star bears in its centre the motto *Providentiae Memor*. The ribbon is green. Other Saxon orders are the military *Order of St Henry*, for distinguished service in the field, founded in 1736 in one class; since 1829 it has had four classes; the ribbon is sky blue with two yellow stripes, the gold cross bears in the centre the effigy of the emperor Henry II.; the *Order of Albert*, for civil and military merit, founded in 1850 by Frederick Augustus II. in memory of Duke Albert the Bold, the founder of the Albertine line of Saxony, has six classes; the *Order of Civil Merit*, was founded in

INSIGNIA OF SOME OF THE PRINCIPAL ORDERS OF KNIGHTHOOD, DRAWN BY GRACIOUS PERMISSION FROM THOSE IN THE POSSESSION OF HIS LATE MAJESTY KING EDWARD VII AND ARRANGED IN ACCORDANCE WITH HIS MAJESTY'S WISHES AND COMMAND.

(i.) THE ST ANDREW (Russia). (ii.) THE GOLDEN FLEECE (Spain). (iii.) THE BLACK EAGLE (Prussia). (iv.) THE TOWER AND SWORD (Portugal.) (v.) THE ELEPHANT (Denmark). (vi.) THE LEGION OF HONOUR (France-Napoleonic). (vii.) THE ANNUNZIATA (Italy).

Drawn by William Gibb.

Niagara Litho. Co., Buffalo, N. Y.

1815. For ladies there are the *Order of Sidonia*, 1870, in memory of the wife of Albert the Bold, the mother (*Stamm-Mutter*) of the Albertine line; and the *Maria Anna Order*, 1906.

xi. The duchies of *Saxe Altenburg*, *Saxe Coburg Gotha* and *Saxe Meiningen* have in common the family *Order of Ernest*, founded in 1833 in memory of Duke Ernest the Pious of Saxe Gotha and as a revival of the *Order of German Integrity* (*Orden der deutschen Redlichkeit*) founded in 1690. Saxe Coburg Gotha and Saxe Meiningen have also separate crosses of merit in science and art.

xii. *Saxe Weimar.*—The *Order of the White Falcon* or *of Vigilance* was founded in 1732 and renewed in 1815.

xiii. *Württemberg.*—The *Order of the Crown of Württemberg* was founded in 1818, uniting the former *Order of the Golden Eagle* and an order of civil merit. It has five classes. The badge is a white cross surmounted by the royal crown, in the centre the initial F surrounded by a crimson fillet on which is the motto *Furchtlos und Treu*; in the angles of the cross are four golden leopards; the ribbon is crimson with two black stripes. Besides the military *Order of Merit* founded in 1759, and the silver cross of merit, 1900, Württemberg has also the *Order of Frederick*, 1830, and the *Order of Olga*, 1871, which is granted to ladies as well as men.

Greece.—The *Order of the Redeemer* was founded as such in 1833 by King Otto, being a conversion of a decoration of honour instituted in 1829 by the National Assembly at Argos. There are five classes, the numbers being regulated for each. An illustration of the badge and ribbon of the grand cross is given on Plate V. fig. 1.

Holland.—The *Order of William*, for military merit, was founded in 1815 by William I.; there are four classes; the badge is a white cross resting on a green laurel Burgundian cross, in the centre the Burgundian flint-steel, as in the order of the Golden Fleece. The motto *Voer Moed, Belied, Trouw* (For Valour, Devotion, Loyalty), appears on the arms of the cross. The cross is surmounted by a jewelled crown; the ribbon is orange with dark blue edging. The *Order of the Netherlands Lion*, for civil merit, was founded in 1818; there are four classes. The family *Order of the Golden Lion of Nassau* passed in 1890 to the grand duchy of Luxembourg (see under *Luxemburg*). In 1892 Queen Wilhelmina instituted the *Order of Orange-Nassau* with five classes. The *Teutonic Order* (*q.v.*), surviving in the Ballarde (Bailiwick) of Utrecht, was officially established in the Netherlands by the States General in 1580. It was abolished by Napoleon in 1811 and was restored in 1815.

Italy.—The *Order of the Annunziata*, the highest order of knighthood of the Italian kingdom, was instituted in 1362 by Amadeus VI., count of Savoy, as the Order of the Collare or Collar, from the silver collar made up of love-knots and roses, which was its badge, in honour of the fifteen joys of the Virgin; hence the number of the knights was restricted to fifteen, the fifteen chaplains recited fifteen masses each day, and the clauses of the original statute of the order were fifteen (Amadeus VIII. added five others in 1434). Charles III. decreed that the order should be called the Annunziata, and made some other alterations in 1518. His son and successor, Emmanuel Philibert, made further modifications in the statute and the costume. The church of the order was originally the Carthusian monastery of Pierre-châtel in the district of Bugey, but after Charles Emmanuel I. had given Bugey and Bresse to France in 1601 the church of the order was transferred to the Camaldolese monastery near Turin. That religious order having been suppressed at the time of the French Revolution, King Charles Albert decreed in 1840 that the Carthusian church of Collegno should be the chapel of the order. The knights of the Annunziata have the title of "cousins of the king," and enjoy precedence over all the other officials of the state. The costume of the order is of white satin embroidered in silk, with a purple velvet cloak adorned with roses and gold embroidery, but it is now never worn; in the collar the motto *Fert* is inserted, on the meaning of which there is great uncertainty,[1] and from it hangs a pendant enclosing a medallion representing the Annunciation (see Plate IV. fig. 7). An account of the order is given in Count Luigi Cibrario's *Ordini Cavallereschi* (Turin, 1846) with coloured plates of the costume and badges.

The *Order of St Maurice and St Lazarus* (SS Maurizio e Lazzaro), is a combination of two ancient orders. The Order of St Maurice was originally founded by Amadeus VIII., duke of Savoy, in 1434, when he retired to the hermitage of Ripaille, and consisted of a group of half-a-dozen councillors who were to advise him on such affairs of state as he continued to control. When he became pope as Felix V. the order practically ceased to exist. It was re-established at the instance of Emmanuel Philibert by Pope Pius V. in 1572 as a military and religious order, and the following year it was united to that of St Lazarus by Gregory XIII. The latter order had been founded as a military and religious community at the time of the Latin kingdom of Jerusalem with the object of assisting lepers, many of whom were among its members. Popes, princes and nobles endowed it with estates and privileges, including that of administering and succeeding to the property of lepers, which eventually led to grave abuses. With the advance of the Saracens the knights of St Lazarus, when driven from the Holy Land and Egypt, migrated to France (1291) and Naples (1311), where they founded leper hospitals. The order in Naples, which alone was afterwards recognized as the legitimate descendant of the Jerusalem community, was empowered to seize and confine anyone suspected of leprosy, a permission which led to the establishment of a regular inquisitorial system of blackmail. In the 15th and 16th centuries dissensions broke out among the knights, and the order declined in credit and wealth, until finally the grand master, Giannotto Castiglioni, resigned his position in favour of Emmanuel Philibert, duke of Savoy, in 1571. Two years later the orders of St Lazarus and St Maurice were incorporated into one community, the members of which were to devote themselves to the defence of the Holy See and to fight its enemies as well as to continue assisting lepers. The galleys of the order subsequently took part in various expeditions against the Turks and the Barbary pirates. Leprosy, which had almost disappeared in the 17th century, broke out once more in the 18th, and in 1773 a hospital was established by the order at Aosta, made famous by Xavier de Maistre's tale, *Le Lépreux de la cité d'Aoste*. The statutes were published in 1816, by which date the order had lost its military character; it was reformed first by Charles Albert (1831), and later by Victor Emmanuel II., king of Italy (1868). The knighthood of St Maurice and St Lazarus is now a dignity conferred by the king of Italy (the grand master) on persons distinguished in the public service, science, art and letters, trade, and above all in charitable works, to which its income is devoted. There are five classes. The badge of the combined order is composed of the white cross with trefoil termination of St Lazarus resting on the green cross of St Maurice; both crosses are bordered gold. The first four classes wear the badge suspended from a royal crown. The ribbon is dark green.

See L. Cibrario, *Descrizione storica degli Ordini Cavallereschi*, vol. i. (Turin, 1846); *Calendario Reale*, an annual publication issued in Rome.

The military *Order of Savoy* was founded in 1815 by Victor Emmanuel of Sardinia; badge modified 1855 and 1857. It has now five classes. The badge is a white cross, the arms of which expand and terminate in an obtuse angle; round the cross is a green laurel and oak wreath; the central medallion is red, bearing in gold two crossed swords, the initials of the founder and the date 1855. The ribbon is red with a central stripe of blue. The *Civil Order of Savoy*, founded in 1831 by Charles Albert of Sardinia, is of one class, and in statutes of 1868 is limited to 60 members. The badge is the plain Savoy cross in blue, with silver medallion, the ribbon is blue with white borders. The *Order of the Crown of Italy* was founded in 1868 by Victor Emmanuel II. in commemoration of the union of Italy into a kingdom. There are five classes.

Luxemburg.—The *Order of the Golden Lion* was founded as a family order of the house of Nassau by William III. of the Netherlands and Adolphus of Nassau jointly. On the death of William in 1890 it passed to the grand duke of Luxemburg; it has only one class. The *Order of Adolphus of Nassau*, for civil and military merit, in four classes, was founded in 1858, and the *Order of the Oak Crown* as a general order of merit, in five classes, in 1841, modified 1858.

Monaco.—The *Order of St Charles*, five classes, was founded in 1858 by Prince Charles III. and remodelled in 1863. It is a general order of merit.

Montenegro.—The *Order of St Peter*, founded in 1852, is a family order, in one class, and only given to members of the princely family; the *Order of Danilo*, or of the *Independence of Montenegro*, is a general order of merit, in four classes, with subdivisions, also founded in 1852.

Norway.—The *Order of St Olaf* was founded in 1847 by Oscar I. in honour of St Olaf, the founder of Christianity in Norway, as a general order of merit, military and civil. There are three classes, the last two being, in 1873 and 1890, subdivided into two grades each. The badge and ribbon is illustrated on Plate V, fig. 5. The reverse bears the motto *Ret og Sandhed* (Right and Truth). The *Order of the Norwegian Lion*, founded in 1904 by Oscar II., has only one class; foreigners on whom the order is conferred must be sovereigns or heads of states or members of reigning houses.

Papal.—The arrangement and constitution of the papal orders was remodelled by a brief of Pius X. in 1905. The *Order of Christ*, the supreme pontifical order, is of one class only; for the history of this ancient order see *Portugal* (*infra*). The badge and ribbon is the same as the older Portuguese form. The *Order of Pius* was founded in 1847 by Pius IX.; there are now three classes; the badge is an eight-pointed blue star with golden flames between the rays, a white centre bears the founder's name; the ribbon is blue with two red stripes at each border. The *Order of St Gregory the Great*, founded in 1831, is in two divisions, civil and military, each having three classes. The *Order of St Sylvester* was originally founded as the *Order of the Golden Spur* by Paul IV. in 1559 as a military body, though tradition assigns it to Constantine the Great and Pope Sylvester. It was reorganized as an order of merit by Gregory XVI. in 1841. In 1905 the order was divided into three classes, and a separate order, that of the *Golden Spur* or *Golden Legion* (*Militia Aurata*) was established, in one class, with the numbers limited to a hundred. The cross *Pro Ecclesia et Pontifice*, instituted by Leo XIII.

[1] It has been taken as the Latin word meaning "he bears" or as representing the initials of the legend *Fortitudo Ejus Rhodum Tenuit*, with an allusion to a defence of the island of Rhodes by an ancient count of Savoy.

in 1888 is a decoration, not an order. There remains the venerable *Order of the Holy Sepulchre*, of which tradition assigns the foundation to Godfrey de Bouillon. It was, however, probably founded as a military order for the protection of the Holy Sepulchre by Alexander VI. in 1496. The right to nominate to the order was shared with the pope as grand master by the guardian of the *Patres Minores* in Jerusalem, later by the Franciscans, and then by the Latin patriarch in Jerusalem. In 1905 the latter was nominated grand master, but the pope reserves the joint right of nomination. The badge of the order is a red Jerusalem cross with red Latin crosses in the angles.

Portugal.—The *Order of Christ* was founded on the abolition of the Templars by Dionysius or Diniz of Portugal and in 1318 in conjunction with Pope John XXII., both having the right to nominate to the order. The papal branch survives as a distinct order. In 1522 it was formed as a distinct Portuguese order and the grand mastership vested in the crown of Portugal. In 1789 its original religious aspect was abandoned, and with the exception that its members must be of the Roman Catholic faith, it is entirely secularized. There are three classes. The original badge of the order was a long red cross with expanded flat ends bearing a small cross in white; the ribbon is red. The modern badge is a blue enamelled cross resting on a green laurel wreath; the central medallion, in white, contains the old red and white cross. The older form is worn with the collar by the grand-crosses. The *Order of the Tower and Sword* was founded in 1808 in Brazil by the regent, afterwards king John VI. of Portugal, as a revival of the old *Order of the Sword*, said to have been founded by Alfonso V. in 1459. It was remodelled in 1832 under its present name and constitution as a general order of military and civil merit. There are five classes. The badge of the order and ribbon is illustrated on Plate IV. fig 4. The *Order of St Benedict of Aviz* (earlier of *Evora*), founded in 1162 as a religious military order, was secularized in 1789 as an order of military merit, in four classes. The badge is a green cross *fleury*; the ribbon is green. The *Order of St James of the Sword*, or James of Compostella, is a branch of the Spanish order of that name (see under *Spain*). It also was secularized in 1789, and in 1862 was constituted an order of merit for science, literature and art, in five classes. The badge is the lily-hilted sword of St James, enamelled red with gold borders; the ribbon is violet. In 1789 these three orders were granted a common badge uniting the three separate crosses in a gold medallion; the joint ribbon is red, green and violet, and to the separate crosses was added a red sacred heart and small white cross. There are also the *Order of Our Lady of Villa Viçosa* (1819), for both sexes, and the *Order of St Isabella*, 1801, for ladies.

Rumania.—The *Order of the Star of Rumania* was founded in 1877, and the *Order of the Crown of Rumania* in 1881, both in five classes, for civil and military merit; the ribbon of the first is red with blue borders, of the second light blue with two silver stripes.

Russia.—The *Order of St Andrew* was founded in 1698 by Peter the Great. It is the chief order of the empire, and admission carries with it according to the statutes of 1720 the orders of *St Anne*, *Alexander Nevsky*, and the *White Eagle*; there is only one class. The badge and ribbon is illustrated in Plate IV. fig 5. The collar is composed of three members alternately, the imperial eagle bearing on a red medallion a figure of St George slaying the Dragon, the badge of the grand duchy of Moskow, the cipher of the emperor Paul I. in gold on a blue ground, surmounted by the imperial crown, and surrounded by a trophy of weapons and green and white flags, and a circular red and gold star with a blue St Andrew's cross. The *Order of St Catherine*, for ladies, ranks next to the St Andrew. It was founded under the name of the *Order of Rescue* by Peter the Great in 1714 in honour of the empress Catherine and the part she had taken in rescuing him at the battle of the Pruth in 1711. There are two classes. The grand cross is only for members of the imperial house and ladies of the highest nobility. The second class was added in 1797. The badge of the order is a cross of diamonds bearing in a medallion the effigy of St Catherine. The ribbon is red with the motto *For Love and Fatherland* in silver letters. The *Order of St Alexander Nevsky* was founded in 1725 by the empress Catherine I. There is only one class. The badge is a red enamelled cross with gold eagles in the angles, bearing in a medallion the mounted effigy of St Alexander Nevsky. The ribbon is red. The *Order of the White Eagle* was founded in 1713 by Augustus II. of Poland and was adopted as a Russian order in 1831; there is one class. The *Order of St Anne* was founded by Charles Frederick, duke of Holstein-Gottorp in 1735 in honour of his wife, Anna Petrovna, daughter of Peter the Great. It was adopted as a Russian order in 1797 by their grandson, the emperor Paul. There are four classes. Other orders are those of *St Vladimir*, founded by Catherine II., 1782, four classes, and of *St Stanislaus*, founded originally as a Polish order by Stanislaus Augustus Poniatowski in 1765, and adopted as a Russian order in 1831.

The military *Order of St George* was founded by the empress Catherine II. in 1769 for military service on land and sea, with four classes; a fifth class for non-commissioned officers and men, the *St George's Cross*, was added in 1807. The badge is a white cross with gold borders, with a red central medallion on which is the figure of St George slaying the dragon. The ribbon is orange with three black stripes.

Servia.—The *Order of the White Eagle*, the principal order, was founded by Milan I. in 1882, statutes 1883, in five classes; the ribbon is blue and red; the *Order of St Sava*, founded 1883, also in five classes, is an order of merit for science and art; the *Order of the Star of Karageorgevitch*, four classes, was founded by Peter I. in 1904. The orders of *Milosch the Great*, founded by Alexander I. in 1898 and of *Takovo*, founded originally by Michael Obrenovitch in 1863, reconstituted in 1883, are since the dynastic revolution of 1903 no longer bestowed. The *Order of St Lazarus* is not a general order, the cross and collar being only worn by the king.

Spain.—The Spanish branch of the *Order of the Golden Fleece* has been treated above. The three most ancient orders of Spain—of *St James of Compostella*, or *St James of the Sword*, of *Alcantara* and of *Calatrava*—still exist as orders of merit, the first in three classes, the last two as orders of military merit in one class. They were all originally founded as military religious orders, like the crusading Templars and the Hospitallers, but to fight for the true faith against the Moors in Spain. The present badges of the orders represent the crosses that the knights wore on their mantles. That of St James of Compostella is the red lily-hilted sword of St James; the ribbon is also red. The other two orders wear the cross *fleury*—*Alcantara* red, *Calatrava* green, with corresponding ribbons. A short history of these orders may be here given. Tradition gives the foundation of the *Order of Knights of St James of Compostella* to Ramiro II., king of Leon, in the 10th century, to commemorate a victory over the Moors, but, historically, the order dates from the confirmation in 1175 by Pope Alexander III. It gained great reputation in the wars against the Moors and became very wealthy. In 1493 the grand-mastership was annexed by Ferdinand the Catholic, and was vested permanently in the crown of Spain by Pope Adrian VI. in 1522.

The *Order of Knights of Alcantara*, instituted about 1156 by the brothers Don Suarez and Don Gomez de Barrientos for protection against the Moors. In 1177 they were confirmed as a religious order of knighthood under Benedictine rule by Pope Alexander III. Until about 1213 they were known as the Knights of San Julian del Pereyro; but when the defence of Alcantara, newly wrested from the Moors by Alphonso IX. of Castile, was entrusted to them they took their name from that city. For a considerable time they were in some degree subject to the grand master of the kindred order of Calatrava. Ultimately, however, they asserted their independence by electing a grand master of their own, the first holder of the office being Don Diego Sanche. During the rule of thirty-seven successive grand masters, similarly chosen, the influence and wealth of the order gradually increased until the Knights of Alcantara were almost as powerful as the sovereign. In 1494–1495 Juan de Zuñiga was prevailed upon to resign the grand-mastership to Ferdinand, who thereupon vested it in his own person as king; and this arrangement was ratified by a bull of Pope Alexander VI., and was declared permanent by Pope Adrian VI. in 1523. The yearly income of Zuñiga at the time of his resignation amounted to 150,000 ducats. In 1540 Pope Paul III. released the knights from the strictness of Benedictine rule by giving them permission to marry, though second marriage was forbidden. The three vows were henceforth *obedientia*, *castitas conjugalis* and *conversio morum*. In modern times the history of the order has been somewhat chequered. When Joseph Bonaparte became king of Spain in 1808, he deprived the knights of their revenues, which were only partially recovered on the restoration of Ferdinand VII. in 1814. The order ceased to exist as a spiritual body in 1835.

The *Order of Knights of Calatrava* was founded in 1158 by Don Sancho III. of Castile, who presented the town of Calatrava, newly wrested from the Moors, to them to guard. In 1164 Pope Alexander III. granted confirmation as a religious military order under Cistercian rule. In 1197 Calatrava fell into the hands of the Moors and the order removed to the castle of Salvatierra, but recovered their town in 1212. In 1489 Ferdinand seized the grand-mastership, and it was finally vested in the crown of Spain in 1523. The order became a military order of merit in 1808 and was reorganized in 1874. The *Royal and Illustrious Order of Charles III.* was founded in 1771 by Charles III., in two classes; altered in 1804, it was abolished by Joseph Bonaparte in 1809, together with all the Spanish orders except the Golden Fleece, and the *Royal Order of the Knights of Spain* was established. In 1814 Ferdinand VII. revived the order, and in 1847 it received its present constitution, viz. of three classes (the commanders in two divisions). The badge of the order is a blue and white cross suspended from a green laurel wreath, in the angles are golden lilies, and the oval centre bears a figure of the Virgin in a golden glory. The ribbon is blue and white. The *Order of Isabella the Catholic* was founded in 1815 under the patronage of St Isabella, wife of Diniz of Portugal; originally instituted to reward loyalty in defence of the Spanish possessions in America, it is now a general order of merit, in three classes. The badge is a red rayed cross with gold rays in the angles, in the centre a representation of the pillars of Hercules; the cross is attached to the yellow and white ribbon by a green laurel wreath. Other Spanish orders are the *Maria Louisa*, 1792, for noble ladies; the military and naval orders of merit of *St Ferdinand*, founded by the Cortes in 1811, five classes; of *St Ermenegild* (*Hermenegildo*), 1814, three classes, of *Military Merit* and *Naval Merit*, 1866, and of *Maria Christina*, 1890; the *Order of Beneficencia* for civil merit, 1856; that of

INSIGNIA OF SOME OF THE PRINCIPAL ORDERS OF KNIGHTHOOD, DRAWN BY GRACIÓUS PERMISSION FROM THOSE IN THE POSSESSION OF HIS LATE MAJESTY KING EDWARD VII AND ARRANGED IN ACCORDANCE WITH HIS MAJESTY'S WISHES AND COMMAND.

(i.) THE REDEEMER (Greece). (ii.) THE ORDER OF THE KNIGHTS OF ST JOHN OF JERUSALEM (English Branch. Badge of the Sovereign and Patron). (iii.) THE ST HUBERT (Bavaria). (iv.) THE ST STEPHEN (Hungary). (v.) THE ST. OLAF (Norway). (vi.) THE SERAPHIM (Sweden).

Drawn by William Gibb. *Niagara Litho. Co., Buffalo, N. Y.*

Alfonso XII. for merit in science, literature and art, 1902, and the *Civil Order of Alfonso XII.*, 1902.

Sweden.—The *Order of the Seraphim* (the "Blue Ribbon"). Tradition attributes the foundation of this most illustrious order of knighthood to Magnus I. in 1280, more certainty attaches to the fact that the order was in existence in 1336. In its modern form the order dates from its reconstitution in 1748 by Frederick I., modified by statutes of 1798 and 1814. Exclusive of the sovereign and the princes of the blood, the order is limited to 23 Swedish and 8 foreign members. The native members must be already members of the *Order of the Sword* or the *Pole Star*. There is a prelate of the order which is administered by a chapter; the chapel of the knights is in the Riddar Holmskyrka at Stockholm. The badge and ribbon of the grand cross is illustrated on Plate V. fig. 6. The collar is formed of alternate gold seraphim and blue enamelled patriarchal crosses. The motto is *Iesus Hominum Salvator*. The *Order of the Sword* (the "Yellow Ribbon"), the principal Swedish military order, was founded, it is said, by Gustavus I. Vasa in 1522, and was re-established by Frederick I., with the *Seraphim* and the *Pole Star* in 1748; modifications have been made in 1798, 1814 and 1889. There are five classes, with subdivisions. The badge is a white cross, in the angles gold crowns, the points of the cross joined by gold swords entwined with gold and blue belts, in the blue centre an upright sword with the three crowns in gold, the whole surmounted by the royal crown The ribbon is yellow with blue edging. The *Order of the Pole Star* (*Polar Star*, *North Star*, the "Black Ribbon"), founded in 1748 for civil merit, has since 1844 three classes. The white cross bears a five-pointed silver star on a blue medallion. The ribbon is black. The *Order of Vasa* (the "Green Ribbon"), founded by Gustavus III. in 1772 as an order of merit for services rendered to the national industries and manufactures, has three classes, with subdivisions. The white cross badge bears on a blue centre the charge of the house of Vasa, a gold sheaf shaped like a vase with two handles. The ribbon is green. The *Order of Charles XIII.*, founded in 1811, is granted to Freemasons of high degree. It is thus quite unique.

Turkey.—The *Nischan-i-Imtiaz*, or *Order of Privilege*, was founded by Abdul Hamid II. in 1879 as a general order of merit in one class; the *Nischan-el-Iftikhar*, or *Order of Glory*, also one class, founded 1831 by Mahmoud II.; the *Nischan-i-Mejidi*, the *Mejidieh*, was founded as a civil and military order of merit in 1851 by Abdul Medjid. There are five classes; the badge is a silver sun of seven clustered rays, with crescent and star between each cluster; on a gold centre is the sultan's name in black Turkish lettering, surrounded by a red fillet inscribed with the words *Zeal, Devotion, Loyalty*; it is suspended from a red crescent and star; the ribbon is red with green borders. The khedive of Egypt has authority, delegated by the sultan, to grant this order. The *Nischan-i-Osmanie*, the *Osmanieh*, for civil and military merit, was founded by Abdul Aziz in 1862; it has four classes. The badge is a gold sun with seven gold-bordered green rays; the red centre bears the crescent, and it is also suspended from a gold crescent and star; the ribbon is green bordered with red. The *Nischan-i-Schefakat of Compassion or Benevolence*, was instituted for ladies, in three classes, in 1878 by the sultan in honour of the work done for the non-combatant victims of the Russo-Turkish war of 1877 in connexion with the Turkish Compassionate Fund started by the late Baroness Burdett-Coutts. She was one of the first to receive the order. There are also the family order, for Turkish princes, the *Hanédani-Ali-Osman*, founded in 1893, and the *Ertogroul*, in 1903.

Non-European Orders.—Of the various states of Central and South America, Nicaragua has the *American Order of San Juan* or *Grey Town*, founded in 1857, in three classes; and Venezuela that of the *Bust of Bolivar*, 1854, five classes; the ribbon is yellow, blue and red. Mexico has abolished its former orders, the *Mexican Eagle*, 1865, and *Our Lady of Guadalupe*, 1853; as has Brazil those of the *Southern Cross*, 1822, *Dom Pedro I.*, 1826, *the Rose*, 1829, and the Brazilian branches of the Portuguese orders of *Christ*, *St Benedict of Aviz* and *St James*. The republican *Order of Columbus*, founded in 1890, was abolished in 1891.

China.—There are no orders for natives, and such distinctions as are conferred by the different coloured buttons of the mandarins, the grades indicated by the number of peacocks' feathers, the gift of the yellow jacket and the like, are rather insignia of rank or personal marks of honour than orders, whether of knighthood or merit, in the European sense. For foreigners, however, the emperor in 1882 established the sole order, that of the *Imperial Double Dragon*, in five classes, the first three of which are further divided into three grades each, making eleven grades in all. The recipients eligible for the various classes are graded, from the first grade of the first class for reigning sovereigns down to the fifth class for merchants and manufacturers. The insignia of the order are unique in shape and decoration. Of the three grades of the first class the badge is a rectangular gold and yellow enamel plaque, decorated with two upright blue dragons, with details in green and white, between the heads for the first grade a pearl, for the second a ruby, for the third a coral, set in green, white and gold circles. The size of the plaque varies for the different classes. The badges of the other four classes are round plaques, the first three with indented edges, the last plain; in the second class the dragons are in silver on a yellow and gold ground, the jewel is a cut coral; the grades differ in the colour, shape, &c., of the borders and indentations; in the third class the dragons are gold, the ground green, the jewel a sapphire; in the fourth the silver dragons are on a blue ground, the jewel a lapis lazuli; in the fifth green dragons on a silver ground, the jewel a pearl. The ribbons, decorated with embroidered dragons, differ for the various grades and classes.

Japan.—The Japanese orders have all been instituted by the emperor Mutsu Hito. In design and workmanship the insignia of the orders are beautiful examples of the art of the native enamellers. The *Order of the Chrysanthemum* (*Kikkwa Daijasho*), founded in 1877, has only one class. It is but rarely conferred on others than members of the royal house or foreign rulers or princes. The badge of the order may be described as follows: From a centre of red enamel representing the sun issue 32 white gold-bordered rays in four sharply projecting groups, between the angles of which are four yellow conventional chrysanthemum flowers with green leaves forming a circle on which the rays rest; the whole is suspended from a larger yellow chrysanthemum. The ribbon is deep red bordered with purple. The collar, which may be granted with the order or later, is composed of four members repeated, two gold chrysanthemums, one with green leaves, the other surrounded by a wreath of palm, and two elaborate arabesque designs. The *Order of the Paulownia Sun* (*Tokwa Daijasho*), founded in 1888, in one class, may be in a sense regarded as the highest class of the *Rising Sun* (*Kiokujitsasho*) founded in eight classes, in 1875. The badge of both orders is essentially the same, viz. the red sun with white and gold rays; in the former the lilac flowers of the Paulownia tree, the flower of the Tycoon's arms, take a prominent part. The ribbon of the first order is deep red with white edging, of the second scarlet with white central stripe. The last two classes of the *Rising Sun* wear a decoration formed of the Paulownia flower and leaves. The *Order of the Mirror* or *Happy Sacred Treasure* (*Zaihosho*) was founded in 1888, with eight classes. The cross of white and gold clustered rays bears in a blue centre a silver star-shaped mirror. The ribbon is pale blue with orange stripes. There is also an order for ladies, that of the *Crown*, founded in five classes in 1888. The military order of Japan is the *Order of the Golden Kite*, founded in 1890, in seven classes. The badge has an elaborate design; it consists of a star of purple, red, yellow, gold and silver rays, on which are displayed old Japanese weapons, banners and shields in various coloured enamels, the whole surmounted by a golden kite with outstretched wings. The ribbon is green with white stripes.

Persia.—The *Order of the Sun and Lion*, founded by Fath 'Ali Shāh in 1808, has five classes. There is also the *Nischan-i-Aftab*, for ladies, founded in 1873.

Siam.—The *Sacred Order*, or the *Nine Precious Stones*, was founded in 1869, in one class only, for the Buddhist princes of the royal house. The *Order of the White Elephant*, founded in 1861, is in five classes. This is the principal general order. The badge is a striking example of Oriental design adapted to a European conventional form. The circular plaque is formed of a triple circle of lotus leaves in gold, red and green, within a blue circlet with pearls a richly caparisoned white elephant on a gold ground, the whole surmounted by the jewelled gold pagoda crown of Siam; the collar is formed of alternate white elephants, red, blue and white royal monograms and gold pagoda crowns. The ribbon is red with green borders and small blue and white stripes. Other orders are the *Siamese Crown* (*Mongkut Siam*), five classes, founded 1869; the family *Order of Chulah-Chon-Clao*, three classes, 1873; and the *Maha Charkrkri*, 1884, only for princes and princesses of the reigning family. (C. We.)

KNIGHT-SERVICE, the dominant and distinctive tenure of land under the feudal system. It is associated in its origin with that development in warfare which made the mailed horseman, armed with lance and sword, the most important factor in battle. Till within recent years it was believed that knight-service was developed out of the liability, under the English system, of every five hides to provide one soldier in war. It is now held that, on the contrary, it was a novel system which was introduced after the Conquest by the Normans, who relied essentially on their mounted knights, while the English fought on foot. They were already familiar with the principle of knight-service, the knight's fee, as it came to be termed in England, being represented in Normandy by the *fief du hauberl*, so termed from the hauberk or coat of mail (*lorica*) which was worn by the knight. Allusion is made to this in the coronation charter of Henry I. (1100), which speaks of those holding by knight-service as *milites qui per loricam terras suas deserviunt.*

The Conqueror, it is now held, divided the lay lands of England among his followers, to be held by the service of a fixed number of knights in his host, and imposed the same service on most of the great ecclesiastical bodies which retained their landed endowments. No record evidence exists of this action on his part, and the quota of knight-service exacted was not determined by the

area or value of the lands granted (or retained), but was based upon the *unit* of the feudal host, the *constabularia* of ten knights. Of the tenants-in-chief or barons (*i.e.* those who held directly of the crown), the principal were called on to find one or more of these units, while of the lesser ones some were called on for five knights, that is, half a *constabularia*. The same system was adopted in Ireland when that country was conquered under Henry II. The baron who had been enfeoffed by his sovereign on these terms could provide the knights required either by hiring them for pay or, more conveniently when wealth was mainly represented by land, by a process of subenfeoffment, analogous to that by which he himself had been enfeoffed. That is to say, he could assign to an under-tenant a certain portion of his fief to be held by the service of finding one or more knights. The land so held would then be described as consisting of one or more knights' fees, but the knight's fee had not, as was formerly supposed, any fixed area. This process could be carried farther till there was a chain of mesne lords between the tenant-in-chief and the actual holder of the land; but the liability for performance of the knight-service was always carefully defined.

The primary obligation incumbent on every knight was service in the field, when called upon, for forty days a year, with specified armour and arms. There was, however, a standing dispute as to whether he could be called upon to perform this service outside the realm, nor was the question of his expenses free from difficulty. In addition to this primary duty he had, in numerous cases at least, to perform that of "castle ward" at his lord's chief castle for a fixed number of days in the year. On certain baronies also was incumbent the duty of providing knights for the guard of royal castles, such as Windsor, Rockingham and Dover. Under the feudal system the tenant by knight-service had also the same pecuniary obligations to his lord as had his lord to the king. These consisted of (1) "relief," which he paid on succeeding to his lands; (2) "wardship," that is, the profits from his lands during a minority; (3) "marriage," that is, the right of giving in marriage, unless bought off, his heiress, his heir (if a minor) and his widow; and also of the three "aids" (see AIDS).

The chief sources of information for the extent and development of knight-service are the returns (*cartae*) of the barons (*i.e.* the tenants-in-chief) in 1166, informing the king, at his request, of the names of their tenants by knight-service with the number of fees they held, supplemented by the payments for "scutage" (see SCUTAGE) recorded on the pipe rolls, by the later returns printed in the *Testa de Nevill*, and by the still later ones collected in *Feudal Aids*. In the returns made in 1166 some of the barons appear as having enfeoffed more and some less than the number of knights they had to find. In the latter case they described the balance as being chargeable on their "demesne," that is, on the portion of their fief which remained in their own hands. These returns further prove that lands had already been granted for the service of a fraction of a knight, such service being in practice already commuted for a proportionate money payment; and they show that the total number of knights with which land held by military service was charged was not, as was formerly supposed, sixty thousand, but, probably, somewhere between five and six thousand. Similar returns were made for Normandy, and are valuable for the light they throw on its system of knight-service.

The principle of commuting for money the obligation of military service struck at the root of the whole system, and so complete was the change of conception that "tenure by knight-service of a mesne lord becomes, first in fact and then in law, tenure by escuage (*i.e.* scutage)." By the time of Henry III., as Bracton states, the test of tenure was scutage; liability, however small, to scutage payment made the tenure military.

The disintegration of the system was carried farther in the latter half of the 13th century as a consequence of changes in warfare, which were increasing the importance of foot soldiers and making the service of a knight for forty days of less value to the king. The barons, instead of paying scutage, compounded for their service by the payment of lump sums, and, by a process which is still obscure, the nominal quotas of knight-service due from each had, by the time of Edward I., been largely reduced. The knight's fee, however, remained a knight's fee, and the pecuniary incidents of military tenure, especially wardship, marriage, and fines on alienation, long continued to be a source of revenue to the crown. But at the Restoration (1660) tenure by knight-service was abolished by law (12 Car. II. c. 24), and with it these vexatious exactions were abolished.

BIBLIOGRAPHY.—The returns of 1166 are preserved in the *Liber Niger* (13th cent.), edited by Hearne, and the *Liber Rubeus* or *Red Book of the Exchequer* (13 cent.), edited by H. Hall for the Rolls Series in 1896. The later returns are in *Testa de Nevill* (Record Commission, 1807) and in the Record Office volumes of *Feudal Aids*, arranged under counties. For the financial side of knight-service the early pipe rolls have been printed by the Record Commission and the Pipe Roll Society, and abstracts of later ones will be found in *The Red Book of the Exchequer*, which may be studied on the whole question; but the editor's view must be received with caution and checked by J. H. Round's *Studies on the Red Book of the Exchequer* (for private circulation). The *Baronia Anglica* of Madox may also be consulted. The existing theory on knight-service was enunciated by Mr Round in *English Historical Review*, vi., vii., and reissued by him in his *Feudal England* (1895). It is accepted by Pollock and Maitland (*History of English Law*), who discuss the question at length; by Mr J. F. Baldwin in his *Scutage and Knight-service in England* (University of Chicago Press, 1897), a valuable monograph with bibliography; and by Petit-Dutaillis, in his *Studies supplementary to Stubbs' Constitutional History* (Manchester University Series, 1908). (J. H. R.)

KNIGHTS OF THE GOLDEN CIRCLE, a semi-military secret society in the United States in the Middle West, 1861–1864, the purpose of which was to bring the Civil War to a close and restore the "Union as it was." There is some evidence that before the Civil War there was a Democratic secret organization of the same name, with its principal membership in the Southern States. After the outbreak of the Civil War many of the Democrats of the Middle West, who were opposed to the war policy of the Republicans, organized the Knights of the Golden Circle, pledging themselves to exert their influence to bring about peace. In 1863, owing to the disclosure of some of its secrets, the organization took the name of Order of American Knights, and in 1864 this became the Sons of Liberty. The total membership of this order probably reached 250,000 to 300,000, principally in Ohio, Indiana, Illinois, Iowa, Wisconsin, Kentucky and south-western Pennsylvania. Fernando Wood of New York seems to have been the chief officer and in 1864 Clement L. Vallandigham became the second in command. The great importance of the Knights of the Golden Circle and its successors was due to its opposition to the war policy of the Republican administration. The plan was to overthrow the Lincoln government in the elections and give to the Democrats the control of the state and Federal governments, which would then make peace and invite the Southern States to come back into the Union on the old footing. In order to obstruct and embarrass the Republican administration the members of the order held peace meetings to influence public opinion against the continuance of the war; purchased arms to be used in uprisings, which were to place the peace party in control of the Federal government, or failing in that to establish a north-western confederacy; and took measures to set free the Confederate prisoners in the north and bring the war to a forced close. All these plans failed at the critical moment, and the most effective work done by the order was in encouraging desertion from the Federal armies, preventing enlistments, and resisting the draft. Wholesale arrests of leaders and numerous seizures of arms by the United States authorities resulted in a general collapse of the order late in 1864. Three of the leaders were sentenced to death by military commissions, but sentence was suspended until 1866, when they were released under the decision of the United States Supreme Court in the famous case *Ex parte Milligan*.

AUTHORITIES.—*An Authentic Exposition of the Knights of the Golden Circle* (Indianapolis, 1863); J. F. Rhodes, *History of the United States from the Compromise of 1850* (New York, 1905) vol. v.; E. McPherson, *Political History of the Rebellion* (Washington, 1876); and W. D. Foulke, *Life of O. P. Morton* (2 vols., New York, 1899). (W. L. F.)

KNIPPERDOLLINCK (or KNIPPERDOLLING), **BERNT** (BEREND or BERNHARDT) (*c.* 1490–1536), German divine, was a prosperous cloth-merchant at Münster when in 1524 he joined Melchior Rinck and Melchior Hofman in a business journey to Stockholm, which developed into an abortive religious errand. Knipperdolinck, a man of fine presence and glib tongue, noted from his youth for eccentricity, had the ear of the Münster populace when in 1527 he helped to break the prison of Tonies Kruse, in the teeth of the bishop and the civic authorities. For this he made his peace with the latter; but, venturing on another business journey, he was arrested, imprisoned for a year, and released on payment of a high fine—in regard of which treatment he began an action before the Imperial Chamber. Though his aims were political rather than religious, he attached himself to the reforming movement of Bernhardt Rothmann, once (1529) chaplain of St Mauritz, outside Münster, now (1532) pastor of the city church of St Lamberti. A new bishop directed a mandate (April 17, 1532) against Rothmann, which had the effect of alienating the moderates in Münster from the democrats. Knipperdollinck was a leader of the latter in the surprise (December 26, 1532) which made prisoners of the negotiating nobles at Telgte, in the territory of Münster. In the end, Münster was by charter from Philip of Hesse (February 14, 1533) constituted an evangelical city. Knipperdollinck was made a burgomaster in February 1534. Anabaptism had already (September 8, 1533) been proclaimed at Münster by a journeyman smith; and, before this, Heinrich Roll, a refugee, had brought Rothmann (May 1533) to a rejection of infant baptism. From the 1st of January 1534 Roll preached Anabaptist doctrines in a city pulpit; a few days later, two Dutch emissaries of Jan Matthysz, or Matthyssen, the master-baker and Anabaptist prophet of Haarlem, came on a mission to Münster. They were followed (January 13) by Jan Beukelsz (or Bockelszoon, or Buchholdt), better known as John of Leiden. It was his second visit to Münster; he came now as an apostle of Matthysz. He was twenty-five, with a winning personality, great gifts as an organizer, and plenty of ambition. Knipperdollinck, whose daughter Clara was ultimately enrolled among the wives of John of Leiden, came under his influence. Matthysz himself came to Münster (1534) and lived in Knipperdollinck's house, which became the centre of the new movement to substitute Münster for Strassburg (Melchior Hofmann's choice) as the New Jerusalem. On the death of Matthysz, in a foolish raid (April 5, 1534), John became supreme. Knipperdollinck, with one attempt at revolt, when he claimed the kingship for himself, was his subservient henchman, wheedling the Münster democracy into subjection to the fantastic rule of the "king of the earth." He was made second in command, and executioner of the refractory. He fell in with the polygamy innovation, the protest of his wife being visited with a penance. In the military measures for resisting the siege of Münster he took no leading part. On the fall of the city (June 25, 1535) he hid in a dwelling in the city wall, but was betrayed by his landlady. After six months' incarceration, his trial, along with his comrades, took place on the 19th of January, and his execution, with fearful tortures, on the 22nd of January 1536. Knipperdollinck attempted to strangle himself, but was forced to endure the worst. His body, like those of the others, was hung in a cage on the tower of St Lamberti, where the cages are still to be seen. An alleged portrait, from an engraving of 1607, is reproduced in the appendix to A. Ross's *Pansebeia*, 1655.

See L. Keller, *Geschichte der Wiedertäufer und ihres Reichs zu Münster* (1880); C. A. Cornelius, *Historische Arbeiten* (1899); E. Belfort Bax, *Rise and Fall of the Anabaptists* (1903). (A. Go.*)

KNITTING (from O.E. *cnyttan*, to knit; cf. Ger. *Knütten*; the root is seen in "knot"), the art of forming a single thread or strand of yarn into a texture or fabric of a loop structure, by employing needles or wires. "Crochet" work is an analogous art in its simplest form. It consists of forming a single thread into a single chain of loops. All warp knit fabrics are built on this structure. Knitting may be said to be divided into two principles, viz. (1) hand knitting and (2) frame-work knitting (see HOSIERY). In hand knitting, the wires, pins or needles used are of different lengths or gauges, according to the class of work wanted to be produced. They are made of steel, bone, wood or ivory. Some are headed to prevent the loops from slipping over the ends. Flat or selvedged work can only be produced on them. Others are pointed at both ends, and by employing three or more a circular or circular-shaped fabric can be made. In hand knitting each loop is formed and thrown off individually and in rotation and is left hanging on the new loop formed. The cotton, wool and silk fibres are the principal materials from which knitting yarns are manufactured, wool being the most important and most largely used. "Lamb's-wool," "wheeling," "fingering" and worsted yarns are all produced from the wool fibre, but may differ in size or fineness and quality. Those yarns are largely used in the production of knitted underwear. Hand knitting is to-day principally practised as a domestic art, but in some of the remote parts of Scotland and Ireland it is prosecuted as an industry to some extent. In the Shetland Islands the wool of the native sheep is spun, and used in its natural colour, being manufactured into shawls, scarfs, ladies' jackets, &c. The principal trade of other districts is hose and half-hose, made from the wool of the sheep native to the district. The formation of the stitches in knitting may be varied in a great many ways, by "purling" (knitting or throwing loops to back and front in rib form), "slipping" loops, taking up and casting off and working in various coloured yarns to form stripes, patterns, &c. The articles may be shaped according to the manner in which the wires and yarns are manipulated.

KNOBKERRIE (from the Taal or South African Dutch, *knopkirie*, derived from Du. *knop*, a knob or button, and *kerrie*, a Bushman or Hottentot word for stick), a strong, short stick with a rounded knob or head used by the natives of South Africa in warfare and the chase. It is employed at close quarters, or as a missile, and in time of peace serves as a walking-stick. The name has been extended to similar weapons used by the natives of Australia, the Pacific islands, and other places.

KNOLLES, RICHARD (*c.* 1545–1610), English historian, was a native of Northamptonshire, and was educated at Lincoln College, Oxford. He became a fellow of his college, and at some date subsequent to 1571 left Oxford to become master of a school at Sandwich, Kent, where he died in 1610. In 1603 Knolles published his *Generall Historie of the Turkes*, of which several editions subsequently appeared, among them a good one edited by Sir Paul Rycaut (1700), who brought the history down to 1699. It was dedicated to King James I., and Knolles availed himself largely of Jean Jacques Boissard's *Vitae et Icones Sultanorum Turcicorum* (Frankfort, 1596). Although now entirely superseded, it has considerable merits as regards style and arrangement. Knolles published a translation of J. Bodin's *De Republica* in 1606, but the *Grammatica Latina, Graeca et Hebraica*, attributed to him by Anthony Wood and others, is the work of the Rev. Hanserd Knollys (*c.* 1599–1691), a Baptist minister.

See the *Athenaeum*, August 6, 1881.

KNOLLES (or KNOLLYS), **SIR ROBERT** (*c.* 1325–1407), English soldier, belonged to a Cheshire family. In early life he served in Brittany, and he was one of the English survivors who were taken prisoners by the French after the famous "combat of the thirty" in March 1351. He was, however, quickly released and was among the soldiers of fortune who took advantage of the distracted state of Brittany, at this time the scene of a savage civil war, to win fame and wealth at the expense of the wretched inhabitants. After a time he transferred his operations to Normandy, when he served under the allied standards of England and of Charles II. of Navarre. He led the "great company" in their work of devastation along the valley of the Loire, fighting at this time for his own hand and for booty, and winning a terrible reputation by his ravages. After the conclusion of the treaty of Brétigny in 1360 Knolles returned to Brittany and took part in the struggle for the possession of the duchy between John of Montfort (Duke John IV.) and Charles of Blois, gaining great fame by his conduct in the fight at Auray (September 1364), where

Du Guesclin was captured and Charles of Blois was slain. In 1367 he marched with the Black Prince into Spain and fought at the battle of Nájera; in 1369 he was with the prince in Aquitaine. In 1370 he was placed by Edward III. at the head of an expedition which invaded France and marched on Paris, but after exacting large sums of money as ransom a mutiny broke up the army, and its leader was forced to take refuge in his Breton castle of Derval and to appease the disappointed English king with a large monetary gift. Emerging from his retreat Knolles again assisted John of Montfort in Brittany, where he acted as John's representative; later he led a force into Aquitaine, and he was one of the leaders of the fleet sent against the Spaniards in 1377. In 1380 he served in France under Thomas of Woodstock, afterwards duke of Gloucester, distinguishing himself by his valour at the siege of Nantes; and in 1381 he went with Richard II. to meet Wat Tyler at Smithfield. He died at Sculthorpe in Norfolk on the 15th of August 1407. Sir Robert devoted much of his great wealth to charitable objects. He built a college and an almshouse at Pontefract, his wife's birthplace, where the almshouse still exists; he restored the churches of Sculthorpe and Harpley; and he helped to found an English hospital in Rome. Knolles won an immense reputation by his skill and valour in the field, and ranks as one of the foremost captains of his age. French writers call him Canolles, or Canole.

KNOLLYS, the name of an English family descended from Sir Thomas Knollys (d. 1435), lord mayor of London. The first distinguished member of the family was Sir Francis Knollys (*c.* 1514–1596), English statesman, son of Robert Knollys, or Knolles (d. 1521), a courtier in the service and favour of Henry VII. and Henry VIII. Robert had also a younger son, Henry, who took part in public life during the reign of Elizabeth and who died in 1583.

Francis Knollys, who entered the service of Henry VIII. before 1540, became a member of parliament in 1542 and was knighted in 1547 while serving with the English army in Scotland. A strong and somewhat aggressive supporter of the reformed doctrines, he retired to Germany soon after Mary became queen, returning to England to become a privy councillor, vice-chamberlain of the royal household and a member of parliament under Queen Elizabeth, whose cousin Catherine (d. 1569), daughter of William Carey and niece of Anne Boleyn, was his wife. After serving as governor of Plymouth, Knollys was sent in 1566 to Ireland, his mission being to obtain for the queen confidential reports about the conduct of the lord-deputy Sir Henry Sidney. Approving of Sidney's actions he came back to England, and in 1568 was sent to Carlisle to take charge of Mary Queen of Scots, who had just fled from Scotland; afterwards he was in charge of the queen at Bolton Castle and then at Tutbury Castle. He discussed religious questions with his prisoner, although the extreme Protestant views which he put before her did not meet with Elizabeth's approval, and he gave up the position of guardian just after his wife's death in January 1569. In 1584 he introduced into the House of Commons, where since 1572 he had represented Oxfordshire, the bill legalizing the national association for Elizabeth's defence, and he was treasurer of the royal household from 1572 until his death on the 19th of July 1596. His monument may still be seen in the church of Rotherfield Grays, Oxfordshire. Knollys was repeatedly free and frank in his objections to Elizabeth's tortuous foreign policy; but, possibly owing to his relationship to the queen, he did not lose her favour, and he was one of her commissioners on such important occasions as the trials of Mary Queen of Scots, of Philip Howard earl of Arundel, and of Anthony Babington. An active and lifelong Puritan, his attacks on the bishops were not lacking in vigour, and he was also very hostile to heretics. He received many grants of land from the queen, and was chief steward of the city of Oxford and a knight of the garter.

Sir Francis's eldest son Henry (d 1583), and his sons Edward (d. *c.* 1580), Robert (d. 1625), Richard (d. 1596), Francis (d. *c.* 1648), and Thomas, were all courtiers and served the queen in parliament or in the field. His daughter Lettice (1540–1634) married Walter Devereux, earl of Essex, and then Robert Dudley, earl of Leicester; she was the mother of Elizabeth's favourite, the 2nd earl of Essex.

Some of Knollys's letters are in T. Wright's *Queen Elizabeth and her Times* (1838) and the *Burghley Papers*, edited by S. Haynes (1740); and a few of his manuscripts are still in existence. A speech which Knollys delivered in parliament against some claims made by the bishops was printed in 1608 and again in W. Stoughton's *Assertion for True and Christian Church Policie* (London, 1642).

Sir Francis Knollys's second son William (*c.* 1547–1632), served as a member of parliament and a soldier during the reign of Queen Elizabeth, being knighted in 1586. His eldest brother Henry, having died without sons in 1583, William inherited his father's estates in Oxfordshire, becoming in 1596 a privy councillor and comptroller of the royal household; in 1602 he was made treasurer of the household. Sir William enjoyed the favour of the new king James I., whom he had visited in Scotland in 1585, and was made Baron Knollys in 1603 and Viscount Wallingford in 1616. But in this latter year his fortunes suffered a temporary reverse. Through his second wife Elizabeth (1586–1658), daughter of Thomas Howard, earl of Suffolk, Knollys was related to Frances, countess of Somerset, and when this lady was tried for the murder of Sir Thomas Overbury her relatives were regarded with suspicion; consequently Lord Wallingford resigned the treasurership of the household and two years later the mastership of the court of wards, an office which he had held since 1614. However, he regained the royal favour, and was created earl of Banbury in 1626. He died in London on the 25th of May 1632.

His wife, who was nearly forty years her husband's junior, was the mother of two sons, Edward (1627–1645) and Nicholas (1631–1674), whose paternity has given rise to much dispute. Neither is mentioned in the earl's will, but in 1641 the law courts decided that Edward was earl of Banbury, and when he was killed in June 1645 his brother Nicholas took the title. In the Convention Parliament of 1660 some objection was taken to the earl sitting in the House of Lords, and in 1661 he was not summoned to parliament; he had not succeeded in obtaining his writ of summons when he died on the 14th of March 1674.

Nicholas's son Charles (1662–1740), the 4th earl, had not been summoned to parliament when in 1692 he killed Captain Philip Lawson in a duel. This raised the question of his rank in a new form. Was he, or was he not, entitled to trial by the peers? The House of Lords declared that he was not a peer and therefore not so entitled, but the court of king's bench released him from his imprisonment on the ground that he was the earl of Banbury and not Charles Knollys a commoner. Nevertheless the House of Lords refused to move from its position, and Knollys had not received a writ of summons when he died in April 1740. His son Charles (1703–1771), vicar of Burford, Oxfordshire, and his grandsons, William (1726–1776) and Thomas Woods (1727–1793), were successively titular earls of Banbury, but they took no steps to prove their title. However, in 1806 Thomas Woods's son William (1763–1824), who attained the rank of general in the British army, asked for a writ of summons as earl of Banbury, but in 1813 the House of Lords decided against the claim. Several peers, including the great Lord Erskine, protested against this decision, but General Knollys himself accepted it and ceased to call himself earl of Banbury. He died in Paris on the 20th of March 1834. His eldest son, Sir William Thomas Knollys (1797–1883), entered the army and served with the Guards during the Peninsular War. Remaining in the army after the conclusion of the peace of 1815 he won a good reputation and rose high in his profession. From 1855 to 1860 he was in charge of the military camp at Aldershot, then in its infancy, and in 1861 he was made president of the council of military education. From 1862 to 1877 he was comptroller of the household of the prince of Wales, afterwards King Edward VII. From 1877 until his death on the 23rd of June 1883 he was gentleman usher of the black rod; he was also a privy councillor and colonel of the Scots Guards. His son Francis (b. 1837), private secretary to Edward VII. and George V., was created Baron Knollys in 1902; another son, Sir Henry Knollys (b. 1840), became private secretary to King Edward's daughter Maud, queen of Norway.

See Sir N. H. Nicolas, *Treatise on the Law of Adulterine Bastardy* 1833); and G. E. C(okayne), *Complete Peerage* (1887), vol. i.

KNOT, a Limicoline bird very abundant at certain seasons on the shores of Britain and many countries of the northern hemisphere. Camden in the edition of his *Britannia* published in 1607 (p. 408) inserted a passage not found in the earlier issues of that work, connecting the name with that of King Canute, and this account of its origin has been usually received. But no other evidence in its favour is forthcoming, and Camden's statement is merely the expression of an opinion,[1] so that there is perhaps ground for believing him to have been mistaken, and that the clue afforded by Sir Thomas Browne, who (*c.* 1672) wrote the name "Gnatts or Knots," may be the true one.[2] Still the statement was so determinedly repeated by successive authors that Linnaeus followed them in calling the species *Tringa canutus*, and so it remains with nearly all modern ornithologists.[3] Rather larger than a snipe, but with a shorter bill and legs, the knot visits the coasts of some parts of Europe, Asia and North America at times in vast flocks; and, though in temperate climates a good many remain throughout the winter, these are nothing in proportion to those that arrive towards the end of spring, in England generally about the 15th of May, and after staying a few days pass northward to their summer quarters, while early in autumn the young of the year throng to the same places in still greater numbers, being followed a little later by their parents. In winter the plumage is ashy-grey above (save the rump, which is white) and white beneath. In summer the feathers of the back are black, broadly margined with light orange-red, mixed with white, those of the rump white, more or less tinged with red, and the lower parts are of a nearly uniform deep bay or chestnut. The birds which winter in temperate climates seldom attain the brilliancy of colour exhibited by those which arrive from the south; the luxuriance generated by the heat of a tropical sun seems needed to develop the full richness of hue. The young when they come from their birthplace are clothed in ashy-grey above, each feather banded with dull black and ochreous, while the breast is more or less deeply tinged with warm buff. Much curiosity has long existed among zoologists as to the egg of the knot, of which not a single identified or authenticated specimen is known to exist in collections. The species was found breeding abundantly on the North Georgian (now commonly called the Parry) Islands by Parry's Arctic expedition, as well as soon after on Melville Peninsula by Captain Lyons, and again during the voyage of Sir George Nares on the northern coast of Grinnell Land and the shores of Smith Sound, where Major Feilden obtained examples of the newly hatched young (*Ibis*, 1877, p. 407), and observed that the parents fed largely on the buds of *Saxifraga oppositifolia*. These are the only localities in which this species is known to breed, for on none of the arctic lands lying to the north of Europe or Asia has it been unquestionably observed.[4] In winter its wanderings are very extensive, as it is recorded from Surinam, Brazil, Walfisch Bay in South Africa, China, Queensland and New Zealand. Formerly this species was extensively netted in England, and the birds fattened for the table, where they were esteemed a great delicacy, as witness the entries in the Northumberland and Le Strange Household Books; and the British Museum contains an old treatise on the subject: "The maner of kepyng of knotts, after Sir William Askew and my Lady, given to my Lord Darcy, 25 Hen. VIII." (*MSS. Sloane*, 1592, 8 *cat.* 663). (A. N.)

[1] His words are simply "*Knotts*, i. *Canuti aues*, vt opinor e Dania enim aduolare creduntur." In the margin the name is spelt "Cnotts," and he possibly thought it had to do with a well-known story of that king. Knots undoubtedly frequent the sea-shore, where Canute is said on one occasion to have taken up his station, but they generally retreat, and that nimbly, before the advancing surf, which he is said in the story not to have done.

[2] In this connexion we may compare the French *maringouin*, ordinarily a gnat or mosquito, but also, among the French Creoles of America, a small shore-bird, either a *Tringa* or an *Aegialitis*, according to Descourtilz (*Voyage*, ii. 249). See also Littré's *Dictionnaire*, *s.v.*

[3] There are few of the *Limicolae*, to which group the knot belongs, that present greater changes of plumage according to age or season, and hence before these phases were understood the species became encumbered with many synonyms, as *Tringa cinerea*, *ferruginea*, *grisea*, *islandica*, *naevia* and so forth. The confusion thus caused was mainly cleared away by Montagu and Temminck.

[4] The *Tringa canutus* of Payer's expedition seems more likely to have been *T. maritima*, which species is not named among the birds of Franz Josef Land, though it can hardly fail to occur there.

KNOT (O.E. *cnotta*, from a Teutonic stem *knut*; cf. "knit," and Ger. *knoten*), an intertwined loop of rope, cord, string or other flexible material, used to fasten two such ropes, &c., to one another, or to another object. (For the various forms which such "knots" may take see below.) The word is also used for the distance-marks on a log-line, and hence as the equivalent of a nautical mile (see LOG), and for any hard mass, resembling a knot drawn tight, especially one formed in the trunk of a tree at the place of insertion of a branch. Knots in wood are the remains of dead branches which have become buried in the wood of the trunk or branch on which they were borne. When a branch dies down or is broken off, the dead stump becomes grown over by a healing tissue, and, as the stem which bears it increases in thickness, gradually buried in the newer wood. When a section is made of the stem the dead stump appears in the section as a knot; thus in a board it forms a circular piece of wood, liable to fall out and leave a "knot-hole." "Knot" or "knob" is an architectural term for a bunch of flowers, leaves or other ornamentation carved on a corbel or on a boss. The word is also applied figuratively to any intricate problem, hard to disentangle, a use stereotyped in the proverbial "Gordian knot," which, according to the tradition, was cut by Alexander the Great (see GORDIUM).

Knots, Bends, Hitches, Splices and Seizings are all ways of fastening cords or ropes, either to some other object such as a spar, or a ring, or to one another. The "knot" is formed to make a knob on a rope, generally at the extremity, and by untwisting the strands at the end and weaving them together. But it may be made by turning the rope on itself through a loop, as for instance, the "overhand knot" (fig. 1). A "bend" (from the same root as "bind"), and a "hitch" (an O.E. word), are ways of fastening or tying ropes together, as in the "Carrick bend" (fig. 21), or round spars as the Studding Sail Halyard Bend (fig. 19), and the Timber Hitch (fig. 20). A "splice"

FIG. 1.

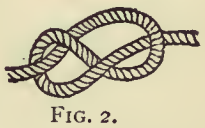
FIG. 2.

(from the same root as "split") is made by untwisting two rope ends and weaving them together. A "seizing" (Fr. *saisir*) is made by fastening two spars to one another by a rope, or two ropes by a third, or by using one rope to make a loop on another —as for example the Racking Seizing (fig. 41), the Round Seizing (fig. 40), and the Midshipman's Hitch (fig. 29). The use of the words is often arbitrary. There is, for instance, no difference in principle between the Fisherman's Bend (fig. 18) and the Timber Hitch (fig. 20). Speaking generally, the Knot and the Seizing are meant to be permanent, and must be unwoven in order to be unfastened, while the Bend and Hitch can be undone at once by pulling the ropes in the reverse direction from that in which they are meant to hold. Yet the Reef Knot (figs. 3 and 4) can be cast loose with ease, and is wholly different in principle, for instance, from the Diamond Knot (figs. 42 and 43). These various forms of fastening are employed in many kinds of industry, as for example in scaffolding, as well as in seamanship. The governing principle is that the strain which pulls against them shall draw them tighter. The ordinary "knots and splices" are described in every book on seamanship.

Overhand Knot (fig. 1).—Used at the end of ropes to prevent their unreeving and as the commencement of other knots. Take the end *a* round the end *b*.

Figure-of-Eight Knot (fig. 2).—Used only to prevent ropes from unreeving; it forms a large knob.

Reef Knot (figs. 3, 4).—Form an overhand knot as above. Then take the end *a* over the end *b* and through the bight. If the end *a*

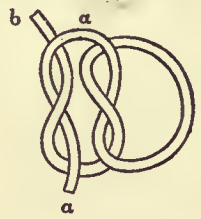

FIG. 3.

FIG. 4.

were taken under the end *b*, a *granny* would be formed. This knot is so named from being used in tying the reef-points of a sail.

Bowline (figs. 5–7).—Lay the end *a* of a rope over the standing part *b*. Form with *b* a bight *c* over *a*. Take *a* round behind *b* and

FIG. 5.

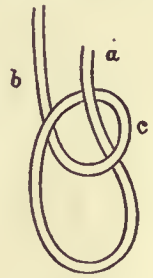

FIG. 6.

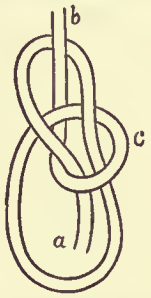

FIG. 7.

down through the bight *c*. This is a most useful knot employed to form a loop which will not slip. *Running bowlines* are formed by

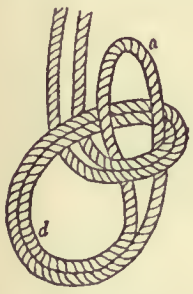

FIG. 8.

FIG. 9.

FIG. 10.

making a bowline round its own standing part above *b*. It is the most common and convenient temporary running noose.

Bowline on a Bight (figs. 8, 9).—The first part is made similar to the above with the double part of the rope; then the bight *a* is pulled through sufficiently to allow it to be bent over past *d* and come up in the position shown in fig. 9. It makes a more comfortable sling for a man than a single bight.

Half-Hitch (fig. 10).—Pass the end *a* of the rope round the standing part *b* and through the bight.

Two Half-Hitches (fig. 11).—The half-hitch repeated; this is commonly used, and is capable of resisting to the full strength of the rope. A stop from *a* to the standing part will prevent it jamming.

Clove Hitch (figs. 12, 13).—Pass the end *a* round a spar and cross

FIG. 11.

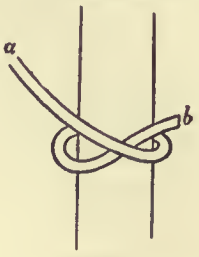

FIG. 12.

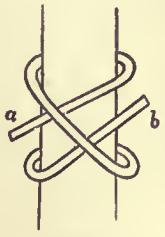

FIG. 13.

it over *b*. Pass it round the spar again and put the end *a* through the second bight.

Blackwall Hitch (fig. 14).—Form a bight at the end of a rope, and put the hook of a tackle through the bight so that the end of the rope may be jammed between the standing part and the back of the hook.

Double Blackwall Hitch (fig. 15).—Pass the end *a* twice round the hook and under the standing part *b* at the last cross.

Cat's-paw (fig. 16).—Twist up two parts of a lanyard in opposite directions and hook the tackle in the eyes *i*, *i*. A piece of wood

FIG. 14.

FIG. 15.

FIG. 16.

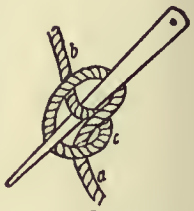

FIG. 17.

should be placed between the parts at *g*. A large lanyard should be clove-hitched round a large toggle and a strap passed round it below the toggle.

Marling-spike Hitch (fig. 17).—Lay the end *a* over *c*; fold the loop over on the standing part *b*; then pass the marline-spike through, over both parts of the bight and under the part *b*. Used for tightening each turn of a seizing.

Fisherman's Bend (fig. 18).—Take two turns round a spar, then a

FIG. 18.

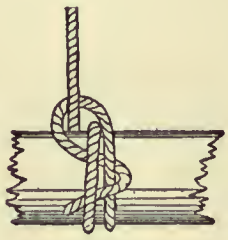

FIG. 19.

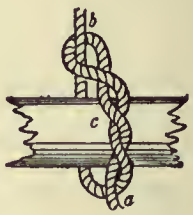

FIG. 20.

half-hitch round the standing part and between the spar and the turns, lastly a half-hitch round the standing part.

Studding-sail Halyard Bend (fig. 19).—Similar to the above, except that the end is tucked under the first round turn; this is more snug. A *magnus hitch* has two round turns and one on the other side of the standing part with the end through the bight.

Timber Hitch (fig. 20).—Take the end *a* of a rope round a spar, then round the standing part *b*, then several times round its own part *c*, against the lay of the rope.

Carrick Bend (fig. 21).—Lay the end of one hawser over its own part to form a bight as *e'*, *b*; pass the end of another hawser up through that bight near *b*, going out over the first end at *c*, crossing under the first long part and over its end at *d*, then under both long parts, forming the loops, and above the first short part at *b*, terminating at the end *e''*, in the opposite direction vertically and horizontally to the other end. The ends should be securely stopped to their respective standing parts, and also a stop put on the becket or extreme end to prevent it catching a pipe or chock; in that form this is the best quick means of uniting two large hawsers, since they cannot jam. When large hawsers have to work through small pipes, good security may be obtained either by passing ten or twelve taut racking turns with a suitable strand and securing each end to a standing part of the hawser, or by taking half as many round turns taut, crossing the ends between the hawsers over the seizing and reef-knotting the ends. This should be repeated in three places and the extreme ends well stopped. Connecting hawsers by bowline knots is very objectionable, as the bend is large and the knots jam.

FIG. 21.

Sheet Bend (fig. 22).—Pass the end of one rope through the bight of another, round both parts of the other, and under its own standing part. Used for bending small sheets to the clews of sails, which present bights ready for the hitch. An ordinary net is composed of a series of sheet bends. A *weaver's knot* is made like a sheet bend.

Single Wall Knot (fig. 23).—Unlay the end of a rope, and with the strand *a* form a bight. Take the next strand *b* round the end of *a*.

Take the last strand *c* round the end of *b* and through the bight made by *a*. Haul the ends taut.

Single Wall Crowned (fig. 24).—Form a single wall, and lay one of the ends, *a*, over the knot. Lay *b* over *a*, and *c* over *b* and through the bight of *a*. Haul the ends taut.

FIG. 22.

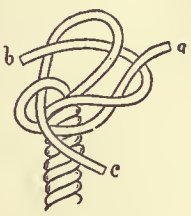

FIG. 23.

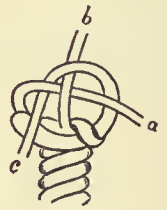

FIG. 24.

Double Wall and Double Crown (fig. 25).—Form a single wall crowned; then let the ends follow their own parts round until all the parts appear double. Put the ends down through the knot.

Matthew Walker (figs. 26, 27).—Unlay the end of a rope. Take the first strand round the rope and through its own bight; the second strand round the rope, through the bight of the first, and through its own bight; the third through all three bights. Haul the ends taut.

Inside Clinch (fig. 28).—The end is bent close round the standing part till it forms a circle and a half, when it is securely seized at *a*, *b* and *c*, thus making a running eye; when taut round anything it jams the end. It is used for securing hemp cables to anchors,

FIG. 25.

FIG. 26.

FIG. 27.

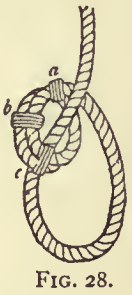

FIG. 28.

the standing parts of topsail sheets, and for many other purposes. If the eye were formed outside the bight an *outside clinch* would be made, depending entirely on the seizings, but more ready for slipping.

Midshipman's Hitch (fig. 29).—Take two round turns inside the bight, the same as a half-hitch repeated; stop up the end or let another half-hitch be taken or held by hand. Used for hooking a tackle for a temporary purpose.

Turk's Head (fig. 30).—With fine line (very dry) make a clove hitch round the rope; cross the bights twice, passing an end the reverse way (up or down) each time; then keeping the whole spread flat,

FIG. 29.

FIG. 30.

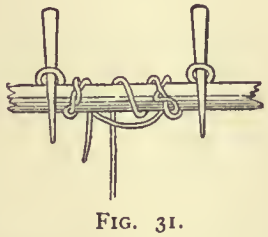

FIG. 31.

FIG. 32.

let each end follow its own part round and round till it is too tight to receive any more. Used as an ornament variously on side-ropes and foot-ropes of jibbooms. It may also be made with three ends, two formed by the same piece of line secured through the rope and one single piece. Form with them a diamond knot; then each end crossed over its neighbour follows its own part as above.

Spanish Windlass (fig. 31).—An iron bar and two marling-spikes are taken; two parts of a seizing are twisted like a cat's-paw (fig. 16), passed round the bar, and hove round till sufficiently taut. In heaving shrouds together to form an eye two round turns are taken with a strand and the two ends hove upon. When a lever is placed between the parts of a long lashing or frapping and hove round, we have what is also called a Spanish windlass.

Slings (fig. 32).—This is simply the bight of a rope turned up over its own part; it is frequently made of chain, when a shackle (bow up) takes the place of the bight at *s* and another at *y*, connecting the two ends with the part which goes round the mast-head. Used to sling lower yards. For boat's yards it should be a grummet with a thimble seized in at *y*. As the tendency of all yards is to cant forward with the weight of the sail, the part marked by an arrow should be the fore-side—easily illustrated by a round ruler and a piece of twine.

Sprit-Sail Sheet Knot (fig. 33).—This knot consists of a double wall and double crown made by the two ends, consequently with six strands, with the ends turned down. Used formerly in the clews of sails, now as an excellent stopper, a lashing or shackle being placed at *s* and a lanyard round the head at *l*.

Turning in a Dead-Eye Cutter-Stay fashion (fig. 34).—A bend is made in the stay or shroud round its own part and hove together

FIG. 33.

FIG. 34.

FIG. 35.

with a bar and strand; two or three seizings diminishing in size (one round and one or two either round or flat) are hove on taut and snug, the end being at the side of the fellow part. The dead-eye is put in and the eye driven down with a commander.

Turning in a Dead-Eye end up (fig. 35).—The shroud is measured round the dead-eye and marked where a throat-seizing is hove on; the dead-eye is then forced into its place, or it may be put in first. The end beyond *a* is taken up taut and secured with a round seizing; higher still the end is secured by another seizing. As it is important that the lay should always be kept in the rope as much as possible, these eyes should be formed conformably, either right-handed or left-handed. It is easily seen which way a rope would naturally kink by putting a little extra twist into it. A shroud whose dead-eye is turned in end up will bear a fairer strain, but is more dependent on the seizings; the under turns of the throat are the first to break and the others the first to slip. With the cutter-stay fashion the standing part of the shroud gives way under the nip of the eye. A rope will afford the greatest resistance to strain when secured round large thimbles with a straight end and a sufficient number of flat or racking seizings. To splice shrouds round dead-eyes is objectionable on account of opening the strands and admitting water, thus hastening decay. In small vessels, especially yachts, it is admissible on the score of neatness; in that case a round seizing is placed between the dead-eye and the splice. The dead-eyes should be in diameter 1½ times the circumference of a hemp shroud and thrice that of wire; the lanyard should be half the nominal size of hemp and the same size as wire: thus, hemp-shroud 12 in., wire 6 in., dead-eye 18 in., lanyard 6 in.

Short Splice (fig. 36).—The most common description of splice is when a rope is lengthened by another of the same size, or nearly so. FIG. 36 represents a splice of this kind: the strands have been unlaid, married and passed through with the assistance of a marling-spike, over one strand and under the next, twice each way. The ends are then cut off close. To render the splice neater the strands should have been halved before turning them in a second time, the upper half of each strand only being turned in; then all are cut off smooth.

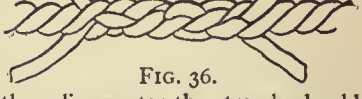

FIG. 36.

Eye Splice.—Unlay the strands and place them upon the same rope spread at such a distance as to give the size of the eye; enter the centre strand (unlaid) under a strand of the rope (as above), and the other two in a similar manner on their respective sides of the first; taper each end and pass them through again. If neatness is desired, reduce the ends and pass them through once more; cut off smooth and serve the part disturbed tightly with suitable hard line. Uses too numerous to mention. *Cut Splice.*—Made in a similar manner to an eye splice, but of two pieces of rope, therefore with two splices. Used for mast-head pendants, jib-guys, breast backstays, and even odd shrouds, to keep the eyes of the rigging lower by one part. It is not so strong as two separate eyes. *Horseshoe Splice.*—Made similar to the above, but one part much shorter than the other, or another piece of rope is spliced across an eye, forming a horseshoe with two long legs. Used for back-ropes on dolphin striker, back stays (one on each side) and cutter's runner pendants. *Long Splice.*—The strands must be unlaid about three times as much as for a short splice and married—care being taken to preserve the lay or shape of each. Unlay one of the strands still further and follow up

the vacant space with the corresponding strand of the other part, fitting it firmly into the rope till only a few inches remain. Treat the other side in a similar manner. There will then appear two long strands in the centre and a long and a short one on each side. The splice is practically divided into three distinct parts; at each the strands are divided and the corresponding halves knotted (as shown on the top of fig. 38) and turned in twice. The half strand may, if desired, be still further reduced before the halves are turned in for the second time. This and all other splices should be well stretched and hammered into shape before the ends are cut off. The long splice alone is adapted to running ropes.

Shroud Knot (fig. 37).—Pass a stop at such distance from each end of the broken shroud as to afford sufficient length of strands, when it is unlaid, to form a single wall knot on each side after the parts have been married; it will then appear as represented in the figure, the strands having been well tarred and hove taut separately. The part *a* provides the knot on the opposite side and the ends *b*, *b*; the part *c* provides the knot and the ends *d*, *d*. After the knot has been well stretched the ends are tapered, laid smoothly between the strands of the shroud, and firmly served over. This knot is used when shrouds or stays are broken. *French Shroud Knot.*—Marry the parts with a similar amount of end as before; stop one set of strands taut up on the shroud (to keep the parts together), and turn the ends back on their own part, forming bights. Make a single wall knot with the other three strands round the said bights and shroud; haul the knot taut first and stretch the whole; then heave down the bights close: it will look like the ordinary shroud knot. It is very liable to slip. If the ends by which the wall knot is made after being hove were passed through the bights, it would make the knot stronger. The ends would be tapered and served.

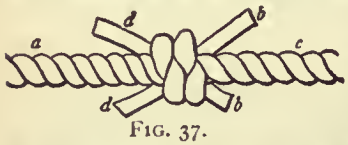

FIG. 37.

Flemish Eye (fig. 38).—Secure a spar or toggle twice the circumference of the rope intended to be rove through the eye; unlay the rope which is to form the eye about three times its circumference, at which part place a strong whipping. Point the rope vertically under the eye, and bind it taut up by the core if it is four-stranded rope, otherwise by a few yarns. While doing so arrange six or twelve pieces of spun-yarn at equal distances on the wood and exactly halve the number of yarns that have been unlaid. If it is a small rope, select two or three yarns from each side near the centre; cross them over the top at *a*, and half-knot them tightly. So continue till all are expended and drawn down tightly on the opposite side to that from which they came, being thoroughly intermixed. Tie the pieces of spun-yarn which were placed under the eye tightly round various parts, to keep the eye in shape when taken off the spar, till they are replaced by turns of marline hove on as taut as possible, the hitches forming a central line outside the eye. Heave on a good seizing of spun-yarn close below the spar, and another between six and twelve inches below the first; it may then be parcelled and served; the eye is served over twice, and well tarred each time. As large ropes are composed of so many yarns, a greater number must be knotted over the toggle each time; a 4-in. rope has 132 yarns, which would require 22 knottings of six each time; a 10-in. rope has 834 yarns, therefore, if ten are taken from each side every time, about twice that number of hitches will be required; sometimes only half the yarns are hitched, the others being merely passed over. The chief use of these eyes has been to form the collars of stays, the whole stay in each case having to be rove through it—a very inconvenient device. It is almost superseded for that purpose by a leg spliced in the stay and lashing eyes abaft the mast, for which it is commonly used at present. This eye is not always called by the same name, but the weight of evidence is in favour of calling it a Flemish eye. *Ropemaker's Eye*, which also has alternative names, is formed by taking out of a rope one strand longer by 6 in. or a foot than the required eye, then placing the ends of the two strands a similar distance below the disturbance of the one strand, that is, at the size of the eye; the single strand is led back through the vacant space it left till it arrives at the neck of the eye, with a similar length of spare end to the other two strands. They are all seized together, scraped, tapered, marled and served. The principal merit is neatness. *Mouse on a Stay.*—Formed by turns of coarse spun-yarn hove taut round the stay, over parcelling at the requisite distance from the eye to form the collar; assistance is given by a padding of short yarns distributed equally round the rope, which, after being firmly secured, especially at what is to be the under part, are turned back over the first layer and seized down again, thus making a shoulder; sometimes it is formed with parcelling only. In either case it is finished by marling, followed by serving or grafting. The use is to prevent the Flemish eye in the end of the stay from slipping up any farther.

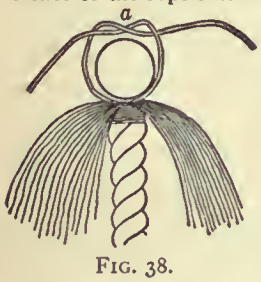

FIG. 38.

Rolling Hitch (fig. 39).—Two round turns are taken round a spar or large rope in the direction in which it is to be hauled and one half-hitch on the other side of the hauling part. This is very useful, as it can be put on and off quickly.

Round Seizing (fig. 40).—So named when the rope it secures does not cross another and there are three sets of turns. The size of the seizing line is about one-sixth (nominal) that of the ropes to be secured, but varies according to the number of turns to be taken. An eye is spliced in the line and the end rove through it, embracing both parts. If either part is to be spread open, commence farthest from that part; place tarred canvas under the seizing; pass the line round as many times (with much slack) as it is intended to have under-turns; and pass the end back through them all and through the eye. Secure the eye from rendering round by the ends of its splice; heave the turns on with a marling-spike (see fig. 17), perhaps seven or nine; haul the end through taut, and commence again the riding turns in the hollows of the first. If the end is not taken back through the eye, but pushed up between the last two turns (as is sometimes recommended), the riders must be passed the opposite way in order to follow the direction of the under-turns, which are always one more in number than the riders. When the riders are complete, the end is forced between the last lower turns and two cross turns are taken, the end coming up where it went down, when a wall knot is made with the strands and the ends cut close; or the end may be taken once round the shroud. *Throat Seizing.*—Two ropes or parts of ropes are laid on each other parallel and receive a seizing similar to that shown in figure 35—that is with upper and riding but no cross turns. As the two parts of rope are intended to turn up at right angles to the direction in which they were secured, the seizing should be of stouter line and short, not exceeding seven lower and six riding turns. The end is better secured with a turn round the standing part. Used for turning in dead-eyes and variously. *Flat Seizing.*—Commenced similarly to the above, but it has neither riding nor cross turns.

FIG. 39.

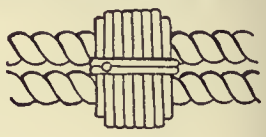
FIG. 40.

Racking Seizing (fig. 41).—A running eye having been spliced round one part of the rope, the line is passed entirely round the other part, crossed back round the first part, and so on for ten to twenty turns, according to the expected strain, every turn being hove as tight as possible; after which round turns are passed to fill the spaces at the back of each rope, by taking the end *a* over both parts into the hollow at *b*, returning at *c*, and going over to *d*. When it reaches *e* a turn may be taken round that rope only, the end rove under it, and a half-hitch taken, which will form a clove-hitch; knot the end and cut it close. When the shrouds are wire (which is half the size of hemp) and the end turned up round a dead-eye of any kind, wire seizings are preferable. It appears very undesirable to have wire rigging combined with plates or screws for setting it up, as in case of accident—such as that of the mast going over the side, a shot or collision breaking the ironwork—the seamen are powerless.

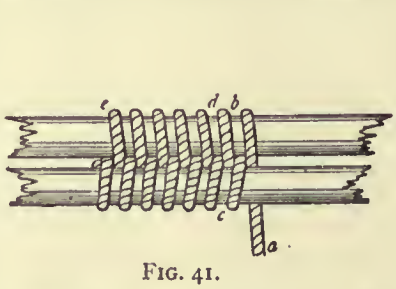

FIG. 41.

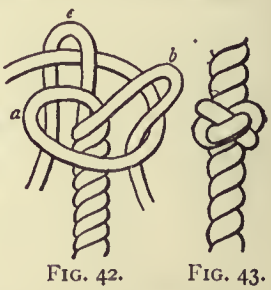

FIG. 42. FIG. 43.

Diamond Knot (figs. 42, 43).—The rope must be unlaid as far as the centre if the knot is required there, and the strands handled with great care to keep the lay in them. Three bights are turned up as in fig. 42, and the end of *a* is taken over *b* and up the bight *c*. The end of *b* is taken over *c* and up through *a*. The end *c* is taken over *a* and through *b*. When hauled taut and the strands are laid up again it will appear as in fig. 43. Any number of knots may be made on the same rope. They were used on man-ropes, the foot-ropes on the jib-boom, and similar places, where it was necessary to give a good hold for the hands or feet. Turk's heads are now generally used. *Double Diamond.*—Made by the ends of a single diamond following their own part till the knot is repeated. Used at the upper end of a side rope as an ornamental stopper-knot.

Stropping-Blocks.—There are various modes of securing blocks to ropes; the most simple is to splice an eye at the end of the rope a little longer than the block and pass a round seizing to keep it in place; such is the case with jib-pendants. As a general rule, the parts of a strop combined should possess greater strength than the parts of the fall which act against it. The shell of an ordinary block

should be about three times the circumference of the rope which is to reeve through it, as a 9-in. block for a 3-in. rope; but small ropes require larger blocks in proportion, as a 4-in. block for a 1-in. rope. When the work to be done is very important the blocks are much larger: brace-blocks are more than five times the nominal size of the brace. Leading-blocks and sheaves in racks are generally smaller than the blocks through which the ropes pass farther away, which appears to be a mistake, as more power is lost by friction. A clump-block should be double the nominal size of the rope. A single strop may be made by joining the ends of a rope of sufficient length to go round the block and thimble by a common short splice, which rests on the crown of the block (the opposite end to the thimble) and is stretched into place by a jigger; a strand is then passed twice round

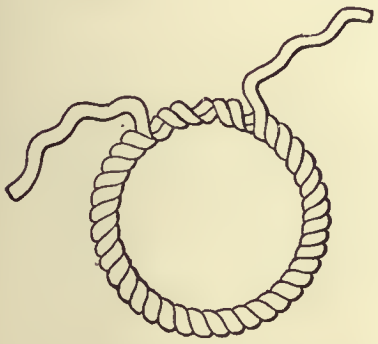

FIG. 44.

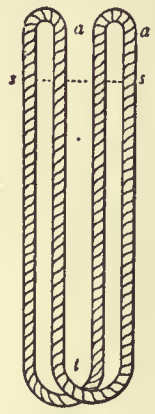

FIG. 45.

the space between the block and the thimble and hove taut by a Spanish windlass to cramp the parts together ready for the reception of a small round seizing. The cramping or pinching into shape is sometimes done by machinery invented by a rigger in Portsmouth dockyard. The strop may be made the required length by a long splice, but it would not possess any advantage.

Grummet-Strop (fig. 44).—Made by unlaying a piece of rope of the desired size about a foot more than three times the length required for the strop. Place the centre of the rope round the block and thimble; mark with chalk where the parts cross; take one strand out of the rope; bring the two chalk marks together; and cross the strand in the lay on both sides, continuing round and round till the two ends meet the third time; they are then halved, and the upper halves half-knotted and passed over and under the next strands, exactly as one part of a long splice. A piece of worn or well-stretched rope will better retain its shape, upon which success entirely depends. The object is neatness, and if three or multiples of three strops are to be made it is economical.

Double Strop (fig. 45).—Made with one piece of rope, the splice being brought as usual to the crown of the block *t*, the bights fitting into scores some inches apart, converging to the upper part, above which the thimble receives the bights *a*, *a*; and the four parts of the strop are secured at *s*, *s* by a round seizing doubly crossed. If the block be not then on the right slew (the shell horizontal or vertical) a union thimble is used with another strop, which produces the desired effect; thus the fore and main brace-blocks, being very large and thin, are required (for appearance) to lie horizontally; a single strop round the yard vertically has a union thimble between it and the double strop round the block. The double strop is used for large blocks; it gives more support to the shell than the single strop and admits of smaller rope being used. Wire rope is much used for block-strops; the fitting is similar. Metal blocks are also used in fixed positions; durability is their chief recommendation. Great care should be taken that they do not chafe the ropes which pass by them as well as those which reeve through.

Selvagee Strop.—Twine, rope-yarn or rope is warped round two or more pegs placed at the desired distance apart, till it assumes the requisite size and strength; the two ends are then knotted or spliced. Temporary firm seizings are applied in several places to bind the parts together before the rope or twine is removed from the pegs, after which it is marled with suitable material. A large strop should be warped round four or six pegs in order to give it the shape in which it is to be used. This description of strop is much stronger and more supple than rope of similar size. Twine strops (covered with duck) are used for boats' blocks and in similar places requiring neatness. Rope-yarn and spun-yarn strops are used for attaching luff-tackles to shrouds and for many similar purposes. To bring to a shroud or hawser, the centre of the strop is passed round the rope and each part crossed three or four times before hooking the "luff"; a spun-yarn stop above the centre will prevent slipping and is very necessary with wire rope. As an instance of a large selvagee block-strop being used—when the "Melville" was hove down at Chusan (China), the main-purchase-block was double stropped with a selvagee containing 28 parts of 3-in. rope; that would produce 112 parts in the neck, equal to a breaking strain of 280 tons, which is more than four parts of a 19-in cable. The estimated strain it bore was 80 tons.

Stoppers for ordinary running ropes are made by splicing a piece of rope to a bolt or to a hook and thimble, unlaying 3 or 4 ft., tapering it by cutting away some of the yarns, and marling it down securely, with a good whipping also on the end. It is used by taking a half-hitch round the rope which is to be hauled upon, dogging the end up in the lay and holding it by hand. The rope can come through it when hauled, but cannot go back.

Whipping and Pointing.—The end of every working rope should at least be whipped to prevent it fagging out; in ships of war and yachts they are invariably pointed. Whipping is done by placing the end of a piece of twine or knittle-stuff on a rope about an inch from the end, taking three or four turns taut over it (working towards the end); the twine is then laid on the rope again lengthways contrary to the first, leaving a slack bight of twine; and taut turns are repeatedly passed round the rope, over the first end and over the bight, till there are in all six to ten turns; then haul the bight taut through between the turns and cut it close. To point a rope, place a good whipping a few inches from the end, according to size; open out the end entirely; select all the outer yarns and twist them into knittles either singly or two or three together; scrape down and taper the central part, marling it firmly. Turn every alternate knittle and secure the remainder down by a turn of twine or a smooth yarn hitched close up, which acts as the weft in weaving. The knittles are then reversed and another turn of the weft taken, and this is continued till far enough to look well. At the last turn the ends of the knittles which are laid back are led forward over and under the weft and hauled through tightly, making it present a circle of small bights, level with which the core is cut off smoothly. Hawsers and large ropes have a becket formed in their ends during the process of pointing. A piece of 1 to 1½ in. rope about 1½ to 2 ft. long is spliced into the core by each end while it is open: from four to seven yarns (equal to a strand) are taken at a time and twisted up; open the ends of the becket only sufficient to marry them close in; turn in the twisted yarns between the strands (as splicing) three times, and stop it above and below. Both ends are treated alike; when the pointing is completed a loop a few inches in length will protrude from the end of the rope, which is very useful for reeving it. A hauling line or reeving line should only be rove through the becket as a fair lead. *Grafting* is very similar to pointing, and frequently done the whole length of a rope, as a side-rope. Pieces of white line more than double the length of the rope, sufficient in number to encircle it,

FIG. 46.

are made up in hanks called foxes; the centre of each is made fast by twine and the weaving process continued as in pointing. Block-strops are sometimes so covered; but, as it causes decay, a small wove mat which can be taken off occasionally is preferable.

Sheep-Shank (fig. 46).—Formed by making a long bight in a top-gallant back-stay, or any rope which it is desirable to shorten, and taking a half-hitch near each bend, as at *a*, *a*. Rope-yarn stops at *b*, *b* are desirable to keep it in place till the strain is brought on it. Wire rope cannot be so treated, and it is injurious to hemp rope that is large and stiff.

Knotting Yarns (fig. 47).—This operation becomes necessary when a comparatively short piece of junk is to be made into spun-yarn, or large rope into small, which is called twice laid. The end of each yarn is divided, rubbed smooth and married (as for splicing). Two of the divided parts, as *c*, *c* and *d*, *d*, are passed in opposite directions round all the other parts and knotted. The ends *e* and *f* remain passive. The figure is drawn open, but the forks of *A* and *B* should be pressed close together, the knot hauled taut and the ends cut off.

Butt Slings (fig. 48).—Made of 4-in. rope, each pair being 26 ft. in length, with an eye spliced in one end, through which the other

FIG. 47.

FIG. 48.

is rove before being placed over one end of the cask; the rope is then passed round the opposite side of the cask and two half-hitches made with the end, forming another running eye, both of which are beaten down taut as the tackle receives the weight. Slings for smaller casks requiring care should be of this description, though of smaller rope, as the cask cannot possibly slip out. *Bale Slings* are made by splicing the ends of about 3 fathoms of 3-in. rope together, which then looks like a long strop, similar to the double strop represented in fig. 45—the bights *t* being placed under the cask or bale and one of the

bights *a*, *a* rove through the other and attached to the whip or tackle.

For a complete treatise on the subject the reader may be referred to *The Book of Knots, being a Complete Treatise on the Art of Cordage, illustrated by 172 Diagrams, showing the Manner of making every Knot, Tie and Splice*, by Tom Bowling (London, 1890).

Mathematical Theory of Knots.

In the scientific sense a knot is an endless physical line which cannot be deformed into a circle. A physical line is flexible and inextensible, and cannot be cut—so that no lap of it can be drawn through another.

The founder of the theory of knots is undoubtedly Johann Benedict Listing (1808–1882). In his "Vorstudien zur Topologie" (*Göttinger Studien*, 1847), a work in many respects of startling originality, a few pages only are devoted to the subject.[1] He treats knots from the elementary notion of twisting one physical line (or thread) round another, and shows that from the projection of a knot on a surface we can thus obtain a notion of the relative situation of its coils. He distinguishes "reduced" from "reducible" forms, the number of crossings in the reduced knot being the smallest possible. The simplest form of reduced knot is of two species, as in figs. 49 and 50. Listing points out that these are formed, the first by right-handed the second by left-handed twisting. In fact, if three half-twists be given to a long strip of paper, and the ends be then pasted together, the two edges become one line, which is the knot in question. We may free it by slitting the paper along its middle line; and then we have the juggler's trick of putting a knot on an endless unknotted band. One of the above forms cannot be deformed into the other. The one is, in Listing's language, the "perversion" of the other, *i.e.* its image in a plane mirror. He gives a method of symbolizing reduced knots, but shows that in this method the same knot may, in certain cases, be represented by different symbols. It is clear that the brief notice he published contains a mere sketch of his investigations.

The most extensive dissertation on the properties of knots is that of Peter Guthrie Tait (*Trans. Roy. Soc. Edin.*, xxviii. 145, where the substance of a number of papers in the *Proceedings* of the same society is reproduced). It was for the most part written in ignorance of the work of Listing, and was suggested by an inquiry concerning vortex atoms.

Tait starts with the almost self-evident proposition that, if any plane closed curve have double points only, in passing continuously along the curve from one of these to the same again an even number of double points has been passed through. Hence the crossings may be taken alternately over and under. On this he bases a scheme for the representation of knots of every kind, and employs it to find all the distinct forms of knots which have, in their simplest projections, 3, 4, 5, 6 and 7 crossings only. Their numbers are shown to be 1, 1, 2, 4 and 8. The unique knot of three crossings has been already given as drawn by Listing. The unique knot of four crossings merits a few words, because its properties lead to a very singular conclusion. It can be deformed into any of the four forms—figs. 51 and 52 and their perversions. Knots which can be deformed into their own perversion Tait calls "amphicheiral" (from the Greek ἀμφί, on both sides, around, χείρ, hand), and he has shown that there is at least one knot of this kind for every even number of crossings. He shows also that "links" (in which two endless physical lines are linked together) possess a similar property; and he then points out that there is a third mode of making a complex figure of endless physical lines, without either knotting or linking. This may be called "lacing" or "locking." Its nature is obvious from fig. 53, in which it will be seen that no one of the three lines is knotted, no two are linked, and yet the three are inseparably fastened together.

Fig. 49.

Fig. 50.

Fig. 51.

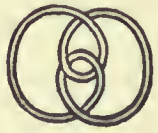

Fig. 52.

The rest of Tait's paper deals chiefly with numerical characteristics of knots, such as their "knottiness," "beknottedness" and "knotfulness." He also shows that any knot, however complex, can be fully represented by three closed plane curves, none of which has double points and no two of which intersect. It may be stated here that the notion of beknottedness is founded on a remark of Gauss, who in 1833 considered the problem of the number of interlinkings of two closed circuits, and expressed it by the electrodynamic measure of the work required to carry a unit magnetic pole round one of the interlinked curves, while a unit electric current is kept circulating in the other. This original suggestion has been developed at considerable length by Otto Boeddicker (*Erweiterung der Gauss'schen Theorie der Verschlingungen* (Stuttgart, 1876). This author treats also of the connexion of knots with Riemann's surfaces.

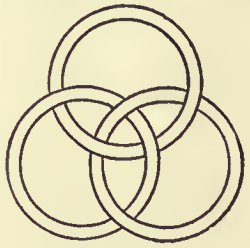

Fig. 53.

Fig. 54.

It is to be noticed that, although every knot in which the crossings are alternately over and under is irreducible, the converse is not generally true. This is obvious at once from fig. 54, which is merely the three-crossing knot with a doubled string—what Listing calls "paradromic."

Christian Felix Klein, in the *Mathematische Annalen*, ix. 478, has proved the remarkable proposition that knots cannot exist in space of four dimensions. (P. G. T.)

KNOUT (from the French transliteration of a Russian word of Scandinavian origin; cf. A.-S. *cnotta*, Eng. knot), the whip used in Russia for flogging criminals and political offenders. It is said to have been introduced under Ivan III. (1462–1505). The knout had different forms. One was a lash of raw hide, 16 in. long, attached to a wooden handle, 9 in. long. The lash ended in a metal ring, to which was attached a second lash as long, ending also in a ring, to which in turn was attached a few inches of hard leather ending in a beak-like hook. Another kind consisted of many thongs of skin plaited and interwoven with wire, ending in loose wired ends, like the cat-o'-nine tails. The victim was tied to a post or on a triangle of wood and stripped, receiving the specified number of strokes on the back. A sentence of 100 or 120 lashes was equivalent to a death sentence; but few lived to receive so many. The executioner was usually a criminal who had to pass through a probation and regular training; being let off his own penalties in return for his services. Peter the Great is traditionally accused of knouting his son Alexis to death, and there is little doubt that the boy was actually beaten till he died, whoever was the executioner. The emperor Nicholas I. abolished the earlier forms of knout and substituted the *pleti*, a three-thonged lash. Ostensibly the knout has been abolished throughout Russia and reserved for the penal settlements.

KNOWLES, SIR JAMES (1831–1908), English architect and editor, was born in London in 1831, and was educated, with a view to following his father's profession, as an architect at University College and in Italy. His literary tastes also brought him at an early age into the field of authorship. In 1860 he published *The Story of King Arthur*. In 1867 he was introduced to Tennyson, whose house, Aldworth, on Blackdown, he designed; this led to a close friendship, Knowles assisting Tennyson in business matters, and among other things helping to design scenery for *The Cup*, when Irving produced that play in 1880. Knowles became intimate with a number of the most interesting men of the day, and in 1869, with Tennyson's co-operation, he started the Metaphysical Society, the object of which was to attempt some intellectual *rapprochement* between religion and science by getting the leading representatives of faith and unfaith to meet and exchange views.

The members from first to last were as follows: Dean Stanley, Seeley, Roden Noel, Martineau, W. B. Carpenter, Hinton, Huxley, Pritchard, Hutton, Ward, Bagehot, Froude, Tennyson, Tyndall, Alfred Barry, Lord Arthur Russell, Gladstone, Manning, Knowles, Lord Avebury, Dean Alford, Alex. Grant, Bishop Thirlwall, F. Harrison, Father Dalgairns, Sir G. Grove, Shadworth Hodgson,

[1] See P. G. Tait "On Listing's *Topologie*," *Phil. Mag.*, xvii. 30.

H. Sidgwick, E. Lushington, Bishop Ellicott, Mark Pattison, duke of Argyll, Ruskin, Robert Lowe, Grant Duff, Greg, A. C. Fraser, Henry Acland, Maurice, Archbishop Thomson, Mozley, Dean Church, Bishop Magee, Croom Robertson, FitzJames Stephen, Sylvester, J. C. Bucknill, Andrew Clark, W. K. Clifford, St George Mivart, M. Boulton, Lord Selborne, John Morley, Leslie Stephen, F. Pollock, Gasquet, C. B. Upton, William Gull, Robert Clarke, A. J. Balfour, James Sully and A. Barratt.

Papers were read and discussed at the various meetings on such subjects as the ultimate grounds of belief in the objective and moral sciences, the immortality of the soul, &c. An interesting description of one of the meetings was given by Magee (then bishop of Peterborough) in a letter of 13th of February 1873:—

"Archbishop Manning in the chair was flanked by two Protestant bishops right and left; on my right was Hutton, editor of the *Spectator*, an Arian; then came Father Dalgairns, a very able Roman Catholic priest; opposite him Lord A. Russell, a Deist; then two Scotch metaphysical writers, Freethinkers; then Knowles, the *very* broad editor of the *Contemporary*; then, dressed as a layman and looking like a country squire, was Ward, formerly Rev. Ward, and earliest of the perverts to Rome; then Greg, author of *The Creed of Christendom*, a Deist; then Froude, the historian, once a deacon in our Church, now a Deist; then Roden Noel, an actual Atheist and red republican, and looking very like one! Lastly Ruskin, who read a paper on miracles, which we discussed for an hour and a half! Nothing could be calmer, fairer, or even, on the whole, more reverent then the discussion. In my opinion, we, the Christians, had much the best of it. Dalgairns, the priest, was very masterly; Manning, clever and precise and weighty; Froude, very acute, and so was Greg. We only wanted a Jew and a Mahommedan to make our Religious Museum complete" (*Life*, i. 284).

The last meeting of the society was held on 16th May 1880. Huxley said that it died "of too much love"; Tennyson, "because after ten years of strenuous effort no one had succeeded in even defining metaphysics." According to Dean Stanley, "We all meant the same thing if we only knew it." The society formed the nucleus of the distinguished list of contributors who supported Knowles in his capacity as an editor. In 1870 he became editor of the *Contemporary Review*, but left it in 1877 and founded the *Nineteenth Century* (to the title of which, in 1901, were added the words *And After*). Both periodicals became very influential under him, and formed the type of the new sort of monthly review which came to occupy the place formerly held by the quarterlies. In 1904 he received the honour of knighthood. He died at Brighton on the 13th of February 1908.

KNOWLES, JAMES SHERIDAN (1784–1862), Irish dramatist and actor, was born in Cork, on the 12th of May 1784. His father was the lexicographer, James Knowles (1759–1840), cousin-german of Richard Brinsley Sheridan. The family removed to London in 1793, and at the age of fourteen Knowles published a ballad entitled *The Welsh Harper*, which, set to music, was very popular. The boy's talents secured him the friendship of Hazlitt, who introduced him to Lamb and Coleridge. He served for some time in the Wiltshire and afterwards in the Tower Hamlets militia, leaving the service to become pupil of Dr Robert Willan (1757–1812). He obtained the degree of M.D., and was appointed vaccinator to the Jennerian Society. Although, however, Dr Willan generously offered him a share in his practice, he resolved to forsake medicine for the stage, making his first appearance probably at Bath, and playing Hamlet at the Crow Theatre, Dublin. At Wexford he married, in October 1809, Maria Charteris, an actress from the Edinburgh Theatre. In 1810 he wrote *Leo*, in which Edmund Kean acted with great success; another play, *Brian Boroihme*, written for the Belfast Theatre in the next year, also drew crowded houses, but his earnings were so small that he was obliged to become assistant to his father at the Belfast Academical Institution. In 1817 he removed from Belfast to Glasgow, where, besides conducting a flourishing school, he continued to write for the stage. His first important success was *Caius Gracchus*, produced at Belfast in 1815; and his *Virginius*, written for Edmund Kean, was first performed in 1820 at Covent Garden. In *William Tell* (1825) Macready found one of his favourite parts. His best-known play, *The Hunchback*, was produced at Covent Garden in 1832; *The Wife* was brought out at the same theatre in 1833; and *The Love Chase* in 1837. In his later years he forsook the stage for the pulpit, and as a Baptist preacher attracted large audiences at Exeter Hall and elsewhere. He published two polemical works—the *Rock of Rome* and the *Idol Demolished by its own Priests*—in both of which he combated the special doctrines of the Roman Catholic Church. Knowles was for some years in the receipt of an annual pension of £200, bestowed by Sir Robert Peel. He died at Torquay on the 30th of November 1862.

A full list of the works of Knowles and of the various notices of him will be found in the *Life* (1872), privately printed by his son, Richard Brinsley Knowles (1820–1882), who was well known as a journalist.

KNOW NOTHING (or AMERICAN) **PARTY**, in United States history, a political party of great importance in the decade before 1860. Its principle was political proscription of naturalized citizens and of Roman Catholics. Distrust of alien immigrants, because of presumptive attachment to European institutions, has always been more or less widely diffused, and race antagonisms have been recurrently of political moment; while anti-Catholic sentiment went back to colonial sectarianism. These were the elements of the political "nativism"—*i.e.* hostility to foreign influence in politics—of 1830–1860. In these years Irish immigration became increasingly preponderant; and that of Catholics was even more so. The geographical segregation and the clannishness of foreign voters in the cities gave them a power that Whigs and Democrats alike (the latter more successfully) strove to control, to the great aggravation of naturalization and election frauds. "No one can deny that ignorant foreign suffrage had grown to be an evil of immense proportions" (J. F. Rhodes). In labour disputes, political feuds and social clannishness, the alien elements—especially the Irish and German—displayed their power, and at times gave offence by their hostile criticism of American institutions.[1] In immigration centres like Boston, Philadelphia and New York, the Catholic Church, very largely foreign in membership and proclaiming a foreign allegiance of disputed extent, was really "the symbol and strength of foreign influence" (Scisco); many regarded it as a transplanted foreign institution, un-American in organization and ideas.[2] Thus it became involved in politics. The decade 1830–1840 was marked by anti-Catholic (anti-Irish) riots in various cities and by party organization of nativists in many places in local elections. Thus arose the American-Republican (later the Native-American) Party, whose national career begun practically in 1845, and which in Louisiana in 1841 first received a state organization. New York City in 1844 and Boston in 1845 were carried by the nativists, but their success was due to Whig support, which was not continued,[3] and the national organization was by 1847—in which year it endorsed the Whig nominee for the presidency—practically dead. Though some Whig leaders had strong nativist leanings, and though the party secured a few representatives in Congress, it accomplished little at this time in national politics. In the early 'fifties nativism was revivified by an unparalleled inflow of aliens. Catholics, moreover, had combated the Native-Americans defiantly. In 1852 both Whigs and Democrats were forced to defend their presidential nominees against charges of anti-Catholic sentiment. In 1853–1854 there was a wide-spread "anti-popery" propaganda and riots against Catholics in various cities. Meanwhile the Know Nothing Party had sprung from nativist secret societies, whose relations remain obscure.[4] Its organization was secret; and hence its name—for a member, when interrogated, always

[1] *E.g.* for some extraordinary "reform" programmes among German immigrants see Schmeckebier (as below), pp. 48–50.

[2] "The actual offence of the Catholic Church was its non-conformity to American methods of church administration and popular education" (Scisco).

[3] The Whigs bargained aid in New York city for "American" support in the state, and charged that the latter was not given. Millard Fillmore attributed the Whig loss of the state (see LIBERTY PARTY) to the disaffection of Catholic Whigs angered by the alliance with the nativists.

[4] The Order of United Americans and the Order of the Star Spangled Banner, established in New York respectively in 1845 and 1850, were the most important sources of its membership.

answered that he knew nothing about it. Selecting candidates secretly from among those nominated by the other parties, and giving them no public endorsement, the Know Nothings, as soon as they gained the balance of power, could shatter at will Whig and Democratic calculations. Their power was evident by 1852—from which time, accordingly, "Know-Nothingism" is most properly dated. The charges they brought against naturalization abuses were only too well founded; and those against election frauds not less so—though, unfortunately, the Know Nothings themselves followed scandalous election methods in some cities. The proposed proscription of the foreign-born knew no exceptions: many wished never to concede to them all the rights of natives, nor to their children unless educated in the public schools. As for Catholics, the real animus of Know Nothingism was against *political* Romanism; therefore, secondarily, against papal allegiance and episcopal church administration (in place of administration by lay trustees, as was earlier common practice in the United States); and, primarily, against public aid to Catholic schools, and the alleged greed (*i.e.* the power and success) of the Irish in politics. The times were propitious for the success of an aggressive third party; for the Whigs were broken by the death of Clay and Webster and the crushing defeat of 1852, and both the Whig and Democratic parties were disintegrating on the slavery issue. But the Know Nothings lacked aggression. In entering national politics the party abandoned its mysteries, without making compensatory gains; when it was compelled to publish a platform of principles, factions arose in its ranks; moreover, to draw recruits the faster from Whigs and Democrats, it "straddled" the slavery question, and this, although a temporary success, ultimately meant ruin. In 1854, however, Know Nothing gains were remarkable.[1] Thereafter the organization spread like wildfire in the South, in which section there were almost no aliens, and the Whig dissolution was far advanced. The Virginia election of May 1855 proved conclusively, however, that Know Nothingism was no stronger against the Democrats than was the Whig party it had absorbed; it was the same organization under a new name. In the North it was even clearer that slavery must be faced. Know Nothing evasion probably helped the South,[2] but neither Republicans nor Democrats would endure the evasion; Douglas and Seward, and later (1855–1856) their parties, denounced it. In the North-West the Know Nothings were swept into the anti-slavery movement in 1854 without retaining their organization. In the state campaigns of 1855 professions were measured to the latitude. The national platform of 1856 (adopted by a secret grand council), besides including anti-alien and anti-Catholic planks, offered sops to the North, the South and the "doughfaces" on the slavery issue. Millard Fillmore was nominated for the presidency. The anti-slavery delegates of eight Northern states bolted the convention, and eight months later the Republican wave swept the Know Nothings out of the North.[3] The national field being thus lost, the state councils became supreme, and local opportunism fostered variation and weakness. By 1859 the party was confined almost entirely to the border states. The Constitutional Union—the "Do Nothing"—Party of 1860 was mainly composed of Know Nothing remnants.[4] The year 1860 practically marked, also, the disappearance of the party as a local power.[5]

Except in city politics nativism had no vitality; in state and national politics it really had no excuse. Race antipathies gave it local cohesive power in the North; various causes, already mentioned, advanced it in the South; and as a device to win offices it was of wide-spread attraction. Its only real contribution to government was the proof that nativism is not Americanism. Public opinion has never accepted its estimate of the alien nor of Catholic citizens. Some of its anti-Church principles, however—as the non-support of denominational schools—have been generally accepted; others—as the refusal to exclude the (Protestant) Bible from public schools—have been generally rejected; others—as the taxation of all Church property—remain disputed.

[1] This year "American Party" became the official name. Its strength in Congress was almost thirty-fold that of 1852. It elected governors, legislatures, or both, in four New England states, and in Maryland, Kentucky and California; minor officers elsewhere; and almost won six Southern states.

[2] For it delayed anti-slavery organization in the North, and presumably discouraged immigration, which was a source of strength to the North rather than to the South.

[3] They carried only Maryland. The popular vote in the North was under one-seventh, in the South above three-sevenths, of the total vote cast.

[4] Note the presidential vote. Seward's loss of the Republican nomination was partly due to Know Nothing hostility.

[5] Its firmest hold was in Maryland. Its rule in Baltimore (1854–1860) was marked by disgraceful riots and abuses.

See L. D. Scisco, *Political Nativism in New York State* (doctoral thesis, Columbia University, New York, 1901); L. F. Schmeckebier, *Know Nothing Party in Maryland* (Johns Hopkins University, Baltimore, 1899); G. H. Haynes, "A Know Nothing Legislature" (Mass., 1855), in *American Historical Assoc. Report*, pt. 1 (1896); J. B. McMaster, *With the Fathers*, including "The Riotous Career of the Know Nothings" (New York, 1896); H. F. Desmond, *The Know Nothing Party* (Washington, 1905).

KNOX, HENRY (1750–1806), American general, was born in Boston, Massachusetts, of Scottish-Irish parentage, on the 25th of July 1750. He was prominent in the colonial militia and tried to keep the Boston crowd and the British soldiers from the clash known as the Boston massacre (1770). In 1771 he opened the "London Book-Store" in Boston. He had read much of tactics and strategy, joined the American army at the outbreak of the War of Independence, and fought at Bunker Hill, planned the defences of the camps of the army before Boston, and brought from Lake George and border forts much-needed artillery. At Trenton he crossed the river before the main body, and in the attack rendered such good service that he was made brigadier-general and chief of artillery in the Continental army on the following day. He was present at Princeton; was chiefly responsible for the mistake in attacking the "Chew House" at Germantown; urged New York as the objective of the campaign of 1778; served with efficiency at Monmouth and at Yorktown; and after the surrender of Cornwallis was promoted major-general, and served as a commissioner on the exchange of prisoners. His services throughout the war were of great value to the American cause; he was one of General Washington's most trusted advisers, and he brought the artillery to a high degree of efficiency. From December 1783 until June 1784 he was the senior officer of the United States army. In April 1783 he had drafted a scheme of a society to be formed by the American officers and the French officers who had served in America during the war, and to be called the "Cincinnati"; of this society he was the first secretary-general (1783–1799) and in 1805 became vice-president-general. In 1785–1794 Knox was secretary of war, being the first man to hold this position after the organization of the Federal government in 1789. He urged ineffectually a national militia system, to enroll all citizens over 18 and under 60 in the "advanced corps," the "main corps" or the "reserve," and for this and his close friendship with Washington was bitterly assailed by the Republicans. In 1793 he had begun to build his house, Montpelier, at Thomaston, Maine, where he speculated unsuccessfully in the holdings of the Eastern Land Association; and he lived there until his death on the 25th of October 1806.

See F. S. Drake, *Memoir of General Henry Knox* (Boston, 1873); and Noah Brooks, *Henry Knox* (New York, 1900) in the "American Men of Energy" series.

KNOX, JOHN (*c.* 1505–1572), Scottish reformer and historian. Of his early life very little is certainly known, in spite of the fact that his *History of the Reformation* and his private letters, especially the latter, are often vividly autobiographical. Even the year of his birth, usually given as 1505, is matter of dispute. Beza, in his *Icones*, published in 1580, makes it 1515; Sir Peter Young (tutor to James VI. of Scotland), writing to Beza from Edinburgh in 1579, says 1513; and a strong case has been made out for holding that the generally accepted date is due to an error in transcription (see Dr Hay Fleming in the *Bookman*, Sept. 1905). But Knox seems to have been reticent about his early life, even to his contemporaries. What is known is that he

was a son of William Knox, who lived in or near the town of Haddington, that his mother's name was Sinclair, and that his forefathers on both sides had fought under the banner of the Bothwells. William Knox was "simple," not "gentle"—perhaps a prosperous East Lothian peasant. But he sent his son John to school (no doubt the well-known grammar school of Haddington), and thereafter to the university, where, like his contemporary George Buchanan, he sat "at the feet" of John Major. Major was a native of Haddington, who had recently returned to Scotland from Paris with a great academical reputation. He retained to the last, as his *History of Greater Britain* shows, the repugnance characteristic of the university of Paris to the tyranny of kings and nobles; but like it, he was now alarmed by the revolt of Luther, and ceased to urge its ancient protest against the supremacy of the pope. He exchanged his "regency" or professorship in Glasgow University for one in that of St Andrews in 1523. If Knox's college time was later than that date (as it must have been, if he was born near 1515), it was no doubt spent, as Beza narrates, at St Andrews, and probably exclusively there. But in Major's last Glasgow session a "Joannes Knox" (not an uncommon name, however, at that time in the west of Scotland) matriculated there; and if this were the future reformer, he may thereafter either have followed his master to St Andrews or returned from Glasgow straight to Haddington. But till twenty years after that date his career has not been again traced. Then he reappears in his native district as a priest without a university degree (Sir John Knox) and a notary of the diocese of St Andrews. In 1543 he certainly signed himself "minister of the sacred altar" under the archbishop of St Andrews. But in 1546 he was carrying a two-handed sword in defence of the reformer George Wishart, on the day when the latter was arrested by the archbishop's order. Knox would have resisted, though the arrest was by his feudal superior, Lord Bothwell; but Wishart himself commanded his submission, with the words "One is sufficient for a sacrifice," and was handed over for trial at St Andrews. And next year the archbishop himself had been murdered, and Knox was preaching in St Andrews a fully developed Protestantism.

Knox gives us no information as to how this startling change in himself was brought about. During those twenty years Scotland had been slowly tending to freedom in religious profession, and to friendship with England rather than with France. The Scottish hierarchy, by this time corrupt and even profligate, saw the twofold danger and met it firmly. James V., the "Commons' King" had put himself into the hands of the Beatons, who in 1528 burned Patrick Hamilton. On James's death there was a slight reaction, but the cardinal-archbishop took possession of the weak regent Arran, and in 1546 burned George Wishart. England had by this time rejected the pope's supremacy. In Scotland by a recent statute it was death even to argue against it; and Knox after Wishart's execution was fleeing from place to place, when, hearing that certain gentlemen of Fife had slain the cardinal and were in possession of his castle of St Andrews, he gladly joined himself to them. In St Andrews he taught "John's Gospel" and a certain catechism—probably that which Wishart had got from "Helvetia" and translated; but his teaching was supposed to be private and tutorial and for the benefit of his friends' "bairns." The men about him however—among them Sir David Lindsay of the Mount, "Lyon King" and poet—saw his capacity for greater things, and, on his at first refusing "to run where God had not called him," planned a solemn appeal to Knox from the pulpit to accept "the public office and charge of preaching." At the close of it the speaker (in Knox's own narrative) "said to those that were present, 'Was not this your charge to me? And do ye not approve this vocation?' They answered, 'It was, and we approve it.' Whereat the said Johnne, abashed, burst forth in most abundant tears and withdrew himself to his chamber," remaining there in "heaviness" for days, until he came forth resolved and prepared. Knox is probably not wrong in regarding this strange incident as the spring of his own public life. The St Andrews invitation was really one to danger and death; John Rough, who spoke it, died a few years after in the flames at Smithfield. But it was a call which many in that ardent dawn were ready to accept, and it had now at length found, or made, a statesman and leader of men. For what to the others was chiefly a promise of personal salvation became for the indomitable will of Knox an assurance also of victory, even in this world, over embattled forces of ancient wrong. It is certain at least that from this date he never changed and scarcely even varied his public course. And looking back upon that course afterwards, he records with much complacency how his earliest St Andrews sermon built up a whole fabric of aggressive Protestantism upon Puritan theory, so that his startled hearers muttered, "Others sned (snipped) the branches; this man strikes at the root."

Meantime the system attacked was safe for other thirteen years. In June 1547 St Andrews yielded to the French fleet, and the prisoners, including Knox, were thrown into the galleys on the Loire, to remain in irons and under the lash for at least nineteen months. Released at last (apparently through the influence of the young English king, Edward VI.), Knox was appointed one of the licensed preachers of the new faith for England, and stationed in the great garrison of Berwick, and afterwards at Newcastle. In 1551 he seems to have been made a royal chaplain; in 1552 he was certainly offered an English bishopric, which he declined; and during most of this year he used his influence, as preacher at court and in London, to make the new English settlement more Protestant. To him at least is due the Prayer-book rubric which explains that, when kneeling at the sacrament is ordered, "no adoration is intended or ought to be done." While in Northumberland Knox had been betrothed to Margaret Bowes, one of the fifteen children of Richard Bowes, the captain of Norham Castle. Her mother, Elizabeth, co-heiress of Aske in Yorkshire, was the earliest of that little band of women-friends whose correspondence with Knox on religious matters throws an unexpected light on his discriminating tenderness of heart. But now Mary Tudor succeeded her brother, and Knox in March 1554 escaped into five years' exile abroad, leaving Mrs. Bowes a fine treatise on "Affliction," and sending back to England two editions of a more acrid "Faithful Admonition" on the crisis there. He first drifted to Frankfort, where the English congregation divided as English Protestants have always done, and the party opposed to Knox got rid of him at last by a complaint to the authorities of treason against the emperor Charles V. as well as Philip and Mary. At Geneva he found a more congenial pastorate. Christopher Goodman (*c.* 1520–1603) and he, with other exiles, began there the Puritan tradition, and prepared the earlier English version of the Bible, "the household book of the English-speaking nations" during the great age of Elizabeth. Here, and afterwards at Dieppe (where he preached in French), Knox kept in communication with the other Reformers, studied Greek and Hebrew in the interest of theology, and having brought his wife and her mother from England in 1555 lived for years a peaceful life.

But even here Knox was preparing for Scotland, and facing the difficulties of the future, theoretical as well as practical. In his first year abroad he consulted Calvin and Bullinger as to the right of the civil "authority" to prescribe religion to his subjects—in particular, whether the godly should obey "a magistrate who enforces idolatry and condemns true religion," and whom should they join "in the case of a religious nobility resisting an idolatrous sovereign." In August 1555 he visited his native country and found the queen-mother, Mary of Lorraine, acting as regent in place of the real "sovereign," the youthful and better-known Mary, now being brought up at the court of France. Scripture-reading and the new views had spread widely, and the regent was disposed to wink at this in the case of the "religious nobility." Knox was accordingly allowed to preach privately for six months throughout the south of Scotland, and was listened to with an enthusiasm which made him break out, "O sweet were the death which should follow such forty days in Edinburgh as here I have had three!" Before leaving he

even addressed a letter to the regent, urging her to favour the Evangel. She accepted it jocularly as a "pasquil," and Knox on his departure was condemned and burned in effigy. But he left behind him a "Wholesome Counsel" to Scottish heads of families, reminding them that within their own houses they were "bishop and kings," and recommending the institution of something like the early apostolic worship in private congregations. Of the Protestant barons Knox, though in exile, seems to have been henceforward the chief adviser; and before the end of 1557 they, under the name of the "Lords of the Congregation," had entered into the first of the religious "bands" or "covenants" afterwards famous in Scotland. In 1558 he published his "Appellation" to the nobles, estates and commonalty against the sentence of death recently pronounced upon him, and along with it a stirring appeal "To his beloved brethren, the Commonalty of Scotland," urging that the care of religion fell to them also as being "God's creatures, created and formed in His own image," and having a right to defend their conscience against persecution. About this time, indeed, there was in Scotland a remarkable approximation to that solution of the toleration difficulty which later ages have approved; for the regent was understood to favour the demand of the "congregation" that at least the penal statutes against heretics "be suspended and abrogated," and "that it be lawful to us to *use ourselves* in matters of religion and conscience as we must answer to God." It was a consummation too ideal for that early date; and next year the regent, whose daughter was now queen of France and there mixed up with the persecuting policy of the Guises, forbade the reformed preaching in Scotland. A rupture ensued at once, and Knox appeared in Edinburgh on the 2nd of May 1559 "even in the brunt of the battle." He was promptly "blown to the horn" at the Cross there as an outlaw, but escaped to Dundee, and commenced public preaching in the chief towns of central Scotland. At Perth and at St Andrews his sermons were followed by the destruction of the monasteries, institutions disliked in that age in Scotland alike by the devout and the profane. But while he notes that in Perth the act was that of "the rascal multitude," he was glad to claim in St Andrews the support of the civic "authority"; and indeed the burghs, which were throughout Europe generally in favour of freedom, soon became in Scotland a main support of the Reformation. Edinburgh was still doubtful, and the queen regent held the castle; but a truce between her and the lords for six months to the 1st of January 1560 was arranged on the footing that every man there "may have freedom to use his own conscience to the day foresaid"—a freedom interpreted to let Knox and his brethren preach publicly and incessantly.

Scotland, like its capital, was divided. Both parties lapsed from the freedom-of-conscience solution to which each when unsuccessful appealed; both betook themselves to arms; and the immediate future of the little kingdom was to be decided by its external alliances. Knox now took a leading part in the great transaction by which the friendship of France was exchanged for that of England. He had one serious difficulty. Before Elizabeth's accession to the English crown, and after the queen mother in Scotland had disappointed his hopes, he had published a treatise against what he called "The Monstrous Regiment (regimen or government) of Women"; though the despotism of that despotic age was scarcely appreciably worse when it happened to be in female hands. Elizabeth never forgave him; but Cecil corresponded with the Scottish lords, and their answer in July 1559, in Knox's handwriting, assures England not only of their own constancy, but of "a charge and commandment to our posterity, that the amity and league between you and us, contracted and begun in Christ Jesus, may by them be kept inviolated for ever." The league was promised by England; but the army of France was first in the field, and towards the end of the year drove the forces of the "congregation" from Leith into Edinburgh, and then out of it in a midnight rout to Stirling—"that dark and dolorous night," as Knox long afterwards said, "wherein all ye, my lords, with shame and fear left this town," and from which only a memorable sermon by their great preacher roused the despairing multitude into new hope. Their leaders renounced allegiance to the regent; she ended her not unkindly, but as Knox calls it "unhappy," life in the castle of Edinburgh; the English troops, after the usual Elizabethan delays and evasions, joined their Scots allies; and the French embarked from Leith. On the 6th of July 1560 a treaty was at last made, nominally between Elizabeth and the queen of France and Scotland; while Cecil instructed his mistress's plenipotentiaries to agree "that the government of Scotland be granted to the nation of the land." The revolution was in the meantime complete; and Knox, who takes credit for having done much to end the enmity with England which was so long thought necessary for Scotland's independence, was strangely enough destined, beyond all other men, to leave the stamp of a more inward independence upon his country and its history.

At the first meeting of the Estates, in August 1560, the Protestants were invited to present a confession of their faith. Knox and three others drafted it, and were present when it was offered and read to the parliament. The statute-book says it was "by the estates of Scotland ratified and approved, as wholesome and sound doctrine grounded upon the infallible truth of God's word." The Scots confession, though of course drawn up independently, is in substantial accord with the others then springing up in the countries of the Reformation, but is Calvinist rather than Lutheran. It remained for two centuries the authorized Scottish creed, though in the first instance the faith of only a fragment of the people. Yet its approval became the basis for three acts passed a week later; the first of which, abolishing the pope's authority and jurisdiction in Scotland, may perhaps have been consistent with toleration, as the second, rescinding old statutes which had established and enforced that and other catholic tenets, undoubtedly was. But the third, inflicting heavy penalties, with death on a third conviction, on those who should celebrate mass or even be present at it, showed that the reformer and his friends had crossed the line, and that their position could no longer be described as, in Knox's words, "requiring nothing but the liberty of conscience, and our religion and fact to be tried by the word of God." He was prepared indeed to fall back upon that, in the event of the Estates at any time refusing sanction to either church or creed, as their sovereign in Paris promptly refused it. But the parliament of 1560 gave no express sanction to the Reformed Church, and Knox did not wait until it should do so. Already "in our towns and places reformed," as the Confession puts it, there were local or "particular kirks," and these grew and spread and were provincially united, till, in the last month of this memorable year, the first General Assembly of their representatives met, and became the "universal kirk," or "the whole church convened." It had before it the plan for church government and maintenance, drafted in August at the same time with the Confession, under the name of *The Book of Discipline*, and by the same framers. Knox was even more clearly in this case the chief author, and he had by this time come to desire a much more rigid Presbyterianism than he had sketched in his "Wholesome Counsel" of 1555. In planning it he seems to have used his acquaintance with the "Ordonnances" of the Genevan Church under Calvin, and with the "Forma" of the German Church in London under John Laski (or A. Lasco). Starting with "truth" contained in Scripture as the church's foundation, and the Word and Sacraments as means of building it up, it provides ministers and elders to be elected by the congregations, with a subordinate class of "readers," and by their means sermons and prayers each "Sunday" in every parish. In large towns these were to be also on other days, with a weekly meeting for conference or "prophesying." The "plantation" of new churches is to go on everywhere under the guidance of higher church officers called superintendents. All are to help their brethren, "for no man may be permitted to live as best pleaseth him within the Church of God." And above all things the young and the ignorant are to be instructed, the former by a regular gradation or ladder of parish or elementary schools, secondary schools and universities. Even the poor were to be fed by the Church's hands; and behind

its moral influence, and a discipline over both poor and rich, was to be not only the coercive authority of the civil power but its money. Knox had from the first proclaimed that "the *teinds* (tithes of yearly fruits) by God's law do not appertain of necessity to the kirkmen." And this book now demands that out of them "must not only the ministers be sustained, but also the poor and schools." But Knox broadens his plan so as to claim also the property which had been really gifted to the Church by princes and nobles—given by them indeed, as he held, without any moral right and to the injury of the people, yet so as to be Church patrimony. From all such property, whether land or the sheaves and fruits of land, and also from the personal property of burghers in the towns, Knox now held that the state should authorize the kirk to claim the salaries of the ministers, and the salaries of teachers in the schools and universities, but above all, the relief of the poor—not only of the absolutely "indigent" but of "your poor brethren, the labourers and handworkers of the ground." For the danger now was that some gentlemen were already cruel in exactions of their tenants, "requiring of them whatever before they paid to the Church, so that the papistical tyranny shall only be changed into the tyranny of the lords or of the laird." The danger foreseen alike to the new Church, and to the commonalty and poor, began to be fulfilled a month later, when the lords, some of whom had already acquired, as others were about to acquire, much of the Church property, declined to make any of it over for Knox's magnificent scheme. It was, they said, "a devout imagination." Seven years afterwards, however, when the contest with the Crown was ended, the kirk was expressly acknowledged as the only Church in Scotland, and jurisdiction given it over all who should attempt to be outsiders; while the preaching of the Evangel and the planting of congregations went on in all the accessible parts of Scotland. Gradually too stipends for most Scottish parishes were assigned to the ministers out of the yearly *teinds*; and the Church received—what it retained even down to recent times—the administration both of the public schools and of the Poor Law of Scotland. But the victorious rush of 1560 was already somewhat stayed, and the very next year raised the question whether the transfer of intolerance to the side of the new faith was as wise as it had at first seemed to be successful.

Mary Queen of Scots had been for a short time also queen of France, and in 1561 returned to her native land, a young widow on whom the eyes of Europe were fixed. Knox's objections to the "regiment of women" were theoretical, and in the present case he hoped at first for the best, favouring rather his queen's marriage with the heir of the house of Hamilton. Mary had put herself into the hands of her half-brother, Lord James Stuart afterwards earl of Moray, the only man who could perhaps have pulled her through. A proclamation now continued the "state of religion" begun the previous year; but mass was celebrated in the queen's household, and Lord James himself defended it with his sword against Protestant intrusion. Knox publicly protested; and Moray, who probably understood and liked both parties, brought the preacher to the presence of his queen. There is nothing revealed to us by "the broad clear light of that wonderful book,"[1] *The History of the Reformation in Scotland*, more remarkable than the four Dialogues or interviews, which, though recorded only by Knox, bear the strongest stamp of truth, and do almost more justice to his opponent than to himself. Mary took the aggressive and very soon raised the real question. "Ye have taught the people to receive another religion than their princes can allow; and how can that doctrine be of God, seeing that God commands subjects to obey their princes?" The point was made keener by the fact that Knox's own Confession of Faith (like all those of that age, in which an unbalanced monarchical power culminated) had held kings to be appointed "for maintenance of the true religion," and suppression of the false; and the reformer now fell back on his more fundamental principle, that "right religion took neither original nor authority from worldly princes, but from the Eternal God alone." All through this dialogue too, as in another at Lochleven two years afterwards, Knox was driven to axioms, not of religion but of constitutionalism, which Buchanan and he may have learned from their teacher Major, but which were not to be accepted till a later age. "'Think ye,' quoth she, 'that subjects, having power, may resist their princes?' 'If their princes exceed their bounds, Madam, they may be resisted and even deposed,'" Knox replied. But these dialectics, creditable to both parties, had little effect upon the general situation. Knox had gone too far in intolerance, and Moray and Maitland of Lethington gradually withdrew their support. The court and parliament, guided by them, declined to press the queen or to pass the Book of Discipline; and meantime the negotiations as to the queen's marriage with a Spanish, a French or an Austrian prince revealed the real difficulty and peril of the situation. Her marriage to a great Catholic prince would be ruinous to Scotland, probably also to England, and perhaps to all Protestantism. Knox had already by letter formally broken with the earl of Moray, "committing you to your own wit, and to the conducting of those who better please you"; and now, in one of his greatest sermons before the assembled lords, he drove at the heart of the situation—the risk of a Catholic marriage. The queen sent for him for the last time and burst into passionate tears as she asked, "What have you to do with my marriage? Or what are you within this commonwealth?" "A subject born within the same," was the answer of the son of the East Lothian peasant; and the Scottish nobility, while thinking him overbold, refused to find him guilty of any crime, even when, later on, he had "convocated the lieges" to Edinburgh to meet a crown prosecution. In 1564 a change came. Mary had wearied of her guiding statesmen, Moray and the more pliant Maitland; the Italian secretary David Rizzio, through whom she had corresponded with the pope, now more and more usurped their place; and a weak fancy for her handsome cousin, Henry Darnley, brought about a sudden marriage in 1565 and swept the opposing Protestant lords into exile. Darnley, though a Catholic, thought it well to go to Knox's preaching; but was so unfortunate as to hear a very long sermon, with allusions not only to "babes and women" as rulers, but to Ahab who did not control his strong-minded wife. Mary and the lords still in her council ordered Knox not to preach while she was in Edinburgh, and he was absent or silent during the weeks in which the queen's growing distaste for her husband, and advancement of Rizzio over the nobility remaining in Edinburgh, brought about the conspiracy by Darnley, Morton and Ruthven. Knox does not seem to have known beforehand of Rizzio's "slaughter," which had been intended to be a semi-judicial act; but soon after it he records that "that vile knave Davie was justly punished, for abusing of the commonwealth, and for other villainy which we list not to express." The immediate effect however of what Knox thus approved was to bring his cause to its lowest ebb, and on the very day when Mary rode from Holyrood to her army, he sat down and penned the prayer, "Lord Jesus, put an end to this my miserable life, for justice and truth are not to be found among the sons of men!" He added a short autobiographic fragment, whose mingled self-abasement and exultation are not unworthy of its striking title—"John Knox, with deliberate mind, to his God." During the rest of the year he was hidden in Ayrshire or elsewhere, and throughout 1566 he was forbidden to preach when the court was in Edinburgh. But he was influential at the December Assembly in the capital where a greater tragedy was now preparing, for Mary's infatuation for Bothwell was visible to all. At the Assembly's request, however, Knox undertook a long visit to England, where his two sons by his first wife were being educated, and were afterwards to be Fellows of St John's, Cambridge, the younger becoming a parish clergyman. It was thus during the reformer's absence that the murder of Darnley, the abduction and subsequent marriage of Mary, the flight of Bothwell, and the imprisonment in Lochleven of the queen, unrolled themselves

[1] John Hill Burton (*Hist. of Scotland*, iii. 339). Mr Burton's view (differing from that of Professor Hume Brown) was that the dialogues—the earlier of them at least—must have been spoken in the French tongue, in which Knox had recently preached for a year.

before the eyes of Scotland. Knox returned in time to guide the Assembly which sat on the 25th of June 1567 in dealing with this unparalleled crisis, and to wind up the revolution by preaching at Stirling on the 9th of July 1567, after Mary's abdication, at the coronation of the infant king.

His main work was now really done; for the parliament of 1567 made Moray regent, and Knox was only too glad to have his old friend back in power, though they seem to have differed on the question whether the queen should be allowed to pass into retirement without trial for her husband's death, as they had differed all along on the question of tolerating her private religion. Knox's victory had not come too early, for his physical strength soon began to fail. But Mary's escape in 1568 resulted only in her defeat at Langside, and in a long imprisonment and death in England. In Scotland the regent's assassination in 1570 opened a miserable civil war, but it made no permanent change. The massacre of St Bartholomew rather united English and Scottish Protestantism; and Knox in St Giles' pulpit, challenging the French ambassador to report his words, denounced God's vengeance on the crowned murderer and his posterity. When open war broke out between Edinburgh Castle, held by Mary's friends, and the town, held for her son, both parties agreed that the reformer, who had already had a stroke of paralysis, should remove to St Andrews. While there he wrote his will, and published his last book, in the preface to which he says, "I heartily take my good-night of the faithful of both realms . . . for as the world is weary of me, so am I of it." And when he now merely signs his name, it is "John Knox, with my dead hand and glad heart." In the autumn of 1572 he returned to Edinburgh to die, probably in the picturesque house in the "throat of the Bow," which for generations has been called by his name. With him were his wife and three young daughters; for though he had lost Margaret Bowes at the close of his year of triumph 1560, he had four years after married Margaret Stewart, a daughter of his friend Lord Ochiltree. She was a bride of only seventeen and was related to the royal house; yet, as his Catholic biographer put it, "by sorcery and witchcraft he did so allure that poor gentlewoman that she could not live without him." But lords, ladies and burghers also crowded around his bed, and his colleague and his servant have severally transmitted to us the words in which his weakness daily strove with pain, rising on the day before his death into a solemn exultation—yet characteristically, not so much on his own account as for "the troubled Church of God." He died on the 24th of November 1572, and at his funeral in St Giles' Churchyard the new Regent Morton, speaking under the hostile guns of the castle, expressed the first surprise of those around as they looked back on that stormy life, that one who had "neither flattered nor feared any flesh" had now "ended his days in peace and honour." Knox himself had a short time before put in writing a larger claim for the historic future, "What I have been to my country, though this unthankful age will not know, yet the ages to come will be compelled to bear witness to the truth."

Knox was a rather small man, with a well-knit body; he had a powerful face, with dark blue eyes under a ridge of eyebrow, high cheek-bones, and a long black beard which latterly turned grey. This description, taken from a letter in 1579 by his junior contemporary Sir Peter Young, is very like Beza's fine engraving of him in the *Icones*—an engraving probably founded on a portrait which was to be sent by Young to Beza along with the letter. The portrait, which was unfortunately adopted by Carlyle, has neither pedigree nor probability. After his two years in the French galleys, if not before, Knox suffered permanently from gravel and dyspepsia, and he confesses that his nature "was for the most part oppressed with melancholy." Yet he was always a hard worker; as sole minister of Edinburgh studying for two sermons on Sunday and three during the week, besides having innumerable cares of churches at home and abroad. He was undoubtedly sincere in his religious faith, and most disinterested in his devotion to it and to the good of his countrymen. But like too many of them, he was self-conscious, self-willed and dogmatic; and his transformation in middle life, while it immensely enriched his sympathies as well as his energies, left him unable to put himself in the place of those who retained the views which he had himself held. All his training too, university, priestly and in foreign parts, tended to make him logical overmuch. But this was mitigated by a strong sense of humour (not always sarcastic, though sometimes savagely so), and by tenderness, best seen in his epistolary friendships with women; and it was quite overborne by an instinct and passion for great practical affairs. Hence it was that Knox as a statesman so often struck successfully at the centre of the complex motives of his time, leaving it to later critics to reconcile his theories of action. But hence too he more than once took doubtful short-cuts to some of his most important ends; giving the ministry within the new Church more power over laymen than Protestant principles would suggest, and binding the masses outside who were not members of it, equally with their countrymen who were, to join in its worship, submit to its jurisdiction, and contribute to its support. And hence also his style (which contemporaries called anglicized and modern), though it occasionally rises into liturgical beauty, and often flashes into vivid historical portraiture, is generally kept close to the harsh necessities of the few years in which he had to work for the future. That work was indeed chiefly done by the living voice; and in speaking, this "one man," as Elizabeth's very critical ambassador wrote from Edinburgh, was "able in one hour to put more life in us than five hundred trumpets continually blustering in our ears." But even his eloquence was constraining and constructive—a personal call for immediate and universal co-operation; and that personal influence survives to this day in the institutions of his people, and perhaps still more in their character. His countrymen indeed have always believed that to Knox more than to any other man Scotland owes her political and religious individuality. And since his 19th century biography by Dr Thomas McCrie, or at least since his recognition in the following generation by Thomas Carlyle, the same view has taken its place in literature.

BIBLIOGRAPHY.—Knox's books, pamphlets, public documents and letters are collected into the great edition in six volumes of *Knox's Works*, by David Laing (Edinburgh, 1846–1864), with introductions, appendices and notes. Of his books the chief are the following: 1.—*The History of the Reformation in Scotland*, incorporating the Confession and the Book of Discipline. Begun by Knox as a party manifesto in 1560, it was continued and revised by himself in 1566 as so to form four books, with a fifth book apparently written after his death from materials left by him. It was partly printed in London in 1586 by Vautrollier, but was suppressed by authority and published by David Buchanan, with a *Life*, in 1664. 2.—*On Predestination: an Answer to an Anabaptist* (London, 1591). 3.—*On Prayer* (1554). 4.—*On Affliction* (1556). 5.—*Epistles*, and *Admonition*, both to English Brethren in 1554. 6.—*The First Blast of the Trumpet against the Monstrous Regiment of Women* (1558). 7.—*An Answer to a Scottish Jesuit* (1572).

Knox's life is more or less touched upon by all the Scottish histories and Church histories which include his period, as well as in the mass of literature as to Queen Mary. Dr Laing's edition of the *Works* contains important biographical material. But among the many express biographies two especially should be consulted—those by Thomas McCrie (Edinburgh, 1811; revised and enlarged in 1813, the later editions containing valuable notes by the author); and by P. Hume Brown (Edinburgh, 1895). *John Knox and the Reformation*, by Andrew Lang (London, 1905), is not so much a biography as a collection of materials, bearing upon many parts of the life, but nearly all on the unfavourable side. (A. T. I.)

KNOX, PHILANDER CHASE (1853–), American lawyer and political leader, was born in Brownsville, Pennsylvania, on the 4th of May 1853. He graduated from Mount Union College (Ohio) in 1872, and was admitted to the Pennsylvania bar in 1875. He settled in Pittsburg, where he continued in private practice, with the exception of two years' service (1876–1877) as assistant United States district attorney, acquiring a large practice as a corporation lawyer. In April 1901 he became attorney-general of the United States in the cabinet of President McKinley, and retained this position after the accession of President Roosevelt until June 1904, when he was appointed by Governor Pennypacker of Pennsylvania to fill the unexpired term of Matthew S. Quay in the United States Senate; in 1905 he

was re-elected to the Senate for the full term. In March 1909 he became secretary of state in the cabinet of President Taft.

KNOXVILLE, a city and the county-seat of Knox county, Tennessee, U.S.A., in the E. part of the state, 160 m. E. of Nashville, and about 190 m. S.E. of Louisville, Kentucky, on the right bank of the Tennessee river, 4 m. below the point where it is formed by the junction of the French Broad and Holston Rivers. Pop. (1880), 9693; (1890), 22,535; (1900), 32,637, of whom 7359 were negroes and 895 were foreign-born; (1910 census), 36,346. It is served by the main line and by branches of the Louisville & Nashville and the Southern railways, by the Knoxville & Bristol railway (Morristown to Knoxville, 58 m.), by the short Knoxville & Augusta railroad (Knoxville to Walland, 26 m.), and by passenger and freight steamboat lines on the Tennessee river, which is here navigable for the greater part of the year. A steel and concrete street-car bridge crosses the Tennessee at Knoxville. Knoxville is picturesquely situated at an elevation of from 850 to 1000 ft. in the valley between the Smoky Mountains and the Cumberland Mountains, and is one of the healthiest cities in the United States. There are several beautiful parks, of which Chilhowie and Fountain City are the largest, and among the public buildings are a city-hall, Federal building, court-house, the Knoxville general hospital, the Lincoln memorial hospital, the Margaret McClung industrial home, a Young Men's Christian Association building and the Lawson-McGhee public library. A monument to John Sevier stands on the site of the blockhouse first built there. Knoxville is the seat of Knoxville College (United Presbyterian, 1875) for negroes, East Tennessee institute, a secondary school for girls, the Baker-Himel school for boys, Tennessee Medical College (1889), two commercial schools and the university of Tennessee. The last, a state co-educational institution, was chartered as Blount College in 1794 and as East Tennessee College in 1807, but not opened until 1820—the present name was adopted in 1879. It had in 1907–1908 106 instructors, 755 students (536 in academic departments), and a library of 25,000 volumes With the university is combined the state college of agriculture and engineering; and a large summer school for teachers is maintained. At Knoxville are the Eastern State insane asylum, state asylums for the deaf and dumb (for both white and negro), and a national cemetery in which more than 3200 soldiers are buried. Knoxville is an important commercial and industrial centre and does a large jobbing business. It is near hardwood forests and is an important market for hardwood mantels. Coal-mines in the vicinity produce more than 2,000,000 tons annually, and neighbouring quarries furnish the famous Tennessee marble, which is largely exported. Excellent building and pottery clays are found near Knoxville. Among the city's industrial establishments are flour and grist mills, cotton and woollen mills, furniture, desk, office supplies and sash, door, and blind factories, meat-packing establishments, clothing factories, iron, steel and boiler works, foundries and machine shops, stove works and brick and cement works. The value of the factory product increased from $6,201,840 in 1900 to $12,432,880 in 1905, or 100·5 %, in 1905 the value of the flour and grist mill products alone being $2,048,509. Just outside the city the Southern railway maintains large car and repair shops. Knoxville was settled in 1786 by James White (1737–1815), a North Carolina pioneer, and was first known as "White's Fort"; it was laid out as a town in 1791, and named in honour of General Henry Knox, then secretary of war in Washington's cabinet. In 1791 the *Knoxville Gazette*, the first newspaper in Tennessee (the early issue, printed at Rogersville) began publication. From 1792 to 1796 Knoxville was the capital of the "Territory South of the Ohio," and until 1811 and again in 1817 it was the capital of the state. In 1796 the convention which framed the constitution of the new state of Tennessee met here, and here later in the same year the first state legislature was convened. Knoxville was chartered as a city in 1815. In its early years it was several times attacked by the Indians, but was never captured. During the Civil War there was considerable Union sentiment in East Tennessee, and in the summer of 1863 the Federal authorities determined to take possession of Knoxville as well as Chattanooga and to interrupt railway communications between the Confederates of the East and West through this region. As the Confederates had erected only slight defences for the protection of the city, Burnside, with about 12,000 men, easily gained possession on the 2nd of September 1863. Fortifications were immediately begun for its defence, and on the 4th of November, Bragg, thinking his position at Chattanooga impregnable against Grant, Sherman, Thomas and Hooker, despatched a force of 20,000 men under Longstreet to engage Burnside. Longstreet arrived in the vicinity on the 16th of November, and on the following day began a siege, which was continued with numerous assaults until the 28th, when a desperate but unsuccessful attack was made on Fort Sanders, and upon the approach of a relief force under Sherman, Longstreet withdrew on the night of the 4th of December. The Confederate losses during the siege were 182 killed, 768 wounded and 192 captured or missing; the Union losses were 92 killed, 394 wounded and 207 captured or missing. West Knoxville (incorporated in 1888) and North Knoxville (incorporated in 1889) were annexed to Knoxville in 1898.

See the sketch by Joshua W. Caldwell in *Historic Towns of the Southern States*, edited by L. P. Powell (New York, 1900); and W. Rule, G. F. Mellen and J. Wooldridge, *Standard History of Knoxville* (Chicago, 1900).

KNUCKLE (apparently the diminutive of a word for "bone," found in Ger. *Knochen*), the joint of a finger, which, when the hand is shut, is brought into prominence. In mechanical use the word is applied to the round projecting part of a hinge through which the pin is run, and in ship-building to an acute angle on some of the timbers. A "knuckle-duster," said to have originally come from the criminal slang of the United States, is a brass or metal instrument fitting on to the hand across the knuckles, with projecting studs and used for inflicting a brutal blow.

KNUCKLEBONES (Hucklebones, Dibs, Jackstones, Chuckstones, Five-stones), a game of very ancient origin, played with five small objects, originally the knucklebones of a sheep, which are thrown up and caught in various ways. Modern "knucklebones" consist of six points, or knobs, proceeding from a common base, and are usually of metal. The winner is he who first completes successfully a prescribed series of throws, which, while of the same general character, differ widely in detail. The simplest consists in tossing up one stone, the *jack*, and picking up one or more from the table while it is in the air; and so on until all five stones have been picked up. Another consists in tossing up first one stone, then two, then three and so on, and catching them on the back of the hand. Different throws have received distinctive names, such as "riding the elephant," "peas in the pod," and "horses in the stable."

The origin of knucklebones is closely connected with that of dice, of which it is probably a primitive form, and is doubtless Asiatic. Sophocles, in a fragment, ascribed the invention of draughts and knucklebones (*astragaloi*) to Palamedes, who taught them to his Greek countrymen during the Trojan War. Both the *Iliad* and the *Odyssey* contain allusions to games similar in character to knucklebones, and the Palamedes tradition, as flattering to the national pride, was generally accepted throughout Greece, as is indicated by numerous literary and plastic evidences. Thus Pausanias (*Corinth* xx.) mentions a temple of Fortune in which Palamedes made an offering of his newly invented game. According to a still more ancient tradition, Zeus, perceiving that Ganymede longed for his playmates upon Mount Ida, gave him Eros for a companion and golden dibs with which to play, and even condescended sometimes to join in the game (Apollonius). It is significant, however, that both Herodotus and Plato ascribe to the game a foreign origin. Plato (*Phaedrus*) names the Egyptian god Theuth as its inventor, while Herodotus relates that the Lydians, during a period of famine in the days of King Atys, originated this game and indeed almost all other games except chess. There were two methods of playing in ancient times. The first, and probably the primitive method, consisted in tossing up and catching the bones on the

back of the hand, very much as the game is played to-day. In the Museum of Naples may be seen a painting excavated at Pompeii, which represents the goddesses Latona, Niobe, Phoebe, Aglaia and Hileaera, the last two being engaged in playing at Knucklebones (see GREEK ART, fig. 42). According to an epigram of Asclepiodotus, astragals were given as prizes to school-children, and we are reminded of Plutarch's anecdote of the youthful Alcibiades, who, when a teamster threatened to drive over some of his knucklebones that had fallen into the wagon-ruts, boldly threw himself in front of the advancing team. This simple form of the game was generally played only by women and children, and was called *pentalitha* or five-stones. There were several varieties of it besides the usual toss and catch, one being called *tropa*, or hole-game, the object having been to toss the bones into a hole in the earth. Another was the simple and primitive game of "odd or even."

The second, probably derivative, form of the game was one of pure chance, the stones being thrown upon a table, either with the hand or from a cup, and the values of the sides upon which they fell counted. In this game the shape of the pastern-bones used for astralagoi, as well as for the *tali* of the Romans, with whom knucklebones was also popular, determined the manner of counting. The pastern-bone of a sheep, goat or calf has, besides two rounded ends upon which it cannot stand, two broad and two narrow sides, one of each pair being concave and one convex. The convex narrow side, called *chios* or "the dog" counted 1; the convex broad side 3; the concave broad side 4; and the concave narrow side 6. Four astragals were used and 35 different scores were possible at a single throw, many receiving distinctive names such as Aphrodite, Midas, Solon, Alexander, and, among the Romans, Venus, King, Vulture, &c. The highest throw in Greece, counting 40, was the Euripides, and was probably a combination throw, since more than four sixes could not be thrown at one time. The lowest throw, both in Greece and Rome, was the Dog.

See *Cassell's Book of Sports and Pastimes* (London, 1896); *Games and Songs of American Children*, by W. W. Newell (1893); and *The Young Folks' Cyclopaedia of Games and Sports* (New York, 1899), for the modern children's game. For the history see *Les Jeux des Anciens*, by L. Becq de Fouquières (Paris, 1869); *Das Knochelspiel der Alten*, by Bolle (Wismar, 1886); *Die Spiele der Griechen und Römer*, by W. Richter (Leipzig, 1887).

KNUTSFORD, a market town in the Knutsford parliamentary division of Cheshire, England; on the London & North Western and Great Central railways, 24 m. E.N.E. of Chester, on the Chesire Lines and London & North-Western railway. Pop. of urban district (1901), 5172. It is pleasantly situated on an elevated ridge, with the fine domains of Tatton Park and Tabley respectively north and west of it. The meres in these domains are especially picturesque. Knutsford is noted in modern times as the scene of Mrs Gaskell's novel *Cranford*. Among several ancient houses the most interesting are a cottage with the date 1411 carved on its woodwork, and the Rose and Crown tavern, dated 1641. A number of curious old customs linger in the town, such as the practice of working designs in coloured sand, when a wedding takes place, before the bride's house. In what is probably the oldest Unitarian graveyard in the kingdom Mrs Gaskell lies buried; and in a churchyard a mile from the town stood the ancient church, which, though partially rebuilt in the time of Henry VIII., fell into ruin in 1741. The church of St John, built in 1744, and enlarged in 1879, was supplemented, in 1880, by St Cross Church, in Perpendicular style. The town has a grammar school, founded before the reign of Henry VIII., but reorganized in 1885. Lord Egerton built the Egerton schools in 1893. The industries comprise cotton, worsted and leather manufactures; but Knutsford is mainly a residential town, as many Manchester merchants have settled here, attracted by the fine climate and surroundings. Knutsford was the birthplace of Sir Henry Holland, Physician Extraordinary to Queen Victoria (1788–1873); and his son, the second Sir Henry, who was secretary of state for the colonies (1887–1892), was raised to the peerage in 1888 with the title of Baron Knutsford.

The name Knutsford (*Cunetesford*, *Knotesford*) is said to signify Cnut's ford, but there is no evidence of a settlement here previous to Domesday. In 1086 Erthebrand held Knutsford immediately of William FitzNigel, baron of Halton, who was himself a mesne lord of Hugh Lupus earl of Chester. In 1292 William de Tabley, lord of both Over and Nether Knutsford, granted free burgage to his burgesses in both Knutsfords. This charter is the only one which gives Knutsford a claim to the title of borough. It provided that the burgesses might elect a bailiff from amongst themselves every year. The office however carried little real power with it, and soon lapsed. In the same year as the charter to Knutsford the king granted to William de Tabley a market every Saturday at Nether Knutsford, and a three days' fair at the Feast of St Peter and St Paul. When this charter was confirmed by Edward III. another market (Friday) and another three days' fair (Feast of St Simon and St Jude) were added. The Friday market was certainly dropped by 1592, if it was ever held. May-day revels are still kept up here and attract large crowds from the neighbourhood. A silk mill was erected here in 1770, and there was also an attempt to foster the cotton trade, but the lack of means of communication made the undertaking impossible.

See Henry Green, *History of Knutsford* (1859).

KOALA (*Phascolarctus cinereus*), a stoutly built marsupial, of the family *Phascolmyidae*, which also contains the wombats. This animal, which inhabits the south-eastern parts of the Australian continent, is about 2 ft. in length, and of an ash-grey colour, an excellent climber, residing generally in lofty eucalyptus trees, the buds and tender shoots of which form its principal food, though occasionally it descends to the ground in the night in search of roots. From its shape the koala is called by the colonists the "native bear"; the term "native sloth" being also applied to it, from its arboreal habits and slow deliberate movements. The flesh is highly prized by the natives, and is palatable to Europeans. The skins are largely imported into England, for the manufacture of articles in which a cheap and durable fur is required.

KOBDO, a town of the Chinese Empire, in north-west Mongolia, at the northern foot of the Mongolian Altai, on the right bank of the Buyantu River, 13 m. from its entrance into Lake Khara-usu; 500 m. E.S.E. of Biysk (Russian), and 470 m. W. of Ulyasutai. It is situated amidst a dreary plain, and consists of a fortress, the residence of the governor of the Kobdo district, and a small trading town, chiefly peopled by Chinese and a few Mongols. It is, however, an important centre for trade between the cattle-breeding nomads and Peking. It was founded by the Chinese in 1731, and pillaged by the Mussulmans in 1872. The district of KOBDO occupies the north-western corner of Mongolia, and is peopled chiefly by Mongols, and also by Kirghiz and a few Soyotes, Uryankhes and Khotons. It is governed by a Chinese commissioner, who has under him a special Mongol functionary (Mongol, *dzurgan*). The chief monastery is at Ulangom. Considerable numbers of sheep (about 1,000,000), sheepskins, sheep and camel wool are exported to China, while Chinese cottons, brick tea and various small goods are imported. Leather, velveteen, cotton, iron and copper goods boxes, &c., are imported from Russia in exchange for cattle, furs and wool. The absence of a cart road to Biysk hinders the development of this trade.

KOBELL, WOLFGANG XAVER FRANZ, BARON VON (1803–1882), German mineralogist, was born at Munich on the 19th of July 1803. He studied chemistry and mineralogy at Landshut (1820–1823), and in 1826 became professor of mineralogy in the university of Munich. He introduced some new methods of mineral analyses, and in 1855 invented the stauroscope for the study of the optical properties of crystals. He contributed numerous papers to scientific journals, and described many new minerals. He died at Munich on the 11th of November, 1882.

PUBLICATIONS.—*Charakteristik der Mineralien* (2 vols. 1830–1831); *Tafeln zur Bestimmung der Mineralien* &c. (1833; and later editions, ed. 12, by K. Oebbeke, 1884); *Grundzüge der Mineralogie* (1838); *Geschichte der Mineralogie von 1650–1860* (1864).

KOCH, ROBERT (1843–1910), German bacteriologist, was born at Klausthal, Hanover, on the 11th of December 1843. He studied medicine at Göttingen, and it was while he was practising as a physician at Wollstein that he began those bacteriological researches that made his name famous. In 1876 he obtained a pure culture of the bacillus of anthrax, announcing a method of preventive inoculation against that disease seven years later. He became a member of the Sanitary Commission at Berlin and a professor at the School of Medicine in 1880, and five years later he was appointed to a chair in Berlin University and director of the Institute of Health. In 1882, largely as the result of the improved methods of bacteriological investigation he was able to elaborate, he discovered the bacillus of tuberculosis; and in the following year, having been sent on an official mission to Egypt and India to study the aetiology of Asiatic cholera, he identified the comma bacillus as the specific organism of that malady. In 1890 great hopes were aroused by the announcement that in tuberculin he had prepared an agent which exercised an inimical influence on the growth of the tubercle bacillus, but the expectations that were formed of it as a remedy for consumption were not fulfilled, though it came into considerable vogue as a means of diagnosing the existence of tuberculosis in animals intended for food. At the Congress on Tuberculosis held in London in 1901 he maintained that tuberculosis in man and in cattle is not the same disease, the practical inference being that the danger to men of infection from milk and meat is less than from other human subjects suffering from the disease. This statement, however, was not regarded as properly proved, and one of its results was the appointment of a British Royal Commission to study the question. Dr Koch also investigated the nature of rinderpest in South Africa in 1896, and found means of combating the disease. In 1897 he went to Bombay at the head of a commission formed to investigate the bubonic plague, and he subsequently undertook extensive travels in pursuit of his studies on the origin and treatment of malaria. He was summoned to South Africa a second time in 1903 to give expert advice on other cattle diseases, and on his return was elected a member of the Berlin Academy of Sciences. In 1906–1907 he spent eighteen months in East Africa, investigating sleeping-sickness. He died at Baden-Baden of heart-disease on the 28th of May 1910. Koch was undoubtedly one of the greatest bacteriologists ever known, and a great benefactor of humanity by his discoveries. Honours were showered upon him, and in 1905 he was awarded the Nobel prize for medicine.

Among his works may be mentioned: *Weitere Mitteilungen über ein Heilmittel gegen Tuberkulose* (Leipzig, 1891); and *Reiseberichte über Rinderpest, Bubonenpest in Indien und Afrika, Tsetse- oder Surra-Krankheit, Texasfieber, tropische Malaria, Schwarzwasserfieber* (Berlin, 1898). From 1886 onwards he edited, with Dr Karl Flugge, the *Zeitschrift für Hygiene und Infektionskrankheiten* (published at Leipzig). See Loeffler, "Robert Koch, zum 60ten Geburtstage" in *Deut. Medizin. Wochenschr.* (No. 50, 1903).

KOCH, a tribe of north-eastern India, which has given its name to the state of Kuch Behar (*q.v.*). They are probably of Mongolian stock, akin to the Mech, Kachari, Garo and Tippera tribes, and originally spoke, like these, a language of the Bodo group. But since one of their chiefs established a powerful kingdom at Kuch Behar in the 16th century they have gradually become Hinduized, and now adopt the name of Rajbansi (= "of royal blood"). In 1901 the number in Eastern Bengal and Assam was returned at nearly 2½ millions.

KOCK, CHARLES PAUL DE (1793–1871), French novelist, was born at Passy on the 21st of May 1793. He was a posthumous child, his father, a banker of Dutch extraction, having been a victim of the Terror. Paul de Kock began life as a banker's clerk. For the most part he resided on the Boulevard St Martin, and was one of the most inveterate of Parisians. He died in Paris on the 27th of April 1871. He began to write for the stage very early, and composed many operatic libretti. His first novel, *L'Enfant de ma femme* (1811), was published at his own expense. In 1820 he began his long and successful series of novels dealing with Parisian life with *Georgette, ou la mère du Tabellion*. His period of greatest and most successful activity was the Restoration and the early days of Louis Philippe. He was relatively less popular in France itself than abroad, where he was considered as the special painter of life in Paris. Major Pendennis's remark that he had read nothing of the novel kind for thirty years except Paul de Kock, "who certainly made him laugh," is likely to remain one of the most durable of his testimonials, and may be classed with the legendary question of a foreign sovereign to a Frenchman who was paying his respects, "Vous venez de Paris et vous devez savoir des nouvelles. Comment se porte Paul de Kock?" The disappearance of the *grisette* and of the cheap dissipation described by Henri Murger practically made Paul de Kock obsolete. But to the student of manners his portraiture of low and middle class life in the first half of the 19th century at Paris still has its value.

The works of Paul de Kock are very numerous. With the exception of a few not very felicitous excursions into historical romance and some miscellaneous works of which his share in *La Grande ville, Paris* (1842), is the chief, they are all stories of middle-class Parisian life, of *guinguettes* and *cabarets* and equivocal adventures of one sort or another. The most famous are *André le Savoyard* (1825) and *Le Barbier de Paris* (1826).

His *Mémoires* were published in 1873. See also Th. Trimm, *La Vie de Charles Paul de Kock* (1873).

KODAIKANAL, a sanatorium of southern India, in the Madura district of Madras, situated in the Palni hills, about 7000 ft. above sea-level; pop. (1901), 1912, but the number in the hot season would be much larger. It is difficult of access, being 44 m. from a railway station, and the last 11 m. are impracticable for wheeled vehicles. It contains a government observatory, the appliances of which are specially adapted for the study of terrestrial magnetism, seismology and solar physics.

KODAMA, GENTARO, COUNT (1852–1907), Japanese general, was born in Choshu. He studied military science in Germany, and was appointed vice-minister of war in 1892. He became governor-general of Formosa in 1900, holding at the same time the portfolio of war. When the conflict with Russia became imminent in 1903, he gave up his portfolio to become vice-chief of the general staff, a sacrifice which elicited much public applause. Throughout the Russo-Japanese War (1904–5) he served as chief of staff to Field Marshal Oyama, and it was well understood that his genius guided the strategy of the whole campaign, as that of General Kawakami had done in the war with China ten years previously. General Kodama was raised in rapid succession to the ranks of baron, viscount and count, and his death in 1907 was regarded as a national calamity.

KODUNGALUR (or CRANGANUR), a town of southern India, in Cochin state, within the presidency of Madras. Though now a place of little importance, its historical interest is considerable. Tradition assigns to it the double honour of having been the first field of St Thomas's labours (A.D. 52) in India and the seat of Cheraman Perumal's government. The visit of St Thomas is generally considered mythical; but it is certain that the Syrian Church was firmly established here before the 9th century (Burnell), and probably the Jews' settlement was still earlier. The latter, in fact, claim to hold grants dated A.D. 378. The cruelty of the Portuguese drove most of the Jews to Cochin. Up to 1314, when the Vypin harbour was formed, the only opening in the Cochin backwater, and outlet for the Periyar, was at Kodungalur, which must then have been the best harbour on the coast. In 1502 the Syrian Christians invoked the protection of the Portuguese. In 1523 the latter built their first fort there, and in 1565 enlarged it. In 1661 the Dutch took the fort, the possession of which for the next forty years was contested between this nation, the zamorin, and the raja of Kodungalur. In 1776 Tippoo seized the stronghold. The Dutch recaptured it two years later, and, having ceded it to Tippoo in 1784, sold it to the Travancore raja, and again in 1789 to Tippoo, who destroyed it in the following year. The country round Kodungalur now forms an autonomous principality, tributary to the raja of Cochin.

KOENIG, KARL DIETRICH EBERHARD (1774–1851), German palaeontologist, was born at Brunswick in 1774, and was educated at Göttingen. In 1807 he became assistant keeper, and in 1813 he was appointed keeper, of the department of natural history in the British Museum, and afterwards of geology and mineralogy, retaining the post until the close of his life. He described many fossils in the British Museum in a classic work entitled *Icones fossilium sectiles* (1820–1825). He died in London on the 6th of September 1851.

KOESFELD, a town of Germany, in the Prussian province of Westphalia, on the Berkel, 38 m. by rail N.N.W. of Dortmund. Pop. (1905), 8449. It has three Roman Catholic churches, one of which—the Gymnasial Kirche—is used by the Protestant community. Here are the ruins of the Ludgeri Castle, formerly the residence of the bishops of Münster, and also the castle of Varlar, the residence of the princes of Salm-Horstmar. The leading industries include the making of linen goods and machinery.

KOHAT, a town and district of British India, in the Peshawar division of the North-West Frontier Province. The town is 37 m. south of Peshawar by the Kohat Pass, along which a military road was opened in 1901. The population in 1901 was 30,762, including 12,670 in the cantonment, which is garrisoned by artillery, cavalry and infantry. In the Tirah campaign of 1897–98 Kohat was the starting-point of Sir William Lockhart's expedition against the Orakzais and Afridis. It is the military base for the southern Afridi frontier as Peshawar is for the northern frontier of the same tribe, and it lies in the heart of the Pathan country.

The DISTRICT OF KOHAT has an area of 2973 sq. m. It consists chiefly of a bare and intricate mountain region east of the Indus, deeply scored with river valleys and ravines, but enclosing a few scattered patches of cultivated lowland. The eastern or Khattak country especially comprises a perfect labyrinth of ranges, which fall, however, into two principal groups, to the north and south of the Teri Toi river. The Miranzai valley, in the extreme west, appears by comparison a rich and fertile tract. In its small but carefully tilled glens, the plane, palm, fig and many orchard trees flourish luxuriantly; while a brushwood of wild olive, mimosa and other thorny bushes clothes the rugged ravines upon the upper slopes. Occasional grassy glades upon their sides form favourite pasture grounds for the Waziri tribes. The Teri Toi, rising on the eastern limit of Upper Miranzai, runs due eastward to the Indus, which it joins 12 m. N. of Makhad, dividing the district into two main portions. The drainage from the northern half flows southward into the Teri Toi itself, and northward into the parallel stream of the Kohat Toi. That of the southern tract falls northwards also into the Teri Toi, and southwards towards the Kurram and the Indus. The frontier mountains, continuations of the Safed Koh system, attain in places a considerable elevation, the two principal peaks, Dupa Sir and Mazi Garh, just beyond the British frontier, being 8260 and 7940 ft. above the sea respectively. The Waziri hills, on the south, extend like a wedge between the boundaries of Bannu and Kohat, with a general elevation of less than 4000 ft. The salt-mines are situated in the low line of hills crossing the valley of the Teri Toi, and extending along both banks of that river. The deposit has a width of a quarter of a mile, with a thickness of 1000 ft.; it sometimes forms hills 200 ft. in height, almost entirely composed of solid rock-salt, and may probably rank as one of the largest veins of its kind in the world. The most extensive exposure occurs at Bahadur Khel, on the south bank of the Teri Toi. The annual output is about 16,000 tons, yielding a revenue of £40,000. Petroleum springs exude from a rock at Panoba, 23 m. east of Kohat; and sulphur abounds in the northern range. In 1901 the population was 217,865, showing an increase of 11 % in the decade. The frontier tribes on the Kohat border are the Afridis, Orakzais, Zaimukhts and Turis. All these are described under their separate names. A railway runs from Kushalgarh through Kohat to Thal, and the river Indus has been bridged at Kushalgarh.

KOHAT PASS, a mountain pass in the North-West Frontier Province of India, connecting Kohat with Peshawar. From the north side the defile commences at 4½ m. S.W. of Fort Mackeson, whence it is about 12 or 13 m. to the Kohat entrance. The pass varies from 400 yds. to 1¼ m. in width, and its summit is some 600 to 700 ft. above the plain. It is inhabited by the Adam Khel Afridis, and nearly all British relations with that tribe have been concerned with this pass, which is the only connexion between two British districts without crossing and recrossing the Indus (see AFRIDI). It is now traversed by a cart-road.

KOHISTAN, a tract of country on the Peshawar border of the North-West Frontier Province of India. Kohistan means the "country of the hills" and corresponds to the English word highlands; but it is specially applied to a district, which is very little known, to the south and west of Chilas, between the Kagan valley and the river Indus. It comprises an area of over 1000 sq. m., and is bounded on the N.W. by the river Indus, on the N.E. by Chilas, and on the S. by Kagan, the Chor Glen and Allai. It consists roughly of two main valleys running east and west, and separated from each other by a mountain range over 16,000 ft. high. Like the mountains of Chilas, those in Kohistan are snow-bound and rocky wastes from their crests downwards to 12,000 ft. Below this the hills are covered with fine forest and grass to 5000 or 6000 ft., and in the valleys, especially near the Indus, are fertile basins under cultivation. The Kohistanis are Mahommedans, but not of Pathan race, and appear to be closely allied to the Chilasis. They are a well-built, brave but quiet people who carry on a trade with British districts, and have never given the government much trouble. There is little doubt that the Kohistanis are, like the Kafirs of Kafiristan, the remnants of old races driven by Mahommedan invasions from the valleys and plains into the higher mountains. The majority have been converted to Islam within the last 200 years. The total population is about 16,000.

An important district also known as Kohistan lies to the north of Kabul in Afghanistan, extending to the Hindu Kush. The Kohistani Tajiks proved to be the most powerful and the best organized clans that opposed the British occupation of Kabul in 1879–80. Part of their country is highly cultivated, abounding in fruit, and includes many important villages. It is here that the remains of an ancient city have been lately discovered by the amir's officials, which may prove to be the great city of Alexander's founding, known to be to the north of Kabul, but which had hitherto escaped identification.

The name of Kohistan is also applied to a tract of barren and hilly country on the east border of Karachi district, Sind.

KOHL. (1) The name of the cosmetic used from the earliest times in the East by women to darken the eyelids, in order to increase the lustre of the eyes. It is usually composed of finely powdered antimony, but smoke black obtained from burnt almond-shells or frankincense is also used. The Arabic word *kohl*, from which has been derived "alcohol," is derived from *kaḥala*, to stain. (2) "Kohl" or "kohl-rabi" (cole-rape, from Lat. *caulis*, cabbage) is a kind of cabbage (*q.v.*), with a turnip-shaped top, cultivated chiefly as food for cattle.

KOHLHASE, HANS, a German historical figure about whose personality some controversy exists. He is chiefly known as the hero of Heinrich von Kleist's novel, *Michael Kohlhaas.* He was a merchant, and not, as some have supposed, a horsedealer, and he lived at Kölln in Brandenburg. In October 1532, so the story runs, whilst proceeding to the fair at Leipzig, he was attacked and his horses were taken from him by the servants of a Saxon nobleman, one Günter von Zaschwitz. In consequence of the delay the merchant suffered some loss of business at the fair and on his return he refused to pay the small sum which Zaschwitz demanded as a condition of returning the horses. Instead Kohlhase asked for a substantial amount of money as compensation for his loss, and failing to secure this he invoked the aid of his sovereign, the elector of Brandenburg. Finding however that it was impossible to recover his horses, he paid Zaschwitz the sum required for them, but reserved to himself the right to take further action. Then unable to obtain redress

in the courts of law, the merchant, in a *Fehdebrief*, threw down a challenge, not only to his aggressor, but to the whole of Saxony. Acts of lawlessness were soon attributed to him, and after an attempt to settle the feud had failed, the elector of Saxony, John Frederick I., set a price upon the head of the angry merchant. Kohlhase now sought revenge in earnest. Gathering around him a band of criminals and of desperadoes he spread terror throughout the whole of Saxony; travellers were robbed, villages were burned and towns were plundered. For some time the authorities were practically powerless to stop these outrages, but in March 1540 Kohlhase and his principal associate, Georg Nagelschmidt, were seized, and on the 22nd of the month they were broken on the wheel in Berlin.

The life and fate of Kohlhase are dealt with in several dramas. See Burkhardt, *Der historische Hans Kohlhase und H. von Kleists Michael Kohlhaas* (Leipzig, 1864).

KOKOMO, a city and the county-seat of Howard county, Indiana, U.S.A., on the Wildcat River, about 50 m. N. of Indianapolis. Pop. (1890), 8261; (1900), 10,609 of whom 499 were foreign-born and 359 negroes; (1910 census), 17,010. It is served by the Lake Erie & Western, the Pittsburg Cincinnati Chicago & St Louis, and the Toledo St Louis & Western railways, and by two interurban electric lines. Kokomo is a centre of trade in agricultural products, and has various manufactures, including flint, plate and opalescent glass, &c. The total value of the factory product increased from $2,062,156 in 1900 to $3,651,105 in 1905, or 77·1 %; and in 1905 the glass product was valued at $864,567, or 23·7 % of the total. Kokomo was settled about 1840 and became a city (under a state law) in 1865.

KOKO-NOR (or KUKU-NOR) (*Tsing-hai* of the Chinese, and *Tso-ngombo* of the Tanguts), a lake of Central Asia, situated at an altitude of 9975 ft., in the extreme N.E. of Tibet, 30 m. from the W. frontier of the Chinese province of Kan-suh, in 100° E. and 37° N. It lies amongst the eastern ranges of the Kuen-lun, having the Nan-shan Mountains to the north, and the southern Kokonor range (16,000 ft.) on the south. It measures 66 m. by 40 m., and contains half a dozen islands, on one of which is a Buddhist (*i.e.* Lamaist) monastery, to which pilgrims resort. The water is salt, though an abundance of fish live in it, and it often remains frozen for three months together in winter. The surface is at times subject to considerable variations of level. The lake is entered on the west by the river Buhain-gol. The nomads who dwell round its shores are Tanguts.

KOKSHAROV, NĪKOLAĬ ĪVANOVICH VON (1818–1893), Russian mineralogist and major-general in the Russian army, was born at Ust-Kamenogork in Tomsk, on the 5th of December 1818 (o.s.). He was educated at the military school of mines in St Petersburg. At the age of twenty-two he was selected to accompany R. I. Murchison and De Verneuil, and afterwards De Keyserling, in their geological survey of the Russian Empire. Subsequently he devoted his attention mainly to the study of mineralogy and mining, and was appointed director of the Institute of Mines. In 1865 he became director of the Imperial Mineralogical Society of St Petersburg. He contributed numerous papers on euclase, zircon, epidote, orthite, monazite and other mineralogical subjects to the St Petersburg and Vienna academies of science, to Poggendorf's *Annalen*, Leonhard and Brown's *Jahrbuch*, &c. He also issued as separate works *Materialen zur Mineralogie Russlands* (10 vols., 1853–1891), and *Vorlesungen über Mineralogie* (1865). He died in St Petersburg on the 3rd of January 1893 (o.s.).

KOKSTAD, a town of South Africa, the capital of Griqualand East, 236 m. by rail S.W. of Durban, 110 m. N. by W. of Port Shepstone, and 150 m. N. of Port St John, Pondoland. Pop. (1904), 2903, of whom a third were Griquas. The town is built on the outer slopes of the Drakensberg and is 4270 ft. above the sea. Behind it Mount Currie rises to a height of 7297 ft. An excellent water supply is derived from the mountains. The town is well laid out, and possesses several handsome public buildings. It is the centre of a thriving agricultural district and has a considerable trade in wool, grain, cattle and horses with Basutoland, Pondoland and the neighbouring regions of Natal. The town is named after the Griqua chief Adam Kok, who founded it in 1869. In 1879 it came into the possession of Cape Colony and was granted municipal government in 1893. It is the residence of the Headman of the Griqua nation. (See KAFFRARIA and GRIQUALAND.)

KOLA, a peninsula of northern Russia, lying between the Arctic Ocean on the N. and the White Sea on the S. It forms part of the region of Lapland and belongs administratively to the government of Archangel. The Arctic coast, known as the Murman coast (Murman being a corruption of Norman), is 260 m. long, and being subject to the influence of the North Atlantic drift, is free from ice all the year round. It is a rocky coast, built of granite, and rising to 650 ft., and is broken by several excellent bays. On one of these, Kola Bay, the Russian government founded in 1895 the naval harbour of Alexandrovsk. From May to August a productive fishery is carried on along this coast. Inland the peninsula rises up to a plateau, 1000 ft. in general elevation, and crossed by several ranges of low mountains, which go up to over 3000 ft. in altitude. The lower slopes of these mountains are clothed with forest up to 1300 ft., and in places thickly studded with lakes, some of them of very considerable extent, *e.g.* Imandra (330 sq. m.), Ump-jaur, Nuortijärvi, Guolle-jaur or Kola Lake, and Lu-jaur. From these issue streams of appreciable magnitude, such as the Tuloma, Voronya, Yovkyok or Yokanka, and Ponoi, all flowing into the Arctic, and the Varsuga and Umba, into the White Sea. The area of the peninsula is estimated at 50,000 sq. m.

See A. O. Kihlmann and Palmén, *Die Expedition nach der Halbinsel Kola* (1887–1892) (Helsingfors); A. O. Kihlmann, *Bericht einer naturwissenschaftlichen Reise durch Russisch-Lappland* (Helsingfors, 1890); and W. Ramsay, *Geologische Beobachtungen auf der Halbinsel Kola* (Helsingfors, 1899).

KOLABA (or COLABA), a district of British India, in the southern division of Bombay. Area, 2131 sq. m.; pop. (1901), 605,566, showing an increase of 2 % in the decade. The headquarters are at Alibagh. Lying between the Western Ghats and the sea, Kolaba district abounds in hills, some being spurs running at right angles to the main range, while others are isolated peaks or lofty detached ridges. The sea frontage, of about 20 m., is throughout the greater part of its length fringed by a belt of coco-nut and betel-nut palms. Behind this belt lies a stretch of flat country devoted to rice cultivation. In many places along the banks of the salt-water creeks there are extensive tracts of salt marshland, some of them reclaimed, some still subject to tidal inundation, and others set apart for the manufacture of salt. The district is traversed by a few small streams. Tidal inlets, of which the principal are the Nagothna on the north, the Roha or Chaul in the west, and the Bankot creek in the south, run inland for 30 or 40 m., forming highways for a brisk trade in rice, salt, firewood, and dried fish. Near the coast especially, the district is well supplied with reservoirs. The Western Ghats have two remarkable peaks—Raigarh, where Sivaji built his capital, and Miradongar. There are extensive teak and black wood forests, the value of which is increased by their proximity to Bombay. The Great Indian Peninsula railway crosses part of the district, and communication with Bombay is maintained by a steam ferry. Owing to its nearness to that city, the district has suffered severely from plague. Kolaba district takes its name from a little island off Alibagh, which was one of the strongholds of Angria, the Mahratta pirate of the 18th century. The same island has given its name to Kolaba Point, the spur of Bombay Island running south that protects the entrance to the harbour. On Kolaba Point are the terminus of the Bombay & Baroda railway, barracks for a European regiment, lunatic asylum and observatory.

KOLAR, a town and district of India, in the state of Mysore. The town is 43 m. E. of Bangalore. Pop. (1901), 12,210. Although of ancient foundation, it has been almost completely modernized. Industries include the weaving of blankets and the breeding of turkeys for export.

The District of Kolar has an area of 3180 sq. m. It occupies the portion of the Mysore table-land immediately bordering the Eastern Ghats. The principal watershed lies in the north-west, around the hill of Nandidrug (4810 ft.), from which rivers radiate in all directions; and the whole country is broken by numerous hill ranges. The chief rivers are the Palar, the South Pinakini or Pennar, the North Pinakini, and the Papagani, which are industriously utilized for irrigation by means of anicuts and tanks. The rocks of the district are mostly syenite or granite, with a small admixture of mica and feldspar. The soil in the valleys consists of a fertile loam; and in the higher levels sand and gravel are found. The hills are covered with scrub, jungle and brushwood. In 1901 the population was 723,600, showing an increase of 22 % in the decade. The district is traversed by the Bangalore line of the Madras railway, with a branch 10 m. long, known as the Kolar Goldfields railway. Gold prospecting in this region began in 1876, and the industry is now settled on a secure basis. Here are situated the mines of the Mysore, Champion Reef, Ooregum, and Nandidrug companies. To the end of 1904 the total value of gold produced was 21 millions sterling, and there had been paid in dividends 9 millions, and in royalty to the Mysore state one million. The municipality called the Kolar Gold Fields had in 1901 a population of 38,204; it has suffered severely from plague. Electricity from the falls of the Cauvery (93 m. distant) is utilized as the motive power in the mines. Sugar manufacture and silk and cotton weaving are the other principal industries in the district. The chief historical interest of modern times centres round the hill fort of Nandidrug, which was stormed by the British in 1791, after a bombardment of 21 days.

KOLBE, ADOLPHE WILHELM HERMANN (1818–1884), German chemist, was born on the 27th of September 1818 at Elliehausen, near Göttingen, where in 1838 he began to study chemistry under F. Wöhler. In 1842 he became assistant to R. W. von Bunsen at Marburg, and three years later to Lyon Playfair at London. From 1847 to 1851 he was engaged at Brunswick in editing the *Dictionary of Chemistry* started by Liebig, but in the latter year he went to Marburg as successor to Bunsen in the chair of chemistry. In 1865 he was called to Leipzig in the same capacity, and he died in that city on the 25th of November 1884. Kolbe had an important share in the great development of chemical theory that occurred about the middle of the 19th century, especially in regard to the constitution of organic compounds, which he viewed as derivatives of inorganic ones, formed from the latter—in some cases directly—by simple processes of substitution. Unable to accept Berzelius's doctrine of the unalterability of organic radicals, he also gave a new interpretation to the meaning of copulae under the influence of his fellow-worker Edward Frankland's conception of definite atomic saturation-capacities, and thus contributed in an important degree to the subsequent establishment of the structure theory. Kolbe was a very successful teacher, a ready and vigorous writer, and a brilliant experimentalist whose work revealed the nature of many compounds the composition of which had not previously been understood. He published a *Lehrbuch der organischen Chemie* in 1854, smaller textbooks of organic and inorganic chemistry in 1877–1883, and *Zur Entwickelungsgeschichte der theoretischen Chemie* in 1881. From 1870 he was editor of the *Journal für praktische Chemie*, in which many trenchant criticisms of contemporary chemists and their doctrines appeared from his pen.

KOLBERG (or Colberg), a town of Germany, and seaport of the Prussian province of Pomerania, on the right bank of the Persante, which falls into the Baltic about a mile below the town, and at the junction of the railway lines to Belgard and Gollnow. Pop. (1905), 22,804. It has a handsome market-place with a statue of Frederick William III.; and there are extensive suburbs, of which the most important is Münde. The principal buildings are the huge red-brick church of St Mary, with five aisles, one of the most remarkable churches in Pomerania, dating from the 14th century; the council-house (Rathaus), erected after the plans of Ernst F. Zwirner; and the citadel. Kolberg also possesses four other churches, a theatre, a gymnasium, a school of navigation, and an exchange. Its bathing establishments are largely frequented and attract a considerable number of summer visitors. It has a harbour at the mouth of the Persante, where there is a lighthouse. Woollen cloth, machinery and spirits are manufactured; there is an extensive salt-mine in the neighbouring Zillenberg; the salmon and lamprey fisheries are important; and a fair amount of commercial activity is maintained. In 1903 a monument was erected to the memory of Gneisenau and the patriot, Joachim Christian Nettelbeck (1738–1824), through whose efforts the town was saved from the French in 1806–7.

Originally a Slavonic fort, Kolberg is one of the oldest places of Pomerania. At an early date it became the seat of a bishop, and although it soon lost this distinction it obtained municipal privileges in 1255. From about 1276 it ranked as the most important place in the episcopal principality of Kamin, and from 1284 it was a member of the Hanseatic League. During the Thirty Years' War it was captured by the Swedes in 1631, passing by the treaty of Westphalia to the elector of Brandenburg, Frederick William I., who strengthened its fortifications. The town was a centre of conflict during the Seven Years' War. In 1758 and again in 1760 the Russians besieged Kolberg in vain, but in 1762 they succeeded in capturing it. Soon restored to Brandenburg, it was vigorously attacked by the French in 1806 and 1807, but it was saved by the long resistance of its inhabitants. In 1887 the fortifications of the town were razed, and it has since become a fashionable watering-place, receiving annually nearly 15,000 visitors.

See Riemann, *Geschichte der Stadt Kolberg* (Kolberg, 1873); Stoewer, *Geschichte der Stadt Kolberg* (Kolberg, 1897); Schönlein, *Geschichte der Belagerungen Kolbergs in den Jahren 1758, 1760, 1761 und 1807* (Kolberg, 1878); and Kempin, *Führer durch Bad Kolberg* (Kolberg, 1899).

KÖLCSEY, FERENCZ (1790–1838), Hungarian poet, critic and orator, was born at Szodemeter, in Transylvania, on the 8th of August 1790. In his fifteenth year he made the acquaintance of Kazinczy and zealously adopted his linguistic reforms. In 1809 Kölcsey went to Pest and became a "notary to the royal board." Law proved distasteful, and at Cseke in Szatmár county he devoted his time to aesthetical study, poetry, criticism, and the defence of the theories of Kazinczy. Kölcsey's early metrical pieces contributed to the *Transylvanian Museum* did not attract much attention, whilst his severe criticisms of Csokonai, Kis, and especially Berzsenyi, published in 1817, rendered him very unpopular. From 1821 to 1826 he published many separate poems of great beauty in the *Aurora*, *Hebe*, *Aspasia*, and other magazines of polite literature. He joined Paul Szemere in a new periodical, styled *Élet és literatura* ("Life and Literature"), which appeared from 1826 to 1829, in 4 vols., and gained for Kölcsey the highest reputation as a critical writer. From 1832 to 1835 he sat in the Hungarian Diet, where his extreme liberal views and his singular eloquence soon rendered him famous as a parliamentary leader. Elected on the 17th of November 1830 a member of the Hungarian Academy of Sciences, he took part in its first grand meeting; in 1832, he delivered his famous oration on Kazinczy, and in 1836 that on his former opponent Daniel Berzsenyi. When in 1838 Baron Wesselényi was unjustly thrown into prison upon a charge of treason, Kölcsey eloquently though unsuccessfully conducted his defence; and he died about a week afterwards (August 24) from internal inflammation. His collected works, in 6 vols., were published at Pest, 1840–1848, and his journal of the diet of 1832–1836 appeared in 1848. A monument erected to the memory of Kölcsey was unveiled at Szatmár-Németí on the 25th of September 1864.

See G. Steinacker, *Ungarische Lyriker* (Leipzig, and Pest, 1874); F. Toldy, *Magyar Költök élete* (2 vols., Pest, 1871); J. Ferenczy and J. Danielik, *Magyar Irók* (2 vols., Pest, 1856–1858).

KOLDING, a town of Denmark in the *amt* (county) of Vejle, on the east coast of Jutland, on the Koldingfjord, an inlet of the

Little Belt, 9 m. N. of the German frontier. Pop. (1901), 12,516. It is on the Eastern railway of Jutland. The harbour throughout has a depth of over 20 ft. A little to the north-west is the splendid remnant of the royal castle Koldinghuus, formerly called Oernsborg or Arensborg. It was begun by Duke Abel in 1248; in 1808 it was burned. The large square tower was built by Christian IV. (1588-1648), and was surmounted by colossal statues, of which one is still standing. It contains an antiquarian and historical museum (1892). The name of Kolding occurs in the 10th century, but its earliest known town-rights date from 1321. In 1644 it was the scene of a Danish victory over the Swedes, and on the 22nd of April 1849 of a Danish defeat by the troops of Schleswig-Holstein. A comprehensive view of the Little Belt with its islands, and over the mainland, is obtained from the Skamlingsbank, a slight elevation 8½ m. S.E., where an obelisk (1863) commemorates the effort made to preserve the Danish language in Schleswig.

KOLGUEV, KOLGUEFF or KALGUYEV, an island off the north-west of Russia in Europe, belonging to the government of Archangel. It lies about 50 m. from the nearest point of the mainland, and is of roughly oval form, 54 m. in length from N.N.E. to S.S.W. and 39 m. in extreme breadth. It lies in a shallow sea, and is quite low, the highest point being 250 ft. above the sea. Peat-bogs and grass lands cover the greater part of the surface; there are several considerable streams and a large number of small lakes. The island is of recent geological formation; it consists almost wholly of disintegrated sandstone or clay (which rises at the north-west into cliffs up to 60 ft. high), with scattered masses of granite. Vegetation is scanty, but bears, foxes and other Arctic animals, geese, swans, &c., provide means of livelihood for a few Samoyed hunters.

KOLHAPUR, a native state of India, within the Deccan division of Bombay. It is the fourth in importance of the Mahratta principalities, the other three being Baroda, Gwalior and Indore; and it is the principal state under the political control of the government of Bombay. Together with its *jagirs* or feudatories, it covers an area of 3165 sq. m. In 1901 the population was 910,011. The estimated revenue is £300,000. Kolhapur stretches from the heart of the Western Ghats eastwards into the plain of the Deccan. Along the spurs of the main chain of the Ghats lie wild and picturesque hill slopes and valleys, producing little but timber, and till recently covered with rich forests. The centre of the state is crossed by several lines of low hills running at right angles from the main range. In the east the country becomes more open and presents the unpicturesque uniformity of a well-cultivated and treeless plain, broken only by an occasional river. Among the western hills are the ancient Mahratta strongholds of Panhala, Vishalgarh, Bavda and Rungna. The rivers, though navigable during the rains by boats of 2 tons burthen, are all fordable during the hot months. Iron ore is found in the hills, and smelting was formerly carried on to a considerable extent; but now the Kolhapur mineral cannot compete with that imported from Europe. There are several good stone quarries. The principal agricultural products are rice, millets, sugar-cane, tobacco, cotton, safflower and vegetables.

The rajas of Kolhapur trace their descent from Raja Ram, a younger son of Sivaji the Great, the founder of the Mahratta power. The prevalence of piracy caused the British government to send expeditions against Kolhapur in 1765 and 1792; and in the early years of the 19th century the misgovernment of the chief compelled the British to resort to military operations, and ultimately to appoint an officer to manage the state. In recent years the state has been conspicuously well governed, on the pattern of British administration. The raja Shahu Chhatrapati, G.C.S.I. (who is entitled to a salute of 21 guns) was born in 1874, and ten years later succeeded to the throne by adoption. The principal institutions are the Rajaram college, the high school, a technical school, an agricultural school, and training-schools for both masters and mistresses. The state railway from Miraj junction to Kolhapur town is worked by the Southern Mahratta company. In recent years the state has suffered from both famine and plague.

The town of KOLHAPUR, or KARVIR, is the terminus of a branch of the Southern Mahratta railway, 30 m. from the main line. Pop. (1901), 54,373. Besides a number of handsome modern public buildings, the town has many evidences of antiquity. Originally it appears to have been an important religious centre, and numerous Buddhist remains have been discovered in the neighbourhood.

KOLIN, or NEU-KOLIN (also *Kollin*; Czech, *Nový Kolín*), a town of Bohemia, Austria, 40 m. E. of Prague by rail. Pop. (1900), 15,025, mostly Czech. It is situated on the Elbe, and amongst its noteworthy buildings may be specially mentioned the beautiful early Gothic church of St Bartholomew, erected during the latter half of the 14th century. The industries of the town include sugar-refining, steam mills, brewing, and the manufacture of starch, syrup, spirits, potash and tin ware. The neighbourhood is known for the excellence of its fruit and vegetables. Kolin is chiefly famous on account of the battle here on the 18th of June 1757, when the Prussians under Frederick the Great were defeated by the Austrians under Daun (see SEVEN YEARS' WAR). The result was the raising of the siege of Prague and the evacuation of Bohemia by the Prussians. Kolin was colonized in the 13th century by German settlers and made a royal city. In 1421 it was captured by the men of Prague, and the German inhabitants who refused to accept "the four articles" were expelled. In 1427 the town declared against Prague, was besieged by Prokop the Great, and surrendered to him upon conditions at the close of the year.

KOLIS, a caste or tribe of Western India, of uncertain origin. Possibly the name is derived from the Turki *kuleh* a slave; and, according to one theory, this name has been passed on to the familiar word "cooly" for an agricultural labourer. They form the main part of the inferior agricultural population of Gujarat, where they were formerly notorious as robbers; but they also extend into the Konkan and the Deccan. In 1901 the number of Kolis in all India was returned as nearly 3¾ millions; but this total includes a distinct weaving caste of Kolis or Koris in northern India.

KÖLLIKER, RUDOLPH ALBERT VON (1817–1905), Swiss anatomist and physiologist, was born at Zürich on the 6th of July 1817. His father and his mother were both Zürich people, and he in due time married a lady from Aargau, so that Switzerland can claim him as wholly her own, though he lived the greater part of his life in Germany. His early education was carried on in Zürich, and he entered the university there in 1836. After two years, however, he moved to the university of Bonn, and later to that of Berlin, becoming at the latter place the pupil of Johannes Müller and of F. G. J. Henle. He graduated in philosophy at Zürich in 1841, and in medicine at Heidelberg in 1842. The first academic post which he held was that of prosector of anatomy under Henle; but his tenure of this office was brief, for in 1844 his native city called him back to its university to occupy a chair as professor extraordinary of physiology and comparative anatomy. His stay here too, however, was brief, for in 1847 the university of Würzburg, attracted by his rising fame, offered him the post of professor of physiology and of microscopical and comparative anatomy. He accepted the appointment, and at Würzburg he remained thenceforth, refusing all offers tempting him to leave the quiet academic life of the Bavarian town, where he died on the 2nd of November 1905.

Kölliker's name will ever be associated with that of the tool with which during his long life he so assiduously and successfully worked, the microscope. The time at which he began his studies coincided with that of the revival of the microscopic investigation of living beings. Two centuries earlier the great Italian Malpighi had started, and with his own hand had carried far the study by the help of the microscope of the minute structure of animals and plants. After Malpighi this branch of knowledge, though continually progressing, made no remarkable bounds forward until the second quarter of the 19th century, when the improvement of the compound microscope on the one hand, and the promulgation by Theodor Schwann and Matthias Schleiden of the "cell theory" on the other, inaugurated a new era of

microscopic investigation. Into this new learning Kölliker threw himself with all the zeal of youth, wisely initiated into it by his great teacher Henle, whose sober and exact mode of inquiry went far at the time to give the new learning a right direction and to counteract the somewhat fantastic views which, under the name of the cell theory, were tending to be prominent. Henle's labours were for the most part limited to the microscopic investigation of the minute structure of the tissues of man and of the higher animals, the latter being studied by him mainly with the view of illustrating the former. But Kölliker had another teacher besides Henle, the even greater Johannes Müller, whose active mind was sweeping over the whole animal kingdom, striving to pierce the secrets of the structure of living creatures of all sorts, and keeping steadily in view the wide biological problems of function and of origin, which the facts of structure might serve to solve. We may probably trace to the influence of these two great teachers, strengthened by the spirit of the times, the threefold character of Kölliker's long-continued and varied labours. In all of them, or in almost all of them, the microscope was the instrument of inquiry, but the problem to be solved by means of the instrument belonged now to one branch of biology, now to another.

At Zürich, and afterwards at Würzburg, the title of the chair which he held laid upon him the duty of teaching comparative anatomy, and very many of the numerous memoirs which he published, including the very first paper which he wrote, and which appeared in 1841 before he graduated, " On the Nature of the so-called Seminal Animalcules," were directed towards elucidating, by help of the microscope, the structure of animals of the most varied kinds—that is to say, were zoological in character. Notable among these were his papers on the Medusae and allied creatures. His activity in this direction led him to make zoological excursions to the Mediterranean Sea and to the coasts of Scotland, as well as to undertake, conjointly with his friend C. T. E. von Siebold, the editorship of the *Zeitschrift für Wissenschaftliche Zoologie*, which, founded in 1848, continued under his hands to be one of the most important zoological periodicals.

At the time when Kölliker was beginning his career the influence of Karl Ernst von Baer's embryological teaching was already being widely felt, men were learning to recognize the importance to morphological and zoological studies of a knowledge of the development of animals; and Kölliker plunged with enthusiasm into the relatively new line of inquiry. His earlier efforts were directed to the invertebrata, and his memoir on the development of cephalopods, which appeared in 1844, is a classical work; but he soon passed on to the vertebrata, and studied not only the amphibian embryo and the chick, but also the mammalian embryo. He was among the first, if not the very first, to introduce into this branch of biological inquiry the newer microscopic technique—the methods of hardening, section-cutting and staining. By doing so, not only was he enabled to make rapid progress himself, but he also placed in the hands of others the means of a like advance. The remarkable strides forward which embryology made during the middle and during the latter half of the 19th century will always be associated with his name. His *Lectures on Development*, published in 1861, at once became a standard work.

But neither zoology nor embryology furnished Kölliker's chief claim to fame. If he did much for these branches of science, he did still more for histology, the knowledge of the minute structure of the animal tissues. This he made emphatically his own. It may indeed be said that there is no fragment of the body of man and of the higher animals on which he did not leave his mark, and in more places than one his mark was a mark of fundamental importance. Among his earlier results may be mentioned the demonstration in 1847 that smooth or unstriated muscle is made up of distinct units, of nucleated muscle-cells. In this work he followed in the footsteps of his master Henle. A few years before this men were doubting whether arteries were muscular, and no solid histological basis as yet existed for those views as to the action of the nervous system on the circulation, which were soon to be put forward, and which had such a great influence on the progress of physiology. By the above discovery Kölliker completed that basis.

Even to enumerate, certainly to dwell on, all his contributions to histology would be impossible here: smooth muscle, striated muscle, skin, bone, teeth, blood-vessels and viscera were all investigated by him; and he touched none of them without striking out some new truths. The results at which he arrived were recorded partly in separate memoirs, partly in his great textbook on microscopical anatomy, which first saw the light in 1850, and by which he advanced histology no less than by his own researches. In the case of almost every tissue our present knowledge contains something great or small which we owe to Kölliker; but it is on the nervous system that his name is written in largest letters. So early as 1845, while still at Zürich, he supplied what was as yet still lacking, the clear proof that nerve-fibres are continuous with nerve-cells, and so furnished the absolutely necessary basis for all sound speculations as to the actions of the central nervous system. From that time onward he continually laboured, and always fruitfully, at the histology of the nervous system, and more especially at the difficult problems presented by the intricate patterns in which fibres and cells are woven together in the brain and spinal cord. In his old age, at a time when he had fully earned the right to fold his arms, and to rest and be thankful, he still enriched neurological science with results of the highest value. From his early days a master of method, he saw at a glance the value of the new Golgi method for the investigation of the central nervous system, and, to the great benefit of science, took up once more in his old age, with the aid of a new means, the studies for which he had done so much in his youth. It may truly be said that much of that exact knowledge of the inner structure of the brain, which is rendering possible new and faithful conceptions of its working, came from his hands.

Lastly, Kölliker was in his earlier years professor of physiology as well as of anatomy; and not only did his histological labours almost always carry physiological lessons, but he also enriched physiology with the results of direct researches of an experimental kind, notably those on curare and some other poisons. In fact, we have to go back to the science of centuries ago to find a man of science of so many-sided an activity as he. His life constituted in a certain sense a protest against that specialized differentiation which, however much it may under certain aspects be regretted, seems to be one of the necessities of modern development. In Johannes Müller's days no one thought of parting anatomy and physiology; nowadays no one thinks of joining them together. Kölliker did in his work join them together, and indeed said himself that he thought they ought never to be kept apart.

Naturally a man of so much accomplishment was not left without honours. Formerly known simply as Kölliker, the title " von " was added to his name. He was made a member of the learned societies of many countries; in England, which he visited more than once, and where he became well known, the Royal Society made him a fellow in 1860, and in 1897 gave him its highest token of esteem, the Copley medal. (M. F.)

KOLLONTAJ, HUGO (1750–1812), Polish politician and writer, was born in 1750 at Niecislawice in Sandomir, and educated at Pinczow and Cracow. After taking orders he went (1770) to Rome, where he obtained the degree of doctor of theology and common law, and devoted himself enthusiastically to the study of the fine arts, especially of architecture and painting. At Rome too he obtained a canonry attached to Cracow cathedral, and on his return to Poland in 1755 threw himself heart and soul into the question of educational reform. His efforts were impeded by the obstruction of the clergy of Cracow, who regarded him as an adventurer; but he succeeded in reforming the university after his own mind, and was its rector for three years (1782–1785). Kollontaj next turned his attention to politics. In 1786 he was appointed *referendarius* of Lithuania, and during the Four Years' Diet (1788–1792) displayed an amazing and many-sided activity as one of the reformers of the constitution. He grouped around him all the leading writers, publicists and progressive young men

of the day; declaimed against prejudices; stimulated the timid; inspired the lukewarm with enthusiasm; and never rested till the constitution of the 3rd of May 1791 had been carried through. In June 1791 Kollontaj was appointed vice-chancellor. On the triumph of the reactionaries and the fall of the national party, he secretly placed in the king's hands his adhesion to the triumphant Confederation of Targowica, a false step, much blamed at the time, but due not to personal ambition but to a desire to save something from the wreck of the constitution. He then emigrated to Dresden. On the outbreak of Kosciuszko's insurrection he returned to Poland, and as member of the national government and minister of finance took a leading part in affairs. But his radicalism had now become of a disruptive quality, and he quarrelled with and even thwarted Kosciuszko because the dictator would not admit that the Polish republic could only be saved by the methods of Jacobinism. On the other hand, the more conservative section of the Poles regarded Kollontaj as "a second Robespierre," and he is even suspected of complicity in the outrages of the 17th and 18th of June 1794, when the Warsaw mob massacred the political prisoners. On the collapse of the insurrection Kollontaj emigrated to Austria, where from 1795 to 1802 he was detained as a prisoner. He was finally released through the mediation of Prince Adam Czartoryski, and returned to Poland utterly discredited. The remainder of his life was a ceaseless struggle against privation and prejudice. He died at Warsaw on the 28th of February 1812.

Of his numerous works the most notable are: *Political Speeches as Vice-Chancellor* (Pol.) (in 6 vols., Warsaw, 1791); *On the Erection and Fall of the Constitution of May* (Pol.) (Leipzig, 1793; Paris, 1868); *Correspondence with T. Czacki* (Pol.) (Cracow, 1854); *Letters written during Emigration, 1792–1794* (Pol.) (Posen, 1872).

See Ignacz Badeni, *Necrology of Hugo Kollontaj* (Pol.) (Cracow, 1819); Henryk Schmitt, *Review of the Life and Works of Kollontaj* (Pol.) (Lemberg, 1860); Wojciek Grochowski, "Life of Kollontaj" (Pol.) in *Tygod Illus.* (Warsaw, 1861). (R. N. B.)

KOLOMEA (Polish, *Kolomyja*), a town of Austria, in Galicia, 122 m. S. of Lemberg by rail. Pop. (1900), 34,188, of which half were Jews. It is situated on the Pruth, and has an active trade in agricultural products. To the N.E. of Kolomea, near the Dniester, lies the village of Czernelica, with ruins of a strongly fortified castle, which served as the residence of John Sobieski during his campaigns against the Turks. Kolomea is a very old town and is mentioned already in 1240, but the assertion that it was a Roman settlement under the name of *Colonia* is not proved. It was the principal town of the Polish province of Pokutia, and it suffered severely during the 15th and 16th centuries from the attacks of the Moldavians and the Tatars.

KOLOMNA, a town of Russia, in the government of Moscow, situated on the railway between Moscow and Ryazan, 72 m. S.E. of Moscow, at the confluence of the Moskva river with the Kolomenka. Pop. (1897), 20,970. It is an old town, mentioned in the annals in 1177, and until the 14th century was the capital of the Ryazan principality. It suffered greatly from the invasions of the Tatars in the 13th century, who destroyed it four times, as well as from the wars of the 17th century; but it always recovered and has never lost its commercial importance. During the 19th century it became a centre for the manufacture of silks, cottons, ropes and leather. Here too are railway workshops, where locomotives and wagons are made. Kolomna carries on an active trade in grain, cattle, tallow, skins, salt and timber. It has several old churches of great archaeological interest, including two of the 14th century, one being the cathedral. One gate (restored in 1895) of the fortifications of the Kreml still survives.

KOLOZSVÁR (Ger. *Klausenburg*; Rum. *Cluj*), a town of Hungary, in Transylvania, the capital of the county of Kolozs, and formerly the capital of the whole of Transylvania, 248 m. E.S.E. of Budapest by rail. Pop. (1900), 46,670. It is situated in a picturesque valley on the banks of the Little Szamos, and comprises the inner town (formerly surrounded with walls) and five suburbs. The greater part of the town lies on the right bank of the river, while on the other side is the so-called Bridge Suburb and the citadel (erected in 1715). Upon the slopes of the citadel hill there is a gipsy quarter. With the exception of the old quarter, Kolozsvár is generally well laid out, and contains many broad and fine streets, several of which diverge at right angles from the principal square. In this square is situated the Gothic church of St Michael (1396–1432); in front is a bronze equestrian statue of King Matthias Corvinus by the Hungarian sculptor Fadrusz (1902). Other noteworthy buildings are the Reformed church, built by Matthias Corvinus in 1486 and ceded to the Calvinists by Bethlen Gabor in 1622; the house in which Matthias Corvinus was born (1443), which contains an ethnographical museum; the county and town halls, a museum, and the university buildings. A feature of Kolozsvár is the large number of handsome mansions belonging to the Transylvanian nobles, who reside here during the winter. It is the seat of a Unitarian bishop, and of the superintendent of the Calvinists for the Transylvanian circle. Kolozsvár is the literary and scientific centre of Transylvania, and is the seat of numerous literary and scientific associations. It contains a university (founded in 1872), with four faculties—theology, philosophy, law and medicine—frequented by about 1900 students in 1905; and amongst its other educational establishments are a seminary for Unitarian priests, an agricultural college, two training schools for teachers, a commercial academy, and several secondary schools for boys and girls. The industry comprises establishments for the manufacture of woollen and linen cloth, paper, sugar, candles, soap, earthenwares, as well as breweries and distilleries.

Kolozsvár is believed to occupy the site of a Roman settlement named *Napoca*. Colonized by Saxons in 1178, it then received its German name of *Klausenburg*, from the old word *Klause*, signifying a "mountain pass." Between the years 1545 and 1570 large numbers of the Saxon population left the town in consequence of the introduction of Unitarian doctrines. In 1798 the town was to a great extent destroyed by fire. As capital of Transylvania and the seat of the Transylvanian diets, Kolozsvár from 1830 to 1848 became the centre of the Hungarian national movement in the grand principality; and in December 1848 it was taken and garrisoned by the Hungarians under General Bem.

KOLPINO, one of the chief iron-works of the crown in Russia, in the government of St Petersburg, 16 m. S.E. of the city of St Petersburg, on the railway to Moscow, and on the Izhora river. Pop. (1897), 8076. A sacred image of St Nicholas in the Trinity church is visited by numerous pilgrims on the 22nd of May every year. Here is an iron-foundry of the Russian admiralty.

KOLS, a generic name applied by Hindus to the Munda, Ho and Oraon tribes of Bengal. The Mundas are an aboriginal tribe of Dravidian physical type, inhabiting the Chota Nagpur division, and numbering 438,000 in 1901. The majority of them are animists in religion, but Christianity is making rapid strides among them. The village community in its primitive form still exists among the Mundas; the discontent due to the oppression of their landlords led to the Munda rising of 1899, and to the remedy of the alleged grievances by a new settlement of the district. The Hos, who are closely akin to the Mundas, also inhabit the Chota Nagpur division; in 1901 they numbered 386,000. They were formerly a very pugnacious race, who successfully defended their territory against all comers until they were subdued by the British in the early part of the 19th century, being known as the Larka (or fighting) Kols. They are still great sportsmen, using the bow and arrow. Like the Mundas they are animists, but they show little inclination for Christianity. Both Mundas and Hos speak dialects of the obscure linguistic family known as Munda or Kol.

See *Imp. Gazetteer of India*, vols. xiii., xviii. (Oxford, 1908).

KOLYVAÑ. (1) A town of West Siberia, in the government of Tomsk, on the Chaus river, 5 m. from the Ob and 120 m. S.S.W. of the city of Tomsk. It is a wealthy town, the merchants carrying on a considerable export trade in cattle, hides, tallow, corn and fish. It was founded in 1713 under the name of Chausky Ostrog, and has grown rapidly. Pop. (1897), 11,703. (2) KOLYVAÑSKIY ZAVOD, another town of the same government, in the district of Biysk, Altai region, on the Byelaya river, 192 m.

S.E. of Barnaul; altitude, 1290 ft. It is renowned for its stone-cutting factory, where marble, jasper, various porphyries and breccias are worked into vases, columns, &c. Pop., 5000. (3) Old name of Reval (*q.v.*).

KOMÁROM (Ger., *Komorn*), the capital of the county of Komárom, Hungary, 65 m. W.N.W. of Budapest by rail. Pop. (1900), 16,816. It is situated at the eastern extremity of the island Csallóköz or Grosse Schütt, at the confluence of the Waag with the Danube. Just below Komárom the two arms into which the Danube separates below Pressburg, forming the Grosse Schütt island, unite again. Since 1896 the market-town of Uj-Szöny, which lies on the opposite bank of the Danube, has been incorporated with Komárom. The town is celebrated chiefly for its fortifications, which form the centre of the inland fortifications of the Austro-Hungarian monarchy. A brisk trade in cereals, timber, wine and fish is carried on. Komárom is one of the oldest towns of Hungary, having received its charter in 1265. The fortifications were begun by Matthias Corvinus, and were enlarged and strengthened during the Turkish wars (1526–64). New forts were constructed in 1663 and were greatly enlarged between 1805 and 1809. In 1543, 1594, 1598 and 1663 it was beleaguered by the Turks. It was raised to the dignity of a royal free town in 1751. During the revolutionary war of 1848–49 Komárom was a principal point of military operations, and was long unsuccessfully besieged by the Austrians, who on the 11th of July 1849 were defeated there by General Görgei, and on the 3rd of August by General Klapka. On the 27th of September the fortress capitulated to the Austrians upon honourable terms, and on the 3rd and 4th of October was evacuated by the Hungarian troops. The treasure of the Austrian national bank was removed here from Vienna in 1866, when that city was threatened by the Prussians.

KOMATI, a river of south-eastern Africa. It rises at an elevation of about 5000 ft. in the Ermelo district of the Transvaal, 11 m. W. of the source of the Vaal, and flowing in a general N. and E. direction reaches the Indian Ocean at Delagoa Bay, after a course of some 500 miles. In its upper valley near Steynsdorp are gold-fields, but the reefs are almost entirely of low grade ore. The river descends the Drakensberg by a pass 30 m. S. of Barberton, and at the eastern border of Swaziland is deflected northward, keeping a course parallel to the Lebombo mountains. Just W. of 32° E. and in 25° 25′ S. it is joined by one of the many rivers of South Africa named Crocodile. This tributary rises, as the Elands river, in the Bergendal (6437 ft.) near the upper waters of the Komati, and flows E. across the high veld, being turned northward as it reaches the Drakensberg escarpment. The fall to the low veld is over 2000 ft. in 30 m., and across the country between the Drakensberg and the Lebombo (100 m.) there is a further fall of 3000 ft. A mile below the junction of the Crocodile and Komati, the united stream, which from this point is also known as the Manhissa, passes to the coast plain through a cleft 626 ft. high in the Lebombo known as Komati Poort, where are some picturesque falls. At Komati Poort, which marks the frontier between British and Portuguese territory, the river is less than 60 m. from its mouth in a direct line, but in crossing the plain it makes a wide sweep of 200 m., first N. and then S., forming lagoon-like expanses and backwaters and receiving from the north several tributaries. In flood time there is a connexion northward through the swamps with the basin of the Limpopo. The Komati enters the sea 15 m. N. of Lourenço Marques. It is navigable from its mouth, where the water is from 12 to 18 ft. deep, to the foot of the Lebombo.

The railway from Lourenço Marques to Pretoria traverses the plain in a direct line, and at mile 45 reaches the Komati. It follows the south bank of the river and enters the high country at Komati Poort. At a small town with the same name, 2 m. W. of the Poort, on the 23rd of September 1900, during the war with England, 3000 Boers crossed the frontier and surrendered to the Portuguese authorities. From the Poort westward the railway skirts the south bank of the Crocodile river throughout its length.

KOMOTAU (Czech, *Chomútov*), a town of Bohemia, Austria 79 m. N.N.W. of Prague by rail. Pop. (1900), 15,925, almost exclusively German. It has an old Gothic church, and its town-hall was formerly a commandery of the Teutonic knights. The industrial establishments comprise manufactories of woollen cloth, linen and paper, dyeing houses, breweries, distilleries, vinegar works and the central workshops of the Buschtěhrad railway. Lignite is worked in the neighbourhood. Komotau was originally a Czech market-place, but in 1252 it came into the possession of the Teutonic Order and was completely Germanized. In 1396 it received a town charter; and in 1416 the knights sold both town and lordship to Wenceslaus IV. On the 16th of March 1421, the town was stormed by the Taborites, sacked and burned. After several changes of ownership, Komotau came in 1588 to Popel of Lobkovic, who established the Jesuits here, which led to trouble between the Protestant burghers and the over-lord. In 1594 the lordship fell to the crown, and in 1605 the town purchased its freedom and was created a royal city.

KOMURA, JUTARO, Count (1855–), Japanese statesman, was born in Hiuga. He graduated at Harvard in 1877, and entered the foreign office in Tokyo in 1884. He served as chargé d'affaires in Peking, as Japanese minister in Seoul, in Washington, in St Petersburg, and in Peking (during the Boxer trouble), earning in every post a high reputation for diplomatic ability. In 1901 he received the portfolio of foreign affairs, and held it throughout the course of the negotiations with Russia and the subsequent war (1904–5), being finally appointed by his sovereign to meet the Russian plenipotentiaries at Portsmouth, and subsequently the Chinese representatives in Peking, on which occasions the Portsmouth treaty of September 1905 and the Peking treaty of November in the same year were concluded. For these services, and for negotiating the second Anglo-Japanese alliance, he received the Japanese title of count and was made a K.C.B. by King Edward VII. He resigned his portfolio in 1906 and became privy councillor, from which post he was transferred to the embassy in London, but he returned to Tokyo in 1908 and resumed the portfolio of foreign affairs in the second Katsura cabinet.

KONARAK or Kanarak, a ruined temple in India, in the Puri district of Orissa, which has been described as for its size "the most richly ornamented building—externally at least—in the whole world." It was erected in the middle of the 13th century, and was dedicated to the sun-god. It consisted of a tower, probably once over 180 ft. high, with a porch in front 140 ft. high, sculptured with figures of lions, elephants, horses, &c.

KONG, the name of a town, district and range of hills in the N.W. of the Ivory Coast colony, French West Africa. The hills are part of the band of high ground separating the inner plains of West Africa from the coast regions. In maps of the first half of the 19th century the range is shown as part of a great mountain chain supposed to run east and west across Africa, and is thus made to appear a continuation of the Mountains of the Moon, or the snow-clad heights of Ruwenzori. The culminating point of the Kong system is the Pic des Kommono, 4757 ft. high. In general the summits of the hills are below 2000 ft. and not more than 700 ft. above the level of the country. The "circle of Kong," one of the administrative divisions of the Ivory Coast colony, covers 46,000 sq. m. and has a population of some 400,000. The inhabitants are negroes, chiefly Bambara and Mandingo. About a fourth of the population profess Mahommedanism; the remainder are spirit worshippers. The town of Kong, situated in 9° N., 4°20′ W., is not now of great importance. Probably René Caillié, who spent some time in the western part of the country in 1827, was the first European to visit Kong. In 1888 Captain L. G. Binger induced the native chiefs to place themselves under the protection of France, and in 1893 the protectorate was attached to the Ivory Coast colony. For a time Kong was overrun by the armies of Samory (see Senegal), but the capture of that chief in 1898 was followed by the peaceful development of the district by France (see Ivory Coast).

KONGSBERG, a mining town of Norway in Buskerud *amt* (county), on the Laagen, 500 ft. above the sea, and 61 m. W.S.W.

of Christiania by rail. Pop. (1900), 5585. With the exception of the church and the town-house, the buildings are mostly of wood. The origin and whole industry of the town are connected with the government silver-mines in the neighbourhood. Their first discovery was made by a peasant in 1623, since which time they have been worked with varying success. During the 18th century Kongsberg was more important than now, and contained double its present population. Within the town are situated the smelting-works, the mint, and a Government weapon factory. Three miles below the Laagen forms a fine fall of 140 ft. (Labrofos). The neighbouring Jonksnut (2950 ft.) commands extensive views of the Telemark. A driving-road from Kongsberg follows a favourite route for travellers through this district, connecting with routes to Sand and Odde on the west coast.

KONIA. (1) A vilayet in Asia Minor which includes the whole, or parts of, Pamphylia, Pisidia, Phrygia, Lycaonia, Cilicia and Cappadocia. It was formed in 1864 by adding to the old eyalet of Karamania the western half of Adana, and part of south-eastern Anadoli. It is divided into five sanjaks: Adaiia, Buldur, Hamid-abad, Konia and Nigdeh. The population (990,000 Moslems and 80,000 Christians) is for the most part agricultural and pastoral. The only industries are carpet-weaving and the manufacture of cotton and silk stuffs. There are mines of chrome, mercury, cinnabar, argentiferous lead and rock salt. The principal exports are salt, minerals, opium, cotton, cereals, wool and live stock; and the imports cloth-goods, coffee, rice and petroleum. The vilayet is now traversed by the Anatolian railway, and contains the railhead of the Ottoman line from Smyrna.

(2) The chief town [anc. *Iconium* (*q.v.*)], altitude 3320 ft., situated at the S.W. edge of the vast central plain of Asia Minor, amidst luxuriant orchards famous in the middle ages for their yellow plums and apricots and watered by streams from the hills. Pop. 45,000, including 5000 Christians. There are interesting remains of Seljuk buildings, all showing strong traces of Persian influence in their decorative details. The principal ruin is that of the palace of Kilij Arslan II., which contained a famous hall. The most important mosques are the great *Tekke*, which contains the tomb of the poet Mevlana Jelal ed-din Rumi, a mystic (sufi) poet, founder of the order of Mevlevi (whirling) dervishes, and those of his successors, the " Golden " mosque and those of Ala ed-Din and Sultan Selim. The walls, largely the work of Ala ed-Din I., are preserved in great part and notable for the number of ancient inscriptions built into them. They once had twelve gates and were 30 ells in height. The climate is good—hot in summer and cold, with snow, in winter. Konia is connected by railway with Constantinople and is the starting-point of the extension towards Bagdad. After the capture of Nicaea by the Crusaders (1097), Konia became the capital of the Seljuk Sultans of Rum (see SELJUKS and TURKS). It was temporarily occupied by Godfrey, and again by Frederick Barbarossa, but this scarcely affected its prosperity. During the reign of Ala ed-Din I. (1219–1236) the city was thronged with artists, poets, historians, jurists and dervishes, driven westwards from Persia and Bokhara by the advance of the Mongols, and there was a brief period of great splendour. After the break up of the empire of Rum, Konia became a secondary city of the amirate of Karamania and in part fell to ruin. In 1472 it was annexed to the Osmanli empire by Mahommed II. In 1832 it was occupied by Ibrahim Pasha who defeated and captured the Turkish general, Reshid Pasha, not far from the walls. It had come to fill only part of its ancient circuit, but of recent years it has revived considerably, and, since the railway reached it, has acquired a semi-European quarter, with a German hotel, cafés and Greek shops, &c.

See W. M. Ramsay, *Historical Geography of Asia Minor* (1890); *St Paul the Traveller* (1895); G. Le Strange, *Lands of the E. Caliphate* (1905). (D. G. H.)

KONIECPOLSKI, STANISLAUS (1591–1646), Polish soldier, was the most illustrious member of an ancient Polish family which rendered great services to the Republic. Educated at the academy of Cracow, he learned the science of war under the great Jan Chodkiewicz, whom he accompanied on his Muscovite campaigns, and under the equally great Stanislaus Zolkiewski, whose daughter Catherine he married. On the death of his first wife he wedded, in 1619, Christina Lubomirska. In 1619 he took part in the expedition against the Turks which terminated so disastrously at Cecora, and after a valiant resistance was captured and sent to Constantinople, where he remained a close prisoner for three years. On his return he was appointed commander of all the forces of the Republic, and at the head of an army of 25,000 men routed 60,000 Tatars at Martynow, following up this success with fresh victories, for which he received the thanks of the diet and the palatinate of Sandomeria from the king. In 1625 he was appointed guardian of the Ukraine against the Tatars, but in 1626 was transferred to Prussia to check the victorious advance of Gustavus Adolphus. Swedish historians have too often ignored the fact that Koniecpolski's superior strategy neutralized all the efforts of the Swedish king, whom he defeated again and again, notably at Homerstein (April 1627) and at Trzciand (April 1629). But for the most part the fatal parsimony of his country compelled Koniecpolski to confine himself to the harassing guerrilla warfare in which he was an expert. In 1632 he was appointed to the long vacant post of *hetman wielki koronny*, or commander in chief of Poland, and in that capacity routed the Tatars at Sasowy Rogi (April 1633) and at Paniawce (April and October 1633), and the Turks, with terrific loss, at Abazd Basha. To keep the Cossacks of the Ukraine in order he also built the fortress of Kudak. As one of the largest proprietors in the Ukraine he suffered severely from Cossack depredations and offered many concessions to them. Only after years of conflict, however, did he succeed in reducing these unruly desperadoes to something like obedience. In 1644 he once more routed the Tatars at Ockmatow, and again in 1646 at Brody. This was his last exploit, for he died the same year, to the great grief of Wladislaus IV., who had already concerted with him the plan for a campaign on a grand scale against the Turks, and relied principally upon the Grand Hetman for its success. Though less famous than his contemporaries Zolkiehwski and Chodkiewicz, Koniecpolski was fully their equal as a general, and his inexorable severity made him an ideal lord-marcher.

See an unfinished biography in the *Tyg. Illus. of Warsaw* for 1863; Stanislaw Przylenski, *Memorials of the Koniecpolskis* (Pol.) (Lemberg, 1842). (R. N. B.)

KÖNIG, KARL RUDOLPH (1832–1901), German physicist, was born at Königsberg (Prussia) on the 26th of November 1832, and studied at the university of his native town, taking the degree of Ph.D. About 1852 he went to Paris, and became apprentice to the famous violin-maker, J. B. Vuillaume, and some six years later he started business on his own account. He called himself a " maker of musical instruments," but the instruments for which his name is best known are tuning-forks, which speedily gained a high reputation among physicists for their accuracy and general excellence. From this business König derived his livelihood for the rest of his life. He was, however, very far from being a mere tradesman, and even as a manufacturer he regarded the quality of the articles that left his workshop as a matter of greater solicitude than the profits they yielded. Acoustical research was his real interest, and to that he devoted all the time and money he could spare from his business. An exhibit which he sent to the London Exhibition of 1862 gained a gold medal, and at the Philadelphia Exposition at 1876 great admiration was expressed for a tonometric apparatus of his manufacture. This consisted of about 670 tuning-forks, of as many different pitches, extending over four octaves, and it afforded a perfect means for testing, by enumeration of the beats, the number of vibrations producing any given note and for accurately tuning any musical instrument. An attempt was made to secure this apparatus for the university of Pennsylvania, and König was induced to leave it behind him in America on the assurance that it would be purchased; but, ultimately, the money not being forthcoming, the arrangement fell through, to his great disappointment and pecuniary loss. Some of the forks he disposed of to the university of Toronto and the remainder he used as a

nucleus for the construction of a still more elaborate tonometer. While the range of the old apparatus was only between 128 and 4096 vibrations a second, the lowest fork of the new one made only 16 vibrations a second, while the highest gave a sound too shrill to be perceptible by the human ear. König will also be remembered as the inventor and constructor of many other beautiful pieces of apparatus for the investigation of acoustical problems, among which may be mentioned his wave-sirens, the first of which was shown at Philadelphia in 1876. His original work dealt, among other things, with Wheatstone's sound-figures, the characteristic notes of the different vowels, manometric flames, &c.; but perhaps the most important of his researches are those devoted to the phenomena produced by the interference of two tones, in which he controverted the views of H. von Helmholtz as to the existence of summation and difference tones. He died in Paris on the 2nd of October 1901.

KÖNIGGRÄTZ (Czech, *Hradec Králové*), a town and episcopal see of Bohemia, Austria, 74 m. E. of Prague by rail. Pop. (1900), 9773, mostly Czech. It is situated in the centre of a very fertile region called the "Golden Road," and contains many buildings of historical and architectural interest. The cathedral was founded in 1303 by Elizabeth, wife of Wenceslaus II; and the church of St John, built in 1710, stands on the ruins of the old castle. The industries include the manufacture of musical instruments, machinery, colours, and *carton-pierre*, as well as gloves and wax candles. The original name of Königgrätz, one of the oldest settlements in Bohemia, was *Chlumec Dobroslavský*; the name *Hradec*, or "the Castle," was given to it when it became the seat of a count, and *Kralove*, "of the queen" (Ger. *Königin*), was prefixed when it became one of the dower towns of the queen of Wenceslaus II., Elizabeth of Poland, who lived here for thirty years. It remained a dower town till 1620. Königgrätz was the first of the towns to declare for the national cause during the Hussite wars. After the battle of the White Mountain (1620) a large part of the Protestant population left the place. In 1639 the town was occupied for eight months by the Swedes. Several churches and convents were pulled down to make way for the fortifications erected under Joseph II. The fortress was finally dismantled in 1884. Near Königgrätz took place, on the 3rd of July 1866, the decisive battle (formerly called Sadowa) of the Austro-Prussian war (see SEVEN WEEKS' WAR).

KÖNIGINHOF (*Dvur Kralove* in Czech), the seat of a provincial district and of a provincial law-court, is situated in north-eastern Bohemia on the left bank of the Elbe, about 160 kilometres from Prague. Brewing, corn-milling and cotton-weaving are the principal industries. Pop. about 11,000. The city is of very ancient origin. Founded by King Wenceslaus II. of Bohemia (1278–1305), it was given by him to his wife Elizabeth, and thus received the name of Dvur Kralove (the court of the queen). During the Hussite wars, Dvur Kralove was several times taken and retaken by the contending parties. In a battle fought partly within the streets of the town, the Austrian army was totally defeated by the Prussians on the 29th of June 1866. In the 19th century Dvur Kralove became widely known as the spot where a MS. was found that was long believed to be one of the oldest written documents in the Czech language. In 1817 Wenceslas Hanka, afterwards for a long period librarian of the Bohemian museum, declared that he had found in the church tower in the town of Dvur Kralove when on a visit there, a very ancient MS. containing epic and lyric poems. Though Dobrovsky, the greatest Czech philologist of the time, from the first expressed suspicions, the MS. known as the Kralodvorsky Rukopis manuscript of Königinhof was long accepted as genuine, frequently printed and translated into most European languages. Doubts as to the genuineness of the document never, however, ceased, and they became stronger when Hanka was convicted of having fabricated other false Bohemian documents. A series of works and articles written by Professors Goll, Gebauer, Masoryk, and others have recently proved that the MS. is a forgery, and hardly any Bohemian scholars of the present day believe in its genuineness.

The discussion of the authenticity of the MS. of Dvur Kralove lasted with short interruptions about seventy years, and the Bohemian works written on the subject would fill a considerable library. Count Lützow's *History of Bohemian Literature* gives a brief account of the controversy.

KÖNIGSBERG (Polish *Krolewiec*), a town of Germany, capital of the province of East Prussia and a fortress of the first rank. Pop. (1880), 140,800; (1890), 161,666; (1905), 219,862 (including the incorporated suburbs). It is situated on rising ground, on both sides of the Pregel, 4½ m. from its mouth in the Frische Haff, 397 m. N. E. of Berlin, on the railway to Eydtkuhnen and at the junction of lines to Pillau, Tilsit and Kranz. It consists of three parts, which were formerly independent administrative units, the Altstadt (old town), to the west, Löbenicht to the east, and the island Kneiphof, together with numerous suburbs, all embraced in a circuit of 9½ miles. The Pregel, spanned by many bridges, flows through the town in two branches, which unite below the Grüne Brücke. Its greatest breadth within the town is from 80 to 90 yards, and it is usually frozen from November to March. Königsberg does not retain many marks of antiquity. The Altstadt has long and narrow streets, but the Kneiphof quarter is roomier. Of the seven market-places only that in the Altstadt retains something of its former appearance. Among the more interesting buildings are the Schloss, a long rectangle begun in 1255 and added to later, with a Gothic tower 277 ft. high and a chapel built in 1592, in which Frederick I. in 1701 and William I. in 1861 crowned themselves kings of Prussia; and the cathedral, begun in 1333 and restored in 1856, a Gothic building with a tower 164 ft. high, adjoining which is the tomb of Kant. The Schloss was originally the residence of the Grand Masters of the Teutonic order and later of the dukes of Prussia. Behind is the parade-ground, with the statues of Albert I. and of Frederick William III. by August Kiss, and the grounds also contain monuments to Frederick I. and William I. To the east is the Schlossteich, a long narrow ornamental lake covering 12 acres. The north-west side of the parade-ground is occupied by the new university buildings, completed in 1865; these and the new exchange on the south side of the Pregel are the finest architectural features of the town. The university (Collegium Albertinum) was founded in 1544 by Albert I., duke of Prussia, as a "purely Lutheran" place of learning. It is chiefly distinguished for its mathematical and philosophical studies, and possesses a famous observatory, established in 1811 by Frederick William Bessel, a library of about 240,000 volumes, a zoological museum, a botanical garden, laboratories and valuable mathematical and other scientific collections. Among its famous professors have been Kant (who was born here in 1724 and to whom a monument was erected in 1864), J. G. von Herder, Bessel, F. Neumann and J. F. Herbart. It is attended by about 1000 students and has a teaching staff of over 100. Among other educational establishments, Königsberg numbers four classical schools (gymnasia) and three commercial schools, an academy of painting and a school of music. The hospitals and benevolent institutions are numerous. The town is less well equipped with museums and similar institutions, the most noteworthy being the Prussia museum of antiquities, which is especially rich in East Prussian finds from the Stone age to the Viking period. Besides the cathedral the town has fourteen churches.

Königsberg is a naval and military fortress of the first order. The fortifications were begun in 1843 and were only completed in 1905, although the place was surrounded by walls in early times. The works consist of an inner wall, brought into connexion with an outlying system of works, and of twelve detached forts, of which six are on the right and six on the left bank of the Pregel. Between them lie two great forts, that of Friedrichsburg on an island in the Pregel and that of the Kaserne Kronprinz on the east of the town, both within the environing ramparts. The protected position of its harbour has made Königsberg one of the most important commercial cities of Germany. A new channel has recently been made between it and its port, Pillau, 29 miles distant, on the outer side of the Frische Haff, so as to admit vessels drawing 20 feet of water right up to the quays of

Königsberg, and the result has been to stimulate the trade of the city. It is protected for a long distance by moles, in which a break has been left in the Fischhauser Wiek, to permit of freer circulation of the water and to prevent damage to the mainland.

The industries of Königsberg have made great advances within recent years, notable among them are printing-works and manufactures of machinery, locomotives, carriages, chemicals, toys, sugar, cellulose, beer, tobacco and cigars, pianos and amber wares. The principal exports are cereals and flour, cattle, horses, hemp, flax, timber, sugar and oilcake. There are two pretty public parks, one in the Hufen, with a zoological garden attached, another the Luisenwahl which commemorates the sojourn of Queen Louisa of Prussia in the town in the disastrous year 1806.

The Altstadt of Königsberg grew up around the castle built in 1255 by the Teutonic Order, on the advice of Ottaker II. King of Bohemia, after whom the place was named. Its first site was near the fishing village of Steindamm, but after its destruction by the Prussians in 1263 it was rebuilt in its present position. It received civic privileges in 1286, the two other parts of the present town—Löbenicht and Kneiphof—receiving them a few years later. In 1340 Königsberg entered the Hanseatic League. From 1457 it was the residence of the grand master of the Teutonic Order, and from 1525 till 1618 of the dukes of Prussia. The trade of Königsberg was much hindered by the constant shifting and silting up of the channels leading to its harbour; and the great northern wars did it immense harm, but before the end of the 17th century it had almost recovered.

In 1724 the three independent parts were united into a single town by Frederick William I.

Königsberg suffered severely during the war of liberation and was occupied by the French in 1807. In 1813 the town was the scene of the deliberations which led to the successful uprising of Prussia against Napoleon. During the 19th century the opening of a railway system in East Prussia and Russia gave a new impetus to its commerce, making it the principal outlet for the Russian staples—grain, seeds, flax and hemp. It has now regular steam communication with Memel, Stettin, Kiel, Amsterdam and Hull.

See Faber, *Die Haupt- und Residenzstadt Königsberg in Preussen* (Königsberg, 1840); Schubert, *Zur 600-jährigen Jubelfeier Königsbergs* (Königsberg, 1855); Beckherrn, *Geschichte der Befestigungen Königsbergs* (Königsberg, 1890); H. G. Prutz, *Die königliche Albertus-Universität zu Königsberg im 19 Jahrhundert* (Königsberg, 1894); Armstedt, *Geschichte der königlichen Haupt- und Residenzstadt Königsberg* (Stuttgart, 1899); M. Schultze, *Königsberg und Ostpreussen zu Anfang 1813* (Berlin, 1901); and Gordak, *Wegweiser durch Königsberg* (Königsberg, 1904).

KÖNIGSBORN, a spa of Germany, in the Prussian province of Westphalia, immediately to the N. of the town of Unna, of which it practically forms a suburb. It has large saltworks, producing annually over 15,000 tons. The brine springs, in connexion with which there is a hydropathic establishment, have a temperature of 93° F., and are efficacious in skin diseases, rheumatism and scrofula.

See Wegele, *Bad Königsborn und seine Heilmittel* (Essen, 1902).

KÖNIGSHÜTTE, a town of Germany, in the Prussian province of Silesia, situated in the middle of the Upper Silesian coal and iron district, 3 m. S. of Beuthen and 122 m. by rail S.E. of Breslau. Pop. (1852), 4495; (1875), 26,040; (1900), 57,919. In 1869 it was incorporated with various neighbouring villages, and raised to the dignity of a town. It has two Protestant and three Roman Catholic churches and several schools and benevolent institutions. The largest iron-works in Silesia is situated at Königshütte, and includes puddling works, rolling-mills, and zinc-works. Founded in 1797, it was formerly in the hands of government, but is now carried on by a company. There are also manufactures of bricks and glass and a trade in wood and coal. Nearly one-half of the population of the town consists of Poles.

See Mohr, *Geschichte der Stadt Königshütte* (Königshütte, 1890).

KÖNIGSLUTTER, a town of Germany, in the duchy of Brunswick, on the Lutter 36 m. E. of Brunswick by the railway to Eisleben and Magdeburg. Pop. (1905), 3260. It possesses an Evangelical church, a castle and some interesting old houses. Its chief manufactures are sugar, machinery, paper and beer. Near the town are the ruins of a Benedictine abbey founded in 1135. In its beautiful church, which has not been destroyed, are the tombs of the emperor Lothair II., his wife Richenza, and of his son-in-law, Duke Henry the Proud of Saxony and Bavaria.

KÖNIGSMARK, MARIA AURORA, COUNTESS OF (1662–1728), mistress of Augustus the Strong, elector of Saxony and king of Poland, belonged to a noble Swedish family, and was born on the 8th of May 1662. Having passed some years at Hamburg, where she attracted attention both by her beauty and her talents, Aurora went in 1694 to Dresden to make inquiries about her brother Philipp Christoph, count of Königsmark, who had suddenly and mysteriously disappeared from Hanover. Here she was noticed by Augustus, who made her his mistress; and in October 1696 she gave birth to a son Maurice, afterwards the famous marshal de Saxe. The elector however quickly tired of Aurora, who then spent her time in efforts to secure the position of abbess of Quedlinburg, an office which carried with it the dignity of a princess of the Empire, and to recover the lost inheritance of her family in Sweden. She was made coadjutor abbess and lady-provost (*Pröpstin*) of Quedlinburg, but lived mainly in Berlin, Dresden and Hamburg. In 1702 she went on a diplomatic errand to Charles XII. of Sweden on behalf of Augustus, but her adventurous journey ended in failure. The countess, who was described by Voltaire as "the most famous woman of two centuries," died at Quedlinburg on the 16th of February 1728.

See F. Cramer, *Denkwürdigkeiten der Gräfin M. A. Königsmark* (Leipzig, 1836); and *Biographische Nachrichten von der Gräfin M. A. Königsmark* (Quedlinburg, 1833); W. F. Palmblad, *Aurora Königsmark und ihre Verwandte* (Leipzig, 1848–1853); C. L. de Pöllnitz, *La Saxe galante* (Amsterdam, 1734); and O. J. B. von Corvin-Wiersbitzki, *Maria Aurora, Gräfin von Königsmark* (Rudolstadt, 1902).

KÖNIGSMARK, PHILIPP CHRISTOPH, COUNT OF (1665–1694), was a member of a noble Swedish family, and is chiefly known as the lover of Sophia Dorothea, wife of the English king George I. then electoral prince of Hanover. Born on the 14th of March 1665, Königsmark was a brother of the countess noticed above. After wandering and fighting in various parts of Europe he entered the service of Ernest Augustus, elector of Hanover. Here he made the acquaintance of Sophia Dorothea, and assisted her in one or two futile attempts to escape from Hanover. Regarded, rightly or wrongly, as the lover of the princess, he was seized, and disappeared from history, probably by assassination, on the 1st of July 1694. One authority states that George I. was accustomed to boast about this deed; but this statement is doubted, and the Hanoverian court resolutely opposed all efforts to clear up the mystery. It is not absolutely certain that Sophia Dorothea was guilty of a criminal intrigue with Königsmark, as it is probable that the letters which purport to have passed between the pair are forgeries. The question of her guilt or innocence, however, has been and still remains a fruitful and popular subject for romance and speculation.

See *Briefwechsel des Grafen Königsmark und der Prinzessin Sophie Dorothea von Celle*, edited by W. F. Palmblad (Leipzig, 1847); A. Köcher, "Die Prinzessin von Ahlden," in the *Historische Zeitschrift* (Munich, 1882); and W. H. Wilkins, *The Love of an Uncrowned Queen* (London, 1900).

KÖNIGSSEE, or Lake of St Bartholomew, a lake of Germany, in the kingdom of Bavaria, province of Upper Bavaria, about $2\frac{1}{2}$ m. S. from Berchtesgaden, 1850 ft. above sea-level. It has a length of 5 m., and a breadth varying from 500 yards to a little over a mile, and attains a maximum depth of 600 ft. The Königssee is the most beautiful of all the lakes in the German Alps, pent in by limestone mountains rising to an altitude of 6500 ft., the flanks of which descend precipitously to the green waters below. The lake abounds in trout, and the surrounding

country is rich in game. On a promontory by the side of the lake is a chapel to which pilgrimages are made on St Bartholomew's Day. Separated by a narrow strip of land from the Königssee is the Obersee, a smaller lake.

KÖNIGSTEIN, a town of Germany, in the kingdom of Saxony, situated in a deep valley on the left bank of the Elbe, at the influx of the Biela, in the centre of Saxon Switzerland, 25 m. S.E. of Dresden by the railway to Bodenbach and Testchen. It contains a Roman Catholic and a Protestant church, a monument to the composer Julius Otto, and has some small manufactures of machinery, celluloid, paper, vinegar and buttons. It is chiefly remarkable for the huge fortress, lying immediately to the north-west of the town, which crowns a sandstone rock rising abruptly from the Elbe to a height of 750 ft. Across the Elbe lies the Lilienstein, a similar formation, but unfortified. The fortress of Königstein was probably a Slav stronghold as early as the 12th century, but it is not mentioned in chronicles before the year 1241, when it was a fief of Bohemia. In 1401 it passed to the margraves of Meissen and by the treaty of Eger in 1459 it was formally ceded by Bohemia to Saxony. About 1540 the works were strengthened, and the place was used as a *point d'appui* against inroads from Bohemia. Hence the phrase frequently employed by historians that Königstein is "the key to Bohemia." As a fact, the main road from Dresden into that country lies across the hills several miles to the south-west, and the fortress has exercised little, if any, influence in strategic operations, either during the middle ages or in modern times. It was further strengthened under the electors Christian I., John George I. and Frederick Augustus II. of Saxony, the last of whom completed it in its present form. During the Prussian invasion of Saxony in 1756 it served as a place of refuge for the King of Poland, Augustus III., as it did also in 1849, during the Dresden insurrection of May in that year, to the King of Saxony, Frederick Augustus II. and his ministers. It was occupied by the Prussians in 1867, who retained possession of it until the peace of 1871. It is garrisoned by detachments of several Saxon infantry regiments, and serves as a treasure house for the state and also as a place of detention for officers sentenced to fortress imprisonment. A remarkable feature of the place is a well, hewn out of the solid rock to a depth of 470 ft.

See Klemm, *Der Königstein in alter und neuer Zeit* (Leipzig, 1905); and Gautsch, *Aelteste Geschichte der sächsischen Schweiz* (Dresden, 1880).

KÖNIGSWINTER, a town and summer resort of Germany, in the Prussian Rhine province, on the right bank of the Rhine, 24 m. S.S.E. of Cologne by the railway to Frankfort-on-Main, at the foot of the Siebengebirge. Pop. (1905), 3944. The romantic Drachenfels (1010 ft.), crowned by the ruins of a castle built early in the 12th century by the archbishop of Cologne, rises behind the town. From the summit, to which there is a funicular railway, there is a magnificent view, celebrated by Byron in *Childe Harold's Pilgrimage*. A cave in the hill is said to have sheltered the dragon which was slain by the hero Siegfried. The mountain is quarried, and from 1267 onward supplied stone (trachyte) for the building of Cologne cathedral. The castle of Drachenburg, built in 1883, is on the north side of the hill. Königswinter has a Roman Catholic and an Evangelical church, some small manufactures and a little shipping. It has a monument to the poet, Wolfgang Müller. Near the town are the ruins of the abbey of Heisterbach.

KONINCK, LAURENT GUILLAUME DE (1809–1887), Belgian palaeontologist and chemist, was born at Louvain on the 3rd of May 1809. He studied medicine in the university of his native town, and in 1831 he became assistant in the chemical schools. He pursued the study of chemistry in Paris, Berlin and Giessen, and was subsequently engaged in teaching the science at Ghent and Liége. In 1856 he was appointed professor of chemistry in the Liége University, and he retained this post until the close of his life. About the year 1835 he began to devote his leisure to the investigation of the Carboniferous fossils around Liége, and ultimately he became distinguished for his researches on the palaeontology of the Palaeozoic rocks, and especially for his descriptions of the mollusca, brachiopods, crustacea and crinoids of the Carboniferous limestone of Belgium. In recognition of this work the Wollaston medal was awarded to him in 1875 by the Geological Society of London, and in 1876 he was appointed professor of palaeontology at Liége. He died at Liége on the 16th of July 1887.

PUBLICATIONS.—*Éléments de chimie inorganique* (1839); *Description des animaux fossiles qui se trouvent dans le terrain Carbonifère de Belgique* (1842–1844, supp. 1851); *Recherches sur les animaux fossiles* (1847, 1873). See *Notice sur L. G. de Koninck*, by E. Dupont; *Annuaire de l'Acad. roy. de Belgique* (1891), with portrait and bibliography.

KONINCK, PHILIP DE [de Coninck, de Koningh, van Koening] (1619–1688), Dutch landscape painter, was born in Amsterdam in 1619. Little is known of his history, except that he was a pupil of Rembrandt, whose influence is to be seen in all his work. He painted chiefly broad sunny landscapes, full of space, light and atmosphere. Portraits by him, somewhat in the manner of Rembrandt, also exist; there are examples of these in the galleries at Copenhagen and Christiania. Of his landscapes the principal are "Vue de l'embouchure d'une rivière," at the Hague; a slightly larger replica is in the National Gallery, London; "Lisière d'un bois," and "Paysage" (with figures by A. Vandevelde) at Amsterdam; and landscapes in Brussels, Florence (Uffizi), Berlin and Cologne.

Several of his works have been falsely attributed to Rembrandt, and many more to his namesake and fellow-townsman SALOMON DE KONINCK (1609–1656), who was also a disciple of Rembrandt; his paintings and etchings consist mainly of portraits and biblical scenes.

Both these painters are to be distinguished from DAVID DE KONINCK (1636–?1687), who is also known as "Rammelaar." He was born in Antwerp. He studied there under Jan Fyt, and later settled in Rome, where he is stated to have died in 1687; this is, however, doubtful. His pictures are chiefly landscapes with animals, and still-life.

KONITZ, a town of Germany, in the province of West Prussia, at the junction of railways to Schneidemühl and Gnesen, 68 m. S.W. of Danzig. Pop. (1905), 11,014. It is still surrounded by its old fortifications, has two Evangelical and two Roman Catholic churches, a new town-hall, handsome public offices, and a prison. It has iron-foundries, saw-mills, electrical works, and manufactures of bricks. Konitz was the first fortified post established in Prussia by Hermann Balk, who in 1230 had been commissioned as *Landmeister*, by the grand-master of the Teutonic order, to reduce the heathen Prussians. For a long time it continued to be a place of military importance.

See Uppenkamp, *Geschichte der Stadt Konitz* (Konitz, 1873).

KONKAN, or CONCAN, a maritime tract of Western India, situated within the limits of the Presidency of Bombay, and extending from the Portuguese settlement of Goa on the S. to the territory of Daman, belonging to the same nation, on the N. On the E. it is bounded by the Western Ghats, and on the W. by the Indian Ocean. This tract comprises the three British districts of Thana, Ratnagiri and Kolaba, and the native states of Janjira and Sawantwari. It may be estimated at 300 m. in length, with an average breadth of about 40. From the mountains on its eastern frontier, which in one place attain a height of 4700 ft., the surface, marked by a succession of irregular hilly spurs from the Ghats, slopes to the westward, where the mean elevation of the coast is not more than 100 ft. above the level of the sea. Several mountain streams, but none of any magnitude, traverse the country in the same direction. One of the most striking characteristics of the climate is the violence of the monsoon rains—the mean annual fall at Mahabaleshwar amounting to 239 in. The coast has a straight general outline, but is much broken into small bays and harbours. This, with the uninterrupted view along the shore, and the land and sea breezes, which force vessels steering along the coast to be always within sight of it, rendered this country from time immemorial the seat of piracy; and so formidable

had the pirates become in the 18th century, that all ships suffered which did not receive a pass from their chiefs. The Great Mogul maintained a fleet for the express purpose of checking them, and they were frequently attacked by the Portuguese. British commerce was protected by occasional expeditions from Bombay; but the piratical system was not finally extinguished until 1812. The southern Konkan has given its name to a dialect of Marathi, which is the vernacular of the Roman Catholics of Goa.

KONTAGORA, a province in the British protectorate of Northern Nigeria, on the east bank of the Niger to the north of Nupe and opposite Borgu. It is bounded W. by the Niger, S. by the province of Nupe, E. by that of Zaria, and N. by that of Sokoto. It has an area of 14,500 sq. m. and a population estimated at about 80,000. At the time of the British occupation of Northern Nigeria the province formed a Fula emirate. Before the Fula domination, which was established in 1864, the ancient pagan kingdom of Yauri was the most important of the lesser kingdoms which occupied this territory. The Fula conquest was made from Nupe on the south and a tribe of independent and warlike pagans continued to hold the country between Kontagora and Sokoto on the north. The province was brought under British domination in 1901 as the result of a military expedition sent to prevent audacious slave-raiding in British protected territory and of threats directed against the British military station of Jebba on the Niger. The town of Kontagora was taken in January of 1901. The emir Ibrahim fled, and was not captured till early in 1902. The province, after having been held for a time in military occupation, was organized for administration on the same system as the rest of the protectorate. In 1903 Ibrahim, after agreeing to take the oath of allegiance to the British crown and to accept the usual conditions of appointment, which include the abolition of the slave trade within the province, was reinstated as emir and the British garrison was withdrawn. Since then the development of the province has progressed favourably. Roads have been opened and Kontagora connected by telegraph with headquarters at Zungeru. British courts of justice have been established at the British headquarters, and native courts in every district. In 1904 an expedition reduced to submission the hitherto independent tribes in the northern belt, who had up to that time blocked the road to Sokoto. Their arms were confiscated and their country organized as a district of the province under a chief and a British assistant resident.

KOORINGA [Burra], a town of Burra county, South Australia on Burra Creek, 101 m. by rail N. by E. of Adelaide. Pop. (1901), 1994. It is the centre of a mining and agricultural district in which large areas are devoted to wheat-growing. The famous Burra Burra copper mine, discovered by a shepherd in 1844, is close to the town, while silver and lead ore is also found in the vicinity.

KÖPENICK (Cöpenick), a town of Germany, in the Prussian province of Brandenburg, on an island in the Spree, 9 m. S.E. from Berlin by the railway to Fürstenwalde. Pop. (1905), 27,721. It contains a royal residence, which was built on the site of a palace which belonged to the great elector, Frederick William. This is surrounded by gardens and contains a fine banqueting hall and a chapel. Other buildings are a Roman Catholic and a Protestant church and a teachers' seminary. The varied industries embrace the manufacture of glass, linoleum, sealing-wax and ink. In the vicinity is Spindlersfeld, with important dye-works.

Köpenick, which dates from the 12th century, received municipal rights in 1225. Shortly afterwards, it became the bone of contention between Brandenburg and Meissen, but, at the issue of the feud, remained with the former, becoming a favourite residence of the electors of Brandenburg. In the palace the famous court martial was held in 1730, which condemned the crown-prince of Prussia, afterwards Frederick the Great, to death. In 1906 the place derived ephemeral fame from the daring feat of a cobbler, one Wilhelm Voigt, who, attired as a captain in the army, accompanied by soldiers, whom his apparent rank deceived, took the mayor prisoner, on a fictitious charge of having falsified accounts and absconded with a considerable sum of municipal money. The "captain of Köpenick" was arrested, tried, and sentenced to a term of imprisonment.

See Graf zu Dohna, *Kurfürstliche Schlösser in der Mark Brandenburg* (Berlin, 1890).

KOPISCH, AUGUST (1799–1853), German poet, was born at Breslau on the 26th of May 1799. In 1815 he began the study of painting at the Prague academy, but an injury to his hand precluded the prospects of any great success in this profession, and he turned to literature. After a residence in Dresden Kopisch proceeded, in 1822, to Italy, where, at Naples, he formed an intimate friendship with the poet August, count of Platen Hallermund. He was an expert swimmer, a quality which enabled him in company with Ernst Fries to discover the blue grotto of Capri. In 1828 he settled at Berlin and was granted a pension by Frederick William IV., who in 1838 conferred upon him the title of professor. He died at Berlin on the 3rd of February 1853. Kopisch produced some very original poetry, light in language and in form. He especially treated legends and popular subjects, and among his *Gedichte* (Berlin, 1836) are some naïve and humorous little pieces such as *Die Historie von Noah*, *Die Heinzelmännchen*, *Das grüne Tier* and *Der Scheiderjunge von Krippstedt*, which became widely popular. He also published a translation of Dante's *Divine Comedy* (Berlin, 1840), and under the title *Agrumi* (Berlin, 1838) a collection of translations of Italian folk songs.

Kopisch's collected works were published in 5 vols. (Berlin, 1856.)

KOPP, HERMANN FRANZ MORITZ (1817–1892), German chemist, was born on the 30th of October 1817 at Hanau, where his father, Johann Heinrich Kopp (1777–1858), a physician, was professor of chemistry, physics and natural history at the Lyceum.

After attending the gymnasium of his native town, he studied at Marburg and Heidelberg, and then, attracted by the fame of Liebig, went in 1839 to Giessen, where he became a *privatdozent* in 1841, and professor of chemistry twelve years later. In 1864 he was called to Heidelberg in the same capacity, and he remained there till his death on the 20th of February 1892. Kopp devoted himself especially to physico-chemical inquiries, and in the history of chemical theory his name is associated with several of the most important correlations of the physical properties of substances with their chemical constitution. Much of his work was concerned with specific volumes, the conception of which he set forth in a paper published when he was only twenty-two years of age; and the principles he established have formed the basis of subsequent investigations in that subject, although his results have in some cases undergone modification. Another question to which he gave much attention was the connexion of the boiling-point of compounds, organic ones in particular, with their composition. In addition to these and other laborious researches, Kopp was a prolific writer. In 1843–1847 he published a comprehensive *History of Chemistry*, in four volumes, to which three supplements were added in 1869–1875. The *Development of Chemistry in Recent Times* appeared in 1871–1874, and in 1886 he published a work in two volumes on *Alchemy in Ancient and Modern Times*. In addition he wrote (1863) on theoretical and physical chemistry for the Graham-Otto *Lehrbuch der Chemie*, and for many years assisted Liebig in editing the *Annalen der Chemie* and the *Jahresbericht*.

He must not be confused with Emil Kopp (1817–1875), who, born at Warselnheim, Alsace, became in 1847 professor of toxicology and chemistry at the École supérieure de Pharmacie at Strasburg, in 1849 professor of physics and chemistry at Lausanne, in 1852 chemist to a Turkey-red factory near Manchester, in 1868 professor of technology at Turin, and finally, in 1871, professor of technical chemistry at the Polytechnic of Zürich, where he died in 1875.

KOPRÜLÜ, or Kuprili (Bulgarian *Valêsa*, Greek *Vêlissa*), a town of Macedonia, European Turkey, in the vilayet of Salonica,

situated 600 ft. above sea-level, on the river Vardar, and on the Salonica-Mitrovitza railway, 25 m. S.E. of Uskub. Pop. (1905), about 22,000. Koprülü has a flourishing trade in silk; maize and mulberries are cultivated in the neighbourhood. The Greek and Bulgarian names of the town may be corrupt forms of the ancient Bylazora, described by Polybius as the chief city of Paeonia.

KORA, or CORA, an ancient town of Northern India, in the Fatehpur district of the United Provinces. Pop. (1901), 2806. As the capital of a Mahommedan province, it gave its name to part of the tract (with Allahabad) granted by Lord Clive to the titular Mogul emperor, Shah Alam, in 1765.

KORAN. The Koran (Kor'án) is the sacred Book of Islam. on which the religion of more than two hundred millions of Mahommedans is founded, being regarded by them as the immediate word of God. And since the use of the Koran in public worship, in schools and otherwise, is much more extensive than, for example, the reading of the Bible in most Christian countries, it has been truly described as the most widely-read book in existence. This circumstance alone is sufficient to give it an urgent claim on our attention, whether it suit our taste and fall in with our religious and philosophical views or not. Besides, it is the work of Mahomet, and as such is fitted to afford a clue to the spiritual development of that most successful of all prophets and religious personalities. It must be owned that the first perusal leaves on a European an impression of chaotic confusion—not that the book is so very extensive, for it is not quite as large as the New Testament. This impression can in some degree be modified only by the application of a critical analysis with the assistance of Arabian tradition.

To the faith of the Moslems, as has been said, the Koran is the word of God, and such also is the claim which the book itself advances. For except in sur. i.—which is a prayer for men—and some few passages where Mahomet (vi. 104, 114; xxvii. 93; xlii.8) or the angels (xix. 65; xxxvii. 164 sqq.) speak in the first person without the intervention of the usual imperative "say" (sing. or pl.), the speaker throughout is God, either in the first person singular or more commonly the plural of majesty "we." The same mode of address is familiar to us from the prophets of the Old Testament; the human personality disappears, in the moment of inspiration, behind the God by whom it is filled. But all the greatest of the Hebrew prophets fall back speedily upon the unassuming human "I"; while in the Koran the divine "I" is the stereotyped form of address. Mahomet, however, really felt himself to be the instrument of God; this consciousness was no doubt brighter at his first appearance than it afterwards became, but it never entirely forsook him. Nevertheless we cannot doubt his good-faith, not even in the cases in which the moral quality of his actions leaves most to be desired. In spite of all, the dominant fact remains, that to the end he was zealous for his God and for the salvation of his people, nay, of the whole of humanity, and that he never lost the unconquerable certainty of his divine mission.

Mahomet's View of Revelation.

The rationale of revelation is explained in the Koran itself as follows: In heaven is the original text ("the mother of the book," xliii. 3; "a concealed book," lv. 77; "a well-guarded tablet," lxxxv. 22). By the process of "sending down" (*tanzîl*), one piece after another was communicated to the Prophet. The mediator was an angel, who is called sometimes the "Spirit" (xxvi. 193), sometimes the "holy Spirit" (xvi. 104), and at a later time "Gabriel" (only in ii. 91, 92; lxvi. 4). This angel dictates the revelation to the Prophet, who repeats it after him, and afterwards proclaims it to the world (lxxxvii. 6, &c.). It is plain that we have here a somewhat crude attempt of the Prophet to represent to himself the more or less unconscious process by which his ideas arose and gradually took shape in his mind. It is no wonder if in such confused imagery the details are not always self-consistent. When, for example, this heavenly archetype is said to be in the hands of "exalted scribes" (lxxx. 13 sqq.), this seems a transition to a quite different set of ideas, namely, the books of fate, or the record of all human actions—conceptions which are actually found in the Koran. It is to be observed, at all events, that Mahomet's transcendental idea of God, as a Being exalted altogether above the world, excludes the thought of direct intercourse between the Prophet and God.

It is an explicit statement of the Koran that the sacred book was revealed ("sent down") by God, not all at once, but piecemeal and gradually (xxv. 34). This is evident from the actual composition of the book, and is confirmed by Moslem tradition. That is to say, Mahomet issued his revelations in fly-leaves of greater or less extent. A single piece of this kind was called either, like the entire collection, *kor'ān, i.e.* "recitation," "reading," or, better still, is the equivalent of Aramaic *geryānā* "lectionary"; or *kitāb*, "writing"; or *sūra*, which is perhaps the late-Hebrew *shūrā*, and means literally "series." The last became, in the lifetime of Mahomet, the regular designation of the individual sections as distinguished from the whole collection; and accordingly it is the name given to the separate chapters of the existing Koran. These chapters are of very unequal length. Since many of the shorter ones are undoubtedly complete in themselves, it is natural to assume that the longer, which are sometimes very comprehensive, have arisen from the amalgamation of various originally distinct revelations. This supposition is favoured by the numerous traditions which give us the circumstances under which this or that short piece, now incorporated in a larger section, was revealed; and also by the fact that the connexion of thought in the present sūras often seems to be interrupted. And in reality many pieces of the long sūras have to be severed out as originally independent; even in the short ones parts are often found which cannot have been there at first. At the same time we must beware of carrying this sifting operation too far,—as Nöldeke now believes himself to have done in his earlier works, and as Sprenger also sometimes seems to do. That some sūras were of considerable length from the first is seen, for example, from xii., which contains a short introduction, then the history of Joseph, and then a few concluding observations, and is therefore perfectly homogeneous. In like manner, xx., which is mainly occupied with the history of Moses, forms a complete whole. The same is true of xviii., which at first sight seems to fall into several pieces; the history of the seven sleepers, the grotesque narrative about Moses, and that about Alexander "the Horned," are all connected together, and the same rhyme through the whole sūra. Even in the separate narrations we may observe how readily the Koran passes from one subject to another, how little care is taken to express all the transitions of thought, and how frequently clauses are omitted, which are almost indispensable. We are not at liberty, therefore, in every case where the connexion in the Koran is obscure, to say that it is really broken, and set it down as the clumsy patchwork of a later hand. Even in the old Arabic poetry such abrupt transitions are of very frequent occurrence. It is not uncommon for the Koran, after a new subject has been entered on, to return gradually or suddenly to the former theme,—a proof that there at least separation is not to be thought of. In short, however imperfectly the Koran may have been redacted, in the majority of cases the present sūras are identical with the originals.

Component Parts of the Koran.

How these revelations actually arose in Mahomet's mind is a question which it is almost as idle to discuss as it would be to analyse the workings of the mind of a poet. In his early career, sometimes perhaps in its later stages also, many revelations must have burst from him in uncontrollable excitement, so that he could not possibly regard them otherwise than as divine inspirations. We must bear in mind that he was no cold systematic thinker, but an Oriental visionary, brought up in crass superstition, and without intellectual discipline; a man whose nervous temperament had been powerfully worked on by ascetic austerities, and who was all the more irritated by the opposition he encountered, because he had little of the heroic in his nature. Filled with his religious ideas and visions, he might well fancy he heard the angel bidding him recite what was said to him. There may have been many a revelation of this kind which no one ever heard but himself, as he repeated it to himself in the silence

of the night (lxxiii. 4). Indeed the Koran itself admits that he forgot some revelations (lxxxvii. 7). But by far the greatest part of the book is undoubtedly the result of deliberation, touched more or less with emotion, and animated by a certain rhetorical rather than poetical glow. Many passages are based upon purely intellectual reflection. It is said that Mahomet occasionally uttered such a passage immediately after one of those epileptic fits which not only his followers, but (for a time at least) he himself also, regarded as tokens of intercourse with the higher powers. If that is the case, it is impossible to say whether the trick was in the utterance of the revelation or in the fit itself.

The Koran Written.

How the various pieces of the Koran took literary form is uncertain. Mahomet himself, so far as we can discover, never wrote down anything. The question whether he could read and write has been much debated among Moslems, unfortunately more with dogmatic arguments and spurious traditions than authentic proofs. At present one is inclined to say that he was not altogether ignorant of these arts, but that from want of practice he found it convenient to employ some one else whenever he had anything to write. After the migration to Medina (A.D. 622) we are told that short pieces—chiefly legal decisions—were taken down immediately after they were revealed, by an adherent whom he summoned for the purpose; so that nothing stood in the way of their publication. Hence it is probable that in Mecca, where the art of writing was commoner than in Medina, he had already begun to have his oracles committed to writing. That even long portions of the Koran existed in written form from an early date may be pretty safely inferred from various indications; especially from the fact that in Mecca the Prophet had caused insertions to be made, and pieces to be erased in his previous revelations. For we cannot suppose that he knew the longer sūras by heart so perfectly that he was able after a time to lay his finger upon any particular passage. In some instances, indeed, he may have relied too much on his memory. For example, he seems to have occasionally dictated the same sūra to different persons in slightly different terms. In such cases, no doubt, he may have partly intended to introduce improvements; and so long as the difference was merely in expression, without affecting the sense, it could occasion no perplexity to his followers. None of them had literary pedantry enough to question the consistency of the divine revelation on that ground. In particular instances, however, the difference of reading was too important to be overlooked. Thus the Koran itself confesses that the unbelievers cast it up as a reproach to the Prophet that God sometimes substituted one verse for another (xvi. 103). On one occasion, when a dispute arose between two of his own followers as to the true reading of a passage which both had received from the Prophet himself, Mahomet is said to have explained that the Koran was revealed in seven forms. In this apparently genuine dictum seven stands, of course, as in many other cases, for an indefinite but limited number. But one may imagine what a world of trouble it has cost the Moslem theologians to explain the saying in accordance with their dogmatic beliefs. A great number of explanations are current, some of which claim the authority of the Prophet himself; as, indeed, fictitious utterances of Mahomet play throughout a conspicuous part in the exegesis of the Koran. One very favourite, but utterly untenable interpretation is that the "seven forms," are seven different Arabic dialects.

Abrogated Readings.

When such discrepancies came to the cognizance of Mahomet it was doubtless his desire that only one of the conflicting texts should be considered authentic; only he never gave himself much trouble to have his wish carried into effect. Although in theory he was an upholder of verbal inspiration, he did not push the doctrine to its extreme consequences; his practical good sense did not take these things so strictly as the theologians of later centuries. Sometimes, however, he did suppress whole sections or verses, enjoining his followers to efface or forget them, and declaring them to be "abrogated." A very remarkable case is that of the two verses in liii., when he had recognized three heathen goddesses as exalted beings, possessing influence with God. This had occurred in a moment of weakness, in order that by such a promise, which yet left Allah in his lofty position, he might gain over his fellow-countrymen. This object he achieved, but soon his conscience smote him, and he declared these words to have been an inspiration of Satan.

Abrogated Laws.

So much for abrogated readings; the case is somewhat different when we come to the abrogation of laws and directions to the Moslems, which often occurs in the Koran. There is nothing in this at variance with Mahomet's idea of God. God is to him an absolute despot, who declares a thing right or wrong from no inherent necessity but by his arbitrary fiat. This God varies his commands at pleasure, prescribes one law for the Christians, another for the Jews, and a third for the Moslems; nay, he even changes his instructions to the Moslems when it pleases him. Thus, for example, the Koran contains very different directions, suited to varying circumstances, as to the treatment which idolaters are to receive at the hands of believers. But Mahomet showed no anxiety to have these superseded enactments destroyed. Believers could be in no uncertainty as to which of two contradictory passages remained in force; and they might still find edification in that which had become obsolete. That later generations might not so easily distinguish the "abrogated" from the "abrogating" did not occur to Mahomet, whose vision, naturally enough, seldom extended to the future of his religious community. Current events were invariably kept in view in the revelations. In Medina it called forth the admiration of the Faithful to observe how often God gave them the answer to a question whose settlement was urgently required at the moment. The same näiveté appears in a remark of the Caliph Othman about a doubtful case: "If the Apostle of God were still alive, methinks there had been a Koran passage revealed on this point." Not unfrequently the divine word was found to coincide with the advice which Mahomet had received from his most intimate disciples. "Omar was many a time of a certain opinion," says one tradition, "and the Koran was then revealed accordingly."

Contents of the Koran.

The contents of the different parts of the Koran are extremely varied. Many passages consist of theological or moral reflections. We are reminded of the greatness, the goodness, the righteousness of God as manifested in Nature, in history, and in revelation through the prophets, especially through Mahomet. God is magnified as the One, the All-powerful. Idolatry and all deification of created beings, such as the worship of Christ as the Son of God, are unsparingly condemned. The joys of heaven and the pains of hell are depicted in vivid sensuous imagery, as is also the terror of the whole creation at the advent of the last day and the judgment of the world. Believers receive general moral instruction, as well as directions for special circumstances. The lukewarm are rebuked, the enemies threatened with terrible punishment, both temporal and eternal. To the sceptical the truth of Islam is held forth; and a certain, not very cogent, method of demonstration predominates. In many passages the sacred book falls into a diffuse preaching style, others seem more like proclamations or general orders. A great number contain ceremonial or civil laws, or even special commands to individuals down to such matters as the regulation of Mahomet's harem. In not a few definite questions are answered which had actually been propounded to the Prophet by believers or infidels. Mahomet himself, too, repeatedly receives direct injunctions, and does not escape an occasional rebuke. One sūra (i.) is a prayer, two (cxiii. cxiv.) are magical formulas. Many sūras treat of a single topic, others embrace several.

Narratives.

From the mass of material comprised in the Koran—and the account we have given is far from exhaustive—we should select the histories of the ancient prophets and saints as possessing a peculiar interest. The purpose of Mahomet is to show from these histories how God in former times had rewarded the righteous and punished their enemies. For the most part the old prophets only serve to introduce a little variety in point of form, for they are almost in every case facsimiles of Mahomet himself. They preach exactly like

him, they have to bring the very same charges against their opponents, who on their part behave exactly as the unbelieving inhabitants of Mecca. The Koran even goes so far as to make Noah contend against the worship of certain false gods, mentioned by name, who were worshipped by the Arabs of Mahomet's time. In an address which is put in the mouth of Abraham (xxvi. 75 sqq.), the reader quite forgets that it is Abraham, and not Mahomet (or God himself), who is speaking. Other narratives are intended rather for amusement, although they are always well seasoned with edifying phrases. It is no wonder that the godless Korrishites thought these stories of the Koran not nearly so entertaining as those of Rostam and Ispandiār, related by Naḍr the son of Ḥārith, who had learned in the course of his trade journeys on the Euphrates the heroic mythology of the Persians. But the Prophet was so exasperated by this rivalry that when Naḍr fell into his power after the battle of Badr, he caused him to be executed; although in all other cases he readily pardoned his fellow-countrymen.

Relation to the Old and New Testaments.

These histories are chiefly about Scripture characters, especially those of the Old Testament. But the deviations from the Biblical narratives are very marked. Many of the alterations are found in the legendary anecdotes of the Jewish Haggada and the New Testament Apocrypha; but many more are due perhaps to misconceptions such as only a listener (not the reader of a book) could fall into. One would suppose that the most ignorant Jew could never have mistaken Haman, the minister of Ahasuerus, for the minister of Pharaoh, as happens in the Koran, or identified Miriam, the sister of Moses, with Mary (=Mariām), the mother of Christ. So long, however, as we have no closer acquaintance with Arab Judaism and Christianity, we must always reckon with the possibility that many of these mistakes were due to adherents of these religions who were his authorities, or were a naïve reproduction of versions already widely accepted by his contemporaries. In addition to his misconceptions there are sundry capricious alterations, some of them very grotesque, due to Mahomet himself. For instance, in his ignorance of everything out of Arabia, he makes the fertility of Egypt—where rain is almost never seen and never missed—depend on rain instead of the inundations of the Nile (xii. 49).

It is uncertain whether his account of Alexander was borrowed from Jews or Christians, since the romance of Alexander belonged to the stereotyped literature of that age. The description of Alexander as "the Horned" in the Koran is, however, in accordance with the result of recent researches, to be traced to a Syrian legend dating from A.D. 514–515 (Th. Nöldeke, "Beiträge zur Gesch. des Alexanderromanes" in *Denkschriften Akad. Wien*, vol. xxxviii. No. 5, p. 27, &c.). According to this, God caused horns to grow on Alexander's head to enable him to overthrow all things. This detail of the legend is ultimately traceable, as Hottinger long ago supposed, to the numerous coins on which Alexander is represented with the ram's horns of Ammon.[1] Besides Jewish and Christian histories there are a few about old Arabian prophets. In these he seems to have handled his materials even more freely than in the others.

The opinion has already been expressed that Mahomet did not make use of written sources. Coincidences and divergences alike can always be accounted for by oral communications from Jews who knew a little and Christians who knew next to nothing. Even in the rare passages where we can trace direct resemblances to the text of the Old Testament (cf. xxi. 105 with Ps. xxxvii. 29; i. 5 with Ps. xxvii. 11) or the New (cf. vii. 48 with Luke xvi. 24; xlvi. 19 with Luke xvi. 25), there is nothing more than might readily have been picked up in conversation with any Jew or Christian. In Medina, where he had the opportunity of becoming acquainted with Jews of some culture, he learned some things out of the Mishna, *e.g.* v. 35 corresponds almost word for word with Mishna *Sanhedrin* iv. 5; compare also ii. 183 with Mishna *Berak'hoth* i. 2. That these are only cases of oral communication will be admitted by any one with the slightest knowledge of the circumstances. Otherwise we might even conclude that Mahomet had studied the Talmud; *e.g.* the regulation as to ablution by rubbing with sand, where water cannot be obtained (iv. 46), corresponds to a talmudic ordinance (*Berak'hoth* 15 *a*). Of Christianity he can have been able to learn very little, even in Medina; as may be seen from the absurd travesty of the institution of the Eucharist in v. 112 sqq. For the rest, it is highly improbable that before the Koran any real literary production —anything that could be strictly called a book—existed in the Arabic language.

[1] Reproductions of such Ptolemaic and Lysimachan coins are to be found in J. J. Bernouilli, *Die erhaltenen Darstellungen Alexanders d. Gr.* (Munich, 1905), Tab. VIII.; also in Theodor Schreiber, "Studien über das Bildniss Alexanders des Gr." in the *Abh. Sachs. Gesellschaft der Wissenschaften*, Bd. xxi. (1903), Tab. XIII.

Style.

In point of style and artistic effect, the different parts of the Koran are of very unequal value. An unprejudiced and critical reader will certainly find very few passages where his aesthetic susceptibilities are thoroughly satisfied. But he will often be struck, especially in the older pieces, by a wild force of passion, and a vigorous, if not rich, imagination. Descriptions of heaven and hell, and allusions to God's working in Nature, not unfrequently show a certain amount of poetic power. In other places also the style is sometimes lively and impressive; though it is rarely indeed that we come across such strains of touching simplicity as in the middle of xciii. The greater part of the Koran is decidedly prosaic; much of it indeed is stiff in style. Of course, with such a variety of material, we cannot expect every part to be equally vivacious, or imaginative, or poetic. A decree about the right of inheritance, or a point of ritual, must necessarily be expressed in prose, if it is to be intelligible. No one complains of the civil laws in Exodus or the sacrificial ritual in Leviticus, because they want the fire of Isaiah or the tenderness of Deuteronomy. But Mahomet's mistake consists in persistent and slavish adherence to the semi-poetic form which he had at first adopted in accordance with his own taste and that of his hearers. For instance, he employs rhyme in dealing with the most prosaic subjects, and thus produces the disagreeable effect of incongruity between style and matter. It has to be considered, however, that many of those sermonizing pieces which are so tedious to us, especially when we read two or three in succession (perhaps in a very inadequate translation), must have had a quite different effect when recited under the burning sky and on the barren soil of Mecca. There, thoughts about God's greatness and man's duty, which are familiar to us from childhood, were all new to the hearers—it is hearers we have to think of in the first instance, not readers—to whom, at the same time, every allusion had a meaning which often escapes our notice. When Mahomet spoke of the goodness of the Lord in creating the clouds, and bringing them across the cheerless desert, and pouring them out on the earth to restore its rich vegetation, that must have been a picture of thrilling interest to the Arabs, who are accustomed to see from three to five years elapse before a copious shower comes to clothe the wilderness once more with luxuriant pastures. It requires an effort for us, under our clouded skies, to realize in some degree the intensity of that impression.

Rhetorical Form and Rhyme.

The fact that scraps of poetical phraseology are specially numerous in the earlier sūras, enables us to understand why the prosaic mercantile community of Mecca regarded their eccentric townsman as a "poet," or even a "possessed poet." Mahomet himself had to disclaim such titles, because he felt himself to be a divinely inspired prophet; but we too, from our standpoint, shall fully acquit him of poetic genius. Like many other predominantly religious characters, he had no appreciation of poetic beauty; and if we may believe one anecdote related of him, at a time when every one made verses, he affected ignorance of the most elementary rules of prosody. Hence the style of the Koran is not poetical but rhetorical; and the powerful effect which some portions produce on us is gained by rhetorical means. Accordingly the sacred book has not even the artistic form of poetry; which, among the Arabs, includes a stringent metre, as well as rhyme. The Koran is never metrical, and only a few exceptionally

eloquent portions fall into a sort of spontaneous rhythm. On the other hand, the rhyme is regularly maintained; although, especially in the later pieces, after a very slovenly fashion. Rhymed prose was a favourite form of composition among the Arabs of that day, and Mahomet adopted it; but if it imparts a certain sprightliness to some passages, it proves on the whole a burdensome yoke. The Moslems themselves have observed that the tyranny of the rhyme often makes itself apparent in derangement of the order of words, and in the choice of verbal forms which would not otherwise have been employed; *e.g.* an imperfect instead of a perfect. In one place, to save the rhyme, he calls Mount Sinai *Sīnīn* (xcv. 2) instead of *Sīnā* (xxiii. 20); in another Elijah is called *Ilyāsīn* (xxxvii. 130) instead of *Ilyās* (vi. 85; xxxvii. 123). The substance even is modified to suit exigencies of rhyme. Thus the Prophet would scarcely have fixed on the unusual number of *eight* angels round the throne of God (lxix. 17) if the word *thamāniyah*, "eight," had not happened to fall in so well with the rhyme. And when lv. speaks of *two* heavenly gardens, each with *two* fountains and *two* kinds of fruit, and again of *two* similar gardens, all this is simply because the dual termination (*ān*) corresponds to the syllable that controls the rhyme in that whole sūra. In the later pieces, Mahomet often inserts edifying remarks, entirely out of keeping with the context, merely to complete his rhyme. In Arabic it is such an easy thing to accumulate masses of words with the same termination, that the gross negligence of the rhyme in the Koran is doubly remarkable. One may say that this is another mark of the Prophet's want of mental training, and incapacity for introspective criticism.

Stylistic Weaknesses.

On the whole, while many parts of the Koran undoubtedly have considerable rhetorical power, even over an unbelieving reader, the book, aesthetically considered, is by no means a first-rate performance. To begin with what we are most competent to criticize, let us look at some of the more extended narratives. It has already been noticed how vehement and abrupt they are where they ought to be characterized by epic repose. Indispensable links, both in expression and in the sequence of events, are often omitted, so that to understand these histories is sometimes far easier for us than for those who heard them first, because we know most of them from better sources. Along with this, there is a great deal of superfluous verbiage; and nowhere do we find a steady advance in the narration. Contrast in these respects the history of Joseph (xii.) and its glaring improprieties with the admirably conceived and admirably executed story in Genesis. Similar faults are found in the non-narrative portions of the Koran. The connexion of ideas is extremely loose, and even the syntax betrays great awkwardness. Anacolutha are of frequent occurrence, and cannot be explained as conscious literary devices. Many sentences begin with a "when" or "on the day when" which seems to hover in the air, so that the commentators are driven to supply a "think of this" or some such ellipsis. Again, there is no great literary skill evinced in the frequent and needless harping on the same words and phrases; in xviii., for example, "till that" (*ḥattā idhā*) occurs no fewer than eight times. Mahomet, in short, is not in any sense a master of style. This opinion will be endorsed by any European who reads through the book with an impartial spirit and some knowledge of the language, without taking into account the tiresome effect of its endless iterations. But in the ears of every pious Moslem such a judgment will sound almost as shocking as downright atheism or polytheism. Among the Moslems, the Koran has always been looked on as the most perfect model of style and language. This feature of it is in their dogmatic the greatest of all miracles, the incontestable proof of its divine origin. Such a view on the part of men who knew Arabic infinitely better than the most accomplished European Arabist will ever do, may well startle us. In fact, the Koran boldly challenged its opponents to produce ten sūras, or even a single one, like those of the sacred book, and they never did so. That, to be sure, on calm reflection, is not so very surprising. Revelations of the kind which Mahomet uttered, no unbeliever could produce without making himself a laughing-stock. However little real originality there is in Mahomet's doctrines, as against his own countrymen he was thoroughly original, even in the form of his oracles. To compose such revelations at will was beyond the power of the most expert literary artist; it would have required either a prophet or a shameless impostor. And if such a character appeared *after* Mahomet, still he could never be anything but an imitator, like the false prophets who arose about the time of his death and afterwards. That the adversaries should produce any sample whatsoever of poetry or rhetoric equal to the Koran is not at all what the Prophet demands. In that case he would have been put to shame, even in the eyes of many of his own followers, by the first poem that came to hand. Nevertheless, it is on a false interpretation of this challenge that the dogma of the incomparable excellence of the style and diction of the Koran is based. The rest has been accomplished by dogmatic prejudice, which is quite capable of working other miracles besides turning a defective literary production into an unrivalled masterpiece in the eyes of believers. This view once accepted, the next step was to find everywhere evidence of the perfection of the style and language. And if here and there, as one can scarcely doubt, there was among the old Moslems a lover of poetry who had his difficulties about this dogma, he had to beware of uttering an opinion which might have cost him his head. We know of at least one rationalistic theologian who defined the dogma in such a way that we can see he did not believe it (Shahrastānī, p. 39). The truth is, it would have been a miracle indeed if the style of the Koran had been perfect. For although there was at that time a recognized poetical style, already degenerating to mannerism, a developed prose style did not exist. All beginnings are difficult; and it can never be esteemed a serious charge against Mahomet that his book, the first prose work of a high order in the language, testifies to the awkwardness of the beginner. And further, we must always remember that entertainment and aesthetic effect were at most subsidiary objects. The great aim was persuasion and conversion; and, say what we will, that aim has been realized on the most imposing scale.

Dogma of the Stylistic Perfection of the Koran.

Mahomet repeatedly calls attention to the fact that the Koran is not written, like other sacred books, in a strange language, but in Arabic, and therefore is intelligible to all. At that time, along with foreign ideas, many foreign words had crept into the language; especially Aramaic terms for religious conceptions of Jewish or Christian origin. Some of these had already passed into general use, while others were confined to a more limited circle. Mahomet, who could not fully express his new ideas in the common language of his countrymen, but had frequently to find out new terms for himself, made free use of such Jewish and Christian words, as was done, though perhaps to a smaller extent, by certain thinkers and poets of that age who had more or less risen above the level of heathenism. In Mahomet's case this is the less wonderful because he was indebted to the instruction of Jews and Christians, whose Arabic—as the Koran pretty clearly intimates with regard to one of them—was very defective. On the other hand, it is yet more remarkable that several of such borrowed words in the Koran have a sense which they do not possess in the original language. It is not necessary that this phenomenon should in every case be due to the same cause. Just as the prophet often misunderstood traditional traits of the sacred history, he may, as an unlearned man, likewise have often employed foreign expressions wrongly. Other remarkable senses of words were possibly already acclimatized in the language of Arabian Jews or Christians. Thus, *forqān* means really "redemption," but Mahomet uses it for "revelation." The widespread opinion that this sense first asserted itself in reference to the Arab root فرق (*faraqa*), "sever," or "decide," is open to considerable doubt. There is, for instance, no difficulty in deriving the Arab meaning of "revelation" from the common Aramaic "salvation," and this transference must have taken place in a community for which salvation formed the central object of faith, *i.e.* either amongst those Jews who looked to the coming of a Messiah or,

Foreign Words.

more probably, among Christians, since Christianity is in a very peculiar sense the religion of salvation. *Milla* is properly "word" (=Aramaic *mellthā*), but in the Koran "religion." It is actually used of the religion of the Jews and Christians (once), of the heathen (5 times), but mostly (8 times) of the religion of Abraham, which Mahomet in the Medina period places on the same level with Islam. Although of the Aramaic dialects none employs the term *Melltha* in the sense of religion, it appears that the prophet found such a use. *Illiyūn*, which Mahomet uses of a heavenly book (Sūra 83; 18, 19), is clearly the Hebrew *elyōn*, "high" or "exalted." It is, however, doubtful in what sense this word appeared to him, either as a name of God, as in the Old Testament it often occurs and regularly without the article, or actually as the epithet of a heavenly book, although this use cannot be substantiated from Jewish literature. So again the word *mathānī* is, as Geiger has conjectured, the regular plural of the Aramaic *mathnūthā*, which is the same as the Hebrew *Mishnah*, and denotes in Jewish usage a legal decision of some of the ancient Rabbins. But in the Koran Mahomet appears to have understood it in the sense of "saying" or "sentence" (cf. xxxix. 24). On the other hand, it is by no means certain that by "the Seven Mathani" (xv. 87) the seven verses of Sūra i. are meant. Words of undoubtedly Christian origin are less frequent in the Koran. It is an interesting fact that of these a few have come over from the Abyssinian; such as *hawārīyūn* "apostles," *māida* "table," *munāfig* "doubter, sceptic," *ragūn* "cursed," *miḥrāb* "temple"; the first three of these make their first appearance in sūras of the Medina period. The word *shailān* "Satan," which was likewise borrowed, at least in the first instance, from the Abyssinian, had probably been already introduced into the language. Sprenger has rightly observed that Mahomet makes a certain parade of these foreign terms, as of other peculiarly constructed expressions; in this he followed a favourite practice of contemporary poets. It is the tendency of the imperfectly educated to delight in out-of-the-way expressions, and on such minds they readily produce a remarkably solemn and mysterious impression. This was exactly the kind of effect that Mahomet desired, and to secure it he seems even to have invented a few odd vocables, as *ghislīn* (lxix. 36), *sijjīn* (lxxxiii. 7, 8), *tasnīm* (lxxxiii. 27), and *salsabīl* (lxxvi. 18). But, of course, the necessity of enabling his hearers to understand ideas which they must have found sufficiently novel in themselves, imposed tolerably narrow limits on such eccentricities.

Date of the Several Parts.

The constituents of our present Koran belong partly to the Mecca period[1] (before A.D. 622), partly to the period commencing with the migration to Medina (from the autumn of 622 to 8th June 632). Mahomet's position in Medina was entirely different from that which he had occupied in his native town. In the former he was from the first the leader of a powerful party, and gradually became the autocratic ruler of Arabia; in the latter he was only the despised preacher of a small congregation. This difference, as was to be expected, appears in the Koran. The Medina pieces, whether entire sūras or isolated passages interpolated in Meccan sūras, are accordingly pretty broadly distinct, as to their contents, from those issued in Mecca. In the great majority of cases there can be no doubt whatever whether a piece first saw the light in Mecca or in Medina; and for the most part the internal evidence is borne out by Moslem tradition. And since the revelations given in Medina frequently take notice of events about which we have fairly accurate information, and whose dates are at least approximately known, we are often in a position to fix their date with at any rate considerable certainty; here again tradition renders valuable assistance. Even with regard to the Medina passages, however, a great deal remains uncertain, partly because the allusions to historical events and circumstances are generally rather obscure, partly because traditions about the occasion of the revelation of the various pieces are often fluctuating, and often rest on misunderstanding or arbitrary conjecture. An important criterion for judging the period during which individual Meccan sūras, interpolated in Medina revelations, arose (*e.g.* *Sūr.* xvi. 124, vi. 162) is provided by the Ibrāhīm legend, the great importance of which, as throwing light on the evolution of Mahomet's doctrine in its relation to older revealed religions, has been convincingly set forth by Dr Snouck Hurgronje in his dissertation for the doctor's degree and in later essays.[2] According to this, Ibrāhīm, after the controversy with the Jews, first of all became Mahomet's special forerunner in Medina, then the first Moslem, and finally the founder of the Ka'ba. But at all events it is far easier to arrange in some sort of chronological order the Medina sūras than those composed in Mecca. There is, indeed, one tradition which professes to furnish a chronological list of all the sūras. But not to mention that it occurs in several divergent forms, and that it takes no account of the fact that our present sūras are partly composed of pieces of different dates, it contains so many suspicious or undoubtedly false statements, that it is impossible to attach any great importance to it. Besides, it is a priori unlikely that a contemporary of Mahomet should have drawn up such a list; and if any one had made the attempt he would have found it almost impossible to obtain reliable information as to the order of the earlier Meccan sūras. We have in this list no genuine tradition, but rather the lucubrations of an undoubtedly conscientious Moslem critic, who may have lived about a century after the Flight.

The Meccan Sūras.

Among the revelations put forth in Mecca there is a considerable number of (for the most part) short sūras, which strike every attentive reader as being the oldest. They are in an altogether different strain from many others, and in their whole composition they show least resemblance to the Medina pieces. It is no doubt conceivable—as Sprenger supposes—that Mahomet might have returned at intervals to his earlier manner; but since this group possesses a remarkable similarity of style, and since the gradual formation of a different style is on the whole an unmistakable fact, the assumption has little probability; and we shall therefore abide by the opinion that these form a distinct group. At the opposite extreme from them stands another cluster, showing quite obvious affinities with the style of the Medina sūras, which must therefore be assigned to the later part of the Prophet's work in Mecca. Between these two groups stand a number of other Meccan sūras, which in every respect mark the transition from the first period to the third. It need hardly be said that the three periods—which were first distinguished by Professor Weil—are not separated by sharp lines of division. With regard to some sūras, it may be doubtful whether they ought to be reckoned amongst the middle group, or with one or other of the extremes. And it is altogether impossible, within these groups, to establish even a probable chronological arrangement of the individual revelations. In default of clear allusions to well-known events, or events whose date can be determined, we might indeed endeavour to trace the psychological development of the Prophet by means of the Koran, and arrange its parts accordingly. But in such an undertaking one is always apt to take subjective assumptions or mere fancies for established data. Good traditions about the origin of the Meccan revelations are not very numerous. In fact the whole history of Mahomet previous to the Flight is so imperfectly related that we are not even sure in what year he appeared as a prophet. Probably it was in A.D. 610; it may have been somewhat earlier, but scarcely later. If, as one tradition says, xxx. 1 seq. ("The Romans are overcome in the nearest neighbouring land") refers to the defeat of the Byzantines by the Persians, not far from Damascus, about the spring of 614, it would follow that the third group, to which this passage belongs, covers the greater part of the Meccan period. And it is not in itself unlikely that the passionate vehemence which characterizes the first group was of short duration. Nor is the assumption contradicted by the tolerably well attested, though far from incontestable statement, that when Omar was converted (A.D. 615 or 616), xx., which belongs to the second group, already existed in writing. But the reference of xxx. 1 seq. to this particular battle is by no means so certain that positive conclusions

[1] For the schemes of Nöldeke and Grimm see MAHOMMEDAN RELIGION.

[2] See Bibliography at end.

can be drawn from it. It is the same with other allusions in the Meccan sūras to occurrences whose chronology can be partially ascertained. It is better, therefore, to rest satisfied with a merely relative determination of the order of even the three great clusters of Meccan revelations.

Oldest Meccan Sūras.

In the pieces of the first period the convulsive excitement of the Prophet often expresses itself with the utmost vehemence. He is so carried away by his emotion that he cannot choose his words; they seem rather to burst from him. Many of these pieces remind us of the oracles of the old heathen soothsayers, whose style is known to us from imitations, although we have perhaps not a single genuine specimen. Like those other oracles, the sūras of this period, which are never very long, are composed of short sentences with tolerably pure but rapidly changing rhymes. The oaths, too, with which many of them begin were largely used by the soothsayers. Some of these oaths are very uncouth and hard to understand, some of them perhaps were not meant to be understood, for indeed all sorts of strange things are met with in these chapters. Here and there Mahomet speaks of visions, and appears even to see angels before him in bodily form. There are some intensely vivid descriptions of the resurrection and the last day which must have exercised a demonic power over men who were quite unfamiliar with such pictures. Other pieces paint in glowing colours the joys of heaven and the pains of hell. However, the sūras of this period are not all so wild as these; and those which are conceived in a calmer mood appear to be the oldest. Yet, one must repeat, it is exceedingly difficult to make out any strict chronological sequence. For instance, it is by no means certain whether the beginning of xcvi. is really, what a widely circulated tradition calls it, the oldest part of the whole Koran. That tradition goes back to the Prophet's favourite wife Ayesha; but as she was not born at the time when the revelation is said to have been made, it can only contain at the best what Mahomet told her years afterwards, from his own not very clear recollection, with or without fictitious additions, and this woman is little trustworthy. Moreover, there are other pieces mentioned by others as the oldest. In any case xcvi. 1 sqq. is certainly very early. According to the traditional view, which appears to be correct, it treats of a vision in which the Prophet receives an injunction to recite a revelation conveyed to him by the angel. It is interesting to observe that here already two things are brought forward as proofs of the omnipotence and care of God: one is the creation of man out of a seminal drop—an idea to which Mahomet often recurs; the other is the then recently introduced art of writing, which the Prophet instinctively seizes on as a means of propagating his doctrines. It was only after Mahomet encountered obstinate resistance that the tone of the revelations became thoroughly passionate. In such cases he was not slow to utter terrible threats against those who ridiculed the preaching of the unity of God, of the resurrection, and of the judgment. His own uncle Abū Lahab had rudely repelled him, and in a brief special sūra (cxi.) he and his wife are consigned to hell. The sūras of this period form almost exclusively the concluding portions of the present text. One is disposed to assume, however, that they were at one time more numerous, and that many of them were lost at an early period.

Since Mahomet's strength lay in his enthusiastic and fiery imagination rather than in the wealth of ideas and clearness of abstract thought on which exact reasoning depends, it follows that the older sūras, in which the former qualities have free scope, must be more attractive to us than the later. In the sūras of the second period the imaginative glow perceptibly diminishes; there is still fire and animation, but the tone becomes gradually more prosaic. As the feverish restlessness subsides, the periods are drawn out, and the revelations as a whole become longer. The truth of the new doctrine is proved by accumulated instances of God's working in nature and in history; the objections of opponents, whether advanced in good faith or in jest, are controverted by arguments; but the demonstration is often confused or even weak. The histories of the earlier prophets, which had occasionally been briefly touched on in the first period, are now related, sometimes at great length. On the whole, the charm of the style is passing away.

There is one piece of the Koran, belonging to the beginning of this period, if not to the close of the former, which claims particular notice. This is Sūra i., the Lord's Prayer of the Moslems, a vigorous hymn of praise to God, the Lord of both worlds, which ends in a petition for aid and true guidance (*hudā*). The words of this sūra, which is known as *al-fātiḥa* ("the opening one"), are as follows:— *The Fātiḥa.*

(1) In the name of God, the compassionate compassioner. (2) Praise be [literally "is"] to God, the Lord of the worlds, (3) the compassionate compassioner, (4) the Sovereign of the day of judgment. (5) Thee do we worship and of Thee do we beg assistance. (6) Direct us in the right way; (7) in the way of those to whom Thou hast been gracious, on whom there is no wrath, and who go not astray.

The thoughts are so simple as to need no explanation; and yet the prayer is full of meaning. It is true that there is not a single original idea of Mahomet's in it. Of the seven verses of the sūra no less than five (verses 1, 2, 3, 4, 6) have an extremely suspicious relationship with the stereotyped formulae of Jewish and Christian liturgies. Verse 6 agrees, word for word, with Ps. xxvii. 11. On the other hand, the question must remain open whether Mahomet only gave free renderings of the several borrowed formulae, or whether in actually composing them he kept existing models. The designation of God as the "Compassioner," *Raḥmān*, is simply the Jewish *Raḥmānā*, which was a favourite name for God in the Talmudic period. The word had long before Mahomet's time been used for God in southern Arabia (cf. *e.g.* the Sabaean Inscriptions, Glaser, 554, line 32; 618, line 2).

Mahomet seems for a while to have entertained the thought of adopting *al-Raḥmān* as a proper name of God, in place of *Allāh*, which was already used by the heathens.[1] This purpose he ultimately relinquished, but it is just in the sūras of the second period that the use of *Raḥmān* is specially frequent. If, for this reason, it is to a certain extent certain that Sūra i. belongs to this period, yet we can neither prove that it belongs to the beginning of the Mecca period nor that the present introductory formula "In the name of God," &c., belonged to it from the first. It may therefore even be doubted whether Mahomet at the outset looked upon the latter as revealed. Tradition, of course, knows in this connexion no doubt, and looks upon the Fātiḥa precisely as the most exalted portion of the Koran. Every Moslem who says his five prayers regularly—as the most of them do—repeats it not less than twenty times a day.

Latest Meccan Sūras.

The sūras of the third Meccan period, which form a fairly large part of our present Koran, are almost entirely prosaic. Some of the revelations are of considerable extent, and the single verses also are much longer than in the older sūras. Only now and then a gleam of poetic power flashes out. A sermonizing tone predominates. The sūras are very edifying for one who is already reconciled to their import, but to us at least they do not seem very well fitted to carry conviction to the minds of unbelievers. That impression, however, is not correct, for in reality the demonstrations of these longer Meccan sūras appear to have been peculiarly influential for the propagation of Islam. Mahomet's mission was not to Europeans, but to a people who, though quick-witted and receptive, were not accustomed to logical thinking, while they had outgrown their ancient religion.

When we reach the Medina period it becomes, as has been indicated, much easier to understand the revelations in their historical relations, since our knowledge of the history of

[1] Since in Arabic also the root رحم signifies "to have pity," the Arabs must have at once perceived the force of the new name. While the foreign word *Raḥmān* is, in accordance with its origin, everywhere in the Koran to be understood as "Merciful," there is some doubt as to *Raḥīm*. The close connexion of the two expressions, it is true, makes it probable that Mahomet only added the adjective *Raḥīm* to the substantive *Raḥmān* in order to strengthen the conception. But the genuine Arab meaning of *Raḥīm* is "gracious," and thus, the old Mahommedan Arab papyri render this word by φιλάνθρωπος.

Mahomet in Medina is tolerably complete. In many cases the historical occasion is perfectly clear, in others we can at least recognize the general situation from which they arose, and thus approximately fix their time. There still remains, however, a remnant, of which we can only say that it belongs to Medina.

Medinan Sūras.

The style of this period bears a fairly close resemblance to that of the latest Meccan period. It is for the most part pure prose, enriched by occasional rhetorical embellishments. Yet even here there are many bright and impressive passages, especially in those sections which may be regarded as proclamations to the army of the faithful. For the Moslems Mahomet has many different messages. At one time it is a summons to do battle for the faith; at another, a series of reflections on recently experienced success or misfortune, or a rebuke for their weak faith; or an exhortation to virtue, and so on. He often addresses himself to the "doubters," some of whom vacillate between faith and unbelief, others make a pretence of faith, while others scarcely take the trouble even to do that. They are no consolidated party, but to Mahomet they are all equally vexatious, because, as soon as danger has to be encountered, or a contribution is levied, they all alike fall away. There are frequent outbursts, ever increasing in bitterness, against the Jews, who were very numerous in Medina and its neighbourhood when Mahomet arrived. He has much less to say against the Christians, with whom he never came closely in contact; and as for the idolaters, there was little occasion in Medina to have many words with them. A part of the Medina pieces consists of formal laws belonging to the ceremonial, civil and criminal codes; or directions about certain temporary complications. The most objectionable parts of the whole Koran are those which treat of Mahomet's relations with women. The laws and regulations were generally very concise revelations, but most of them have been amalgamated with other pieces of similar or dissimilar import, and are now found in very long sūras.

Such is an imperfect sketch of the composition and the internal history of the Koran, but it is probably sufficient to show that the book is a very heterogeneous collection. If only those passages had been preserved which had a permanent value for the theology, the ethics, or the jurisprudence of the Moslems, a few fragments would have been amply sufficient. Fortunately for knowledge, respect for the sacredness of the letter has led to the collection of all the revelations that could possibly be collected—the "abrogating" along with the "abrogated," passages referring to passing circumstances as well as those of lasting importance. Every one who takes up the book in the proper religious frame of mind, like most of the Moslems, reads pieces directed against long-obsolete absurd customs of Mecca just as devoutly as the weightiest moral precepts—perhaps even more devoutly, because he does not understand them so well.

Mysterious Letters.

At the head of twenty-nine of the sūras stand certain initial letters, from which no clear sense can be obtained. Thus, before ii. iii. xxxi. xxxii. we find الم (*Alif Lām Mīm*), before xl.–xlvi. حم (*Ḥā Mīm*). Nöldeke at one time suggested that these initials did not belong to Mahomet's text, but might be the monograms of possessors of codices, which, through negligence on the part of the editors, were incorporated in the final form of the Koran; he now deems it more probable that they are to be traced to the Prophet himself, as Sprenger, Loth and others suppose. One cannot indeed admit the truth of Loth's statement that in the proper opening words of these sūras we may generally find an allusion to the accompanying initials; but it can scarcely be accidental that the first verse of the great majority of them (in iii. it is the second verse) contains the word "book," "revelation," or some equivalent. They usually begin with: "This is the book," or "Revelation (' down sending ') of the book," or something similar. Of sūras which commence in this way only a few (xviii. xxiv. xxv. xxxix.) want the initials, while only xxix. and xxx. have the initials and begin differently. These few exceptions may easily have proceeded from ancient corruptions; at all events they cannot neutralize the evidence of the greater number. Mahomet seems to have meant these letters for a mystic reference to the archetypal text in heaven. To a man who regarded the art of writing, of which at the best he had but a slight knowledge, as something supernatural, and who lived amongst illiterate people, an A B C may well have seemed more significant than to us who have been initiated into the mysteries of this art from our childhood. The Prophet himself can hardly have attached any particular meaning to these symbols: they served their purpose if they conveyed an impression of solemnity and enigmatical obscurity. In fact, the Koran admits that it contains many things which neither can be, nor were intended to be, understood (iii. 5). To regard these letters as ciphers is a precarious hypothesis, for the simple reason that cryptography is not to be looked for in the very infancy of Arabic writing. If they are actually ciphers, the multiplicity of possible explanations at once precludes the hope of a plausible interpretation. None of the efforts in this direction, whether by Moslem scholars or by Europeans, has led to convincing results. This remark applies even to the ingenious conjecture of Sprenger, that the letters كهيعص (*Kāf Hē Yē Ain Sād*) before xix. (which treats of John and Jesus, and, according to tradition, was sent to the Christian king of Abyssinia) stand for *Jesus Nazarenus Rex Judaeorum*. Sprenger arrives at this explanation by a very artificial method; and besides, Mahomet was not so simple as the Moslem traditionalists, who imagined that the Abyssinians could read a piece of the Arabic Koran. It need hardly be said that the Moslems have from of old applied themselves with great assiduity to the decipherment of these initials, and have sometimes found the deepest mysteries in them. Generally, however, they are content with the prudent conclusion that God alone knows the meaning of these letters.

It is probable (see above) that Mahomet had already caused revelations to be written down at Mecca, and that this began from the moment when he felt certain that he was the transmitter of the actual text of a heavenly book to mankind. It is even true that he may at some time or another have formed the intention of collecting these revelations. The idea of a heavenly model would in itself have suggested such a course and, only in an inferior degree to this, the necessity of setting a new and uncorrupted document of the divine will over against the sacred scriptures of the Jews and Christians, the people of the Book, as the Koran calls them. In any case, when Mahomet died, the separate pieces of the Koran, notwithstanding their theoretical sacredness, existed only in scattered copies; they were consequently in great danger of being partially or entirely destroyed. Many Moslems knew large portions by heart, but certainly no one knew the whole; and a merely oral propagation would have left the door open to all kinds of deliberate and inadvertent alterations. But now, after the death of the Prophet, most of the Arabs revolted against his successor, and had to be reduced to submission by force. Especially sanguinary was the struggle against the prophet Maslama (Mubarrad, *Kāmil* 443, 5), commonly known by the derisive diminutive Mosailima. At that time (A.D. 633) many of the most devoted Moslems fell, the very men who knew most Koran pieces by heart. Omar then began to fear that the Koran might be entirely forgotten, and he induced the Caliph Abū Bekr to undertake the collection of all its parts. The Caliph laid the duty on Zaid ibn Thābit, a native of Medina, then about twenty-two years of age, who had often acted as amanuensis to the Prophet, in whose service he is even said to have learned the Jewish letters.

Transmission of the Koran.

Zaid's First Koran.

The account of this collection of the Koran has reached us in several substantially identical forms, and goes back to Zaid himself. According to it, he collected the revelations from copies written on flat stones, pieces of leather, ribs of palm-leaves (not palm-leaves themselves), and such-like material, but chiefly "from the breasts of men," *i.e.* from their memory. From these he wrote a fair copy, which he gave to Abū Bekr, from whom it came to his successor Omar, who again bequeathed it to his daughter Ḥafṣa, one of the widows of the Prophet. This redaction, commonly called *al-ṣoḥof* ("the leaves"), had from the first no canonical authority; and its internal arrangement can only be conjectured.

The Moslems were as far as ever from possessing a uniform text of the Koran. The bravest of their warriors sometimes knew deplorably little about it; distinction on *that* field they cheerfully accorded to pious men like Ibn Mas'ūd. It was inevitable, however, that discrepancies should emerge between the texts of professed scholars, and as these men in their several localities were authorities on the reading of the Koran, quarrels began to break out between the levies from different districts about the true form

of the sacred book. During a campaign in A.H. 30 (A.D. 650–651), Ḥodhaifa, the victor in the great and decisive battle of Nehāveand (see CALIPHATE; and PERSIA: *History*) perceived that such disputes might become dangerous, and therefore urged on the caliph Othmān the necessity for a universally binding text. The matter was entrusted to Zaid, who had made the former collection, with three leading Koreishites. These brought together as many copies as they could lay their hands on, and prepared an edition which was to be canonical for all Moslems. To prevent any further disputes, they burned all the other codices except that of Ḥafṣa, which, however, was soon afterwards destroyed by Merwān the governor of Medina. The destruction of the earlier codices was an irreparable loss to criticism; but, for the essentially political object of putting an end to controversies by admitting only one form of the common book of religion and of law, this measure was necessary.

Othman's Koran.

The result of these labours is in our hands; as to how they were conducted we have no trustworthy information, tradition being here too much under the influence of dogmatic presuppositions. The critical methods of a modern scientific commission will not be expected of an age when the highest literary education for an Arab consisted in ability to read and write. It now appears highly probable that this second redaction took this simple form: Zaid read off from the codex which he had previously written, and his associates, simultaneously or successively, wrote one copy each to his dictation. These three manuscripts will therefore be those which the caliph, according to trustworthy tradition, sent in the first instance as standard copies to Damascus, Basra and Kufa to the warriors of the provinces of which these were the capitals, while he retained one at Medina. Be that as it may, it is impossible now to distinguish in the present form of the book what belongs to the first redaction from what is due to the second.

In the arrangement of the separate sections, a classification according to contents was impracticable because of the variety of subjects often dealt with in one sūra. A chronological arrangement was out of the question, because the chronology of the older pieces must have been imperfectly known, and because in some cases passages of different dates had been joined together. Indeed, systematic principles of this kind were altogether disregarded at that period. The pieces were accordingly arranged in indiscriminate order, the only rule observed being to place the long sūras first and the shorter towards the end, and even that was far from strictly adhered to. The two magic formulae, sūras cxiii., cxiv. owe their position at the end of the collection to their peculiar contents, which differ from all the other sūras; they are protecting spells for the faithful. Similarly it is by reason of its contents that sūra i. stands at the beginning; not only because it is in praise of Allah, as Psalm i. is in praise of the righteous man, but because it gives classical expression to important articles of the faith. These are the only special traces of design. The combination of pieces of different origin may proceed partly from the possessors of the codices from which Zaid compiled his first complete copy, partly from Zaid himself. The individual sūras are separated simply by the superscription: "In the name of God, the compassionate Compassioner," which is wanting only in the ninth. The additional headings found in our texts (the name of the sūras, the number of verses, &c.) were not in the original codices, and form no integral part of the Koran.

It is said that Othmān directed Zaid and his associates, in cases of disagreement, to follow the Ḳoreish dialect; but, though well attested, this account can scarcely be correct. The extremely primitive writing of those days was quite incapable of rendering such minute differences as can have existed between the pronunciation of Mecca and that of Medina.

Othmān's Koran was not complete. Some passages are evidently fragmentary; and a few detached pieces are still extant which were originally parts of the Koran, although they have been omitted by Zaid. Amongst these are some which there is no reason to suppose Mahomet desired to suppress. Zaid may easily have overlooked a few stray fragments, but that he purposely omitted anything which he believed to belong to the Koran is very unlikely. It has been conjectured that in deference to his superiors he kept out of the book the names of Mahomet's enemies, if they or their families came afterwards to be respected. But it must be remembered that it was never Mahomet's practice to refer explicitly to contemporary persons and affairs in the Koran. Only a single friend, his adopted son Zaid (xxxiii. 37), and a single enemy, his uncle Abū Lahab (cxi.)—and these for very special reasons—are mentioned by name; and the name of the latter has been left in the Koran with a fearful curse annexed to it, although his son had embraced Islam before the death of Mahomet, and his descendants belonged to the noblest families. So, on the other hand, there is no single verse or clause which can be plausibly made out to be an interpolation by Zaid at the instance of Abū Bekr, Omar, or Othmān. Slight clerical errors there may have been, but the Koran of Othmān contains none but genuine elements—though sometimes in very strange order. All efforts of European scholars to prove the existence of later interpolations in the Koran have failed.

The Koran not complete.

Of the four exemplars of Othmān's Koran, one was kept in Medina, and one was sent to each of the three metropolitan cities, Kufa, Baṣra, and Damascus. It can still be pretty clearly shown in detail that these four codices deviated from one another in points of orthography, in the insertion or omission of a *wa* ("and") and such-like minutiae; but these variations nowhere affect the sense. All later manuscripts are derived from these four originals.

At the same time, the other forms of the Koran did not at once become extinct. In particular we have some information about the codex of Ubay ibn Ka'b. If the list which gives the order of its sūras is correct, it must have contained substantially the same materials as our text; in that case Ubay ibn Ka'b must have used the original collection of Zaid. The same is true of the codex of Ibn Mas'ūd, of which we have also a catalogue. It appears that the principle of putting the longer sūras before the shorter was more consistently carried out by him than by Zaid. He omits i. and the magical formulae of cxiii., cxiv. Ubay, on the other hand, had embodied two additional short prayers, which we may regard as Mahomet's. One can easily understand that differences of opinion may have existed as to whether and how far formularies of this kind belonged to the Koran. Some of the divergent readings of both these texts have been preserved as well as a considerable number of other ancient variants. Most of them are decidedly inferior to the received readings, but some are quite as good, and a few deserve preference.

Other Editions.

The only man who appears to have seriously opposed the general introduction of Othmān's text is Ibn Mas'ūd. He was one of the oldest disciples of the Prophet, and had often rendered him personal service; but he was a man of contracted views, although he is one of the pillars of Moslem theology. His opposition had no effect. Now when we consider that at that time there were many Moslems who had heard the Koran from the mouth of the Prophet, that other measures of the imbecile Othmān met with the most vehement resistance on the part of the bigoted champions of the faith, that these were still further incited against him by some of his ambitious old comrades until at last they murdered him, and finally that in the civil wars after his death the several parties were glad of any pretext for branding their opponents as infidels;—when we consider all this, we must regard it as a strong testimony in favour of Othmān's Koran that no party found fault with his conduct in this matter, or repudiated the text formed by Zaid, who was one of the most devoted adherents of Othmān and his family, and that even among the Shiites criticism of the caliph's action is only met with as a rare exception.

Ibn Mas'ūd.

But this redaction is not the close of the textual history of the Koran. The ancient Arabic alphabet was very imperfect; it not only wanted marks for the short and in part even for the long vowels, but it often expressed several consonants by the same sign, *e.g.* one and the same character could mean B, T, Th at the beginning and N and J (I) in the middle of words. Hence there were

many words which could be read in very different ways. This variety of possible readings was at first very great, and many readers seem to have actually made it their object to discover pronunciations which were new, provided they were at all appropriate to the ambiguous text. There was also a dialectic licence in grammatical forms, which had not as yet been greatly restricted. An effort was made by many to establish a more refined pronunciation for the Koran than was usual in common life or in secular literature. The various schools of "readers" differed very widely from one another; although for the most part there was no important divergence as to the sense of words. A few of them gradually rose to special authority, and the rest disappeared. Seven readers are generally reckoned chief authorities, but for practical purposes this number was continually reduced in process of time; so that at present only two "reading-styles" are in actual use,—the common style of Ḥafṣ, and that of Nāfi'; which prevails in Africa to the west of Egypt. There is, however, a very comprehensive massoretic literature in which a number of other styles are indicated. The invention of vowel-signs of diacritic points to distinguish similarly formed consonants, and of other orthographic signs, soon put a stop to arbitrary conjectures on the part of the readers. Many zealots objected to the introduction of these innovations in the sacred text, but theological consistency had to yield to practical necessity. In accurate codices, indeed, all such additions, as well as the titles of the sūra, &c., are written in coloured ink, while the black characters profess to represent exactly the original of Othmān. But there is probably no copy quite faithful in this respect. Moreover, the right recitation of the Koran is an art which even people of Arab tongue can only learn with great difficulty. In addition to the nuances of pronunciation already alluded to, there is a semi-musical modulation. In these matters also the various schools differ.

Later History of the Text.

In European libraries, besides innumerable modern manuscripts of the Koran, there are also codices, or fragments, of high antiquity, some of them probably dating from the 1st century of the Flight. For the restoration of the text, however, the works of ancient scholars on its readings and modes of writing are more important than the manuscripts; which, however elegantly they may be written and ornamented, proceed from irresponsible copyists. The original, written by Othmān himself, has indeed been exhibited in various parts of the Mahommedan world. The library of the India Office contains one such manuscript, bearing the subscription: "Written by 'Othmān the son of 'Affān." These, of course, are barefaced forgeries, although of very ancient date; so are those which profess to be from the hand of 'Alī, one of which is preserved in the same library. In recent times the Koran has been often printed and lithographed, both in the East and the West. In Mahommedan countries lithography alone is employed.

Manuscripts.

Shortly after Mahomet's death certain individuals applied themselves to the exposition of the Koran. Much of it was obscure from the beginning, other sections were unintelligible apart from a knowledge of the circumstances of their origin. Unfortunately, those who took possession of this field were not very honourable. Ibn 'Abbās, a cousin of Mahomet, and the chief source of the traditional exegesis of the Koran, has, on theological and other grounds, given currency to a number of falsehoods; and at least some of his pupils have emulated his example. These earliest expositions dealt more with the sense and connexion of whole verses than with the separate words. Afterwards, as the knowledge of the old language declined, and the study of philology arose, more attention began to be paid to the explanation of vocables. A good many fragments of this older theological and philological exegesis have survived from the first two centuries of the Flight, although we have no complete commentary of this period. The great commentary of Ṭabarī, A.D. 839–923, of which for the last few years we have possessed an Oriental edition in 30 parts (Cairo A.H. 1321 = A.D. 1903), is very full when it comes to speak of canonical law, as well as in its accounts of the occasions of the several revelations; for, as in his great historical work, he faithfully records a large number of traditions with the channels by which they have come down to us (genealogical trees, *isnād*). In other respects the hopes based upon this commentary have not been fulfilled.

Commentators.

Another very famous commentary is that of Zamakhsharī (A.D. 1075–1144), edited by Nassau-Lees, Calcutta, 1859; but this scholar, with his great insight and still greater subtlety, is too apt to read his own scholastic ideas into the Koran. The favourite commentary of Baiḍāwī (d. A.D. 1286), edited by Fleischer (Leipzig, 1846–1848), is little more than an abridgment of Zamakhsharī's. Thousands of commentaries on the Koran, some of them of prodigious size, have been written by Moslems; and even the number of those still extant in manuscript is by no means small. Although these works all contain much that is useless or false, yet they are invaluable aids to our understanding of the sacred book. An unbiased European can, no doubt, see many things at a glance more clearly than a good Moslem who is under the influence of religious prejudice; but we should still be helpless without the exegetical literature of the Mahommedans. Even the Arabian Moslems would only understand the Koran very dimly and imperfectly if they did not give special attention to the study of its interpretation. The advantage of being in a language commonly understood, which the holy book claims for itself, has vanished in the course of thirteen centuries. According to the dominant view, however, the ritual use of the Koran is not in the least concerned with the sacred words being understood, but solely with their being quite properly recited. Nevertheless, a great deal remains to be accomplished by European scholarship for the correct interpretation of the Koran. We want, for example, an exhaustive classification and discussion of all the Jewish elements in the Koran; a praiseworthy beginning was made in Geiger's youthful essay *Was hat Mohamed aus dem Judenthum aufgenommen?* (Bonn, 1833; the "second revised edition," Leipzig, 1902, is only a reprint). We want especially a thorough commentary, executed with the methods and resources of modern science. No European language, it would seem, can even boast of a translation which completely satisfies modern requirements. The best are in English; where we have the extremely paraphrastic, but for its time admirable translation of George Sale (repeatedly printed), that of Rodwell (1861), which seeks to give the pieces in chronological order, and that of Palmer (1880), who wisely follows the traditional arrangements. The introduction which accompanies Palmer's translation is not in all respects abreast of the most recent scholarship. Considerable extracts from the Koran are well translated in E. W. Lane's *Selections from the Kur-ān*. Not much can be said in praise of the complete translations into the German language, neither of that of Ullmann, which has appeared in several editions, nor of that of Henning (Leipzig) and Grigull (Halle), all of them shallow amateurs who have no notion of the difficulties to be met with in the task, and are almost entirely dependent on Sale. Friedrich Rückert's excellent version (published by August Müller, Frankfort-on-Maine, 1888) gives only selections. M. Klamroth's translation of the fifty oldest sūras, *Die fünfzig ältesten Suren* (Hamburg, 1890) attempts successfully to reproduce the rhymed form of the originals. The publication of the translation of the Koran by the great Leipzig Arabic scholar, H. L. Fleischer (d. 1888) has so far unfortunately been delayed. (For modern editions, commentaries, &c., see MAHOMMEDAN RELIGION: *Bibliography*).

Translations.

Besides commentaries on the whole Koran, or on special parts and topics, the Moslems possess a whole literature bearing on their sacred book. There are works on the spelling and right pronunciation of the Koran, works on the beauty of its language, on the number of its verses, words and letters, &c.; nay, there are even works which would nowadays be called "historical and critical introductions." Moreover, the origin of Arabic philology is intimately connected with the recitation and exegesis of the Koran. To exhibit the importance of the sacred book for the whole mental life of the Moslems would be simply to write the history of that life itself; for there is no department in which its all-pervading, but unfortunately not always salutary, influence has not been felt.

The unbounded reverence of the Moslems for the Koran reaches its climax in the dogma that this book, as the divine word, *i.e.* thought, is immanent in God, and consequently *eternal* and *uncreated*. This dogma, which was doubtless due to the influence of the Christian doctrine of the eternal Word of God, has been accepted by almost all Mahommedans since the beginning of the 3rd century. Some theologians did indeed protest against it with great energy; it was in fact too preposterous to declare that a book composed of unstable words and letters, and full of variants, was absolutely divine. But what were the distinctions and sophisms of the theologians for, if they could not remove such contradictions, and convict their opponents of heresy?

Eternity of the Koran.

BIBLIOGRAPHY.—The following works may be especially consulted: Weil, *Einleitung in den Korān* (2nd ed., 1878); Th. Nöldeke, *Geschichte des Qorān's* (Göttingen, 1860; 2nd ed. by Friedrich Schwally, 1908); the Lives of Mahomet by William Muir and Aloys Sprenger (vols. i.–iii., Berlin, 1861–1865; 2nd ed., 1869); C. Snouck Hurgronje, *Het mekkaansche Feest* (Leiden, 1880), *De Islam* (de Gids, 1886, ii. 257–273, 454–498, iii. 90–134; "Une nouvelle biographie de Mohammed," *Revue de l'histoire des religions*, tome 29, p. 48 f., 149 sqq.; Leone Caetani, *Annali dell'Islam*, i. (Milan, 1905), ii. (Milan, 1907); Frants Buhl, *Muhammeds Liv* (Copenhagen, 1903).

(TH. N.; FR. SY.)

KORAT, the capital of the provincial division (*Monton*) of Nakawn Racha Sema, or "the frontier country," in Siam; in 102° 5′ E., 14° 59′ N. Pop. about 7000, mixed Cambodian and Siamese. It is the headquarters of a high commissioner and of an army division. It is the terminus of a railway from Bangkok, 170 m. distant, and the distributing centre for the whole of the plateau district which forms the eastern part of Siam. There are copper mines of reputed wealth in the neighbourhood. It is the centre of a silk-growing district and is the headquarters of the government sericultural department, instituted in 1904 with the assistance of Japanese experts for the purpose of improving the quality of Siamese silk. The government is that of an ordinary provincial division of Siam. A French vice-consul resides here. Since the founding of Ayuthia in the 14th century,

Korat has been tributary to, or part of, Siam, with occasional lapses into independence or temporary subjection to Cambodia. Before that period it was probably part of Cambodia, as appears from the nature of the ruins still to be seen in its neighbourhood. In 1896 the last vestige of its tributary condition vanished with the introduction of the present system of Siamese rural administration.

KORDOFAN, a country of north-east Africa, forming a *mudiria* (province) of the Anglo-Egyptian Sudan. It lies mainly between 12° and 16° W. and 29° and 32½° E., and has an area of about 130,000 sq. m., being bounded W. by Darfur, N. by the Bayuda steppes, E. by the White Nile mudiria and S. by the country of the Shilluks and other negro tribes, forming part of the Upper Nile mudiria.

The greater part of Kordofan consists of undulating plains, riverless, barren, monotonous, with an average altitude of 1500 ft. Thickets and small acacias dot the steppes, which, green during the *kharif* or rainy season, at other times present a dull brown burnt-up aspect. In the west, isolated peaks, such as Jebel Abu Senum and Jebel Kordofan, rise from 150 to 600 ft. above the plain. North-west are the mountain groups of Kaja and Katul (2000 to 3000 ft.), in the east are the Jebel Daier and Jebel Tagale (Togale), ragged granitic ranges with precipitous sides. In the south are flat, fertile and thickly wooded plains, which give place to jungle at the foot of the hills of Dar Nuba, the district forming the south-east part of Kordofan. Dar Nuba is well-watered, the scenery is diversified and pretty, affording a welcome contrast to that of the rest of the country. Some of the Nuba hills exceed 3000 ft. in height. The south-western part of the country, a vast and almost level plain, is known as Dar Homr. A granitic sand with abundance of mica and feldspar forms the upper stratum throughout the greater part of Kordofan; but an admixture of clay, which is observable in the north, becomes strongly marked in the south, where there are also stretches of black vegetable mould. Beneath there appears to be an unbroken surface of mica schist. Though there are no perennial rivers, there are watercourses (*khors* or *wadis*) in the rainy season; the chief being the Khor Abu Habl, which traverses the south-central region. In Dar Homr the Wadi el Ghalla and the Khor Shalango drain towards the Homr affluent of the Bahr el Ghazal. During the rainy season there is a considerable body of water in these channels, but owing partly to rapid evaporation and partly to the porous character of the soil the surface of the country dries rapidly. The water which has found its way through the granitic sand flows over the surface of the mica schist and settles in the hollows, and by sinking wells to the solid rock a supply of water can generally be obtained. It is estimated that (apart from those in a few areas where the sand stratum is thin and water is reached at the depth of a few feet) there are about 900 of these wells. They are narrow shafts going down usually 30 to 50 ft., but some are over 200 ft. deep. The water is raised by rope and bucket at the cost of enormous labour, and in few cases is any available for irrigation. The very cattle are trained to go a long time without drinking. Entire villages migrate after the harvest to the neighbourhood of some plentiful well. In a few localities the surface depressions hold water for the greater part of the year but there is only one permanent lake—Keilat, which is some four miles by two. As there is no highland area draining into Kordofan, the underground reservoirs are dependent on the local rainfall, and a large number of the wells are dry during many months. The rainy season lasts from mid-June to the end of September, rain usually falling every three or four days in brief but violent showers. In general the climate is healthy except in the rainy season, when large tracts are converted into swamps and fever is very prevalent. In the *shita* or cold weather (October to February inclusive) there is a cold wind from the north. The *seif* or hot weather lasts from March to mid-June; the temperature rarely exceeds 105° F.

The chief constituent of the low scrub which covers the northern part of the country is the grey gum acacia (*hashob*). In the south the red gum acacias (*talh*) are abundant. In Dar Hamid, in the N.W. of Kordofan, date, dom and other palms grow. The basbab or calabash tree, known in the eastern Sudan as the *tebeldi* and locally *Homr*, is fairly common and being naturally hollow the trees collect water, which the natives regularly tap. Another common source of water supply is a small kind of water melon which grows wild and is also cultivated. In the dense jungles of the south are immense creepers, some of them rubber-vines. The cotton plant is also found. The fauna includes the elephant, rhinoceros, buffalo, giraffe, lion, leopard, cheetah, roan-antelope, hartebeeste, kudu and many other kinds of antelope, wart-hog, hares, quail, partridge, jungle-fowl, bustard and guinea-fowl. Nearly all the kinds of game mentioned are found chiefly in the western and southern districts. The ril or addra gazelle found in N. and N.W. Kordofan are not known elsewhere in the eastern Sudan. Reptiles, sand-flies and mosquitoes are common. Ostriches are found in the northern steppes. The chief wealth of the people consists in the gum obtained from the grey acacias, in oxen, camels and ostrich feathers. The finest cattle are of the humped variety, the bulls of the Baggara being trained to the saddle and to carry burdens. There are large herds of camel, the camel-owning Arabs usually owning also large numbers of sheep and goats. Dukhn, a species of millet which can grow in the arid northern districts is there the chief grain crop, its place in the south being taken by durra. Dukhn is, however, the only crop cultivated in Dar Homr. From this grain a beer called *merissa* is brewed. Barley and cotton are cultivated in some districts. A little gold dust is obtained, but the old gold and other mines in the Tagale country have been, apparently, worked out. Iron is found in many districts and is smelted in a few places. In the absence of fuel the industry is necessarily a small one. There are large beds of hematite some 60 m. N.W. and the same distance N.E. of El Obeid.

Inhabitants.—The population of Kordofan was officially estimated in 1903 to be 550,000. The inhabitants are roughly divisible into two types—Arabs in the plains and Nubas in the hills. Many of the villagers of the plains are however of very mixed blood—Arab, Egyptian, Turkish, Levantine and Negro. It is said that some village communities are descended from the original negro inhabitants. They all speak Arabic. The most important village tribe is the Gowama, who own most of the gum-producing country. Other large tribes are the Dar Hamid and the Bederia—the last-named living round El Obeid. The nomad Arabs are of two classes, camel owners (*Siat El Ilbil*) and cattle owners (*Baggara*), the first-named dwelling in the dry northern regions, the Baggara in southern Kordofan. Of the camel-owning tribes the chief are the Hamar and the Kabbabish. Many of the Hamar have settled down in villages. The Baggara are great hunters, and formerly were noted slave raiders. They possess many horses, but when journeying place their baggage on their oxen. They use a stabbing spear, small throwing spears, and a broad-bladed short sword. Some of the richer men possess suits of chain armour. The principal Baggara tribes are the Hawazma, Meseria, Kenana, Habbania, and Homr. The Homr are said to have entered Kordofan from Wadai about the end of the 18th century and to have come from North Africa. They speak a purer Arabic than the riverain tribes. The Nubas are split into many tribes, each under a *mek* or king, who is not uncommonly of Arab descent. The Nubas have their own language, though the inhabitants of each hill have usually a different dialect. They are a primitive race, very black, of small build but distinctive negro features. They have feuds with one another and with the Baggara. During the *mahdia* they maintained their independence. The Nubas appear to have been the aboriginal inhabitants of the country and are believed to be the original stock of the Nubians of the Nile Valley (see NUBIA). In the northern hills are communities of black people with woolly hair but of non-negro features. They speak Arabic and are called Nuba Arabs. Some of the southern hills are occupied by Arab-speaking negroes, escaped slaves and their descendants, who called themselves after the tribe they formerly served and who have little intercourse with the Nubas.

The capital, El Obeid (*q.v.*), is centrally situated. On it converge various trade routes, notably from Darfur and from Dueim, a town on the White Nile 125 m. above Khartum, which served as port for the province. Thence was despatched the gum for the Omdurman market. But the railway from Khartum to El Obeid, via Sennar, built in 1909–1911, crosses the Nile some 60 m. farther south above Abba Island. Nahud

(pop. about 10,000), 165 m. W.S.W. of El Obeid, is a commercial centre which has sprung into importance since the fall of the dervishes. All the trade with Darfur passes through the town, the chief commerce being in cattle, feathers, ivory and cotton goods. Trade is largely in the hands of Greeks, Syrians, Danagla and Jaalin. Taiara, on the route between El Obeid and the Nile, was destroyed by the dervishes but has been rebuilt and is a thriving mart for the gum trade. El Odoaiya or Eddaiya is the headquarters of the Homr country. It and Baraka in the Muglad district are on the trade road between Nahud and Shakka in Darfur.

Bara is a small town some 50 m. N.N.E. of Obeid. Talodi and Tendek are government stations in the Nuba country. The Nubas have no large towns. They live in villages on the hillsides or summits. The usual habitation built both by Arabs and Nubas is the *tukl*, a conical-shaped hut made of stone, mud, wattle and daub or straw. The Nuba tukls are the better built. In the chief towns houses are built of mud bricks with flat roofs.

History.—Of the early history of Kordofan there is little record. It never formed an independent state. About the beginning of the 16th century Funj from Sennar settled in the country; towards the end of that century Kordofan was conquered by Suleiman Solon, sultan of Darfur. About 1775 it was conquered by the Funj, and there followed a considerable immigration of Arab tribes into the country. The Sennari however suffered a decisive defeat in 1784 and thereafter under Darfur viceroys the country enjoyed prosperity. In 1821 Kordofan was conquered by Mahommed Bey the defterdar, son-in-law of Mehemet Ali, pasha of Egypt. It remained under Egyptian rule till 1882 when Mahommed Ahmed, the mahdi, raised the country to revolt. It was in Kordofan that Hicks Pasha and his army, sent to crush the revolt, were annihilated (Nov. 1883). The Baggara of Kordofan from that time onward were the chief supporters of the mahdi, and his successor, the khalifa Abdullah, was a Baggara. In Kordofan in 1899 the khalifa met his death, the country having already passed into the hands of the new Sudan government. The chief difficulty experienced by the administration was to habituate the Arabs and Nubas, both naturally warlike, to a state of peace. In consequence of the anti-slave raiding measures adopted, the Arabs of Talodi in May 1906 treacherously massacred the mamur of that place and 40 men of the Sudanese regiment. The promptness with which this disturbance was suppressed averted what otherwise might have been a serious rising. (See SUDAN: *Anglo-Egyptian*, § "History.")

See *The Anglo-Egyptian Sudan*, edited by Count Gleichen (London, 1905); H. A. MacMichael, *Notes on the History of Kordofan before the Egyptian Conquest* (Cairo, 1907); John Petherick, *Egypt, the Sudan, and Central Africa* (London, 1861); Ignaz Pallme, *Beschreibung von Kordofan* (Stuttgart, 1843; trans. *Travels in Kordofan*, London, 1844); Major H. G. Prout, *General Report on Province of Kordofan* (Cairo, 1877); Ernst Marno, *Reise in der egypt. Equat. Provinz* (Vienna, 1879); papers (with maps) by Capt. W. Lloyd in the *Geog. Journ.* (June 1907 and March 1910); and the bibliography given under SUDAN: *Anglo-Egyptian.*

KOREA, or COREA (CH'AO HSIEN, DAI HAN). Its mainland portion consists of a peninsula stretching southwards from Manchuria, with an estimated length of about 600 m., an extreme breadth of 135 m., and a coast-line of 1740 m. It extends from 34° 18′ to 43° N., and from 124° 36′ to 130° 47′ E. Its northern boundary is marked by the Tumen and Yalu rivers; the eastern boundary by the Sea of Japan; the southern boundary by Korea Strait; and the western boundary by the Yalu and the Yellow Sea. For 11 m. along the Tumen river the north frontier is conterminous with Russia (Siberia); otherwise Korea has China (Manchuria) on its land frontier. Nearly the whole surface of the country is mountainous. (For map, see JAPAN.)

The south and west coasts are fringed by about 200 islands (exclusive of islets), two-thirds of which are inhabited; 100 of them are from 100 to 2000 ft. in height, and many consist of bold bare masses of volcanic rock. The most important are Quelpart and the Nan Hau group. The latter, 36 m. from the eastern end of Quelpart, possesses the deep, well-sheltered and roomy harbour of Port Hamilton, which lies between the north points of the large and well-cultivated islands of Sun-ho-dan and So-dan, which have a population of 2000. Aitan, between their south-east points, completes this noble harbour. The east coast of Korea is steep and rock-bound, with deep water and a tidal rise and fall of 1 to 2 ft. The west coast is often low and shelving, and abounds in mud-banks, and the tidal rise and fall is from 20 to 36 ft. Korean harbours, except two or three which are closed by drift ice for some weeks in winter, are ice-free. Among them are Port Shestakov, Port Lazarev, and Wön-san (Gensan), in Broughton Bay;[1] Fusan, Ma-san-po, at the mouth of the Nak-tong, on the south coast; Mok-po, Chin-nampo, near the mouth of the Tai-dong; and Chemulpo, near the mouth of the Han, the port of the capital and the sea terminus of the first Korean railway on the west coast.

Korea is distinctly mountainous, and has no plains deserving the name. In the north there are mountain groups with definite centres, the most notable being Paik-tu San or Pei-shan (8700 ft.) which contains the sources of the Yalu and Tumen. From these groups a lofty range runs southwards, dividing the empire into two unequal parts. On its east, between it and the coast, which it follows at a moderate distance, is a fertile strip difficult of access, and on the west it throws off so many lateral ranges and spurs as to break up the country into a chaos of corrugated and precipitous hills and steep-sided valleys, each with a rapid perennial stream. Farther south this axial range, which includes the Diamond Mountain group, falls away towards the sea in treeless spurs and small and often infertile levels. The northern groups and the Diamond Mountain are heavily timbered, but the hills are covered mainly with coarse, sour grass and oak and chestnut scrub. The rivers are shallow and rocky, and are usually only navigable for a few miles from the sea. Among the exceptions are the Yalu (Amnok), Tumen, Tai-dong, Naktong, Mok-po, and Han. The last, rising in Kang-wön-do, 30 m. from the east coast, cuts Korea nearly in half, reaching the sea on the west coast near Chemulpo; and, in spite of many serious rapids, is a valuable highway for commerce for over 150 miles.

Geology.—The geology of Korea is very imperfectly known. Crystalline schists occupy a large part of the country, forming all the higher mountain ranges. They are always strongly folded and it is in them that the mineral wealth of Korea is situated. Towards the Manchurian frontier they are covered unconformably by some 1600 ft. of sandstones, clay-slates and limestones, which contain Cambrian fossils and are the equivalents of a part of the Sinian system of China. Carboniferous beds, consisting chiefly of slates, sandstones and conglomerates, are found in the south-eastern provinces. They contain a few seams of coal, but the most important coal-bearing deposits of the country belong to the Tertiary period. Recent eruptive and volcanic rocks are met with in the interior of Korea and also in the island of Quelpart. The principal mountain in the latter, Hal-la-san (or Mount Auckland), according to Chinese stories, was in eruption in the year 1007. With this possible exception there are no active volcanoes in Korea, and the region has also been remarkably free from earthquakes throughout historic times.

Climate.—The climate is superb for nine months of the year, and the three months of rain, heat and damp are not injurious to health. Koreans suffer from malaria, but Europeans and their children are fairly free from climatic maladies, and enjoy robust health. The summer mean temperature of Seoul is about 75° F., that of winter about 33°; the average rainfall, 36·3 in. in the year, and of the rainy season 21·86 in. The rains come in July and August on the west and north-east coasts, and from April to July on the south coast, the approximate mean annual rainfall of these localities being 30, 35 and 42 in. respectively. These averages are based on the observations of seven years only.

Flora.—The plants and animals await study and classification. Among the indigenous trees are the *Abies excelsa*, *Abies microsperma*, *Pinus sinensis*, *Pinus pinea*, three species of oak, five of maple, lime, birch, juniper, mountain ash, walnut, Spanish chestnut, hazel, willow, hornbeam, hawthorn, plum, pear, peach, *Rhus vernicifera*, (?) *Rhus semipinnata*, *Acanthopanax ricinifolia*, *Zelkawa*, *Thuja orientalis*, *Elaeagnus*, *Sophora Japonica*, &c. Azaleas and rhododendrons are widely distributed, as well as other flowering shrubs and creepers, *Ampelopsis Veitchii* being universal. Liliaceous plants

[1] Named after William Robert Broughton (1762–1821), an English navigator who explored these seas in 1795–1798.

and cruciferae are numerous. The native fruits, except walnuts and chestnuts, are worthless. The persimmon attains perfection, and experiment has proved the suitability of the climate to many foreign fruits. The indigenous economic plants are few, and are of no commercial value, excepting wild *ginseng*, bamboo, which is applied to countless uses, and "tak-pul" (*Hibiscus Manihot*), used in the manufacture of paper.

Fauna.—The tiger takes the first place among wild animals. He is of great size, his skin is magnificent, and he is so widely distributed as to be a peril to man and beast. Tiger-hunting is a profession with special privileges. Leopards are numerous, and have even been shot within the walls of Seoul. There are deer (at least five species), boars, bears, antelopes, beavers, otters, badgers, tiger-cats, marten, an inferior sable, striped squirrels, &c. Among birds there are black eagles, peregrines (largely used in hawking), and, specially protected by law, turkey bustards, three varieties of pheasants, swans, geese, common and spectacled teal, mallards, mandarin ducks white and pink ibis, cranes, storks, egrets, herons, curlews, pigeons, doves, nightjars, common and blue magpies, rooks, crows, orioles, halcyon and blue kingfishers, jays, nut-hatches, redstarts, snipe, grey shrikes, hawks, kites, &c. But, pending further observations, it is not possible to say which of the smaller birds actually breed in Korea and which only make it a halting-place in their annual migrations.

Area and Population.—The estimated area is 82,000 sq. m.—somewhat under that of Great Britain. The first complete census was taken in 1897, and returned the population in round numbers at 17,000,000, females being in the majority. It was subsequently, however, estimated at a maximum of 12,000,000. There is a foreign population of about 65,000, of whom 60,000 are Japanese. It is estimated that little more than half the arable land is under cultivation, and that the soil could support an additional 7,000,000. The native population is absolutely homogeneous. Northern Korea, with its severe climate, is thinly peopled, while the rich and warm provinces of the south and west are populous. A large majority of the people are engaged in agriculture. There is little emigration, except into Russian and Chinese territory, but some Koreans have emigrated to Hawaii and Mexico.

The capital is the inland city of Seoul, with a population of nearly 200,000. Among other towns, Songdo (Kaisöng), the capital from about 910 to 1392, is a walled city of the first rank, 25 m. N.W. of Seoul, with a population of 60,000. It possesses the stately remains of the palace of the Korean kings of the Wang dynasty, is a great centre of the grain trade and the sole centre of the *ginseng* manufacture, makes wooden shoes, coarse pottery and fine matting, and manufactures with sesamum oil the stout oiled paper for which Korea is famous. Phyöng-yang, a city on the Tai-dong, had a population of 60,000 before the war of 1894, in which it was nearly destroyed; but it fast regained its population. It lies on rocky heights above a region of stoneless alluvium on the east, and with the largest and richest plain in Korea on the west. It has five coal-mines within ten miles, and the district is rich in iron, silk, cotton, and grain. It has easy communication with the sea (its port being Chin-nampo), and is important historically and commercially. Auriferous quartz is worked by a foreign company in its neighbourhood. Near the city is the illustrated standard of land measurement cut by Ki-tze in 1124 B.C.

With the exceptions of Kang-hwa, Chöng-ju, Tung-nai, Fusan, and Wön-san, it is very doubtful if any other Korean towns reach a population of 15,000. The provincial capitals and many other cities are walled. Most of the larger towns are in the warm and fertile southern provinces. One is very much like another, and nearly all their streets are replicas of the better alleys of Seoul. The actual antiquities of Korea are dolmens, sepulchral pottery, and Korean and Japanese fortifications.

Race.—The origin of the Korean people is unknown. They are of the Mongol family; their language belongs to the so-called Turanian group, is polysyllabic, possesses an alphabet of 11 vowels and 14 consonants, and a script named *En-mun*. Literature of the higher class and official and upper class correspondence are exclusively in Chinese characters, but since 1895 official documents have contained an admixture of *En-mun*. The Koreans are distinct from both Chinese and Japanese in physiognomy, though dark straight hair, dark oblique eyes, and a tinge of bronze in the skin are always present. The cheek-bones are high; the nose inclined to flatness; the mouth thin-lipped and refined among patricians, and wide and full-lipped among plebeians; the ears are small, and the brow fairly well developed. The expression indicates quick intelligence rather than force and mental calibre. The male height averages 5 ft. 4½ in. The hands and feet are small and well-formed. The physique is good, and porters carry on journeys from 100 to 200 lb. Men marry at from 18 to 20 years, girls at 16, and have large families, in which a strumous taint is nearly universal. Women are secluded and occupy a very inferior position. The Koreans are rigid monogamists, but concubinage has a recognized status.

Production and Industries. i. *Minerals.*—Extensive coal-fields, producing coal of fair quality, as yet undeveloped, occur in Hwang-hai Do and elsewhere. Iron is abundant, especially in Phyöng-an Do, and rich copper ore, silver and galena are found. Crystal is a noted product of Korea, and talc of good quality is also present. In 1885 the rudest process of "placer" washing produced an export of gold dust amounting to £120,000; quartz-mining methods were subsequently introduced, and the annual declared value of gold produced rose to about £450,000; but much is believed to have been sent out of the country clandestinely. The reefs were left untouched till 1897, when an American company, which had obtained a concession in Phyöng-an Do in 1895, introduced the latest mining appliances, and raised the declared export of 1898 to £240,047, believed to represent a yield for that year of £600,000. Russian, German, English, French and Japanese applicants subsequently obtained concessions. The *concessionnaires* regard Korean labour as docile and intelligent. The privilege of owning mines in Korea was extended to aliens under the Mining Regulations of 1906.

ii. *Agriculture.*—Korean soil consists largely of light sandy loam, disintegrated lava, and rich, stoneless alluvium, from 3 to 10 ft. deep. The rainfall is abundant during the necessitous months of the year, facilities for the irrigation of the rice crop are ample, and drought and floods are seldom known. Land is held from the proprietors on the terms of receiving seed from them and returning half the produce, the landlord paying the taxes. Any Korean can become a landowner by reclaiming and cultivating unoccupied crown land for three years free of taxation, after which he pays taxes annually. Good land produces two crops a year. The implements used are two makes of iron-shod wooden ploughs; a large shovel, worked by three or five men, one working the handle, the others jerking the blade by ropes attached to it; a short sharp-pointed hoe, a bamboo rake, and a wooden barrow, all of rude construction. Rice is threshed by beating the ears on a log; other grains, with flails on mud threshing-floors. Winnowing is performed by throwing up the grain on windy days. Rice is hulled and grain coarsely ground in stone querns or by water pestles. There are provincial horse-breeding stations, where pony stallions, from 10 to 12 hands high, are bred for carrying burdens. Magnificent red bulls are bred by the farmers for ploughing and other farming operations, and for the transport of goods. Sheep and goats are bred on the imperial farms, but only for sacrifice. Small, hairy, black pigs, and fowls, are universal. The cultivation does not compare in neatness and thoroughness with that of China and Japan. There are no trustworthy estimates of the yield of any given measurement of land. The farmers put the average yield of rice at thirty-fold, and of other grain at twenty-fold. Korea produces all cereals and root crops except the tropical, along with cotton, tobacco, a species of the Rhea plant used for making grass-cloth, and the *Brousonettia papyrifera*. The articles chiefly cultivated are rice, millet, beans, *ginseng* (at Songdo), cotton, hemp, oil-seeds, bearded wheat, oats, barley, sorghum, and sweet and Irish potatoes. Korean agriculture suffers from infamous roads, the want of the exchange of seed, and the insecurity of the gains of labour. It occupies about three-fourths of the population.

iii. *Other Industries.*—The industries of Korea, apart from supplying the actual necessaries of a poor population, are few and rarely collective. They consist chiefly in the manufacture

of sea-salt, of varied and admirable paper, thin and poor silk, horse-hair crinoline for hats, fine split bamboo blinds, hats and mats, coarse pottery, hemp cloth for mourners, brass bowls and grass-cloth. Won-san and Fusan are large fishing centres, and salt fish and fish manure are important exports; but the prolific fishing-grounds are worked chiefly by Japanese labour and capital. Paper and *ginseng* are the only manufactured articles on the list of Korean exports. The arts are nil.

Commerce.—A commercial treaty was concluded with Japan in 1876, and treaties with the European countries and the United States of America were concluded subsequently. An imperial edict of the 20th of May 1904 annulled all Korean treaties with Russia. After the opening of certain Korean ports to foreign trade, the customs were placed under the management of European commissioners nominated by Sir Robert Hart from Peking. The ports and other towns open are Seoul, Chemulpo, Fusan, Wön-san, Chin-nampo, Mok-po, Kun-san, Ma-san-po, Song-chin, Wiju, Yong-ampo, and Phyöng-yang. The value of foreign trade of the open ports has fluctuated considerably, but has shown a tendency to increase on the whole. For example, in 1884 imports were valued at £170,113 and exports at £95,377. By 1890 imports had risen to £790,261, and thereafter fluctuated greatly, standing at only £473,598 in 1893, but at £1,017,238 in 1897, and £1,382,352 in 1901, but under abnormal conditions in 1904 this last amount was nearly doubled. Exports in 1890 were valued at £591,746; they also fluctuated greatly, falling to £316, 072 in 1893, but standing at £863,828 in 1901, and having a further increase in some subsequent years. These figures exclude the value of gold dust. The principal imports are cotton goods, railway materials, mining supplies and metals, tobacco, kerosene, timber, and clothing. Japanese cotton yarns are imported to be woven into a strong cloth on Korean hand-looms. Beans and peas, rice, cowhides, and *ginseng* are the chief exports, apart from gold.

Communications.—Under Japanese auspices a railway from Chemulpo to Seoul was completed in 1900. This became a branch of the longer line from Fusan to Seoul (286 m.), the concession for which was granted in 1898. This line was pushed forward rapidly on the outbreak of the Russo-Japanese War, and the whole was opened early in 1905. A railway from Seoul to Wiju was planned under French engineers, but the work was started by the Korean government. This line also, however, was taken over by the Japanese military authorities, and the first trains ran through early in 1905, in which year Japan obtained control of the whole of the Korean internal communications. The main roads centring in Seoul are seldom fit even for the passage of ox-carts, and the secondary roads are bad bridle-tracks, frequently degenerating into "rock ladders." Some improvements, however, have been effected under Japanese direction. The inland transit of goods is almost entirely on the backs of bulls carrying from 450 to 600 lb, on ponies carrying 200 lb, and on men carrying from 100 to 150 lb, bringing the average cost up to a fraction over 8d. per mile per ton. The *corvée* exists, with its usual hardships. Bridges are made of posts, carrying a framework either covered with timber or with pine branches and earth. They are removed at the beginning of the rainy season, and are not replaced for three months. The larger rivers are unbridged, but there are numerous government ferries. The infamous roads and the risks during the bridgeless season greatly hamper trade. Japanese steamers ply on the Han between Chemulpo and Seoul.

A postal system, established in 1894–1895, has been gradually extended. There are postage stamps of four values. The Japanese, under the agreement of 1905, took over the postal, telegraphic and telephone services. Korea is connected with the Chinese and Japanese telegraph systems by a Japanese line from Chemulpo via Seoul to Fusan, and by a line acquired by the empire between Seoul and Wiju. The state has also lines from Seoul to the open ports, &c. Korea has regular steam communication with ports in Japan, the Gulf of Pechili, Shanghai, &c. Her own mercantile marine is considerable.

Government.—From 1895, when China renounced her claims to suzerainty, to 1910 the king (since 1897 emperor) was in theory an independent sovereign, Japan in 1904 guaranteeing the welfare and dignity of the imperial house. Under a treaty signed at Seoul on the 17th of November 1905, Japan directed the external relations of Korea, and Japanese diplomatic and consular representatives took charge of Korean subjects and interests in foreign countries. Japan undertook the maintenance of existing treaties between Korea and foreign powers; and Korea agreed that her future foreign treaties should be concluded through the medium of Japan. A resident-general represented Japan at Seoul, to direct diplomatic affairs, the first being the Marquis Ito. Under a further convention of July 1907, the resident-general's powers were enormously increased. In administrative reforms the Korean government followed his guidance; laws could not be enacted nor administrative measures undertaken without his consent; the appointment and dismissal of high officials, and the engagement of foreigners in government employ, were subject to his pleasure. Each department of state has a Japanese vice-minister, and a large proportion of Japanese officials were introduced into these departments as well as Japanese chiefs of the bureaus of police and customs. By a treaty dated August 22nd 1910, which came into effect seven days later the emperor of Korea made "complete and permanent cession to the emperor of Japan of all rights of sovereignty over the whole of Korea." The entire direction of the administration was then taken over by the Japanese resident-general, who was given the title of governor-general. The jurisdiction of the consular courts was abolished but Japan guaranteed the continuance of the existing Korean tariff for ten years.

Local Administration.—Korea for administrative purposes is divided into provinces and prefectures or magistracies. Japanese reforms in this department have been complete. Each provincial government has a Japanese secretary, police inspector and clerks. The secretary may represent the governor in his absence.

Law.—A criminal code, scarcely equalled for barbarity, though twice mitigated by royal edict since 1785, remained in force in its main provisions till 1895. Subsequently, a mixed commission of revision carried out some good work. Elaborate legal machinery was devised, though its provisions were constantly violated by the imperial will and the gross corruption of officials. Five classes of law courts were established, and provision was made for appeals in both civil and criminal cases. Abuses in legal administration and in tax-collecting were the chief grievances which led to local insurrections. Oppression by the throne and the official and noble classes prevailed extensively; but the weak protected themselves by the use of the *Kyei*, or principle of association, which developed among Koreans into powerful trading gilds, trades-unions, mutual benefit associations, money-lending gilds, &c. Nearly all traders, porters and artisans were members of gilds, powerfully bound together and strong by combined action and mutual helpfulness in time of need. Under the Japanese régime the judiciary and the executive were rigidly separated. The law courts, including the court of cassation, three courts of appeal, eight local courts, and 115 district courts, were put under Japanese judges, and the codification of the laws was undertaken. The prison system was also reformed.

Finance and Money.—Until 1904 the finances of Korea were completely disorganized; the currency was chaotic, and the budget was an official formality making little or no attempt at accuracy. By agreement of the 22nd of August 1904, Korea accepted a Japanese financial adviser, and valuable reforms were quickly entered upon under the direction of the first Japanese official, Mr T. Megata. He had to contend against corrupt officialdom, indiscriminate expenditure, and absence of organization in the collection of revenue, apart from the confusion with regard to the currency. This last was nominally on a silver standard. The coins chiefly in use were (i) copper *cash*, which were strung in hundreds on strings of straw, and, as about 9lb weight was equal to one shilling, were excessively cumbrous, but were nevertheless valued at their face value; (ii) nickel coins, which, being profitable to mint, were issued in enormous quantities, quickly depreciated, and were moreover extensively forged. The Dai Ichi Ginko (First Bank of Japan), which has a branch in Seoul and agencies in other towns, was made the government central treasury, and its notes were recognized as legal tender in Korea. The currency of Korea being thus fixed, the first step was to reorganize the nickel coinage. From the 1st of August 1905 the old nickels paid into the treasury were remitted and the issue carefully regulated; so also with the cash, which was retained as a subsidiary coinage, while a supplementary coinage was issued of silver 10-sen pieces and bronze 1-sen and half-sen pieces. To aid the free circulation of money and facilitate trade, the government grants subsidies for the establishment of co-operative warehouse companies with bonded warehouses. Regulations have also been promulgated with respect to promissory notes, which have long existed in Korea. They took the form of a piece of paper about an inch broad and five to eight inches long, on which was written the sum, the date of payment and the name of the payer and payee, with their seals; the paper was then torn down its length, and one half given to each party. The debtor was obliged to pay the amount of the debt to any person who presented the missing half of the bill. The readiness with which they were accepted led to over-issue, and,

consequently, financial crises. The new regulations require the amount of the notes to be expressed in yen, not to be payable in old nickel coins or cash. The notes can only be issued by members of a note association, a body constituted under government regulations, whose members must uphold the credit and validity of their notes. The notes must also be made payable to a definite person and require endorsement, safeguards which were previously lacking. Administrative reform was also taken in hand; the large number of superfluous and badly paid officials was considerably reduced, and the status and salary of all existing government officials considerably improved. An endeavour was made to publish an annual budget, in which the revenue and expenditure should accurately represent the sums actually received and expended. Regulations were framed for the purpose of establishing adequate supervision over the revenue and expenditure for the abolition of irregular taxation and extortions, as well as the practice of farming out the collection of the revenue to individuals, and, generally, to adapt the whole collection and expenditure of the national revenue to modern ideas of public finance. Down to 1910 the sum expended by Japan on Korean reforms was estimated to approach fifteen millions sterling. Among reforms not specifically referred to may be mentioned the improvement of coastwise navigation, the provision of posts, roads, railways, public buildings, hospitals and sanitary works, and the official advancement of industries.

Religion.—Buddhism, which swayed Korea from the 10th to the 14th century, has been discredited for three centuries, and its priests are ignorant, immoral and despised. Confucianism is the official cult, and all officials offer sacrifices and homage at stated seasons in the Confucian temples. Confucian ethics are the basis of morality and social order. Ancestor-worship is universal. The popular cult is, however, the propitiation of demons, a modification of the Shamanism of northern Asia. The belief in demons, mostly malignant, keeps the Koreans in constant terror, and much of their substance is spent on propitiations. Sorceresses and blind sorcerers are the intermediaries. At the close of the 19th century the fees annually paid to these persons were estimated at £150,000; there were in Seoul 1000 sorceresses, and very large sums are paid to the male sorcerers and geomancers.

Putting aside the temporary Christian work of a Jesuit chaplain to the Japanese Christian General Konishe, in 1594 during the Japanese invasion, as well as that on a larger scale by students who received the evangel in the Roman form from Peking in 1792, and had made 4000 converts by the end of 1793, the first serious attempt at the conversion of Korea was made by the French *Société des Missions Étrangères* in 1835. In spite of frequent persecutions, there were 16,500 converts in 1857 and 20,000 in 1866, in which year the French bishops and priests were martyred by order of the emperor's father, and several thousand native Christians were beheaded, banished or imprisoned. This mission in 1900 had about 30 missionaries and 40,000 converts. In 1884 and 1885, toleration being established, Protestant missionaries of the American Presbyterian and Methodist Episcopal Churches entered Korea, and were followed by a large number of agents of other denominations. An English bishop, clergy, doctors and nursing sisters arrived in 1890. Hospitals, orphanages, schools and an admirable college in Seoul have been founded, along with tri-lingual (Chinese, Korean and English) printing-presses; religious, historical and scientific works and much of the Bible have been translated into *En-mun*, and periodicals of an enlightened nature in the Korean script are also circulated. The progress of Protestant missions was very slow for some years, but from 1895 converts multiplied.

Education.—The "Royal Examinations" in Chinese literature held in Seoul up to 1894, which were the entrance to official position, being abolished, the desire for a purely Chinese education diminished. In Seoul there were established an imperial English school with two foreign teachers, a reorganized Confucian college, a normal college under a very efficient foreign principal, Japanese, Chinese, Russian and French schools, chiefly linguistic, several Korean primary schools, mission boarding-schools, and the *Pai Chai* College connected with the American Methodist Episcopal Church, under imperial patronage, and subsidized by government, in which a liberal education of a high class was given and *En-mun* receives much attention. The Koreans are expert linguists, and the government made liberal grants to the linguistic schools. In the primary schools boys learn arithmetic, and geography and Korean history are taught, with the outlines of the governmental systems of other civilized countries. The education department has been entirely reorganized under the Japanese régime, Japanese models being followed.

History.—By both Korean and Chinese tradition Ki-tze—a councillor of the last sovereign of the 3rd Chinese dynasty, a sage, and the reputed author of parts of the famous Chinese classic, the *Shu-King*—is represented as entering Korea in 1122 B.C. with several thousand Chinese emigrants, who made him their king. The peninsula was then peopled by savages living in caves and subterranean holes. By both learned and popular belief in Korea Ki-tze is recognized as the founder of Korean social order, and is greatly reverenced. He called the new kingdom *Ch'ao-Hsien*, pacified and policed its borders, and introduced laws and Chinese etiquette and polity. Korean ancient history is far from satisfying the rigid demands of modern criticism, but it appears that Ki-tze's dynasty ruled the peninsula until the 4th century B.C., from which period until the 10th century A.D. civil wars and foreign aggressions are prominent. Nevertheless, Hiaksai, which with Korai and Shinra then constituted Korea, was a centre of literary culture in the 4th century, through which the Chinese classics and the art of writing reached the other two kingdoms. Buddism, a forceful civilizing element, reached Hiaksai in A.D. 384, and from it the sutras and images of northern Buddhism were carried to Japan, as well as Chinese letters and ethics. Internecine wars were terminated about 913 by Wang the Founder, who unified the peninsula under the name Korai, made Song-do its capital, and endowed Buddhism as the state religion. In the 11th century Korea was stripped of her territory west of the Yalu by a warlike horde of Tungus stock, since which time her frontiers have been stationaty. The Wang dynasty perished in 1392, an important epoch in the peninsula, when Ni Taijo, or Litan, the founder of the present dynasty, ascended the throne, after his country had suffered severely from Jenghiz and Khublai Khan. He tendered his homage to the first Ming emperor of China, received from him his investiture as sovereign, and accepted from him the Chinese calendar and chronology, in itself a declaration of fealty. He revived the name *Ch'ao-Hsien*, changed the capital from Song-do to Seoul, organized an administrative system, which with some modifications continued till 1895, and exists partially still, carried out vigorous reforms, disestablished Buddhism, made merit in Chinese literary examinations the basis of appointment to office, made Confucianism the state religion, abolished human sacrifices and the burying of old men alive, and introduced that Confucian system of education, polity, and social order which has dominated Korea for five centuries. Either this king or an immediate successor introduced the present national costume, the dress worn by the Chinese before the Manchu conquest. The early heirs of this vigorous and capable monarch used their power, like him, for the good of the people; but later decay set in, and Japanese buccaneers ravaged the coasts, though for two centuries under Chinese protection Korea was free from actual foreign invasion. In 1592 occurred the epoch-making invasion of Korea by a Japanese army of 300,000 men, by order of the great regent Hideyoshi. China came to the rescue with 60,000 men, and six years of a gigantic and bloody war followed, in which Japan used firearms for the first time against a foreign foe. Seoul and several of the oldest cities were captured, and in some instances destroyed, the country was desolated, and the art treasures and the artists were carried to Japan. The Japanese troops were recalled in 1598 at Hideyoshi's death. The port and fishing privileges of Fusan remained in Japanese possession, a heavy tribute was exacted, and until 1790 the Korean king stood in humiliating relations towards Japan. Korea never recovered from the effects of this invasion, which bequeathed to all Koreans an intense hatred of the Japanese.

In 1866, 1867, and 1871 French and American punitive expeditions attacked parts of Korea in which French missionaries and American adventurers had been put to death, and inflicted much loss of life, but retired without securing any diplomatic successes, and Korea continued to preserve her complete isolation. The first indirect step towards breaking it down had been taken in 1860, when Russia obtained from China the cession of the Usuri province, thus bringing a European power down to the Tumen. A large emigration of famine-stricken Koreans and persecuted Christians into Russian territory followed. The emigrants were very kindly received, and many of them became thrifty and prosperous farmers. In 1876 Japan, with the consent of China, wrung a treaty from Korea by which Fusan was fully opened to Japanese settlement and trade, and Won-san (Gensan) and Inchiun (Chemulpo) were opened to her in 1880. In 1882 China promulgated her "Trade and Frontier Regulations," and America negotiated a commercial treaty, followed by Germany and Great Britain in 1883, Italy and Russia in 1884,

France in 1886, and Austria in 1892. A "Trade Convention" was also concluded with Russia. Seoul was opened in 1884 to foreign residence, and the provinces to foreign travel, and the diplomatic agents of the contracting powers obtained a recognized status at the capital. These treaties terminated the absolute isolation which Korea had effectually preserved. During the negotiations, although under Chinese suzerainty, she was treated with as an independent state. Between 1897 and 1899, under diplomatic pressure, a number of ports were opened to foreign trade and residence. From 1882 to 1894 the chief event in the newly opened kingdom was a plot by the Tai-won-Kun, the father of the emperor, to seize on power, which led to an attack on the Japanese legation, the members of which were compelled to fight their way, and that not bloodlessly, to the sea. Japan secured ample compensation; and the Chinese resident, aided by Chinese troops, deported the Tai-won-Kun to Tientsin. In 1884 at an official banquet the leaders of the progressive party assassinated six leading Korean statesmen, and the intrigues in Korea of the banished or escaped conspirators created difficulties which were very slow to subside. In spite of a constant struggle for ascendancy between the queen and the returned Tai-won-Kun, the next decade was one of quiet. China, always esteemed in Korea, consolidated her influence under the new conditions through a powerful resident; prosperity advanced, and certain reforms were projected by foreign "advisers." In May 1894 a more important insurrectionary rising than usual led the king to ask armed aid from China. She landed 2000 troops on the 10th of June, having previously, in accordance with treaty provisions, notified Japan of her intention. Soon after this Japan had 12,000 troops in Korea, and occupied the capital and the treaty ports. Then Japan made three sensible proposals for Korean reform, to be undertaken jointly by herself and China. China replied that Korea must be left to reform herself, and that the withdrawal of the Japanese troops must precede negotiations. Japan rejected this suggestion, and on the 23rd of July attacked and occupied the royal palace. After some further negotiations and fights by land and sea between Japan and China war was declared formally by Japan, and Korea was for some time the battle-ground of the belligerents. The Japanese victories resulted for Korea in the solemn renunciation of Chinese suzerainty by the Korean king, the substitution of Japanese for Chinese influence, the introduction of many important reforms under Japanese advisers, and of checks on the absolutism of the throne. Everything promised well. The finances flourished under the capable control of Mr (afterwards Sir) M'Leavy Brown, C.M.G. Large and judicious retrenchments were carried out in most of the government departments. A measure of judicial and prison reform was granted. Taxation was placed on an equable basis. The pressure of the trade gilds was relaxed. Postal and educational systems were introduced. An approach to a constitution was made. The distinction between patrician and plebeian, domestic slavery, and beating and slicing to death were abolished. The age for marriage of both sexes was raised. Chinese literary examinations ceased to be a passport to office. Classes previously degraded were enfranchised, and the alliance between two essentially corrupt systems of government was severed. For about eighteen months all the departments were practically under Japanese control. On the 8th of October 1895 the Tai-won-Kun, with Korean troops, aided by Japanese troops under the orders of Viscount Miura, the Japanese minister, captured the palace, assassinated the queen, and made a prisoner of the king, who, however, four months later, escaped to the Russian legation, where he remained till the spring of 1897. Japanese influence waned. The engagements of the advisers were not renewed. A strong retrograde movement set in. Reforms were dropped. The king, with the checks upon his absolutism removed, reverted to the worst traditions of his dynasty, and the control and arrangements of finance were upset by Russia.

At the close of 1897 the king assumed the title of emperor, and changed the official designation of the empire to *Dai Han*—Great Han. By 1898 the imperial will, working under partially new conditions, produced continual chaos, and by 1900 succeeded in practically overriding all constitutional restraints. Meanwhile Russian intrigue was constantly active. At last Japan resorted to arms, and her success against Russia in the war of 1904–5 enabled her to resume her influence over Korea. On the 23rd of February 1904 an agreement was determined whereby Japan resumed her position as administrative adviser to Korea, guaranteed the integrity of the country, and bound herself to maintain the imperial house in its position. Her interests were recognized by Russia in the treaty of peace (September 5, 1905), and by Great Britain in the Anglo-Japanese agreement of the 12th of August 1905. The Koreans did not accept the restoration of Japanese influence without demur. In August 1905 disturbances arose owing to an attempt by some merchants to obtain special assistance from the treasury on the pretext of embarrassment caused by Japanese financial reforms; these disturbances spread to some of the provinces, and the Japanese were compelled to make a show of force. Prolonged negotiations were necessary to the completion of the treaty of the 17th of November 1905, whereby Japan obtained the control of Korea's foreign affairs and relations, and the confirmation of previous agreements, the far-reaching results of which have been indicated. Nor was opposition to Japanese reforms confined to popular demonstration. In 1907 a Korean delegacy, headed by Prince Yong, a member of the imperial family, was sent out to lay before the Hague conference of that year, and before all the principal governments, a protest against the treatment of Korea by Japan. While this was of course fruitless from the Korean point of view, it indicated that the Japanese must take strong measures to suppress the intrigues of the Korean court.

At the instigation of the Korean ministry the emperor abdicated on the 19th of July 1907, handing over the crown to his son. Somewhat serious *émeutes* followed in Seoul and elsewhere, and the Japanese proposals for a new convention, increasing the powers of the resident general, had to be presented to the cabinet under a strong guard. The convention was signed on the 25th of July. One of the reforms immediately undertaken was the disbanding of the Korean standing army, which led to an insurrection and an intermittent guerrilla warfare which, owing to the nature of the country, was not easy to subdue. Under the direction of Prince Ito (*q.v.*) the work of reform was vigorously prosecuted. In July 1909, General Teranchi, Japanese minister of war, became resident-general, with the mission to bring about annexation. This was effected peacefully in August 1910, the emperor of Korea by formal treaty surrendering his country and crown. (See JAPAN.)

AUTHORITIES.—The first Asiatic notice of Korea is by Khordadbeh, an Arab geographer of the 9th century A.D., in his *Book of Roads and Provinces*, quoted by Baron Richthofen in his great work on *China*, p. 575. The earliest European source of information is a narrative by H. Hamel, a Dutchman, who was shipwrecked on the coast of Quelpart in 1654, and held in captivity in Korea for thirteen years. The amount of papers on Korea scattered through English, German, French and Russian magazines, and the proceedings of geographical societies, is very great, and for the last three centuries Japanese writers have contributed largely to the sum of general knowledge of the peninsula. The list which follows includes some of the more recent works which illustrate the history, manners and customs, and awakening of Korea: *British Foreign Office Reports on Korean Trade, Annual Series* (London); *Bibliographie coréanne* (3 vols., Paris, 1897); Mrs. I. L. Bishop, *Korea and her Neighbours* (2 vols., London, 1897); M. von Brandt, *Ostasiatische Fragen* (Leipzig, 1897); A. E. J. Cavendish and H. E. Goold Adams, *Korea, and the Sacred White Mountain* (London, 1894); Stewart Culin, *Korean Games* (Philadelphia, 1895); Curzon, *Problems of the Far East* (London, 1896); Dallet, *Histoire de l'église de Corée* (2 vols., Paris, 1874); J. S. Gale, *Korean Sketches* (Edinburgh, 1898); W. E. Griffis, *The Hermit Nation* (8th and revised edition, New York, 1907); H. Hamel, *Relation du naufrage d'un vaisseau Halindois, &c., traduite du Flamond par M. Minutoli* (Paris, 1670); Okoji Hidemoto, *Der Feldzug der Japanir gegen Korea im Jahre 1597: translated from Japanese by Professor von Pfizmaier* (2 vols., Vienna, 1875); M. Jametel, "La Corée: ses ressources, son avenir commercial," *L'Économiste française* (Paris, July 1881); Percival Lowell, *Chosön: The Land of the Morning Calm* (London, Boston, 1886); L. J. Miln,

Quaint Korea (Harper, New York, 1895); V. de Laguerie, *La Korée indépendante, russe ou japonaise?* (Paris, 1898); J. Ross, *Korea: Its History, Manners and Customs* (Paisley, 1880); W. H. Wilkinson, *The Korean Government: Constitutional Changes in Korea during the period 23rd July 1894—30th June 1896* (Shanghai, 1896); A. Hamilton, *Korea* (London, 1903); C. J. D. Taylor, *Koreans at Home* (London, 1904); E. Boudaret, *En Corée* (Paris, 1904); Laurent-Crémazy, *Le Code pénal de la Corée* (Paris, 1904); G. T. Ladd, *In Korea with Marquis Itō* (London, 1908): Dictionaries and vocabularies by W. F. Myers (English secretary of Legation at Peking), the French missionaries, and others, were superseded in 1898 by a large and learned volume by the Rev J. S. Gale, a Presbyterian missionary, who devoted some years to the work. On geology, see C. Gottsche, "Geologische Skizze von Korea," *Sitz. preuss. Akad. Wiss.* (Berlin, Jahrg. 1886, pp. 857–873, Pl. viii.). A summary of this paper, with a reproduction of the map, is given by L. Pervinquière in *Rev. sci.* Paris, 5th series, vol. i. (1904), pp. 545–552. (I. L. B.; O. J. R. H.)

KOREA, a tributary state of India, transferred from Bengal to the Central Provinces in 1905; area, 1631 sq. m.; pop. (1901), 35,113, or only 22 persons per sq. m.; estimated revenue, £1200. It consists of an elevated table-land, with hills rising to above 3000 ft. Such traffic as there is is carried by means of pack-bullocks.

KORESHAN ECCLESIA, THE, or CHURCH ARCHTRIUMPHANT, a communistic body, founded by Cyrus R. Teed, a medical practitioner, who was born at Utica, New York, in 1839. Teed was regarded by his adherents as "the new Messiah now in the World," and many other extravagant views both in science and economics are held by them. Two communities were founded: in Chicago (1886) and at Estero, in Lee county, Florida (1894), where in 1903 the Chicago community removed. Their name is derived from Koresh, the Hebrew form of Cyrus, and they have a journal, *The Flaming Sword.*

KŌRIN, OGATA (*c.* 1657–1716), Japanese painter and lacquerer, was born at Kōtō, the son of a wealthy merchant who had a taste for the arts and is said to have given his son some elementary instruction therein. Kōrin also studied under Soken Yamamoto, Kanō, Tsunenobu and Gukei Sumiyoshi; and he was greatly influenced by his predecessors Kōyetsu and Sōtatsu. On arriving at maturity, however, he broke away from all tradition, and developed a very original and quite distinctive style of his own, both in painting and in the decoration of lacquer. The characteristic of this is a bold impressionism, which is expressed in few and simple highly idealized forms, with an absolute disregard either of realism or of the usual conventions. In lacquer Kōrin's use of white metals and of mother-of-pearl is notable; but herein he followed Kōyetsu. Kōrin died on the 2nd of June 1716, at the age of fifty-nine. His chief pupils were Kagei Tatebashi and Shikō Watanable; but the present knowledge and appreciation of his work are largely due to the efforts of Hōitsu Sakai, who brought about a revival of Kōrin's style.

See A. Morrison, *The Painters of Japan* (1902); S. Tajima, *Masterpieces selected from the Kōrin School* (1903); S. Hōitsu, *The 100 Designs by Kōrin* (1815) and *More Designs by Kōrin* (1826). (E. F. S.)

KORKUS, an aboriginal tribe of India, dwelling on the Satpura hills in the Central Provinces. They are of interest as being the westernmost representatives of the Munda family of speech. They are rapidly becoming hinduized, as may be gathered from the figures of the census of 1901, which show 140,000 Korkus by race, but only 88,000 speakers of the Korku language.

KÖRMÖCZBÁNYA (German, *Kremnitz*), an old mining town, in the county of Bars, in Hungary, 158 m. N. of Budapest by rail. Pop. (1900), 4299. It is situated in a deep valley in the Hungarian Ore Mountains region. Among its principal buildings are the castle, several Roman Catholic (from the 13th and 14th centuries) and Lutheran churches, a Franciscan monastery (founded 1634), the town-hall, and the mint where the celebrated Kremnitz gold ducats were formerly struck. The bulk of the inhabitants find employment in connexion with the gold and silver mines. By means of a tunnel 9 m. in length, constructed in 1851–1852, the water is drained off from the mines into the river Gran. According to tradition, Körmöczbánya was founded in the 8th century by Saxons. The place is mentioned in documents in 1317, and became a royal free town in 1328, being therefore one of the oldest free towns in Hungary.

KÖRNER, KARL THEODOR (1791–1813), German poet and patriot, often called the German "Tyrtaeus," was born at Dresden on the 23rd of September 1791. His father, Christian Gottfried Körner (1756–1831), a distinguished Saxon jurist, was Schiller's most intimate friend. He was educated at the Kreuzschule in Dresden and entered at the age of seventeen the mining academy at Freiburg in Saxony, where he remained two years. Here he occupied himself less with science than with verse, a collection of which appeared under the title *Knospen* in 1810. In this year he went to the university of Leipzig, in order to study law; but he became involved in a serious conflict with the police and was obliged to continue his studies in Berlin. In August 1811 Körner went to Vienna, where he devoted himself entirely to literary pursuits; he became engaged to the actress Antonie Adamberger, and, after the success of several plays produced in 1812, he was appointed poet to the Hofburgtheater. When the German nation rose against the French yoke, in 1813, Körner gave up all his prospects at Vienna and joined Lützow's famous corps of volunteers at Breslau. On his march to Leipzig he passed through Dresden, where he issued his spirited *Aufruf an die Sachsen*, in which he called upon his countrymen to rise against their oppressors. He became lieutenant towards the end of April, and took part in a skirmish at Kitzen near Leipzig on the 7th of June, when he was severely wounded. After being nursed by friends at Leipzig and Carlsbad, he rejoined his corps and fell in an engagement outside a wood near Gadebusch in Mecklenburg on the 26th of August 1813. He was buried by his comrades under an oak close to the village of Wöbbelin, where there is a monument to him.

The abiding interest in Körner is patriotic and political rather than literary. His fame as a poet rests upon his patriotic lyrics, which were published by his father under the title *Leier und Schwert* in 1814. These songs, which fired the poet's comrades to deeds of heroism in 1813, bear eloquent testimony to the intensity of the national feeling against Napoleon, but judged as literature they contain more bombast than poetry. Among the best known are "Lützow's wilde verwegene Jagd," "Gebet während der Schlacht" (set to music by Weber) and "Das Schwertlied." This last was written immediately before his death, and the last stanza added on the fatal morning. As a dramatist Körner was remarkably prolific, but his comedies hardly touch the level of Kotzebue's and his tragedies, of which the best is *Zriny* (1814), are rhetorical imitations of Schiller's.

His works have passed through many editions. Among the more recent are: *Sämtliche Werke* (Stuttgart, 1890), edited by Adolf Stern; by H. Zimmer (2 vols., Leipzig, 1893) and by E. Goetze (Berlin, 1900). The most valuable contributions to our knowledge of the poet have been furnished by E. Peschel, the founder and director of the Körner Museum in Dresden, in *Theodor Körners Tagebuch und Kriegslieder, aus dem Jahre 1813* (Freiburg, 1893) and, in conjunction with E. Wildenow, *Theodor Körner und die Seinen* (Leipzig, 1898).

KORNEUBURG, a town of Austria, in Lower Austria, 9 m. N.W. of Vienna by rail. Pop. (1900), 8298. It is situated on the left bank of the Danube, opposite Klosterneuburg. It is a steamship station and an important emporium of the salt and corn trade. The industry comprises the manufacture of coarse textiles, pasteboard, &c. Its charter as a town dates from 1298, and it was a much frequented market in the preceding century. At the beginning of the 15th century it was surrounded by walls, and in 1450 a fortress was erected. It was frequently involved in the conflict between the Hungarian king Matthias Corvinus and the emperor Frederick William III., and also during the Thirty Years' War.

KOROCHA, a town of central Russia, in the government of Kursk, 75 m. S.S.E. of the city of Kursk, on the Korocha river. Pop. (1897), 14,405. Its inhabitants live by gardening, exporting large quantities of dried cherries, by making candles and leather, and by trade; the merchants purchase cattle, grain and salt in the south and send them to Moscow. Founded in 1638, Korocha was formerly a small fort intended to check the Tatar invasions.

KORSÖR, a seaport of Denmark, in the *amt* (county) of the island of Zealand, 69 m. by rail W.S.W. of Copenhagen, on the east shore of the Great Belt. Pop. (1901), 6054. The harbour, which is formed by a bay of the Baltic, has a depth throughout of 20 ft. It is the point of departure and arrival of the steam ferry to Nyborg on Fünen, lying on the Hamburg, Schleswig, Fredericia and Copenhagen route. There is also regular communication by water with Kiel. The chief exports are fish, cereals, bacon; imports, petroleum and coal. A market town since the 14th century, Korsör has ruins of an old fortified castle, on the south side of the channel, dating from the 14th and 17th centuries.

KORTCHA (Slavonic, *Goritza* or *Koritza*), a city of Albania, European Turkey, in the vilayet of Iannina, in a wide plain watered by the Devol and Dunavitza rivers, and surrounded by mountains on every side except the north, where Lake Malik constitutes the boundary. Pop. (1905), about 10,000, including Greeks, Albanians and Slavs. Kortcha is the see of an Orthodox Greek metropolitan, whose large cathedral is richly decorated in the interior with paintings and statues. The Kortcha school for girls, conducted by American missionaries, is the only educational establishment in which the Turkish government permits the use of Albanian as the language of instruction. The local trade is chiefly agricultural.

KORYAKS, a Mongoloid people of north-eastern Siberia, inhabiting the coast-lands of the Bering Sea to the south of the Anadyr basin and the country to the immediate north of the Kamchatka Peninsula, the southernmost limit of their range being Tigilsk. They are akin to the Chukchis, whom they closely resemble in physique and in manner of life. Thus they are divided into the settled fishing tribes and the nomad reindeer breeders and hunters. The former are described as being more morally and physically degraded even than the Chukchis, and hopelessly poor. The Koryaks of the interior, on the other hand, still own enormous reindeer herds, to which they are so attached that they refuse to part with an animal to a stranger at any price. They are in disposition brave, intelligent and self-reliant, and recognize no master. They have ever tenaciously resisted Russian aggression, and in their fights with the Cossacks have proved themselves recklessly brave. When outnumbered they would kill their women and children, set fire to their homes, and die fighting. Families usually gather in groups of sixes or sevens, forming miniature states, in which the nominal chief has no predominating authority, but all are equal. The Koryaks are polygamous, earning their wives by working for their fathers-in-law. The women and children are treated well, and Koryak courtesy and hospitality are proverbial. The chief wedding ceremony is a forcible abduction of the bride. They kill the aged and infirm, in the belief that thus to save them from protracted sufferings is the highest proof of affection. The victims choose their mode of death, and young Koryaks practise the art of giving the fatal blow quickly and mercifully. Infanticide was formerly common, and one of twins was always sacrificed. They burn their dead. The prevailing religion is Shamanism; sacrifices are made to evil spirits, the heads of the victims being placed on stones facing east.

See G. Kennan, *Tent Life in Siberia* (1871); "Über die Koriaken u. ihnen nahe verwandten Tchouktchen," in *Bul. Acad. Sc. St. Petersburg*, xii. 99.

KOSCIUSCO, the highest mountain in Australia, in the range of the Australian Alps, towards the south-eastern extremity of New South Wales. Its height is 7328 ft. An adjacent peak to the south, Mueller's Peak, long considered the highest in the continent, is 7268 ft. high. A meteorological station was established on Kosciusco in 1897.

KOSCIUSZKO, TADEUSZ ANDRZEJ BONAWENTURA (1746–1817), Polish soldier and statesman, the son of Ludwik Kosciuszko, sword-bearer of the palatinate of Brzesc, and Tekla Ratomska, was born in the village of Mereczowszczyno. After being educated at home he entered the corps of cadets at Warsaw, where his unusual ability and energy attracted the notice of Prince Adam Casimir Czartoryski, by whose influence in 1769 he was sent abroad at the expense of the state to complete his military education. In Germany, Italy and France he studied diligently, completing his course at Brest, where he learnt fortification and naval tactics, returning to Poland in 1774 with the rank of captain of artillery. While engaged in teaching the daughters of the Grand Hetman, Sosnowski of Sosnowica, drawing and mathematics, he fell in love with the youngest of them, Ludwika, and not venturing to hope for the consent of her father, the lovers resolved to fly and be married privately. Before they could accomplish their design, however, the wooer was attacked by Sosnowski's retainers, but defended himself valiantly till, covered with wounds, he was ejected from the house. This was in 1776. Equally unfortunate was Kosciuszko's wooing of Tekla Zurowska in 1791, the father of the lady in this case also refusing his consent.

In the interval between these amorous episodes Kosciuszko won his spurs in the New World. In 1776 he entered the army of the United States as a volunteer, and brilliantly distinguished himself, especially during the operations about New York and at Yorktown. Washington promoted Kosciuszko to the rank of a colonel of artillery and made him his adjutant. His humanity and charm of manner made him moreover one the most popular of the American officers. In 1783 Kosciuszko was rewarded for his services and his devotion to the cause of American independence with the thanks of Congress, the privilege of American citizenship, a considerable annual pension with landed estates, and the rank of brigadier-general, which he retained in the Polish service.

In the war following upon the proclamation of the constitution of the 3rd of May 1791 and the formation of the reactionary Confederation of Targowica (see POLAND: *History*), Kosciuszko took a leading part. As the commander of a division under Prince Joseph Poniatowski he distinguished himself at the battle of Zielence in 1792, and at Dubienka (July 18) with 4000 men and 10 guns defended the line of the Bug for five days against the Russians with 18,000 men and 60 guns, subsequently retiring upon Warsaw unmolested. When the king acceded to the Targowicians, Kosciuszko with many other Polish generals threw up his commission and retired to Leipzig, which speedily became the centre of the Polish emigration. In January 1793, provided with letters of introduction from the French agent Perandier, Kosciuszko went on a political mission to Paris to induce the revolutionary government to espouse the cause of Poland. In return for assistance he promised to make the future government of Poland as close a copy of the French government as possible; but the Jacobins, already intent on detaching Prussia from the anti-French coalition, had no serious intention of fighting Poland's battles. The fact that Kosciuszko's visit synchronized with the execution of Louis XVI. subsequently gave the enemies of Poland a plausible pretext for accusing her of Jacobinism, and thus prejudicing Europe against her. On his return to Leipzig Kosciuszko was invited by the Polish insurgents to take the command of the national armies, with dictatorial power. He hesitated at first, well aware that a rising in the circumstances was premature. "I will have nothing to do with Cossack raiding," he replied; "if war we have, it must be a regular war." He also insisted that the war must be conducted on the model of the American War of Independence, and settled down in the neighbourhood of Cracow to await events. When, however, he heard that the insurrection had already broken out, and that the Russian armies were concentrating to crush it, Kosciuszko hesitated no longer, but hastened to Cracow, which he reached on the 23rd of March 1794. On the following day his arms were consecrated according to ancient custom at the church of the Capucins, by way of giving the insurrection a religious sanction incompatible with Jacobinism. The same day, amidst a vast concourse of people in the market-place, Kosciuszko took an oath of fidelity to the Polish nation; swore to wage war against the enemies of his country; but protested at the same time that he would fight only for the independence and territorial integrity of Poland.

The insurrection had from the first a purely popular character. We find none of the great historic names of Poland in the lists of the original confederates. For the most part the confederates of Kosciuszko were small squires, traders, peasants and men of

low degree generally. Yet the comparatively few gentlemen who joined the movement sacrificed everything to it. Thus, to take but a single instance, Karol Prozor sold the whole of his ancestral estates and thus contributed 1,000,000 thalers to the cause. From the 24th of March to the 1st of April Kosciuszko remained at Cracow organizing his forces. On the 3rd of April at Raclawice, with 4000 regulars, and 2000 peasants armed only with scythes and pikes, and next to no artillery, he defeated the Russians, who had 5000 veterans and 30 guns. This victory had an immense moral effect, and brought into the Polish camp crowds of waverers to what had at first seemed a desperate cause. For the next two months Kosciuszko remained on the defensive near Sandomir. He durst not risk another engagement with the only army which Poland so far possessed, and he had neither money, officers nor artillery. The country, harried incessantly during the last two years, was in a pitiable condition. There was nothing to feed the troops in the very provinces they occupied, and provisions had to be imported from Galicia. Money could only be obtained by such desperate expedients as the melting of the plate of the churches and monasteries, which was brought in to Kosciuszko's camp at Pinczow and subsequently coined at Warsaw, minus the royal effigy, with the inscription: "Freedom, Integrity and Independence of the Republic, 1794." Moreover, Poland was unprepared. Most of the regular troops were incorporated in the Russian army, from which it was very difficult to break away, and until these soldiers came in Kosciuszko had principally to depend on the valour of his scythemen. But in the month of April the whole situation improved. On the 17th of that month the 2000 Polish troops in Warsaw expelled the Russian garrison after days of street fighting, chiefly through the ability of General Mokronowski, and a provisional government was formed. Five days later Jakob Jasinski drove the Russians from Wilna.

By this time Kosciuszko's forces had risen to 14,000, of whom 10,000 were regulars, and he was thus able to resume the offensive. He had carefully avoided doing anything to provoke Austria or Prussia. The former was described in his manifestoes as a potential friend; the latter he never alluded to as an enemy. "Remember," he wrote, "that the only war we have upon our hands is war to the death against the Muscovite tyranny." Nevertheless Austria remained suspicious and obstructive; and the Prussians, while professing neutrality, very speedily effected a junction with the Russian forces. This Kosciuszko, misled by the treacherous assurances of Frederick William's ministers, never anticipated, when on the 4th of June he marched against General Denisov. He encountered the enemy on the 5th of June at Szczekociny, and then discovered that his 14,000 men had to do not merely with a Russian division but with the combined forces of Russia and Prussia, numbering 25,000 men. Nevertheless, the Poles acquitted themselves manfully, and at dusk retreated in perfect order upon Warsaw unpursued. Yet their losses had been terrible, and of the six Polish generals present three, whose loss proved to be irreparable, were slain, and two of the others were seriously wounded. A week later another Polish division was defeated at Kholm; Cracow was taken by the Prussians on the 22nd of June; and the mob at Warsaw broke upon the gaols and murdered the political prisoners in cold blood. Kosciuszko summarily punished the ringleaders of the massacres and had 10,000 of the rank and file drafted into his camp, which measures had a quieting effect. But now dissensions broke out among the members of the Polish government, and it required all the tact of Kosciuszko to restore order amidst this chaos of suspicions and recriminations. At this very time too he had need of all his ability and resource to meet the external foes of Poland. On the 9th of July Warsaw was invested by Frederick William of Prussia with an army of 25,000 men and 179 guns, and the Russian general Fersen with 16,000 men and 74 guns, while a third force of 11,000 occupied the right bank of the Vistula. Kosciuszko for the defence of the city and its outlying fortifications could dispose of 35,000 men, of whom 10,000 were regulars. But the position, defended by 200 inferior guns, was a strong one, and the valour of the Poles and the engineering skill of Kosciuszko, who was now in his element, frustrated all the efforts of the enemy. Two unsuccessful assaults were made upon the Polish positions on the 26th of August and the 1st of September, and on the 6th the Prussians, alarmed by the progress of the Polish arms in Great Poland, where Jan Henryk Dabrowski captured the Prussian fortress of Bydogoszcz and compelled General Schwerin with his 20,000 men to retire upon Kalisz, raised the siege. Elsewhere, indeed, after a brief triumph the Poles were everywhere worsted, and Suvarov, after driving them before him out of Lithuania was advancing by forced marches upon Warsaw. Even now, however, the situation was not desperate, for the Polish forces were still numerically superior to the Russian. But the Polish generals proved unequal to carrying out the plans of the dictator; they allowed themselves to be beaten in detail, and could not prevent the junction of Suvarov and Fersen. Kosciuszko himself, relying on the support of Poninski's division 4 m. away, attacked Fersen at Maciejowice on the 10th of October. But Poninski never appeared, and after a bloody encounter the Polish army of 7000 was almost annihilated by the 16,000 Russians; and Kosciuszko, seriously wounded and insensible, was made a prisoner on the field of battle. The long credited story that he cried "Finis Poloniae!" as he fell is a fiction.

Kosciuszko was conveyed to Russia, where he remained till the accession of Paul in 1796. On his return on the 19th of December 1796 he paid a second visit to America, and lived at Philadelphia till May 1798, when he went to Paris, where the First Consul earnestly invited his co-operation against the Allies. But he refused to draw his sword unless Napoleon undertook to give the restoration of Poland a leading place in his plans; and to this, as he no doubt foresaw, Bonaparte would not consent. Again and again he received offers of high commands in the French army, but he kept aloof from public life in his house at Berville, near Paris, where the emperor Alexander visited him in 1814. At the Congress of Vienna his importunities on behalf of Poland finally wearied Alexander, who preferred to follow the counsels of Czartoryski; and Kosciuszko retired to Solothurn, where he lived with his friend Zeltner. Shortly before his death, on the 2nd of April 1817, he emancipated his serfs, insisting only on the maintenance of schools on the liberated estates. His remains were carried to Cracow and buried in the cathedral; while the people, reviving an ancient custom, raised a huge mound to his memory near the city.

Kosciuszko was essentially a democrat, but a democrat of the school of Jefferson and Lafayette. He maintained that the republic could only be regenerated on the basis of absolute liberty and equality before the law; but in this respect he was far in advance of his age, and the aristocratic prejudices of his countrymen compelled him to resort to half measures. He wrote *Manœuvres of Horse Artillery* (New York, 1808) and a description of the campaign of 1792 (in vol. xvi. of E. Raczynski's *Sketch of the Poles and Poland* (Posen, 1843).

See Jozef Zajaczek, *History of the Revolution of* 1794 (Pol.) (Lemberg, 1881); Leonard Jakob Borejko Chodzko, *Biographie du général Kosciuszko* (Fontainebleau, 1837); Karol Falkenstein, *Thaddäus Kosciuszko* (2nd ed., Leipzig, 1834; French ed., Paris, 1839); Antoni Choloniewski, *Tadeusz Kosciuszko* (Pol.) (Lemberg, 1902); Franciszek Rychlicki, *T. Kosciuszko and the Partition of Poland* (Pol.) (Cracow, 1875). (R. N. B.)

KÖSEN, a village and summer resort of Germany, in the Prussian province of Saxony, 33 m. by rail S. by W. of Halle, on the Saale. Pop. (1905), 2990. The town has a mineral spring, which is used for bathing, being efficacious for rheumatism and other complaints. Kösen, which became a town in 1869, has large mill-works; it has a trade in wood and wine. On the adjacent Rudelsburg, where there is a ruined castle, the German students have erected a monument to their comrades who fell in the Franco-German War of 1870–71. Hereon are also memorials to Bismarck and to the emperor William I. The town is famous as the central meeting-place of the German students' corps, which hold an annual congress here every Whitsuntide.

See Techow, *Führer durch Kösen und Umgegend* (Kösen, 1889); and Rosenberg, *Kösen* (Naumburg, 1877).

KOSHER, or KASHER (Hebrew clean, right, or fit), the Jewish term for any food or vessels for food made ritually fit for use, in contradistinction to those *pasul*, unfit, and *terefah*, forbidden. Thus the vessels used at the Passover are "kosher," as are also new metal vessels bought from a Gentile after they have been washed in a ritual bath. But the term is specially used of meat slaughtered in accordance with the law of Moses. The *schochat* or butcher must be a devout Jew and of high moral character, and be duly licensed by the chief rabbi. The slaughtering—the object of which is to insure the complete bleeding of the body, the Jews being forbidden to eat blood—is done by severing the windpipe with a long and razor-sharp knife by one continuous stroke backwards and forwards. No unnecessary force is permitted, and no stoppage must occur during the operation. The knife is then carefully examined, and if there be the slightest flaw in its blade the meat cannot be eaten, as the cut would not have been clean, the uneven blade causing a thrill to pass through the beast and thus driving the blood again through the arteries. After this every portion of the animal is thoroughly examined, for if there is any organic disease the devout Jew cannot taste the meat. In order to soften meat before it is salted, so as to allow the salt to extract the blood more freely, the meat is soaked in water for about half an hour. It is then covered with salt for about an hour and afterwards washed three times. Kosher meat is labelled with the name of the slaughterer and the date of killing.

KÖSLIN, or CÖSLIN, a town of Germany, in the Prussian province of Pomerania, at the foot of the Gollenberg (450 ft.), 5 m. from the Baltic, and 105 m. N.E. of Stettin by rail. Pop. (1905), 21,474. The town has two Evangelical and a Roman Catholic church, a gymnasium, a cadet academy and a deaf and dumb asylum. In the large market place is the statue of the Prussian king Frederick William I., erected in 1824, and there is a war memorial on the Friedrich Wilhelm Platz. The industries include the manufacture of soap, tobacco, machinery, paper, bricks and tiles, beer and other goods. Köslin was built about 1188 by the Saxons, and raised to the rank of a town in 1266. In 1532 it accepted the doctrines of the Reformation. It was severely tried in the Thirty Years' War and in the Seven Years' War, and in 1720 it was burned down. On the Gollenberg stands a monument to the memory of the Pomeranians who fell in the war of 1813–15.

KOSSOVO, or Kosovo, a vilayet of European Turkey, comprising the sanjak of Uskub in Macedonia, and the sanjaks of Prizren and Novibazar (*q.v.*) in northern Albania. Pop. (1905), about 1,100,000; area, 12,700 sq. m. For an account of the physical features of Kossovo, see ALBANIA and MACEDONIA. The inhabitants are chiefly Albanians and Slavs, with smaller communities of Greeks, Turks, Vlachs and gipsies. A few good roads traverse the vilayet (see USKÜB), and the railway from Salonica northward bifurcates at Usküb, the capital, one branch going to Mitrovitza in Albania, the other to Nish in Servia. Despite the undoubted mineral wealth of the vilayet, the only mines working in 1907 were two chrome mines, at Orasha and Verbeshtitza. In the volume of its agricultural trade, however, Kossovo is unsurpassed by any Turkish province. The exports, worth about £950,000, include livestock, large quantities of grain and fruit, tobacco, vegetables, opium, hemp and skins. Rice is cultivated for local consumption, and sericulture is a growing industry, encouraged by the Administration of the Ottoman Debt. The yearly value of the imports is approximately £1,200,000; these include machinery and other manufactured goods, metals, groceries, chemical products and petroleum, which is used in the flour-mills and factories on account of the prohibitive price of coal. There is practically no trade with Adriatic ports; two-thirds of both exports and imports pass through Salonica, the remainder going by rail into Servia. The chief towns, Usküb (32,000), Prizren (30,000), Koprülü (22,000), Ishtib [Slav. *Stip*] (21,000), Novibazar (12,000) and Prishtina (11,000) are described in separate articles.

In the middle ages the vilayet formed part of the Servian Empire, its northern districts are still known to the Serbs as Old Servia (*Stara Srbiya*). The plain of Kossovo (Kossovopolje, "Field of Blackbirds"), a long valley lying west of Prishtina and watered by the Sibnitza, a tributary of the Servian Ibar, is famous in Balkan history and legend as the scene of the battle of Kossovo (1389), in which the power of Servia was destroyed by the Turks. (See SERVIA: *History*.)

KOSSUTH, FERENCZ LAJOS AKOS (1841–), Hungarian statesman, the son of Lajos Kossuth, was born on the 16th of November 1841, and educated at the Paris Polytechnic and the London University, where in 1859 he won a prize for political economy. After working as a civil engineer on the Dean Forest railway he went (1861) to Italy, where he resided for the next thirty-three years, taking a considerable part in the railway construction of the peninsula, and at the same time keeping alive the Hungarian independence question by a whole series of pamphlets and newspaper articles. At Cesena in 1876 he married Emily Hoggins. In 1885 he was decorated for his services by the Italian government. His last great engineering work was the construction of the steel bridges for the Nile. In 1894 he escorted his father's remains to Hungary, and the following year resolved to settle in his native land and took the oath of allegiance. As early as 1867 he had been twice elected a member of the Hungarian diet, but on both occasions refused to accept the mandate. On the 10th of April 1895 he was returned for Tapolca and in 1896 for Cegléd, and from that time took an active part in Hungarian politics. In the autumn of 1898 he became the leader of the obstructionists or "Independence Party," against the successive Szell, Khuen-Hadervary, Szápary and Stephen Tisza administrations (1898—1904), exercising great influence not only in parliament but upon the public at large through his articles in the *Egyetértés*. The elections of 1905 having sent his party back with a large majority, he was received in audience by the king and helped to construct the Wekerle ministry, of which he was one of the most distinguished members.

See Sturm, *The Almanack of the Hungarian Diet* (1905–1910), art. "Kossuth" (Hung.) (Budapest, 1905).

KOSSUTH, LAJOS [LOUIS] (1802–1894), Hungarian patriot, was born at Monok, a small town in the county of Zemplin, on the 19th of September 1802. His father, who was descended from an old untitled noble family and possessed a small estate, was by profession an advocate. Louis, who was the eldest of four children, received from his mother a strict religious training. His education was completed at the Calvinist college of Sárospatak and at the university of Budapest. At the age of nineteen he returned home and began practice with his father. His talents and amiability soon won him great popularity, especially among the peasants. He was also appointed steward to the countess Szápáry, a widow with large estates, and as her representative had a seat in the county assembly. This position he lost owing to a quarrel with his patroness, and he was accused of appropriating money to pay a gambling debt. His fault cannot have been very serious, for he was shortly afterwards (he had in the meantime settled in Pesth) appointed by Count Hunyady to be his deputy at the National Diet in Pressburg (1825–1827, and again in 1832). It was a time when, under able leaders, a great national party was beginning the struggle for reform against the stagnant Austrian government. As deputy he had no vote, and he naturally took little share in the debates, but it was part of his duty to send written reports of the proceedings to his patron, since the government, with a well-grounded fear of all that might stir popular feeling, refused to allow any published reports. Kossuth's letters were so excellent that they were circulated in MS. among the Liberal magnates, and soon developed into an organized parliamentary gazette (*Orszagyulesi tudositasok*), of which he was editor. At once his name and influence spread. In order to increase the circulation, he ventured on lithographing the letters. This brought them under the official censure, and was forbidden. He continued the paper in MS., and when the government refused to allow it to be circulated through the post sent it out by hand. In 1836 the Diet was dissolved. Kossuth continued the agitation by reporting in letter form the debates of the county assemblies, to which he thereby gave a political

importance which they had not had when each was ignorant of the proceedings of the others. The fact that he embellished with his own great literary ability the speeches of the Liberals and Reformers only added to the influence of his news-letters. The government in vain attempted to suppress the letters, and other means having failed, he was in May 1837, with Weszelenyi and several others, arrested on a charge of high treason. After spending a year in prison at Ofen, he was tried and condemned to four more years' imprisonment. His confinement was strict and injured his health, but he was allowed the use of books. He greatly increased his political information, and also acquired, from the study of the Bible and Shakespeare, a wonderful knowledge of English. His arrest had caused great indignation. The Diet, which met in 1839, supported the agitation for the release of the prisoners, and refused to pass any government measures; Metternich long remained obdurate, but the danger of war in 1840 obliged him to give way. Immediately after his release Kossuth married Teresa Meszleny, a Catholic, who during his prison days had shown great interest in him. Henceforward she strongly urged him on in his political career; and it was the refusal of the Roman priests to bless their union that first prompted Kossuth to take up the defence of mixed marriages.

He had now become a popular leader. As soon as his health was restored he was appointed (January 1841) editor of the *Pesti Hirlap*, the newly founded organ of the party. Strangely enough, the government did not refuse its consent. The success of the paper was unprecedented. The circulation soon reached what was then the immense figure of 7000. The attempts of the government to counteract his influence by founding a rival paper, the *Vilag*, only increased his importance and added to the political excitement. The warning of the great reformer Szechenyi that by his appeal to the passions of the people he was leading the nation to revolution was neglected. Kossuth, indeed, was not content with advocating those reforms—the abolition of entail, the abolition of feudal burdens, taxation of the nobles—which were demanded by all the Liberals. By insisting on the superiority of the Magyars to the Slavonic inhabitants of Hungary, by his violent attacks on Austria (he already discussed the possibility of a breach with Austria), he raised the national pride to a dangerous pitch. At last, in 1844, the government succeeded in breaking his connexion with the paper. The proprietor, in obedience to orders from Vienna (this seems the most probable account), took advantage of a dispute about salary to dismiss him. He then applied for permission to start a paper of his own. In a personal interview Metternich offered to take him into the government service. The offer was refused, and for three years he was without a regular position. He continued the agitation with the object of attaining both the political and commercial independence of Hungary. He adopted the economic principles of List, and founded a society, the "Vedegylet," the members of which were to consume none but home produce. He advocated the creation of a Hungarian port at Fiume. With the autumn of 1847 the great opportunity of his life came. Supported by the influence of Louis Batthyany, after a keenly fought struggle he was elected member for Budapest in the new Diet. "Now that I am a deputy, I will cease to be an agitator," he said. He at once became chief leader of the Extreme Liberals. Deak was absent. Batthyany, Szechenyi, Szemere, Eotvos, his rivals, saw how his intense personal ambition and egoism led him always to assume the chief place, and to use his parliamentary position to establish himself as leader of the nation; but before his eloquence and energy all apprehensions were useless. His eloquence was of that nature, in its impassioned appeals to the strongest emotions, that it required for its full effect the highest themes and the most dramatic situations. In a time of rest, though he could never have been obscure, he would never have attained the highest power. It was therefore a necessity of his nature, perhaps unconsciously, always to drive things to a crisis. The crisis came, and he used it to the full.

On the 3rd of March 1848, as soon as the news of the revolution in Paris had arrived, in a speech of surpassing power he demanded parliamentary government for Hungary and constitutional government for the rest of Austria. He appealed to the hope of the Habsburgs, "our beloved Archduke Francis Joseph," to perpetuate the ancient glory of the dynasty by meeting half-way the aspirations of a free people. He at once became the leader of the European revolution; his speech was read aloud in the streets of Vienna to the mob by which Metternich was overthrown (March 13), and when a deputation from the Diet visited Vienna to receive the assent of the emperor to their petition it was Kossuth who received the chief ovation. Batthyany, who formed the first responsible ministry, could not refuse to admit Kossuth, but he gave him the ministry of finance, probably because that seemed to open to him fewest prospects of engrossing popularity. If that was the object, it was in vain. With wonderful energy he began developing the internal resources of the country: he established a separate Hungarian coinage—as always, using every means to increase the national self-consciousness; and it was characteristic that on the new Hungarian notes which he issued his own name was the most prominent inscription; hence the name of *Kossuth Notes*, which was long celebrated. A new paper was started, to which was given the name of *Kossuth Hirlapia*, so that from the first it was Kossuth rather than the Palatine or the president of the ministry whose name was in the minds of the people associated with the new government. Much more was this the case when, in the summer, the dangers from the Croats, Serbs and the reaction at Vienna increased. In a great speech of 11th July he asked that the nation should arm in self-defence, and demanded 200,000 men; amid a scene of wild enthusiasm this was granted by acclamation. When Jellachich was marching on Pesth he went from town to town rousing the people to the defence of the country, and the popular force of the *Honved* was his creation. When Batthyany resigned he was appointed with Szemere to carry on the government provisionally, and at the end of September he was made President of the Committee of National Defence. From this time he was in fact, if not in name, the dictator. With marvellous energy he kept in his own hands the direction of the whole government. Not a soldier himself, he had to control and direct the movements of armies; can we be surprised if he failed, or if he was unable to keep control over the generals or to establish that military co-operation so essential to success? Especially it was Görgei (*q.v.*) whose great abilities he was the first to recognize, who refused obedience; the two men were in truth the very opposite to one another: the one all feeling, enthusiasm, sensibility; the other cold, stoical, reckless of life. Twice Kossuth deposed him from the command; twice he had to restore him. It would have been well if Kossuth had had something more of Görgei's calculated ruthlessness, for, as has been truly said, the revolutionary power he had seized could only be held by revolutionary means; but he was by nature soft-hearted and always merciful; though often audacious, he lacked decision in dealing with men. It has been said that he showed a want of personal courage; this is not improbable, the excess of feeling which made him so great an orator could hardly be combined with the coolness in danger required of a soldier; but no one was able, as he was, to infuse courage into others. During all the terrible winter which followed, his energy and spirit never failed him. It was he who overcame the reluctance of the army to march to the relief of Vienna; after the defeat of Schwechat, at which he was present, he sent Bem to carry on the war in Transylvania. At the end of the year, when the Austrians were approaching Pesth, he asked for the mediation of Mr Stiles, the American envoy. Windischgrätz, however, refused all terms, and the Diet and government fled to Debreczin, Kossuth taking with him the regalia of St Stephen, the sacred Palladium of the Hungarian nation. Immediately after the accession of the Emperor Francis Joseph all the concessions of March had been revoked and Kossuth with his colleagues outlawed. In April 1849, when the Hungarians had won many successes, after sounding the army, he issued the celebrated declaration of Hungarian independence, in which he declared that "the house of Habsburg-Lorraine, perjured in the sight of God and man, had forfeited

the Hungarian throne." It was a step characteristic of his love for extreme and dramatic action, but it added to the dissensions between him and those who wished only for autonomy under the old dynasty, and his enemies did not scruple to accuse him of aiming at the crown himself. For the time the future form of government was left undecided, but Kossuth was appointed responsible governor. The hopes of ultimate success were frustrated by the intervention of Russia; all appeals to the western powers were vain, and on the 11th of August Kossuth abdicated in favour of Görgei, on the ground that in the last extremity the general alone could save the nation. How Görgei used his authority to surrender is well known; the capitulation was indeed inevitable, but a greater man than Kossuth would not have avoided the last duty of conducting the negotiations so as to get the best terms.

With the capitulation of Villagos Kossuth's career was at an end. A solitary fugitive, he crossed the Turkish frontier. He was hospitably received by the Turkish authorities, who, supported by Great Britain, refused, notwithstanding the threats of the allied emperors, to surrender him and the other fugitives to the merciless vengeance of the Austrians. In January 1849 he was removed from Widdin, where he had been kept in honourable confinement, to Shumla, and thence to Katahia in Asia Minor. Here he was joined by his children, who had been confined at Pressburg; his wife (a price had been set on her head) had joined him earlier, having escaped in disguise. In September 1851 he was liberated and embarked on an American man-of-war. He first landed at Marseilles, where he received an enthusiastic welcome from the people, but the prince-president refused to allow him to cross France. On the 23rd of October he landed at Southampton and spent three weeks in England, where he was the object of extraordinary enthusiasm, equalled only by that with which Garibaldi was received ten years later. Addresses were presented to him at Southampton, Birmingham and other towns; he was officially entertained by the lord mayor of London; at each place he pleaded the cause of his unhappy country. Speaking in English, he displayed an eloquence and command of the language scarcely excelled by the greatest orators in their own tongue. The agitation had no immediate effect, but the indignation which he aroused against Russian policy had much to do with the strong anti-Russian feeling which made the Crimean War possible.

From England he went to the United States of America: there his reception was equally enthusiastic, if less dignified; an element of charlatanism appeared in his words and acts which soon destroyed his real influence. Other Hungarian exiles protested against the claim he appeared to make that he was the one national hero of the revolution. Count Casimir Batthyany attacked him in *The Times*, and Szemere, who had been prime minister under him, published a bitter criticism of his acts and character, accusing him of arrogance, cowardice and duplicity. He soon returned to England, where he lived for eight years in close connexion with Mazzini, by whom, with some misgiving, he was persuaded to join the Revolutionary Committee. Quarrels of a kind only too common among exiles followed; the Hungarians were especially offended by his claim still to be called governor. He watched with anxiety every opportunity of once more freeing his country from Austria. An attempt to organize a Hungarian legion during the Crimean War was stopped; but in 1859 he entered into negotiations with Napoleon, left England for Italy, and began the organization of a Hungarian legion, which was to make a descent on the coast of Dalmatia. The Peace of Villafranca made this impossible. From that time he resided in Italy; he refused to follow the other Hungarian patriots, who, under the lead of Deak, accepted the composition of 1867; for him there could be no reconciliation with the house of Habsburg, nor would he accept less than full independence and a republic. He would not avail himself of the amnesty, and, though elected to the Diet of 1867, never took his seat. He never lost the affections of his countrymen, but he refrained from an attempt to give practical effect to his opinions, nor did he allow his name to become a new cause of dissension. A law of 1879, which deprived of citizenship all Hungarians who had voluntarily been absent ten years, was a bitter blow to him.

He died in Turin on the 20th of March 1894; his body was taken to Pesth, where he was buried amid the mourning of the whole nation, Maurus Jokai delivering the funeral oration. A bronze statue, erected by public subscription, in the Kerepes cemetery, commemorates Hungary's purest patriot and greatest orator.

Many points in Kossuth's career and character will probably always remain the subject of controversy. His complete works were published in Hungarian at Budapest in 1880–1895. The fullest account of the Revolution is given in Helfert, *Geschichte Oesterreichs* (Leipzig, 1869, &c.), representing the Austrian view, which may be compared with that of C. Gracza, *History of the Hungarian War of Independence, 1848–1849* (in Hungarian) (Budapest, 1894). See also E. O. S., *Hungary and its Revolutions, with a Memoir of Louis Kossuth* (Bohn, 1854); Horvath, *25 Jahre aus der Geschichte Ungarns, 1823–1848* (Leipzig, 1867); Maurice, *Revolutions of 1848-1849*; W. H. Stiles, *Austria in 1848–1849* (New York, 1852); Szemere, *Politische Charakterskizzen: III. Kossuth* (Hamburg, 1853); Louis Kossuth, *Memoirs of my Exile* (London, 1880); Pulszky, *Meine Zeit, mein Leben* (Pressburg, 1880); A. Somogyi, *Ludwig Kossuth* (Berlin, 1894). (J. W. He.)

KOSTER (or Coster), **LAURENS** (*c.* 1370–1440), Dutch printer, whose claims to be considered at least one of the inventors of the art (see Typography) have been recognized by many investigators. His real name was Laurens Janssoen-Koster (*i.e.* sacristan) being merely the title which he bore as an official of the great parish church of Haarlem. We find him mentioned several times between 1417 and 1434 as a member of the great council, as an assessor (*scabinus*), and as the city treasurer. He probably perished in the plague that visited Haarlem in 1439–1440; his widow is mentioned in the latter year. His descendants, through his daughter Lucia, can be traced down to 1724.

See Peter Scriver, *Beschryvinge der Stad Harlem* (Haarlem, 1628); Scheltema, *Levensschets van Laurens d. Koster* (Haarlem, 1834); Van der Linde, *De Haarlemsche Costerlegende* (Hague, 1870).

KOSTROMA, a government of central Russia, surrounded by those of Vologda, Vyatka, Nizhniy-Novgorod, Vladimir and Yaroslav, lying mostly on the left bank of the upper Volga. It has an area of 32,480 sq. m. Its surface is generally undulating, with hilly tracts on the right bank of the Volga, and extensive flat and marshy districts in the east. Rocks of the Permian system predominate, though a small tract belongs to the Jurassic, and both are overlain by thick deposits of Quaternary clays. The soil in the east is for the most part sand or a sandy clay; a few patches, however, are fertile black earth. Forests, yielding excellent timber for ship-building, and in many cases still untouched, occupy 61% of the area of the government. The export of timber is greatly facilitated by the navigable tributaries of the Volga, *e.g.* the Kostroma, Unzha, Neya, Vioksa and Vetluga. The climate is severe; frosts of −22° F. are common in January, and the mean temperature of the year is only 3°·1 (summer, 64°·5; winter, −13°·3). The population, which numbered 1,176,000 in 1870 and 1,424,171 in 1897, is almost entirely Russian. The estimated population in 1906 was 1,596,700. Out of 20,000,000 acres, 7,861,500 acres belong to private owners, 6,379,500 to the peasant communities, 3,660,800 to the crown, and 1,243,000 to the imperial family. Agriculture is at a low ebb; only 4,000,000 acres are under crops (rye, oats, wheat and barley), and the yield of corn is insufficient for the wants of the population. Flax and hops are cultivated to an increasing extent. But market-gardening is of some importance. Bee-keeping was formerly an important industry. The chief articles of commerce are timber, fuel, pitch, tar, mushrooms, and wooden wares for building and household purposes, which are largely manufactured by the peasantry and exported to the steppe governments of the lower Volga and the Don. Boat-building is also carried on. Some other small industries, such as the manufacture of silver and copper wares, leather goods, bast mats and sacks, lace and felt boots, are carried on in the villages; but the trade in linen and towelling, formerly the staple, is declining. There are cotton, flax and linen mills, engineering and chemical works, distilleries, tanneries and paper mills. The government of Kostroma is divided into twelve districts, the

chief towns of which, with populations in 1897, are Kostroma (*q.v.*), Bui (2626), Chukhloma (2200), Galich (6182), Kineshma (7564), Kologriv (2566), Makariev (6068), Nerekhta (3002), Soligalich (3420), Varnavin (1140), Vetluga (5200) and Yurievets (4778).

KOSTROMA, a town of Russia, capital of the government of the same name, 230 m. N.N.E. of Moscow and 57 m. E.N.E. from Yaroslav, on the left bank of the Volga, at the mouth of the navigable Kostroma, with suburbs on the opposite side of the Volga. Pop. (1897), 41,268. Its glittering gilded cupolas make it a conspicuous feature in the landscape as it climbs up the terraced river bank. It is one of the oldest towns of Russia, having been founded in 1152. Its fort was often the refuge of the princes of Moscow during war, but the town was plundered more than once by the Tatars. The cathedral, built in 1239 and rebuilt in 1773, is situated in the kreml, or citadel, and is a fine monument of old Russian architecture. In the centre of the town is a monument to the peasant Ivan Susanin and the tsar Michael (1851). The former sacrificed his own life in 1669 by leading the Poles astray in the forests in order to save the life of his own tsar Michael Fedeorovich. On the opposite bank of the Volga, close to the water's edge, stands the monastery of Ipatiyev, founded in 1330, with a cathedral built in 1586, both associated with the election of Tsar Michael (1669). Kostroma has been renowned since the 16th century for its linen, which was exported to Holland, and the manufacture of linen and linen-yarn is still kept up to some extent. The town has also cotton-mills, tanneries, saw-mills, an iron-foundry and a machine factory. It carries on an active trade—importing grain, and exporting linen, linen yarn, leather, and especially timber and wooden wares.

KÖSZEG (Ger. *Güns*), a town in the county of Vas, in Hungary, 173 m. W. of Budapest by rail. Pop. (1900), 7422. It is pleasantly situated in the valley of the Güns, and is dominated towards the west by the peaks of Altenhaus (2000 ft.) and of the Geschriebene Stein (2900 ft.). It possesses a castle of Count Esterhazy, a modern Roman Catholic Church in Gothic style and two convents. It has important cloth factories and a lively trade in fruit and wine. The town has a special historical interest for the heroic and successful defence of the fortress by Nicolas Jurisics against a large army of Sultan Soliman, in July–August 1532, which frustrated the advance of the Turks to Vienna for that year.

To the south-east of Köszeg, at the confluence of the Güns with the Raab, is situated the town of Sárvár (pop. 3158), formerly fortified, where in 1526 the first printing press in Hungary was established.

KOTAH, a native state of India, in the Rajputana agency, with an area of 5684 sq. m. The country slopes gently northwards from the high table-land of Malwa, and is drained by the Chambal with its tributaries, all flowing in a northerly or north-easterly direction. The Mokandarra range, from 1200 to 1600 ft. above sea-level, runs from south-east to north-west. The Mokandarra Pass through these hills, in the neighbourhood of the highest peak (1671 ft.), has been rendered memorable by the passage of Colonel Monson's army on its disastrous retreat in 1804. There are extensive game preserves, chiefly covered with grass. In addition to the usual Indian grains, wheat, cotton, poppy, and a little tobacco of good quality are cultivated. The manufactures are very limited. Cotton fabrics are woven, but are being rapidly superseded by the cheap products of Bombay, and Manchaster. Articles of wooden furniture are also constructed. The chief articles of export are opium and grain; salt, cotton and woollen cloth are imported.

Kotah is an offshoot from Bundi state, having been bestowed upon a younger son of the Bundi raja by the emperor Shah Jahan in return for services rendered him when the latter was in rebellion against his father Jahangir. In 1897 a considerable portion of the area taken to form Jhalawar (*q.v.*) in 1838 was restored to Kotah. In 1901 the population was 544,879, showing a decrease of 24% due to the results of famine. The estimated revenue is £206,000; tribute, £28,000. The maharao Umad Singh, was born in 1873, and succeeded in 1889. He was educated at the Mayo College, Ajmere, and became a major in the British army. A continuation of the branch line of the Indian Midland railway from Goona to Baran passes through Kotah, and it is also traversed by a new line, opened in 1909. The state suffered from drought in 1896–1897, and again more severely in 1899–1900.

The town of Kotah is on the right bank of the Chambal. Pop. (1901), 33,679. It is surrounded and also divided into three parts by massive walls, and contains an old and a new palace of the maharao and a number of fine temples. Muslins are the chief articles of manufacture, but the town has no great trade, and this and the unhealthiness of the site may account for the decrease in population.

KOTAS (Kotar, Koter, Kohatur, Gauhatar), an aboriginal tribe of the Nilgiri hills, India. They are a well-made people, of good features, tall, and of a dull copper colour, but some of them are among the fairest of the hill tribes. They recognize no caste among themselves, but are divided into *keris* (streets), and a man must marry outside his *keri*. Their villages (of which there are seven) are large, averaging from thirty to sixty huts. They are agriculturists and herdsmen, and the only one of the hill tribes who practise industrial arts, being excellent as carpenters, smiths, tanners and basket-makers. They do menial work for the Todas, to whom they pay a tribute. They worship ideal gods, which are not represented by any images. Their language is an old and rude dialect of Kanarese. In 1901 they numbered 1267.

KOTKA, a seaport of Finland, in the province of Viborg, 35 m. by rail from Kuivola junction on the Helsingfors railway, on an island of the same name at the mouth of the Kymmene river. Pop. (1904), 7628. It is the chief port for exports from and imports to east Finland and a centre of the timber trade.

KOTRI, a town of British India, in Karachi district, Sind, situated on the right bank of the Indus. Pop. (1901), 7617. Kotri is the junction of branches of the North-Western railway, serving each bank of the Indus, which is here crossed by a railway bridge. It was formerly the station for Hyderabad, which lies across the Indus, and the headquarters of the Indus steam flotilla, now abolished in consequence of the development of railway facilities. Besides its importance as a railway centre, however, Kotri still has a considerable general transit trade by river.

KOTZEBUE, AUGUST FRIEDRICH FERDINAND VON (1761–1819), German dramatist, was born on the 3rd of May, 1761, at Weimar. After attending the gymnasium of his native town, he went in his sixteenth year to the university of Jena, and afterwards studied about a year in Duisburg. In 1780 he completed his legal course and was admitted an advocate. Through the influence of Graf Görtz, Prussian ambassador at the Russian court, he became secretary of the governor-general of St Petersburg, In 1783 he received the appointment of assessor to the high court of appeal in Reval, where he married the daughter of a Russian lieutenant-general. He was ennobled in 1785, and became president of the magistracy of the province of Esthonia. In Reval he acquired considerable reputation by his novels, *Die Leiden der Ortenbergischen Familie* (1785) and *Geschichte meines Vaters* (1788), and still more by the plays *Adelheid von Wulfingen* (1789), *Menschenhass und Reue* (1790) and *Die Indianer in England* (1790). The good impression produced by these works was, however, almost effaced by a cynical dramatic satire, *Doktor Bahrdt mit der eisernen Stirn*, which appeared in 1790 with the name of Knigge on the title-page. After the death of his first wife Kotzebue retired from the Russian service, and lived for a time in Paris and Mainz; he then settled in 1795 on an estate which he had acquired near Reval and gave himself up to literary work. Within a few years he published six volumes of miscellaneous sketches and stories (*Die jüngsten Kinder meiner Laune*, 1793–1796) and more than twenty plays, the majority of which were translated into several European languages. In 1798 he accepted the office of dramatist to the court theatre in Vienna, but owing to differences with the actors he was soon obliged to resign. He now returned to

his native town, but as he was not on good terms with Goethe, and had openly attacked the Romantic school, his position in Weimar was not a pleasant one. He had thoughts of returning to St Petersburg, and on his journey thither he was, for some unknown reason, arrested at the frontier and transported to Siberia. Fortunately he had written a comedy which flattered the vanity of the emperor Paul I.; he was consequently speedily brought back, presented with an estate from the crown lands of Livonia, and made director of the German theatre in St Petersburg. He returned to Germany when the emperor Paul died, and again settled in Weimar; he found it, however, as impossible as ever to gain a footing in literary society, and turned his steps to Berlin, where in association with Garlieb Merkel (1769–1850) he edited *Der Freimütige* (1803–1807) and began his *Almanach dramatischer Spiele* (1803–1820). Towards the end of 1806 he was once more in Russia, and in the security of his estate in Esthonia wrote many satirical articles against Napoleon in his journals *Die Biene* and *Die Grille*. As councillor of state he was attached in 1816 to the department for foreign affairs in St Petersburg, and in 1817 went to Germany as a kind of spy in the service of Russia, with a salary of 15,000 roubles. In a weekly journal (*Literarisches Wochenblatt*) which he published in Weimar he scoffed at the pretensions of those Germans who demanded free institutions, and became an object of such general dislike that he was obliged to move to Mannheim. He was especially detested by the young enthusiasts for liberty, and one of them, Karl Ludwig Sand, a theological student, stabbed him, in Mannheim, on the 23rd of March 1819. Sand was executed, and the government made his crime an excuse for placing the universities under strict supervision.

Besides his plays, Kotzebue wrote several historical works, which, however, are too one-sided and prejudiced to have much value. Of more interest are his autobiographical writings, *Meine Flucht nach Paris im Winter 1790* (1791), *Über meinen Aufenthalt in Wien* (1799), *Das merkwürdigste Jahr meines Lebens* (1801), *Erinnerungen aus Paris* (1804), and *Erinnerungen von meiner Reise aus Liefland nach Rom und Neapel* (1805). As a dramatist he was extraordinarily prolific, his plays numbering over 200; his popularity, not merely on the German, but on the European stage, was unprecedented. His success, however, was due less to any conspicuous literary or poetic ability than to an extraordinary facility in the invention of effective situations; he possessed, as few German playwrights before or since, the unerring instinct for the theatre; and his influence on the *technique* of the modern drama from Scribe to Sardou and from Bauernfeld to Sudermann is unmistakable. Kotzebue is to be seen to best advantage in his comedies, such as *Der Wildfang*, *Die beiden Klingsberg* and *Die deutschen Kleinstädter*, which contain admirable genre pictures of German life. These plays held the stage in Germany long after the once famous *Menschenhass und Reue* (known in England as *The Stranger*), *Graf Benjowsky*, or ambitious exotic tragedies like *Die Sonnenjungfrau* and *Die Spanier in Peru* (which Sheridan adapted as *Pizarro*) were forgotten.

Two collections of Kotzebue's dramas were published during his lifetime: *Schauspiele* (5 vols., 1797); *Neue Schauspiele* (23 vols., 1798–1820). His *Sämtliche dramatische Werke* appeared in 44 vols., in 1827–1829, and again, under the title *Theater*, in 40 vols., in 1840–1841. A selection of his plays in 10 vols. appeared at Leipzig in 1867–1868. Cp. H. Döring, *A. von Kotzebues Leben* (1830); W. von Kotzebue, *A. von Kotzebue* (1881); Ch. Rabany, *Kotzebue, sa vie et son temps* (1893); W. Sellier, *Kotzebue in England* (1901).

KOTZEBUE, OTTO VON (1787–1846), Russian navigator, second son of the foregoing, was born at Reval on the 30th of December 1787. After being educated at the St Petersburg school of cadets, he accompanied Krusenstern on his voyage of 1803–1806. After his promotion to lieutenant Kotzebue was placed in command of an expedition, fitted out at the expense of the imperial chancellor, Count Rumantsoff, in the brig "Rurick." In this vessel, with only twenty-seven men, Kotzebue set out on the 30th of July 1815 to find a passage across the Arctic Ocean and explore the less-known parts of Oceania. Proceeding by Cape Horn, he discovered the Romanzov, Rurik and Krusenstern Islands, then made for Kamchatka, and in the middle of July proceeded northward, coasting along the north-west coast of America, and discovering and naming Kotzebue Gulf or Sound and Krusenstern Cape. Returning by the coast of Asia, he again sailed to the south, sojourned for three weeks at the Sandwich Islands, and on the 1st of January 1817 discovered New Year Island. After some further cruising in the Pacific he again proceeded north, but a severe attack of illness compelling him to return to Europe, he reached the Neva on the 3rd of August 1818, bringing home a large collection of previously unknown plants and much new ethnological information. In 1823 Kotzebue, now a captain, was entrusted with the command of an expedition in two ships of war, the main object of which was to take reinforcements to Kamchatka. There was, however, a staff of scientists on board, who collected much valuable information and material in geography, ethnography and natural history. The expedition, proceeding by Cape Horn, visited the Radak and Society Islands, and reached Petropavlovsk in July 1824. Many positions along the coast were rectified, the Navigator islands visited, and several discoveries made. The expedition returned by the Marianna, Philippine, New Caledonia and Hawaiian Islands, reaching Kronstadt on the 10th of July 1826. There are English translations of both Kotzebue's narratives: *A Voyage of Discovery into the South Sea and Beering's Straits for the Purpose of exploring a North-East Passage, undertaken in the Years 1815–1818* (3 vols. 1821), and *A New Voyage Round the World in the Years 1823–1826* (1830). Three years after his return from his second voyage, Kotzebue died at Reval on the 15th of February 1846.

KOUMISS, milk-wine, or milk brandy, a fermented alcoholic beverage prepared from milk. It is of very ancient origin, and according to Herodotus was known to the Scythians. The name is said to be derived from an ancient Asiatic tribe, the Kumanes or Komans. It is one of the staple articles of diet of the Siberian and Caucasian races, but of late years it has also been manufactured on a considerable scale in western Europe, on account of its valuable medicinal properties. It is generally made from mares' or camels' milk by a process of fermentation set up by the addition to the fresh milk of a small quantity of the finished article. This fermentation, which appears to be of a symbiotic nature, being dependent on the action of two distinct types of organisms, the one a fission fungus, the other a true yeast, eventuates in the conversion of a part of the milk sugar into lactic acid and alcohol. Koumiss generally contains 1 to 2% of alcohol, 0·5 to 1·5% of lactic acid, 2 to 4% of milk sugar and 1 to 2% of fat. *Kefir* is similar to koumiss, but is usually prepared from cows' milk, and the fermentation is brought about by the so-called Kefir Grains (derived from a plant).

KOUMOUNDOUROS, ALEXANDROS (1814–1883), Greek statesman, whose name is commonly spelt Coumoundouros, was born in 1814. His studies at the university of Athens were repeatedly interrupted for lack of means, and he began to earn his living as a clerk. He took part in the Cretan insurrection of 1841, and in the demonstration of 1843, by which the Greek constitution was obtained from King Otto, he was secretary to General Theodoraki Grivas. He then settled down to the bar at Kalamata in Messenia, where he married a lady belonging to the Mavromichalis family. He was elected to the chamber in 1851, and four years later his eloquence and ability had secured the president's chair for him. He became minister of finance in 1856, and again in 1857 and 1859. He adhered to the moderate wing of the Liberal party until the revolution of 1862 and the dethronement of King Otto, when he was minister of justice in the provincial government. He was twice minister of the interior under Kanaris, in 1864 and in 1865. In March 1865 he became prime minister, and he formed several subsequent administrations in the intervals of the ascendancy of Tricoupi. During the Cretan insurrection of 1866–68 he made active warlike preparations against Turkey, but was dismissed by King George, who recognized that Greece could not act without the support of the Powers. He was again premier at the time of the outbreak

of the insurrection in Thessaly in January 1878, and supported by Delyanni as minister of foreign affairs he sent an army of 10,000 men to help the insurgents against Turkey. The troops were recalled on the understanding that Greece should be represented at the Congress of Berlin. In October 1880 the fall of the Tricoupi ministry restored him to power, when he resumed his warlike policy, but repeated appeals to the courts of Europe yielded little practical result, and Koumoundouros was obliged to reduce his territorial demands and to accept the limited cessions in Thessaly and Epirus, which were carried out in July 1881. His ministry was overturned in 1882 by the votes of the new Thessalian deputies, who were dissatisfied with the administrative arrangements of the new province, and he died at Athens on the 9th of March 1883.

KOUSSO (Kosso or Cusso), a drug which consists of the panicles of the pistillate flowers of *Brayera anthelmintica*, a handsome rosaceous tree 60 ft. high, growing throughout the table-land of Abyssinia, at an elevation of 3000 to 8000 ft. above the sea-level. The drug as imported is in the form of cylindrical rolls, about 18 in. in length and 2 in. in diameter, and comprises the entire inflorescence or panicle kept in form by a band wound transversely round it. The active principle is koussin or kosin, $C_{31}H_{38}O_{10}$, which is soluble in alcohol and alkalis, and may be given in doses of thirty grains. Kousso is also used in the form of an unstrained infusion of $\frac{1}{4}$ to $\frac{1}{2}$ oz. of the coarsely powdered flowers, which are swallowed with the liquid. It is considered to be an effectual vermifuge for *Taenia solium*. In its anthelmintic action it is nearly allied to male fern, but it is much inferior to that drug and is very rarely used in Great Britain.

KOVALEVSKY, SOPHIE (1850–1891), Russian mathematician, daughter of General Corvin-Krukovsky, was born at Moscow on the 15th of January 1850. As a young girl she was fired by the aspiration after intellectual liberty that animated so many young Russian women at that period, and drove them to study at foreign universities, since their own were closed to them. This led her, in 1868, to contract one of those conventional marriages in vogue at the time, with a young student, Waldemar Kovalevsky, and the two went together to Germany to continue their studies. In 1869 she went to Heidelberg, where she studied under H. von Helmholtz, G.R. Kirchhoff, L. Königsberger and P. du Bois-Reymond, and from 1871–1874 read privately with Karl Weierstrass at Berlin, as the public lectures were not then open to women. In 1874 the university of Göttingen granted her a degree *in absentia*, excusing her from the oral examination on account of the remarkable excellence of the three dissertations sent in, one of which, on the theory of partial differential equations, is one of her most remarkable works. Another was an elucidation of P.S. Laplace's mathematical theory of the form of Saturn's rings. Soon after this she returned to Russia with her husband, who was appointed professor of palaeontology at Moscow, where he died in 1883. At this time Madame Kovalevsky was at Stockholm, where Gustaf Mittag Leffler, also a pupil of Weierstrass, who had been recently appointed to the chair of mathematics at the newly founded university, had procured for her a post as lecturer. She discharged her duties so successfully that in 1884 she was appointed full professor. This post she held till her death on the 10th of February 1891. In 1888 she achieved the greatest of her successes, gaining the Prix Bordin offered by the Paris Academy. The problem set was "to perfect in one important point the theory of the movement of a solid body round an immovable point," and her solution added a result of the highest interest to those transmitted to us by Leonhard Euler and J. L. Lagrange. So remarkable was this work that the value of the prize was doubled as a recognition of unusual merit. Unfortunately Madame Kovalevsky did not live to reap the full reward of her labours, for she died just as she had attained the height of her fame and had won recognition even in her own country by election to membership of the St Petersburg Academy of Science.

See E. de Kerbedz, "Sophie de Kowalevski," *Benidiconti del circolo mathematico di Palermo* (1891); the obituary notice by G. Mittag Leffler in the *Acta mathematica*, vol. xvi.; and J. C. Poggendorff, *Biographisch-literarisches Handwörterbuch*.

KOVNO (in Lithuanian *Kauna*), a government of north-western Russia, bounded N. by the governments of Courland and Vitebsk, S.E. by that of Vilna, and S. and S.W. by Suwalki and the province of East Prussia, a narrow strip touching the Baltic near Memel. It has an area of 15,687 sq. m. The level uniformity of its surface is broken only by two low ridges which nowhere rise above 800 ft. The geological character is varied, the Silurian, Devonian, Jurassic and Tertiary systems being all represented: the Devonian is that which occurs most frequently, and all are covered with Quaternary boulder-clays. The soil is either a sandy clay or a more fertile kind of black earth. The government is drained by the Niemen, Windau, Courland Aa and Dvina, which have navigable tributaries. In the flat depressions covered with boulder-clays there are many lakes and marshes, while forests occupy about 25½ % of the surface. The climate is comparatively mild, the mean temperature at the city of Kovno being 44° F. The population was 1,156,040 in 1870, and 1,553,244 in 1897. The estimated population in 1906 was 1,683,600. It is varied, consisting of Lithuanians proper and Zhmuds (together 74%), Jews (14%), Germans (2½%), Poles (9%), with Letts and Russians; 76·6% are Roman Catholics, 13·7 Jews, 4·5 Protestants, and 5% belong to the Greek Church. Of the total 788,102 were women in 1897 and 147,878 were classed as urban. The principal occupation of the inhabitants is agriculture, 63% of the surface being under crops; both grain (wheat, rye, oats and barley) and potatoes are exported. Flax is cultivated and the linseed exported. Dairying flourishes, and horse and cattle breeding are attracting attention. Fishing is important, and the navigation on the rivers is brisk. A variety of petty domestic industries are carried on by the Jews, but only to a slight extent in the villages. As many as 18,000 to 24,000 men are compelled every year to migrate in search of work. The factories consist principally of distilleries, tobacco and steam flour-mills, and hardware manufactories. Trade, especially the transit trade, is brisk, from the situation of the government on the Prussian frontier, the custom-houses of Yerburg and Tauroggen being amongst the most important in Russia. The chief towns of the seven districts into which the government is divided, with their populations in 1897, are Kovno (*q.v.*), (Novo-Alexandrovsk (6370), Ponevyezh (13,044), Rosieny (7455), Shavli (15,914), Telshi (6215) and Vilkomir (13,509).

The territory which now constitutes the government of Kovno was formerly known as Samogitia and formed part of Lithuania. During the 13th, 14th and 15th centuries the Livonian and Teutonic Knights continually invaded and plundered it, especially the western part, which was peopled with Zhmuds. In 1569 it was annexed, along with the rest of the principality of Lithuania, to Poland; and it suffered very much from the wars of Russia with Sweden and Poland, and from the invasion of Charles XII. in 1701. In 1795 the principality of Lithuania was annexed to Russia, and until 1872, when the government of Kovno was constituted, the territory now forming it was a part of the government of Vilna.

KOVNO, a town and fortress of Russia, capital of the government of the same name, stands at the confluence of the Niemen with the Viliya, 550 m. S.W. of St Petersburg by rail, and 55 m. from the Prussian frontier. Pop. (1863), 23,937; (1903), 73,743, nearly one-half being Jews. It consists of a cramped Old Town and a New Town stretching up the side of the Niemen. It is a first-class fortress, being surrounded at a mean distance of 2½ m. by a girdle of forts, eleven in number. The town lies for the most part in the fork and is guarded by three forts in the direction of Vilna, one covers the Vilna bridge, while the southern approaches are protected by seven. Kovno commands and bars the railway Vilna-Eydtkuhnen. Its factories produce nails, wire-work and other metal goods, mead and bone-meal. It is an important entrepôt for timber, cereals, flax, flour, spirits, bone-meal, fish, coal and building-stone passing from and to Prussia. The city possesses some 15th-century churches. It was founded in the 11th century; and from 1384 to 1398 belonged

to the Teutonic Knights. Tsar Alexis of Russia plundered and burnt it in 1655. Here the Russians defeated the Poles on the 26th of June 1831.

KOVROV, a town of Russia, in the government of Vladimir, 40 m. N.E. of the city of Vladimir by the railway from Moscow to Nizhniy-Novgorod, and on the Klyazma River. It has railway-carriage works, cotton mills, steam flour mills, tallow works and quarries of limestone, and carries on an active trade in the export of wooden wares and in the import of grain, salt and fish, brought from the Volga governments. Pop. (1890), 6600; (1900), 16,806.

KOWTOW, or KOTOU, the Chinese ceremonial act of prostration as a sign of homage, submission, or worship. The word is formed from *ko*, knock, and *tou*, head. To the emperor, the "kowtow" is performed by kneeling three times, each act accompanied by touching the ground with the forehead.

KOZLOV, a town of Russia, in the government of Tambov, on the Lyesnoi Voronezh River, 45 m. W.N.W. of the city of Tambov by rail. Pop. (1900), 41,555. Kozlov had its origin in a small monastery, founded in the forest in 1627; nine years later, an earthwork was raised close by, for the protection of the Russian frontier against the Tatars. Situated in a very fertile country, on the highway to Astrakhan and at the head of water communication with the Don, the town soon became a centre of trade; as the junction of the railways leading to the Sea of Azov, to Tsaritsyn on the lower Volga, to Saratov and to Orel, its importance has recently been still further increased. Its export of cattle, grain, meat, eggs (22,000,000), tallow, hides, &c., is steadily growing, and it possesses factories, flour mills, tallow works, distilleries, tanneries and glue works.

KRAAL, also spelt *craal*, *kraul*, &c. (South African Dutch, derived possibly from a native African word, but probably from the Spanish *corral*, Portuguese *curral*, an enclosure for horses, cattle and the like), in South and Central Africa, a native village surrounded by a palisade, mud wall or other fencing roughly circular in form; by transference, the community living within the enclosure. Folds for animals and enclosures made specially for defensive purposes are also called kraals.

KRAFFT (or KRAFT), **ADAM** (*c.* 1455–1507), German sculptor, of the Nuremberg school, was born, probably at Nuremberg, about the middle of the 15th century, and died, some say in the hospital, at Schwabach, about 1507. He seems to have emerged as sculptor about 1490, the date of the seven reliefs of scenes from the life of Christ, which, like almost every other specimen of his work, are at Nuremberg. The date of his last work, an Entombment, with fifteen life-size figures, in the Holzschuher chapel of the St John's cemetery, is 1507. Besides these, Krafft's chief works are several monumental reliefs in the various churches of Nuremberg; he produced the great Schreyer monument (1492) for St Sebald's at Nuremberg, a skilful though mannered piece of sculpture opposite the Rathaus, with realistic figures in the costume of the time, carved in a way more suited to wood than stone, and too pictorial in effect; Christ bearing the Cross, above the altar of the same church; and various works made for public and private buildings, as the relief over the door of the Wagehaus, a St George and the Dragon, several Madonnas, and some purely decorative pieces, as coats of arms. His masterpiece is perhaps the magnificent tabernacle, 62 ft. high, in the church of St Laurence (1493–1500). He also made the great tabernacle for the Host, 80 ft. high, covered with statuettes, in Ulm Cathedral, and the very spirited "Stations of the Cross" on the road to the Nuremberg cemetery.

See *Adam Krafft und seine Schule*, by Friedrich Wanderer (1869); *Adam Krafft und die Künstler seiner Zeit*, by Berthold Daun (1897); Albert Gümbel in *Repertorium für Kunstwissenschaft*, Bd. xxv. Heft 5, 1902.

KRAGUYEVATS (also written KRAGUIEVATZ and KRAGUJEVAC), the capital of the Kraguyevats department of Servia; situated 59 m. S.S.W. of Belgrade, in a valley of the Shumadia, or "forest-land," and on the Lepenitsa, a small stream flowing north-east to join the Morava. On the opposite bank stands the picturesque hamlet of Obilichevo, with a large powder factory. Kraguyevats itself is the main arsenal of Servia, and possesses an iron-foundry and a steam flour-mill. It is the seat of the district prefecture, of a tribunal, of a fine library, and of a large garrison. It boasts the finest college building and the finest modern cathedral (in Byzantine style) in Servia. In the first years of Servia's autonomy under Prince Milosh, it was the residence of the prince and the seat of government (1818–1839). Even later, between 1868 and 1880, the national assembly (*Narodna Skupshtina*) usually met there. In 1885 it was connected by a branch line (Kraguyevats-Lapovo) with the principal railway (Belgrade-Nish), and thenceforward the prosperity of the town steadily increased. Pop. (1900), 14,160.

KRAKATOA (KRAKATAO, KRAKATAU), a small volcanic island in Sunda Strait, between the islands of Java and Sumatra, celebrated for its eruption in 1883, one of the most stupendous ever recorded. At some early period a large volcano rose in the centre of the tract where the Sunda Strait now runs. Long before any European had visited these waters an explosion took place by which the mountain was so completely blown away that only the outer portions of its base were left as a broken ring of islands. Subsequent eruptions gradually built up a new series of small cones within the great crater ring. Of these the most important rose to a height of 2623 ft. above the sea and formed the peak of the volcanic island of Krakatoa. But compared with the great neighbouring volcanoes of Java and Sumatra, the islets of the Sunda Strait were comparatively unknown. Krakatoa was uninhabited, and no satisfactory map or chart of it had been made. In 1680 it appears to have been in eruption, when great earthquakes took place and large quantities of pumice were ejected. But the effects of this disturbance had been so concealed by the subsequent spread of tropical vegetation that the very occurrence of the eruption had sometimes been called in question. At last, about 1877, earthquakes began to occur frequently in the Sunda Strait and continued for the next few years. In 1883 the manifestations of subterranean commotion became more decided, for in May Krakatoa broke out in eruption. For some time the efforts of the volcano appear to have consisted mainly in the discharge of pumice and dust, with the usual accompaniment of detonations and earthquakes. But on the 26th of August a succession of paroxysmal explosions began which lasted till the morning of the 28th. The four most violent took place on the morning of the 27th. The whole of the northern and lower portion of the island of Krakatoa, lying within the original crater ring of prehistoric times, was blown away; the northern part of the cone of Rakata almost entirely disappeared, leaving a vertical cliff which laid bare the inner structure of that volcano. Instead of the volcanic island which had previously existed, and rose from 300 to 1400 ft. above the sea, there was now left a submarine cavity, the bottom of which was here and there more than 1000 ft. below the sea-level. This prodigious evisceration was the result of successive violent explosions of the superheated vapour absorbed in the molten magma within the crust of the earth. The vigour and repetition of these explosions, it has been suggested, may have been caused by sudden inrushes of the water of the ocean as the throat of the volcano was cleared and the crater ring was lowered and ruptured. The access of large bodies of cold water to the top of the column of molten lava would probably give rise at once to some minor explosions, and then to a chilling of the surface of the lava and a consequent temporary diminution or even cessation of the volcanic eructations. But until the pent-up water-vapour in the lava below had found relief it would only gather strength until it was able to burst through the chilled crust and overlying water, and to hurl a vast mass of cooled lava, pumice and dust into the air.

The amount of material discharged during the two days of paroxysmal energy was enormous, though there are no satisfactory data for even approximately estimating it. A large cavity was formed where the island had previously stood, and the sea-bottom around this crater was covered with a wide and thick sheet of fragmentary materials. Some of the surrounding islands received such a thick accumulation of ejected stones and

dust as to bury their forests and greatly to increase the area of the land. So much was the sea filled up that a number of new islands rose above its level. But a vast body of the fine dust was carried far and wide by aerial currents, while the floating pumice was transported for many hundreds of miles on the surface of the ocean. At Batavia, 100 m. from the centre of eruption, the sky was darkened by the quantity of ashes borne across it, and lamps had to be used in the houses at midday. The darkness even reached as far as Bandong, a distance of nearly 150 miles. It was computed that the column of stones, dust and ashes projected from the volcano shot up into the air for a height of 17 m. or more. The finer particles coming into the higher layers of the atmosphere were diffused over a large part of the surface of the earth, and showed their presence by the brilliant sunset glows to which they gave rise. Within the tropics they were at first borne along by air-currents at an estimated rate of about 73 m. an hour from east to west, until within a period of six weeks they were diffused over nearly the whole space between the latitudes 30° N. and 45° S. Eventually they spread northwards and southwards and were carried over North and South America, Europe, Asia, South Africa and Australasia. In the Old World they spread from the north of Scandinavia to the Cape of Good Hope.

Another remarkable result of this eruption was the world-wide disturbance of the atmosphere. The culminating paroxysm on the morning of the 27th of August gave rise to an atmospheric wave or oscillation, which, travelling outwards from the volcano as a centre, became a great circle at 180° from its point of origin, whence it continued travelling onwards and contracting till it reached a node at the antipodes to Krakatoa. It was then reflected or reproduced, travelling backwards again to the volcano, whence it once more returned in its original direction. "In this manner its repetition was observed not fewer than seven times at many of the stations, four passages having been those of the wave travelling from Krakatoa, and three those of the wave travelling from its antipodes, subsequently to which its traces were lost" (Sir R. Strachey).

The actual sounds of the volcanic explosions were heard over a vast area, especially towards the west. Thus they were noticed at Rodriguez, nearly 3000 English miles away, at Bangkok (1413 m.), in the Philippine Islands (about 1450 m.), in Ceylon (2058 m.) and in West and South Australia (from 1300 to 2250 m.). On no other occasion have sound-waves ever been perceived at anything like the extreme distances to which the detonations of Krakatoa reached.

Not less manifest and far more serious were the effects of the successive explosions of the volcano upon the waters of the ocean. A succession of waves was generated which appear to have been of two kinds, long waves with periods of more than an hour, and shorter but higher waves, with irregular and much briefer intervals. The greatest disturbance, probably resulting from a combination of both kinds of waves, reached a height of about 50 ft. The destruction caused by the rush of such a body of sea-water along the coasts and low islands was enormous. All vessels lying in harbour or near the shore were stranded, the towns, villages and settlements close to the sea were either at once, or by successive inundations, entirely destroyed, and more than 36,000 human beings perished. The sea-waves travelled to vast distances from the centre of propagation. The long wave reached Cape Horn (7818 geographical miles) and possibly the English Channel (11,040 m.). The shorter waves reached Ceylon and perhaps Mauritius (2900 m.).

See R. D. M. Verbeek, *Krakatau* (Batavia, 1886); "The Eruption of Krakatoa and Subsequent Phenomena," *Report of the Krakatoa Committee of the Royal Society* (London, 1888).

KRAKEN, in Norwegian folk-lore, a sea-monster, believed to haunt the coasts of Norway. It was described in 1752 by the Norwegian bishop Pontoppidan as having a back about a mile and a half round and a body which showed above the sea like an island, and its arms were long enough to enclose the largest ship. The further assertion that the kraken darkened the water around it by an excretion suggests that the myth was based on the appearance of some gigantic cuttle-fish.

See J. Gibson, *Monsters of the Sea* (1887); A. S. Packard, "Colossal Cuttle-fishes," *American Naturalist* (Salem, 1873), vol. vii.; A. E. Verrill, "The Colossal Cephalopods of the Western Atlantic," in *American Naturalist* (Salem, 1875), vol. ix.; and "Gigantic Squids," in *Trans. of Connecticut Academy* (1879), vol. v.

KRALYEVO (sometimes written KRALJEVO or KRALIEVO), a city of Servia, and capital of a department bearing the same name. Kralyevo is built beside the river Ibar, 4 m. W. of its confluence with the Servian Morava; and in the midst of an upland valley, between the Kotlenik Mountains, on the north, and the Stolovi Mountains, on the south. Formerly known as Karanovats, Kralyevo received its present name, signifying "the King's Town," from King Milan (1868–1889), who also made it a bishopric, instead of Chachak, 22 m. W. by N. Kralyevo is a garrison town, with a prefecture, court of first instance, and an agricultural school. But by far its most interesting feature is the Coronation church belonging to Jicha monastery. Here six or seven kings are said to have been crowned. The church is Byzantine in style, and has been partially restored; but the main tower dates from the year 1210, when it was founded by St Sava, the patron saint of Servia. Pop. (1900), about 3600.

The famous monastery of Studenitsa, 24 m. S. by W. of Kralyevo, stands high up among the south-western mountains, overlooking the Studenitsa, a tributary of the Ibar. It consists of a group of old-fashioned timber and plaster buildings, a tall belfry, and a diminutive church of white marble, founded in 1190 by King Stephen Nemanya, who himself turned monk and was canonized as St Simeon. The carvings round the north, south and west doors have been partially defaced by the Turks. The inner walls are decorated with Byzantine frescoes, among which only a painting of the Last Supper, and the portraits of five saints, remain unrestored. The dome and narthex are modern additions. Besides the silver shrine of St Simeon, many gold and silver ornaments, church vessels and old manuscripts, there are a set of vestments and a reliquary, believed by the monks to have been the property of St Sava.

KRANTZ (or CRANTZ), **ALBERT** (*c.* 1450–1517), German historian, was a native of Hamburg. He studied law, theology and history at Rostock and Cologne, and after travelling through western and southern Europe was appointed professor, first of philosophy and subsequently of theology, in the university of Rostock, of which he was rector in 1482. In 1493 he returned to Hamburg as theological lecturer, canon and prebendary in the cathedral. By the senate of Hamburg he was employed on more than one diplomatic mission abroad, and in 1500 he was chosen by the king of Denmark and the duke of Holstein as arbiter in their dispute regarding the province of Dithmarschen. As dean of the cathedral chapter, to which office he was appointed in 1508, Krantz applied himself with zeal to the reform of ecclesiastical abuses, but, though opposed to various corruptions connected with church discipline, he had little sympathy with the drastic measures of Wycliffe or Huss. With Luther's protest against the abuse of Indulgences he was in general sympathy, but with the reformer's later attitude he could not agree. When, on his death-bed, he heard of the ninety-five theses, he is said, on good authority, to have exclaimed: "Brother, Brother, go into thy cell and say, God have mercy upon me!" Krantz died on the 7th of December 1517.

Krantz was the author of a number of historical works which for the period when they were written are characterized by exceptional impartiality and research. The principal of these are *Chronica regnorum aquilonarium Daniae, Sueciae, et Norvagiae* (Strassburg, 1546); *Vandalia, sive Historia de Vandalorum vera origine*, &c. (Cologne, 1518); *Saxonia* (1520); and *Metropolis, sive Historia de ecclesiis sub Carolo Magno in Saxonia* (Basel, 1548). See life by N. Wilckens (Hamburg, 1722).

KRASNOVODSK, a seaport of Russian Transcaspia, on the N. shore of Balkhan or Krasnovodsk Bay, on the S. side of the Caspian Sea, opposite to Baku, and at 69 ft. below sea-level. Pop. (1897), 6359. It is defended by a fort. Here begins the Transcaspian railway to Merv and Bokhara. There is a fishing

industry, and salt and sulphur are obtained. Krasnovodsk, which is the capital of the Transcaspian province, was founded in 1869.

KRASNOYARSK, a town of Eastern Siberia, capital of the government of Yeniseisk, on the left bank of the Yenisei River, at its confluence with the Kacha, and on the highway from Moscow to Irkutsk, 670 m. by rail N.W. from the latter. Pop. (1900), 33,337. It has a municipal museum and a railway technical school. It was founded by Cossacks in 1628, and during the early years of its existence it was more than once besieged by the Tatars and the Kirghiz. Its commercial importance depends entirely upon the gold-washings of the Yeniseisk district. Brick-making, soap-boiling, tanning and iron-founding are carried on. The climate is very cold, but dry. The Yenisei River is frozen here for 160 days in the year.

KRASZEWSKI, JOSEPH IGNATIUS (1812–1887), Polish novelist and miscellaneous writer, was born at Warsaw on the 28th of July 1812, of an aristocratic family. He showed a precocious talent for authorship, beginning his literary career with a volume of sketches from society as early as 1829, and for more than half a century scarcely ever intermitting his literary production, except during a period of imprisonment upon a charge of complicity in the insurrection of 1831. He narrowly escaped being sent to Siberia, but, rescued by the intercession of powerful friends, he settled upon his landed property near Grodno, and devoted himself to literature with such industry that a mere selection from his fiction alone, reprinted at Lemberg from 1871 to 1875, occupies 102 volumes. He was thus the most conspicuous literary figure of his day in Poland. His extreme fertility was suggestive of haste and carelessness, but he declared that the contrivance of his plot gave him three times as much trouble as the composition of his novel. Apart from his gifts as a story-teller, he did not possess extraordinary mental powers; the "profound thoughts" culled from his writings by his admiring biographer Bohdanowicz are for the most part mere truisms. His copious invention is nevertheless combined with real truth to nature, especially evinced in the beautiful little story of *Jermola the Potter* (1857), from which George Eliot appears to have derived the idea of *Silas Marner*, though she can only have known it at second hand. Compared with the exquisite art of *Silas Marner*, *Jermola* appears rude and unskilful, but it is not on this account the less touching in its fidelity to the tenderest elements of human nature. Kraszewski's literary activity falls into two well-marked epochs, the earlier when, residing upon his estate, he produced romances like *Jermola*, *Ulana* (1843), *Kordecki* (1852), devoid of any special tendency, and that after 1863, when the suspicions of the Russian government compelled him to settle in Dresden. To this period belong several political novels published under the pseudonym of *Boleslawita*, historical fictions such as *Countess Cosel*, and the "culture" romances *Morituri* (1874–1875) and *Resurrecturi* (1876), by which he is perhaps best known out of his own country. In 1884 he was accused of plotting against the German government and sentenced to seven years' imprisonment in a fortress, but was released in 1886, and withdrew to Geneva, where he died on the 19th of March 1887. His remains were brought to Poland and interred at Cracow. Kraszewski was also a poet and dramatist; his most celebrated poem is his epic *Anafielas* (3 vols., 1840–1843) on the history of Lithuania. He was indefatigable as literary critic, editor and translator, wrote several historical works, and was conspicuous as a restorer of the study of national archaeology in Poland. Among his most valuable works were *Litwa* (Warsaw, 2 vols., 1847–1850), a collection of Lithuanian antiquities; and an aesthetic history of Poland (Posen, 3 vols., 1873–1875). (R. G.)

KRAUSE, KARL CHRISTIAN FRIEDRICH (1781–1832), German philosopher, was born at Eisenberg on the 4th of May 1781, and died at Munich on the 27th of September 1832. Educated at first at Eisenberg, he proceeded to Jena, where he studied philosophy under Hegel and Fichte and became *privatdozent* in 1802. In the same year, with characteristic imprudence, he married a wife without dowry. Two years after, lack of pupils compelled him to move to Rudolstadt and later to Dresden, where he gave lessons in music. In 1805 his ideal of a universal world-society led him to join the Freemasons, whose principles seemed to tend in the direction he desired. He published two books on Freemasonry, *Die drei ältesten Kunsturkunden der Freimaurerbrüderschaft* and *Höhere Vergeistigung der echt überlieferten Grundsymbole der Freimaurerei*, but his opinions drew upon him the opposition of the Masons. He lived for a time in Berlin and became a *privatdozent*, but was unable to obtain a professorship. He therefore proceeded to Göttingen and afterwards to Munich, where he died of apoplexy at the very moment when the influence of Franz von Baader had at last obtained a position for him.

One of the so-called "Philosophers of Identity," Krause endeavoured to reconcile the ideas of a God known by Faith or Conscience and the world as known to sense. God, intuitively known by Conscience, is not a personality (which implies limitations), but an all-inclusive essence (*Wesen*), which contains the Universe within itself. This system he called *Panentheism*, a combination of Theism and Pantheism. His theory of the world and of humanity is universal and idealistic. The world itself and mankind, its highest component, constitute an organism (*Gliedbau*), and the universe is therefore a divine organism (*Wesengliedbau*). The process of development is the formation of higher unities, and the last stage is the identification of the world with God. The form which this development takes, according to Krause, is Right or the Perfect Law. Right is not the sum of the conditions of external liberty but of absolute liberty, and embraces all the existence of nature, reason and humanity. It is the mode, or rationale, of all progress from the lower to the highest unity or identification. By its operation the reality of nature and reason rises into the reality of humanity. God is the reality which transcends and includes both nature and humanity. Right is, therefore, at once the dynamic and the safeguard of progress. Ideal society results from the widening of the organic operation of this principle from the individual man to small groups of men, and finally to mankind as a whole. The differences disappear as the inherent identity of structure predominates in an ever-increasing degree, and in the final unity Man is merged in God.

The comparatively small area of Krause's influence was due partly to the overshadowing brilliance of Hegel, and partly to two intrinsic defects. The spirit of his thought is mystical and by no means easy to follow, and this difficulty is accentuated, even to German readers, by the use of artificial terminology. He makes use of germanized foreign terms which are unintelligible to the ordinary man. His principal works are (beside those quoted above): *Entwurf des Systems der Philosophie* (1804); *System der Sittenlehre* (1810); *Das Urbild der Menschheit* (1811); and *Vorlesungen über das System der Philosophie* (1828). He left behind him at his death a mass of unpublished notes, part of which has been collected and published by his disciples, H. Ahrens (1808–1874), Leonhardi, Tiberghien and others.

See H. S. Lindemann, *Uebersichtliche Darstellung des Lebens ... Krauses* (1839); P. Hohlfeld, *Die Krausesche Philosophie* (1879); A. Procksch, *Krause, ein Lebensbild nach seinen Briefen* (1880); R. Eucken, *Zur Erinnerung an Krause* (1881); B. Martin, *Krauses Leben und Bedeutung* (1881), and Histories of Philosophy by Zeller, Windelband and Höffding.

KRAWANG, a residency of the island of Java, Dutch East Indies, bounded E. and S. by Charibon and the Preanger, W. by Batavia, and N. by the Java Sea, and comprising a few insignificant islands. The natives are Sundanese, but contain a large admixture of Middle Javanese and Bantamers in the north, where they established colonies in the 17th century. Like the residency of Batavia, the northern half of Krawang is flat and occasionally marshy, while the southern half is mountainous and volcanic. Warm and cold mineral, salt and sulphur springs occur in the hills. Salt is extracted by the government, though in smaller quantities now than formerly. The principal products are rice, coffee, sugar, vanilla, indigo and nutmeg. Fishing is practised along the coast and forest culture in the hills, while the

industries also include the manufacture of coarse linen, sacks and leather tanning. Gold and silver were formerly thought to be hidden in the Parang mountain in the Gandasoli district south-west of Purwakarta, and mining was begun by the Dutch East India Company in 1722. The largest part of the residency consists of private lands, and only the Purwakarta and Krawang divisions forming the middle and north-west sections come directly under government control. The remainder of the residency is divided between the Pamanukan-Chiasem lands occupying the whole eastern half of the residency and the Tegalwaru lands in the south-western corner. The former is owned by a company and forms the largest estate in Java. The Tegalwaru is chiefly owned by Chinese proprietors. Purwakarta is the capital of the residency. Subang and Pamanukan both lie at the junction of several roads near the borders of Cheribon and are the chief centres of activity in the east of the residency.

KRAY VON KRAJOVA, PAUL, FREIHERR (1735–1804), Austrian soldier. Entering the Austrian army at the age of nineteen, he arrived somewhat rapidly at the grade of major, but it was many years before he had any opportunity of distinguishing himself. In 1784 he suppressed a rising in Transylvania, and in the Turkish wars he took an active part at Porczeny and the Vulcan Pass. Made major-general in 1790, three years later he commanded the advanced guard of the Allies operating in France. He distinguished himself at Famars, Charleroi, Fleurus, Weissenberg, and indeed at almost every encounter with the troops of the French Republic. In the celebrated campaign of 1796 on the Rhine and Danube he did conspicuous service as a corps commander. At Wetzlar he defeated Kléber, and at Amberg and Würzburg he was largely responsible for the victory of the archduke Charles. In the following year he was less successful, being twice defeated on the Lahn and the Main. Kray commanded in Italy in 1799, and reconquered from the French the plain of Lombardy. For his victories of Verona, Mantua, Legnago and Magnano he was promoted *Feldzeugmeister*, and he ended the campaign by further victories at Novi and Fossano. Next year he commanded on the Rhine against Moreau. (For the events of this memorable campaign see FRENCH REVOLUTIONARY WARS.) As a consequence of the defeats he underwent at Biberach, Messkirch, &c., Kray was driven into Ulm, but by a skilful march round Moreau's flank succeeded in escaping to Bohemia. He was relieved of his command by the Austrian government, and passed his remaining years in retirement. He died in 1804. Kray was one of the best representatives of the old Austrian army. Tied to an obsolete system and unable from habit to realize the changed conditions of warfare, he failed, but his enemies held him in the highest respect as a brave, skilful and chivalrous opponent. It was he who at Altenkirchen cared for the dying Marceau, and the white uniforms of Kray and his staff mingled with the blue of the French in the funeral procession of the young general of the Republic.

KREMENCHUG, a town of south-west Russia, in the government of Poltava, on the left bank of the Dnieper (which periodically overflows its banks), 73 m. S.W. of the city of Poltava, on the Kharkov-Nikolayev railway. Pop. (1887), 31,000; (1897, with Kryukov suburb), 58,648. The most notable public buildings are the cathedral (built in 1808), the arsenal and the town-hall. The town is supposed to have been founded in 1571. From its situation at the southern terminus of the navigable course of the Dnieper, and on the highway from Moscow to Odessa, it early acquired great commercial importance, and by 1655 it was a wealthy town. From 1765 to 1789 it was the capital of "New Russia." It has a suburb, Kryukov, on the right bank of the Dnieper, united with the town by a railway bridge. Nearly all commercial transactions in salt with White Russia are effected at Kremenchug. The town is also the centre of the tallow trade with Warsaw; considerable quantities of timber are floated down to this place. Nearly all the trade in the brandy manufactured in the government of Kharkov, and destined for the governments of Ekaterinoslav and Taurida, is concentrated here, as also is the trade in linseed between the districts situated on the left affluents of the Dnieper and the southern ports. Other articles of commerce are rye, rye-flour, wheat, oats and buckwheat, which are sent partly up the Dnieper to Pinsk, partly by land to Odessa and Berislav, but principally to Ekaterinoslav, on light boats floated down during the spring floods. The Dnieper is crossed at Kremenchug by a tubular bridge 1081 yds. long; there is also a bridge of boats. The manufactures consist of carriages, agricultural machinery, tobacco, steam flour-mills, steam saw-mills and forges.

KREMENETS (Polish, *Krzemieniec*), a town of south-west Russia, in the government of Volhynia, 130 m. W. of Zhitomir, and 25 m. E. of Brody railway station (Austrian Galicia). Pop. (1900), 16,534. It is situated in a gorge of the Kremenets Hills. The Jews, who are numerous, carry on a brisk trade in tobacco and grain exported to Galicia and Odessa. The picturesque ruins of an old castle on a crag close by the town are usually known as the castle of Queen Bona, *i.e.* Bona Sforza (wife of Sigismund I. of Poland); it was built, however, in the 8th or 9th century. The Mongols vainly besieged it in 1241 and 1255. From that time Kremenets was under the dominion alternately of Lithuania and Poland, till 1648, when it was taken by the Zaporogian Cossacks. From 1805 to 1832 its Polish lyceum was the centre of superior instruction for the western provinces of Little Russia; but after the Polish insurrection of 1831 the lyceum was transferred to Kiev, and is now the university of that town.

KREMS, a town of Austria, in lower Austria, 40 m. W.N.W. of Vienna by rail. Pop. (1900), 12,657. It is situated at the confluence of the Krems with the Danube. The manufactures comprise steel goods, mustard and vinegar, and a special kind of white lead (*Kremser Weiss*) is prepared from deposits in the neighbourhood. The trade is mainly in these products and in wine and saffron. The Danube harbour of Krems is at the adjoining town of Stein (pop., 4299).

KREMSIER, (Czech, *Kroměřtž*), a town of Austria, in Moravia, 37 m. E. by N. of Brünn by rail. Pop. (1900), 13,991, mostly Czech. It is situated on the March, in the fertile region of the Hanna, and not far from the confluence of these two rivers. It is the summer residence of the bishop of Olmütz, whose palace, surrounded by a fine park and gardens, and containing a picture gallery, library and various collections, forms the chief object of interest. Its industries include the manufacture of machinery and iron-founding, brewing and corn-milling, and there is a considerable trade in corn, cattle, fruit and manufactures. In 1131 Kremsier was the seat of a bishopric. It suffered considerably during the Hussite war; and in 1643 it was taken and burned by the Swedes. After the rising of 1848 the Austrian parliament met in the palace at Kremsier from November 1848 till March 1849. In August 1885 a meeting took place here between the Austrian and the Russian emperors.

KREUTZER, KONRADIN (1780–1849), German musical composer, was born on the 22nd of November 1780 in Messkirch in Baden, and died on the 14th of December 1849 in Riga. He owes his fame almost exclusively to one opera, *Das Nachtlager von Granada* (1834), which kept the stage for half a century in spite of the changes in musical taste. It was written in the style of Weber, and is remarkable especially for its flow of genuine melody and depth of feeling. The same qualities are found in Kreutzer's part-songs for men's voices, which at one time were extremely popular in Germany, and are still listened to with pleasure. Amongst these "Der Tag des Herrn" ("The Lord's Day") may be named as the most excellent. Kreutzer was a prolific composer, and wrote a number of operas for the theatre at Vienna, which have disappeared from the stage and are not likely to be revived. He was from 1812 to 1816 Kapellmeister to the king of Württemberg, and in 1840 became conductor of the opera at Cologne. His daughter, Cecilia Kreutzer, was a singer of some renown.

KREUTZER, RUDOLPH (1766–1831), French violinist, of German extraction, was born at Versailles, his father being a musician in the royal chapel. Rudolph gradually became

famous as a violinist, playing with great success at various continental capitals. It was to him that in 1803 Beethoven dedicated his famous violin sonata (*op.* 47) known as the "Kreutzer." Apart, however, from his fame as a violinist, Kreutzer was also a prolific composer; he wrote twenty-nine operas, many of which were successfully produced, besides nineteen violin concertos and chamber music. He died at Geneva in 1831.

KREUZBURG, a town of Germany, in the Prussian province of Silesia, on the Stober, 24 m. N.N.E. of Oppeln. Pop. (1905), 10,919. It has an Evangelical and a Roman Catholic church, a gymnasium and a teacher's seminary. Here are flour-mills, distilleries, iron-works, breweries, and manufactories of sugar and of machinery. Kreuzburg, which became a town in 1252, was the birthplace of the novelist Gustav Freytag.

KREUZNACH (CREUZNACH), a town and watering-place of Germany, in the Prussian Rhine province, situated on the Nahe, a tributary of the Rhine, 9 m. by rail S. of Bingerbrück. Pop. (1900), 21,321. It consists of the old town on the right bank of the river, the new town on the left, and the Bade Insel (bath island), connected by a fine stone bridge. The town has two Evangelical and three Roman Catholic churches, a gymnasium, a commercial school and a hospital. There is a collection of Roman and medieval antiquities, among which is preserved a fine Roman mosaic discovered in 1893. On the Bade Insel is the Kurhaus (1872) and also the chief spring, the Elisabethquelle, impregnated with iodine and bromine, and prescribed for scrofulous, bronchial and rheumatic disorders. The chief industries are marble-polishing and the manufacture of leather, glass and tobacco. Vines are cultivated on the neighbouring hills, and there is a trade in wine and corn.

The earliest mention of the springs of Kreuznach occurs in 1478, but it was only in the early part of the 19th century that Dr Prieger, to whom there is a statue in the town, brought them into prominence. Now the annual number of visitors amounts to several thousands. Kreuznach was evidently a Roman town, as the ruins of a Roman fortification, the Heidenmauer, and various antiquities have been found in its immediate neighbourhood. In the 9th century it was known as Cruciniacum, and it had a palace of the Carolingian kings. In 1065 the emperor Henry IV. presented it to the bishopric of Spires; in the 13th century it obtained civic privileges and passed to the counts of Sponheim; in 1416 it became part of the Palatinate. The town was ceded to Prussia in 1814. In 1689 the French reduced the strong castle of Kauzenberg to the ruin which now stands on a hill above Kreuznach.

See Schneegans, *Historisch-topographische Beschreibung Kreuznachs und seiner Umgebung* (7th ed., 1904); Engelmann, *Kreuznach und seine Heilquellen* (8th ed., 1890); and Stabel, *Das Solbad Kreuznach für Ärzte dargestellt* (Kreuznach, 1887).

KRIEGSPIEL (KRIEGSSPIEL), the original German name, still used to some extent in England, for the War Game (*q.v.*).

KRIEMHILD (GRÎMHILD), the heroine of the Nibelungenlied and wife of the hero Siegfried. The name (from O. H. Ger. *grîma*, a mask or helm, and *hillja* or *hilta*, war) means "the masked warrior woman," and has been taken to prove her to have been originally a mythical, daemonic figure, an impersonation of the powers of darkness and of death. In the north, indeed, the name *Grimhildr* continued to have a purely mythical character and to be applied only to daemonic beings; but in Germany, the original home of the Nibelungen myth, it certainly lost all trace of this significance, and in the *Nibelungenlied* Kriemhild is no more than a beautiful princess, the daughter of King Dancrât and Queen Uote, and sister of the Burgundian kings Gunther, Giselhêr and Gêrnôt, the masters of the Nibelungen hoard. As she appears in the Nibelungen legend, however, Kriemhild would seem to have an historical origin, as the wife of Attila, king of the Huns, as well as sister of the Nibelung kings. According to Jordanes (*c.* 49), who takes his information from the contemporary and trustworthy account of Priscus, Attila died of a violent hemorrhage at night, as he lay beside a girl named Ildico (*i.e.* O. H. Ger. Hildikô). The story got abroad that he had perished by the hand of a woman in revenge for her relations slain by him; according to some (*e.g.* Saxo Poeta and the Quedlinburg chronicle) it was her father whom she revenged; but when the treacherous overthrow of the Burgundians by Attila had become a theme for epic poets, she figured as a Burgundian princess, and her act as done in revenge for her brothers. Now the name Hildikô is the diminutive of Hilda or Hild, which again —in accordance with a custom common enough—may have been used as an abbreviation of Grîmhild (cf. *Hildr* for *Brynhildr*). It has been suggested (Symons, *Heldensage*, p. 55) that when the legend of the overthrow of the Burgundians, which took place in 437, became attached to that of the death of Attila (453), Hild, the supposed sister of the Burgundian kings, was identified with the daemonic Grîmhild, the sister of the mythical Nibelung brothers, and thus helped the process by which the Nibelung myth became fused with the historical story of the fall of the Burgundian kingdom. The older story, according to which Grîmhild slays her husband Attila in revenge for her brothers, is preserved in the Norse tradition, though Grîmhild's part is played by Gudrun, a change probably due to the fact, mentioned above, that the name Grîmhild still retained in the north its sinister significance. The name of Grîmhild is transferred to Gudrun's mother, the "wise wife," a semi-daemonic figure, who brews the potion that makes Sigurd forget his love for Brunhild and his plighted troth. In the *Nibelungenlied*, however, the primitive supremacy of the blood-tie has given place to the more modern idea of the supremacy of the passion of love, and Kriemhild marries Attila (Etzel) in order to compass the death of her brothers, in revenge for the murder of Siegfried. Theodor Abeling, who is disposed to reject or minimize the mythical origins, further suggests a confusion of the story of Attila's wife Ildico with that of the murder of Sigimund the Burgundian by the sons of Chrothildis, wife of Clovis. (See NIBELUNGENLIED.)

See B. Symons, *Germanische Heldensage* (Strassburg, 1905); F. Zarnke, *Das Nibelungenlied*, p. ii. (Leipzig, 1875); T. Abeling, *Einleitung in das Nibelungenlied* (Freiburg-im-Breisgau, 1909).

(W. A. P.)

KRILOFF (or KRUILOV), **IVAN ANDREEVICH** (1768–1844), the great national fabulist of Russia, was born on the 14th of February 1768, at Moscow, but his early years were spent at Orenburg and Tver. His father, a distinguished military officer, died in 1779; and young Kriloff was left with no richer patrimony than a chest of old books, to be brought up by the exertions of a heroic mother. In the course of a few years his mother removed to St Petersburg, in the hope of securing a government pension; and there Kriloff obtained a post in the civil service, but he gave it up immediately after his mother's death in 1788. Already in 1783 he had sold to a bookseller a comedy of his own composition, and by this means had procured for himself the works of Molière, Racine, Boileau; and now, probably under the influence of these writers, he produced *Philomela* and *Cleopatra*, which gave him access to the dramatic circle of Knyazhin. Several attempts he made to start a literary magazine met with little success; but, together with his plays, they served to make the author known in society. For about four years (1797–1801) Kriloff lived at the country seats of Prince Sergius Galitzin, and when the prince was appointed military governor of Livonia he accompanied him as official secretary. Of the years which follow his resignation of this post little is known, the common opinion being that he wandered from town to town under the influence of a passion for card-playing. Before long he found his place as a fabulist, the first collection of his *Fables*, 23 in number, appearing in 1809. From 1812 to 1841 he held a congenial appointment in the Imperial Public Library—first as assistant, and then as head of the Russian books department. He died on the 21st of November 1844. His statue in the Summer Garden is one of the finest monuments in St Petersburg.

Honours were showered upon Kriloff while he yet lived: the Academy of Sciences admitted him a member in 1811, and bestowed upon him its gold medal; in 1838 a great festival was held under imperial sanction to celebrate the jubilee of his first

appearance as an author; and the emperor assigned him a handsome pension. Before his death about 77,000 copies of his *Fables* had found sale in Russia; and his wisdom and humour had become the common possession of the many. He was at once poet and sage. His fables for the most part struck root in some actual event, and they told at once by their grip and by their beauty. Though he began as a translator and imitator he soon showed himself a master of invention, who found abundant material in the life of his native land. To the Russian ear his verse is of matchless quality; while word and phrase are direct, simple and eminently idiomatic, colour and cadence vary with the theme.

A collected edition of Kriloff's works appeared at St Petersburg, 1844. Of the numerous editions of his *Fables*, which have been often translated, may be mentioned that illustrated by Trutovski, 1872. The author's life has been written in Russian by Pletneff, by Lebanoff and by Grot, *Liter. zhizn Kruilova.* "Materials" for his life are published in vol. vi. of the *Sbornik Statei* of the literary department of the Academy of Sciences. W. R. S. Ralston prefixed an excellent sketch to his English prose version of the *Fables* (1868; 2nd ed. 1871). Another translation, by T. H. Harrison, appeared in 1883.

KRISHNA (the Dark One), an incarnation of Vishnu, or rather the form in which Vishnu himself is the most popular object of worship throughout northern India. In origin, Krishna, like Rama, was undoubtedly a deified hero of the Kshatriya caste. In the older framework of the *Mahābhārata* he appears as a great chieftain and ally of the Pandava brothers; and it is only in the interpolated episode of the *Bhagavad-gita* that he is identified with Vishnu and becomes the revealer of the doctrine of *bhakti* or religious devotion. Of still later date are the popular developments of the modern cult of Krishna associated with Radha, as found in the *Vishnu Purana*. Here he is represented as the son of a king saved from a slaughter of the innocents, brought up by a cowherd, sporting with the milkmaids, and performing miraculous feats in his childhood. The scene is laid in the neighbourhood of Muttra, on the right bank of the Jumna, where the whole country to the present day is holy ground. Another place associated with incidents of his later life is Dwarka, the westernmost point in the peninsula of Kathiawar. The two most famous preachers of Krishna-worship and founders of sects in his honour were Vallabha and Chaitanya, both born towards the close of the 15th century. The followers of the former are now found chiefly in Rajputana and Gujarat. They are known as Vallabhacharyas, and their *gosains* or high priests as maharajas, to whom semi-divine honours are paid. The licentious practices of this sect were exposed in a lawsuit before the high court at Bombay in 1862. Chaitanya was the Vaishnav reformer of Bengal, with his home at Nadiya. A third influential Krishna-preacher of the 19th century was Swami Narayan, who was encountered by Bishop Heber in Gujarat, where his followers at this day are numerous and wealthy. Among the names of Krishna are *Gopal*, the cowherd; *Gopinath*, the lord of the milkmaids; and *Mathuranath*, the lord of Muttra. His legitimate consort was Rukmini, daughter of the king of Berar; but Radha is always associated with him in his temples. (See HINDUISM.)

KRISHNAGAR, a town of British India, headquarters of Nadia district in Bengal, situated on the left bank of the river Jalangi and connected with Ranaghat, on the Eastern Bengal railway, by a light railway. Pop. (1901), 24,547. It is the residence of the raja of Nadia and contains a government college. Coloured clay figures are manufactured.

KRISTIANSTAD (CHRISTIANSTAD), a port of Sweden, chief town of the district (*län*) of Kristianstad, on a peninsula in Lake Sjövik, an expansion of the river Helge, 10 m. from the Baltic. Pop. (1900), 10,318. Its harbour, custom-house, &c., are at Åhus at the mouth of the river. It is among the first twelve manufacturing towns of Sweden as regards value of output, having engineering works, flour-mills, distilleries, weaving mills and sugar factories. Granite and wood-pulp are exported, and coal and grain imported. The town is the seat of the court of appeal for the provinces of Skane and Blekinge. It was founded and fortified in 1614 by Christian IV. of Denmark, who built the fine ornate church. The town was ceded to Sweden in 1658, retaken by Christian V. in 1676, and again acquired by Sweden in 1678.

KRIVOY ROG, a town of south Russia, in the government of Kherson, on the Ingulets River, near the station of the same name on the Ekaterinoslav railway, 113 m. S.W. of the city of Ekaterinoslav. Pop. (1900), about 10,000. It is the centre of a district very rich in minerals, obtained from a narrow stretch of crystalline schists underlying the Tertiary deposits. Iron ores (60 to 70% of iron), copper ores, colours, brown coal, graphite, slate, and lithographic stone are obtained—nearly 2,000,000 tons of iron ore annually.

KROCHMAL, NAḤMAN (1785–1840), Jewish scholar, was born at Brody in Galicia in 1785. He was one of the pioneers in the revival of Jewish learning which followed on the age of Moses Mendelssohn. His chief work was the *Moreh Nebuche hazeman* ("Guide for the Perplexed of the Age"), a title imitated from that of the 12th-century "Guide for the Perplexed" of Maimonides (*q.v.*). This book was not published till after the author's death, when it was edited by Zunz (1851). The book is a philosophy of Jewish history, and has a double importance. On the one side it was a critical examination of the Rabbinic literature and much influenced subsequent investigators. On the other side, Krochmal, in the words of N. Slouschz, "was the first Jewish scholar who views Judaism, not as a distinct and independent entity, but as a part of the whole of civilization." Krochmal, under Hegelian influences, regarded the nationality of Israel as consisting in its religious genius, its spiritual gifts. Thus Krochmal may be called the originator of the idea of the mission of the Jewish people, "cultural Zionism" as it has more recently been termed. He died at Tarnopol in 1840.

See S. Schechter, *Studies in Judaism* (1896), pp. 56 seq.; N. Slouschz, *Renascence of Hebrew Literature* (1909), pp. 63 seq.

(I. A.)

KRONENBERG, a town of Germany in the Prussian Rhine Province, 6 m. S.W. from Elberfeld, with which it is connected by railway and by an electric tramway line. Pop. (1905), 11,340. It is a scattered community, consisting of an agglomeration of seventy-three different hamlets. It has a Roman Catholic and two Protestant churches, a handsome modern town-hall and considerable industries, consisting mainly of steel and iron manufactures.

KRONSTADT or CRONSTADT, a strongly fortified seaport town of Russia, the chief naval station of the Russian fleet in the northern seas, and the seat of the Russian admiralty. Pop. (1867), 45,115; (1897), 59,539. It is situated on the island of Kotlin, near the head of the Gulf of Finland, 20 m. W. of St Petersburg, of which it is the chief port, in 59° 59′ 30″ N. and 29° 46′ 30″ E. Kronstadt, always strong, has been thoroughly refortified on modern principles. The old "three-decker" forts, five in number, which formerly constituted the principal defences of the place, and defied the Anglo-French fleets during the Crimean War, are now of secondary importance. From the plans of Todleben a new fort, Constantine, and four batteries were constructed (1856–1871) to defend the principal approach, and seven batteries to cover the shallower northern channel. All these modern fortifications are low and thickly armoured earthworks, powerfully armed with heavy Krupp guns in turrets. The town itself is surrounded with an *enceinte*. The island of Kotlin, or Kettle (Finn., *Retusari*, or Rat Island) in general outline forms an elongated triangle, 7½ m. in length by about 1 in breadth, with its base towards St Petersburg. The eastern or broad end is occupied by the town of Kronstadt, and shoals extend for a mile and a half from the western point of the island to the rock on which the Tolbaaken lighthouse is built. The island thus divides the seaward approach to St Petersburg into two channels; that on the northern side is obstructed by shoals which extend across it from Kotlin to Lisynos on the Finnish mainland, and is only passable by vessels drawing less than 15 ft. of water; the southern channel, the highway to the capital, is narrowed by a spit which projects from

opposite Oranienbaum on the Russian mainland, and, lying close to Kronstadt, has been strongly guarded by batteries. The approach to the capital has been greatly facilitated by the construction in 1875–1885 of a canal, 23 ft. deep, through the shallows. The town of Kronstadt is built on level ground, and is thus exposed to inundations, from one of which it suffered in 1824. On the south side of the town there are three harbours—the large western or merchant harbour, the western flank of which is formed by a great mole joining the fortifications which traverse the breadth of the island on this side; the middle harbour, used chiefly for fitting out and repairing vessels; and the eastern or war harbour for vessels of the Russian navy. The Peter and Catherine canals, communicating with the merchant and middle harbours, traverse the town. Between them stood the old Italian palace of Prince Menshikov, the site of which is now occupied by the pilot school. Among other public buildings are the naval hospital, the British seaman's hospital (established in 1867), the civic hospital, admiralty (founded 1785), arsenal, dockyards and foundries, school of marine engineering, the cathedral of St Andrew, and the English church. The port is ice-bound for 140 to 160 days in the year, from the beginning of December till April. A very large proportion of the inhabitants are sailors, and large numbers of artisans are employed in the dockyards. Kronstadt was founded in 1710 by Peter the Great, who took the island of Kotlin from the Swedes in 1703, when the first fortifications were constructed. (P. A. K.; J. T. Be.)

KROONSTAD, a town of Orange River Colony, 127 m. by rail N.E. of Bloemfontein and 130 m. S.W. of Johannesburg. Pop. (1904), 7191, of whom 3708 were whites. Kroonstad lies 4489 ft. above the sea and is built on the banks of the Valsch River, a perennial tributary of the Vaal. It is a busy town, being the centre of a rich agricultural district and of the diamond and coal-mining industry of the north-western parts of the colony. It is also a favourite residential place and resort of visitors from Johannesburg. It enjoys a healthy climate, affords opportunities for boating rare in South Africa, and boasts a golf-links. The principal building is the Dutch Reformed church in the centre of the market square.

On the capture of Bloemfontein by the British during the Anglo-Boer War of 1899–1902 Kroonstad was chosen by the Orange Free State Boers as the capital of the state, a dignity it held from the 13th of March to the 11th of May 1900. On the following day the town was occupied by Lord Roberts. The linking of the town in 1906 with the Natal system made the route via Kroonstad the shortest railway connexion between Cape Town and Durban. Another line goes N.W. from Kroonstad to Klerksdorp, passing (17 miles) the Lace diamond mine and (45 miles) the coal mines at Vierfontein.

KROPOTKIN, PETER ALEXEIVICH, Prince (1842–), Russian geographer, author and revolutionary, was born at Moscow in 1842. His father, Prince Alexei Petrovich Kropotkin, belonged to the old Russian nobility; his mother, the daughter of a general in the Russian army, had remarkable literary and liberal tastes. At the age of fifteen Prince Peter Kropotkin, who had been designed by his father for the army, entered the Corps of Pages at St Petersburg (1857). Only a hundred and fifty boys—mostly children of the nobility belonging to the court—were educated in this privileged corps, which combined the character of a military school endowed with special rights and of a Court institution attached to the imperial household. Here he remained till 1862, reading widely on his own account, and giving special attention to the works of the French encyclopaedists and to modern French history. Before he left Moscow Prince Kropotkin had developed an interest in the condition of the Russian peasantry, and this interest increased as he grew older. The years 1857–1861 witnessed a rich growth in the intellectual forces of Russia, and Kropotkin came under the influence of the new Liberal-revolutionary literature, which indeed largely expressed his own aspirations. In 1862 he was promoted from the Corps of Pages to the army. The members of the corps had the prescriptive right of choosing the regiment to which they would be attached. Kropotkin had never wished for a military career, but, as he had not the means to enter the St Petersburg University, he elected to join a Siberian Cossack regiment in the recently annexed Amur district, where there were prospects of administrative work. For some time he was aide de camp to the governor of Transbaikalia at Chita, subsequently being appointed attaché for Cossack affairs to the governor-general of East Siberia at Irkutsk. Opportunities for administrative work, however, were scanty, and in 1864 Kropotkin accepted charge of a geographical survey expedition, crossing North Manchuria from Transbaikalia to the Amur, and shortly afterwards was attached to another expedition which proceeded up the Sungari River into the heart of Manchuria. Both these expeditions yielded most valuable geographical results. The impossibility of obtaining any real administrative reforms in Siberia now induced Kropotkin to devote himself almost entirely to scientific exploration, in which he continued to be highly successful. In 1867 he quitted the army and returned to St Petersburg, where he entered the university, becoming at the same time secretary to the physical geography section of the Russian Geographical Society. In 1873 he published an important contribution to science, a map and paper in which he proved that the existing maps of Asia entirely misrepresented the physical formation of the country, the main structural lines being in fact from south-west to north-east, not from north to south, or from east to west as had been previously supposed. In 1871 he explored the glacial deposits of Finland and Sweden for the Russian Geographical Society, and while engaged in this work was offered the secretaryship of that society. But by this time he had determined that it was his duty not to work at fresh discoveries but to aid in diffusing existing knowledge among the people at large, and he accordingly refused the offer, and returned to St Petersburg, where he joined the revolutionary party. In 1872 he visited Switzerland, and became a member of the International Workingmen's Association at Geneva. The socialism of this body was not, however, advanced enough for his views, and after studying the programme of the more violent Jura Federation at Neuchâtel and spending some time in the company of the leading members, he definitely adopted the creed of anarchism (*q.v.*) and, on returning to Russia, took an active part in spreading the nihilist propaganda. In 1874 he was arrested and imprisoned, but escaped in 1876 and went to England, removing after a short stay to Switzerland, where he joined the Jura Federation. In 1877 he went to Paris, where he helped to start the socialist movement, returning to Switzerland in 1878, where he edited for the Jura Federation a revolutionary newspaper, *Le Révolté*, subsequently also publishing various revolutionary pamphlets. Shortly after the assassination of the tsar Alexander II. (1881) Kropotkin was expelled from Switzerland by the Swiss government, and after a short stay at Thonon (Savoy) went to London, where he remained for nearly a year, returning to Thonon towards the end of 1882. Shortly afterwards he was arrested by the French government, and, after a trial at Lyons, sentenced by a police-court magistrate (under a special law passed on the fall of the Commune) to five years' imprisonment, on the ground that he had belonged to the International Workingmen's Association (1883). In 1886 however, as the result of repeated agitation on his behalf in the French Chamber, he was released, and settled near London.

Prince Kropotkin's authority as a writer on Russia is universally acknowledged, and he has contributed largely to the *Encyclopaedia Britannica*. Among his other works may be named *Paroles d'un révolté* (1884); *La Conquête du pain* (1888); *L'Anarchie: sa philosophie, son idéal* (1896); *The State, its Part in History* (1898); *Fields, Factories and Workshops* (1899); *Memoirs of a Revolutionist* (1900); *Mutual Aid, a Factor of Evolution* (1902); *Modern Science and Anarchism* (Philadelphia, 1903); *The Desiccation of Asia* (1904); *The Orography of Asia* (1904); and *Russian Literature* (1905).

KROTOSCHIN (in Polish, *Krotoszyn*), a town of Germany, in the Prussian province of Posen, 32 m. S.E. of Posen. Pop. (1900), 12,373. It has three churches, a synagogue, steam saw-mills,

and a steam brewery, and carries on trade in grain and seeds. The castle of Krotoschin is the chief place of a mediatized principality which was formed in 1819 out of the domains of the Prussian crown and was granted to the prince of Thurn and Taxis in compensation for the relinquishment by him of the monopoly of the Prussian postal system, formerly held by his family.

KRÜDENER, BARBARA JULIANA, Baroness von (1764–1824), Russian religious mystic and author, was born at Riga in Livonia on the 11th of November 1764. Her father, Otto Hermann von Vietinghoff, who had fought as a colonel in Catherine II.'s wars, was one of the two councillors for Livonia and a man of immense wealth; her mother, *née* Countess Anna Ulrica von Münnich, was a grand-daughter of the celebrated field marshal. Juliana, as she was usually called, was one of a numerous family. Her education, according to her own account, consisted of lessons in French spelling, deportment and sewing; and at the age of eighteen (Sept. 29, 1782) she was married to Baron Burckhard Alexis Constantin von Krüdener, a widower sixteen years her senior. The baron, a diplomatist of distinction, was cold and reserved; the baroness was frivolous, pleasure-loving, and possessed of an insatiable thirst for attention and flattery; and the strained relations due to this incompatibility of temper were embittered by her limitless extravagance, which constantly involved herself and her husband in financial difficulties. At first indeed all went well. On the 31st of January 1784 a son was born to them, named Paul after the grand-duke Paul (afterwards emperor), who acted as god-father. The same year Baron Krüdener became ambassador at Venice,[1] where he remained until transferred to Copenhagen in 1786.

In 1787 the birth of a daughter (Juliette) aggravated the nervous disorders from which the baroness had for some time been suffering, and it was decided that she must go to the south for her health; she accordingly left, with her infant daughter and her step-daughter Sophie. In 1789 she was at Paris when the states general met; a year later, at Montpellier, she met a young cavalry captain, Charles Louis de Frégeville, and a passionate attachment sprang up between them. They returned together to Copenhagen, where the baroness told her husband that her heart could no longer be his. The baron was coldly kind; he refused to hear of a divorce and attempted to arrange a *modus vivendi*, which was facilitated by the departure of De Frégeville for the war. All was useless; Juliana refused to remain at Copenhagen, and, setting out on her travels, visited Riga, St Petersburg—where her father had become a senator[2]—Berlin, Leipzig and Switzerland. In 1798 her husband became ambassador at Berlin, and she joined him there. But the stiff court society of Prussia was irksome to her; money difficulties continued; and by way of climax, the murder of the tsar Paul, in whose favour Baron Krüdener had stood high, made the position of the ambassador extremely precarious. The baroness seized the occasion to leave for the baths of Teplitz, whence she wrote to her husband that the doctors had ordered her to winter in the south. He died on the 14th of June 1802, without ever having seen her again.

Meanwhile the baroness had been revelling in the intellectual society of Coppet and of Paris. She was now thirty-six; her charms were fading, but her passion for admiration survived. She had tried the effect of the shawl dance, in imitation of Emma, Lady Hamilton; she now sought fame in literature, and in 1803, after consulting Chateaubriand and other writers of distinction, published her *Valérie*, a sentimental romance, of which under a thin veil of anonymity she herself was the heroine. In January 1804 she returned to Livonia.

At Riga occurred her "conversion." A gentleman of her acquaintance when about to salute her fell dying at her feet. The shock overset her not too well balanced mind; she sought for consolation, and found it in the ministrations of her shoemaker, an ardent disciple of the Moravian Brethren. Though she had "found peace," however, the disorder of her nerves continued, and she was ordered by her doctor to the baths of Wiesbaden. At Königsberg she had an interview with Queen Louise, and, more important still, with one Adam Müller, a rough peasant, to whom the Lord had revealed a prophetic mission to King Frederick William III. "Chiliasm" was in the air. Napoleon was evidently Antichrist; and the "latter days" were about to be accomplished. Under the influence of the pietistic movement the belief was widely spread, in royal courts, in country parsonages, in peasants' hovels: a man would be raised up "from the north . . . from the rising of the sun" (Isa. xli. 25); Antichrist would be overthrown, and Christ would come to reign a thousand years upon the earth. The interview determined the direction of the baroness's religious development. A short visit to the Moravians at Herrenhut followed; then she went, via Dresden, to Karlsruhe, to sit at the feet of Heinrich Jung-Stilling (*q.v.*), the high priest of occultist pietism, whose influence was supreme at the court of Baden and infected those of Stockholm and St Petersburg.[3] By him she was instructed in the chiliastic faith and in the mysteries of the supernatural world. Then, hearing that a certain pastor in the Vosges, Jean Frédéric Fontaines, was prophesying and working miracles, she determined to go to him. On the 5th of June 1801, accordingly, she arrived at the Protestant parsonage of Sainte Marie-aux-Mines, accompanied by her daughter Juliette, her step-daughter Sophie and a Russian valet.

This remained for two years her headquarters. Fontaines, half-charlatan, half-dupe, had introduced into his household a prophetess named Marie Gottliebin Kummer,[4] whose visions, carefully calculated for her own purposes, became the oracle of the divine mysteries for the baroness. Under this influence she believed more firmly than ever in the approaching millennium and her own mission to proclaim it. Her rank, her reckless charities, and her exuberant eloquence produced a great effect on the simple country folk; and when, in 1809, it was decided to found a colony of the "elect" in order to wait for "the coming of the Lord," many wretched peasants sold or distributed all they possessed and followed the baroness and Fontaines into Württemberg, where the settlement was established at Catharinenplaisir and the château of Bönnigheim, only to be dispersed (May 1) by an unsympathetic government.[5] Further wanderings followed: to Lichtenthal near Baden; to Karlsruhe and the congenial society of pietistic princesses; to Riga, where she was present at the deathbed of her mother (Jan. 24, 1811); then back to Karlsruhe. The influence of Fontaines, to whom she had been "spiritually married" (Madame Fontaines being content with the part of Martha in the household, so long as the baroness's funds lasted), had now waned, and she had fallen under that of Johann Kaspar Wegelin (1766–1833), a pious linen-draper of Strassburg, who taught her the sweetness of "complete annihilation of the will and mystic death." Her preaching and her indiscriminate charities now began to attract curious crowds from afar; and her appearance everywhere was accompanied by an epidemic of visions and prophesyings, which culminated in the appearance in 1811 of the comet, a sure sign of the approaching end. In 1812 she was at Strassburg, whence she paid more than one visit to J. F. Oberlin (*q.v.*), the famous pastor of Waldbach in Steinthal (Ban de la Roche), and where she had the glory of converting her host, Adrien de Lazay-Marnesia, the prefect. In 1813 she was at Geneva, where she established the faith of a band of young pietists in revolt against the Calvinist Church authorities—notably Henri Louis Empeytaz, afterwards destined to be the companion of her crowning evangelistic triumph. In September 1814 she was again at Waldbach, where Empeytaz had preceded her; and at Strassburg, where the party was joined by Franz Karl von Berckheim, who afterwards married

[1] A portrait of Madame de Krüdener and her son as "Venus disarming Cupid," by Angelica Kauffmann, of this period, is in the Louvre.

[2] He died while she was there in 1792.

[3] The consorts of Alexander I. of Russia and of Gustavus Adolphus IV. of Sweden were princesses of Baden.

[4] She had been condemned some years previously in Württemberg to the pillory and three years' imprisonment as a "swindler" (*Betrügerin*), on her own confession. Her curious history is given in detail by M. Muhlenbeck.

[5] In 1809 it was obviously inconvenient to have people proclaiming Napoleon as "the Beast."

Juliette.[1] At the end of the year she returned with her daughters and Empeytaz to Baden, a fateful migration.

The empress Elizabeth of Russia was now at Karlsruhe; and she and the pietist ladies of her entourage hoped that the emperor Alexander might find at the hands of Madame de Krüdener the peace which an interview with Jung-Stilling had failed to bring him. The baroness herself wrote urgent letters to Roxane de Stourdza, sister of the tsar's Rumanian secretary, begging her to procure an interview. There seemed to be no result; but the correspondence paved the way for the opportunity which a strange chance was to give her of realizing her ambition. In the spring of 1815 the baroness was settled at Schlüchtern, a piece of Baden territory *enclavé* in Württemberg, busy persuading the peasants to sell all and fly from the wrath to come. Near this, at Heilbronn, the emperor Alexander established his headquarters on the 4th of June. That very night the baroness sought and obtained an interview. To the tsar, who had been brooding alone over an open Bible, her sudden arrival seemed an answer to his prayers; for three hours the prophetess preached her strange gospel, while the most powerful man in Europe sat, his face buried in his hands, sobbing like a child; until at last he declared that he had "found peace." At the tsar's request she followed him to Heidelberg and later to Paris, where she was lodged at the Hôtel Montchenu, next door to the imperial headquarters in the Elysée Palace. A private door connected the establishments, and every evening the emperor went to take part in the prayer-meetings conducted by the baroness and Empeytaz. Chiliasm seemed to have found an entrance into the high councils of Europe, and the baroness von Krüdener had become a political force to be reckoned with. Admission to her religious gatherings was sought by a crowd of people celebrated in the intellectual and social world; Châteaubriand came, and Benjamin Constant, Madame Récamier, the duchesse de Bourbon, and Madame de Duras. The fame of the wonderful conversion, moreover, attracted other members of the chiliastic fraternity, among them Fontaines, who brought with him the prophetess Marie Kummer.

In this religious forcing-house the idea of the Holy Alliance germinated and grew to rapid maturity. On the 26th of September the portentous proclamation, which was to herald the opening of a new age of peace and goodwill on earth, was signed by the sovereigns of Russia, Austria and Prussia (see HOLY ALLIANCE; and EUROPE: *History*). Its authorship has ever been a matter of dispute. Madame de Krüdener herself claimed that she had suggested the idea, and that Alexander had submitted the draft for her approval. This is probably correct, though the tsar later, when he had recovered his mental equilibrium, reproved her for her indiscretion in talking of the matter. His eyes, indeed, had begun to be opened before he left Paris, and Marie Kummer was the unintentional cause. At the very first séance the prophetess, whose revelations had been praised by the baroness in extravagant terms, had the evil inspiration to announce in her trance to the emperor that it was God's will that he should endow the religious colony to which she belonged! Alexander merely remarked that he had received too many such revelations before to be impressed. The baroness's influence was shaken but not destroyed, and before he left Paris Alexander gave her a passport to Russia. She was not, however, destined to see him again.

She left Paris on the 22nd of October 1815, intending to travel to St Petersburg by way of Switzerland. The tsar, however, offended by her indiscretions and sensible of the ridicule which his relations with her had brought upon him, showed little disposition to hurry her arrival. She remained in Switzerland, where she presently fell under the influence of an unscrupulous adventurer named J. G. Kellner. For months Empeytaz, an honest enthusiast, struggled to save her from this man's clutches, but in vain. Kellner too well knew how to flatter the baroness's inordinate vanity: the author of the Holy Alliance could be none other than the "woman clothed with the sun" of Rev. xii. 1. She wandered with Kellner from place to place, proclaiming her mission, working miracles, persuading her converts to sell all and follow her. Crowds of beggars and rapscallions of every description gathered wherever she went, supported by the charities squandered from the common fund. She became a nuisance to the authorities and a menace to the peace; Württemberg had expelled her, and the example was followed by every Swiss canton she entered in turn. At last, in August 1817, she set out for her estate in Livonia, accompanied by Kellner and a remnant of the elect.

The emperor Alexander having opened the Crimea to German and Swiss chiliasts in search of a land of promise, the baroness's son-in-law Berckheim and his wife now proceeded thither to help establish the new colonies. In November 1820 the baroness at last went herself to St Petersburg, where Berckheim was lying ill. She was there when the news arrived of Ypsilanti's invasion of the Danubian principalities, which opened the war of Greek independence. She at once proclaimed the divine mission of the tsar to take up arms on behalf of Christendom. Alexander, however, had long since exchanged her influence for that of Metternich, and he was far from anxious to be forced into even a holy war. To the baroness's overtures he replied in a long and polite letter, the gist of which was that she must leave St Petersburg at once. In 1823 the death of Kellner, whom to the last she regarded as a saint, was a severe blow to her. Her health was failing, but she allowed herself to be persuaded by Princess Galitzin to accompany her to the Crimea, where she had established a Swiss colony. Here, at Karasu Bazar, she died on the 25th of December 1824.

Sainte-Beuve said of Madame de Krüdener: "Elle avait un immense besoin que le monde s'occupât d'elle . . . ; l'amour propre, toujours l'amour propre . . . !" A kindlier epitaph might, perhaps, be written in her own words, uttered after the revelation of the misery of the Crimean colonists had at last opened her eyes: "The good that I have done will endure; the evil that I have done (for how often have I not mistaken for the voice of God that which was no more than the result of my imagination and my pride) the mercy of God will blot out."

Much information about Madame de Krüdener, coloured by the author's views, is to be found in H. L. Empeytaz's *Notice sur Alexandre, empereur de Russie* (2nd ed., Paris, 1840). The *Vie de Madame de Krudener* (2 vols., Paris, 1849), by the Swiss banker and Philhellene J. G. Eynard, was long the standard life and contains much material, but is far from authoritative. In English appeared the *Life and Letters of Madame de Krüdener*, by Clarence Ford (London, 1893). The most authoritative study, based on a wealth of original research, is E. Muhlenbeck's *Étude sur les origines de la Sainte-Alliance* (Paris, 1909), in which numerous references are given. (W. A. P.)

KRUG, WILHELM TRAUGOTT (1770–1842), German philosopher and author, was born at Radis in Prussia on the 22nd of June 1770, and died at Leipzig on the 12th of January 1842. He studied at Wittenberg under Reinhard and Jehnichen, at Jena under Reinhold, and at Göttingen. From 1801 to 1804 he was professor of philosophy at Frankfort-on-the-Oder, after which he succeeded Kant in the chair of logic and metaphysics at the university of Königsberg. From 1809 till his death he was professor of philosophy at Leipzig. He was a prolific writer on a great variety of subjects, in all of which he excelled as a popularizer rather than as an original thinker. In philosophy his method was psychological; he attempted to explain the Ego by examining the nature of its reflection upon the facts of consciousness. Being is known to us only through its presentation in consciousness; consciousness only in its relation to Being. Both Being and Consciousness, however, are immediately known to us, as also the relation existing between them. By this Transcendental Synthesis he proposed to reconcile Realism and Idealism, and to destroy the traditional difficulty between transcendental, or pure, thought and "things in themselves." Apart from the intrinsic value of his work, it is admitted that it had the effect of promoting the study of philosophy and of stimulating freedom of thought in religion and politics. His principal works are: *Briefe über den neuesten Idealismus*

[1] Berckheim had been French commissioner of police in Mainz and had abandoned his post in 1813.

(1801); *Versuch über die Principien der philosophischen Erkenntniss* (1801); *Fundamentalphilosophie* (1803); *System der theoretischen Philosophie* (1806–1810), *System der praktischen Philosophie* (1817–1819); *Handbuch der Philosophie* (1820; 3rd ed., 1828); *Logik oder Denklehre* (1827); *Geschichte der Philos. alter Zeit* (1815; 2nd ed., 1825); *Allgemeines Handwörterbuch der philosophischen Wissenschaften* (1827–1834; 2nd ed., 1832–1838); *Universal-philosophische Vorlesungen für Gebildete beiderlei Geschlechts.* His work *Beiträge zur Geschichte der Philos. des XIX. Jahrh.* (1835–1837) contains interesting criticisms of Hegel and Schelling.

See also his autobiography, *Meine Lebensreise* (Leipzig, 2nd ed., 1840).

KRUGER, STEPHANUS JOHANNES PAULUS (1825–1904), president of the Transvaal Republic, was born in Colesberg, Cape Colony, on the 10th of October 1825. His father was Caspar Jan Hendrick Kruger, who was born in 1796, and whose wife bore the name of Steyn. In his ancestry on both sides occur Huguenot names. The founder of the Kruger family appears to have been a German named Jacob Kruger, who in 1713 was sent with others by the Dutch East India Company to the Cape. At the age of ten Paul Kruger—as he afterwards came to be known—accompanied his parents in the migration, known as the Great Trek, from the Cape Colony to the territories north of the Orange in the years 1835–1840. From boyhood his life was one of adventure. Brought up on the borderland between civilization and barbarism, constantly trekking, fighting and hunting, his education was necessarily of the most primitive character. He learnt to read and to write, and was taught the narrowest form of Dutch Presbyterianism. His literature was almost confined to the Bible, and the Old Testament was preferred to the New. It is related of Kruger, as indeed it has been said of Piet Retief and others of the early Boer leaders, that he believed himself the object of special Divine guidance. At about the age of twenty-five he is said to have disappeared into the veldt, where he remained alone for several days, under the influence of deep religious fervour. During this sojourn in the wilderness Kruger stated that he had been especially favoured by God, who had communed with and inspired him. Throughout his life he professed this faith in God's will and guidance, and much of his influence over his followers is attributable to their belief in his sincerity and in his enjoyment of Divine favour. The Dutch Reformed Church in the Transvaal, pervaded by a spirit and faith not unlike those which distinguished the Covenanters, was divided in the early days into three sects. Of these the narrowest, most puritanical, and most bigoted was the Dopper sect, to which Kruger belonged. His Dopper following was always unswerving in its support, and at all critical times in the internal quarrels of the state rallied round him. The charge of hypocrisy, frequently made against Kruger—if by this charge is meant the mere juggling with religion for purely political ends—does not appear entirely just. The subordination of reason to a sense of superstitious fanaticism is the keynote of his character, and largely the explanation of his life. Where faith is so profound as to believe the Divine guidance *all*, and the individual intelligence *nil*, a man is able to persuade himself that any course he chooses to take is the one he is directed to take. Where bigotry is so blind, reason is but dust in the balance. At the same time there were incidents in Kruger's life which but ill conform to any Biblical standard he might choose to adopt or feel imposed upon him. Even van Oordt, his eloquent historian and apologist, is cognisant of this fact.

When the lad, who had already taken part in fights with the Matabele and the Zulus, was fourteen his family settled north of the Vaal and were among the founders of the Transvaal state. At the age of seventeen Paul found himself an assistant field cornet, at twenty he was field cornet, and at twenty-seven held a command in an expedition against the Bechuana chief Sechele —the expedition in which David Livingstone's mission-house was destroyed.

In 1853 he took part in another expedition against Montsioa. When not fighting natives in those early days Kruger was engaged in distant hunting excursions which took him as far north as the Zambezi. In 1852 the Transvaal secured the recognition of its independence from Great Britain in the Sand River convention. For many years after this date the condition of the country was one bordering upon anarchy, and into the faction strife which was continually going on Kruger freely entered. In 1856–1857 he joined M. W. Pretorius in his attempt to abolish the district governments in the Transvaal and to overthrow the Orange Free State government and compel a federation between the two countries. The raid into the Free State failed; the blackest incident in connexion with it was the attempt of the Pretorius and Kruger party to induce the Basuto to harass the Free State forces behind, while they were attacking them in front.

From this time forward Kruger's life is so intimately bound up with the history of his country, and even in later years of South Africa, that a study of that history is essential to an understanding of it (see TRANSVAAL and SOUTH AFRICA). In 1864, when the faction fighting ended and Pretorius was president, Kruger was elected commandant-general of the forces of the Transvaal. In 1870 a boundary dispute arose with the British government, which was settled by the Keate award (1871). The decision caused so much discontent in the Transvaal that it brought about the downfall of President Pretorius and his party; and Thomas François Burgers, an educated Dutch minister, resident in Cape Colony, was elected to succeed him. During the term of Burgers' presidency Kruger appeared to great disadvantage. Instead of loyally supporting the president in the difficult task of building up a stable state, he did everything in his power to undermine his authority, going so far as to urge the Boers to pay no taxes while Burgers was in office. The faction of which he was a prominent member was chiefly responsible for bringing about that *impasse* in the government of the country which drew such bitter protest from Burgers and terminated in the annexation by the British in April 1877. At this period of Transvaal history it is impossible to trace any true patriotism in the action of the majority of the inhabitants. The one idea of Kruger and his faction was to oust Burgers from office on any pretext, and, if possible, to put Kruger in his place. When the downfall of Burgers was assured and annexation offered itself as the alternative resulting from his downfall, it is true that Kruger opposed it. But matters had gone too far. Annexation became an accomplished fact, and Kruger accepted paid office under the British government. He continued, however, so openly to agitate for the retrocession of the country, being a member of two deputations which went to England endeavouring to get the annexation annulled, that in 1878 Sir Theophilus Shepstone, the British administrator, dismissed him from his service. In 1880 the Boer rebellion occurred, and Kruger was one of the famous triumvirate, of which General Piet Joubert and Pretorius were the other members, who, after Majuba, negotiated the terms of peace on which the Pretoria convention of August 1881 was drafted. In 1883 he was elected president of the Transvaal, receiving 3431 votes as against 1171 recorded for Joubert.

In November 1883 President Kruger again visited England, this time for the purpose of getting another convention. The visit was successful, the London convention, which for years was a subject of controversy, being granted by Lord Derby in 1884 on behalf of the British government. The government of the Transvaal being once more in the hands of the Boers, the country rapidly drifted towards that state of national bankruptcy from which it had only been saved by annexation in 1877. In 1886, the year in which the Rand mines were discovered, President Kruger was by no means a popular man even among his own followers; as an administrator of internal affairs he had shown himself grossly incompetent, and it was only the specious success of his negotiations with the British government which had retained him any measure of support. In 1888 he was elected president for a second term of office. In 1889 Dr. Leyds, a young Hollander, was appointed state secretary, and the system of state monopolies around which so much corruption grew up was soon

in full course of development. The principle of government monopoly in trade being thus established, President Kruger now turned his attention to the further securing of Boer political monopoly. The Uitlanders were increasing in numbers, as well as providing the state with a revenue. In 1890, 1891, 1892, and 1894 the franchise laws (which at the time of the convention were on a liberal basis) were so modified that all Uitlanders were practically excluded altogether. In 1893 Kruger had to face a third presidential election, and on this occasion the opposition he had raised among the burgers, largely by the favouritism he displayed to the Hollander party, was so strong that it was fully anticipated that his more liberal opponent, General Joubert, would be elected. Before the election was decided Kruger took care to conciliate the volksraad members, as well as to see that at all the volksraad elections, which occurred shortly before the presidential election, his supporters were returned, or, if not returned, that his opponents were objected to on some trivial pretext, and by this means prevented from actually sitting in the volksraad until the presidential election was over. The Hollander and *concessionnaire* influence, which had become a strong power in the state, was all in favour of President Kruger. In spite of these facts Kruger's position was insecure. "General Joubert was, without any doubt whatever, elected by a very considerable majority."[1] But the figures as announced gave Kruger a majority of about 700 votes. General Joubert accused the government of tampering with the returns, and appealed to the volksraad. The appeal, however, was fruitless, and Kruger retained office. The action taken by President Kruger at this election, and his previous actions in ousting President Burgers and in absolutely excluding the Uitlanders from the franchise, all show that at any cost, in his opinion, the government must remain a close corporation, and that while he lived he must remain at the head of it.

From 1877 onward Kruger's external policy was consistently anti-British, and on every side—in Bechuanaland, in Rhodesia, in Zululand—he attempted to enlarge the frontiers of the Transvaal at the expense of Great Britain. In these disputes he usually gained something, and it was not until 1895 that he was definitely defeated in his endeavours to obtain a seaport. His internal policy was blind, reckless and unscrupulous, and inevitably led to disaster. It may be summed up in his own words when replying to a deputation of Uitlanders, who desired to obtain the legalization of the use of the English language in the Transvaal. "This," said Kruger, "is my country; these are my laws. Those who do not like to obey my laws can leave my country." This rejection of the advances of the Uitlanders—by whose aid he could have built up a free and stable republic—led to his downfall, though the failure of the Jameson Raid in the first days of 1896 gave him a signal opportunity to secure the safety of his country by the grant of real reforms. But the Raid taught him no lesson of this kind, and despite the intervention of the British government the Uitlanders' grievances were not remedied.

In 1898 Kruger was elected president of the Transvaal for the fourth and last time. In 1899 relations between the Transvaal and Great Britain had become so strained, by reason of the oppression of the foreign population, that a conference was arranged at Bloemfontein between Sir Alfred (afterwards Lord) Milner, the high commissioner, and President Kruger. Kruger was true to his principles. At every juncture in his life his object had been to gain for himself and his own narrow policy everything that he could, while conceding nothing in return. It was for this reason that he invariably failed to come to any arrangement with Sir John Brand while the latter was president of the Free State. In 1889, the very year following President Brand's death, he was able to make a treaty with President Reitz, his successor, which bound each of the Boer republics to assist the other in case its independence was menaced, unless the quarrel could be shown to be an unjust one on the part of the state so menaced. In effect it bound the Free State to share all the hazardous risk of the reckless anti-British Transvaal policy, without the Free State itself receiving anything in return. Kruger thus achieved one of the objects of his life. With such a history of apparent success, it is not to be wondered at that the Transvaal president came to Bloemfontein to meet Sir Alfred Milner in no mood for concession. It is true that he made an ostensible offer on the franchise question, but that proposal was made dependent on so many conditions that it was a palpable sham. Every proposition which Sir Alfred Milner made was met by the objection that it threatened the independence of the Transvaal. This retort was President Kruger's rallying cry whenever he found himself in the least degree pressed, either from within or without the state. To admit Uitlanders to the franchise, to no matter how moderate a degree, would destroy the independence of the state. In October 1899, after a long and fruitless correspondence with the British government, war with Great Britain was ushered in by an ultimatum from the Transvaal. Immediately after the ultimatum Natal and the Cape Colony were invaded by the Boers both of the Transvaal and the Free State. Yet one of the most memorable utterances made by Kruger at the Bloemfontein conference was couched in the following terms: "We follow out what God says, 'Accursed be he that removeth his neighbour's landmark.' As long as your Excellency lives you will see that we shall never be the attacking party on another man's land." The course of the war that followed is described under TRANSVAAL. In 1900, Bloemfontein and Pretoria having been occupied by British troops, Kruger, too old to go on commando, with the consent of his executive proceeded to Europe, where he endeavoured to induce the European powers to intervene on his behalf, but without success.

From this time he ceased to have any political influence. He took up his residence at Utrecht, where he dictated a record of his career, published in 1902 under the title of *The Memoirs of Paul Kruger*. He died on the 14th of July 1904 at Clarens, near Vevey, on the shores of the Lake of Geneva, whither he had gone for the sake of his health. He was buried at Pretoria on the following 16th of December, Dingaan's Day, the anniversary of the day in 1838 when the Boers crushed the Zulu king Dingaan—a fight in which Kruger, then a lad of thirteen, had taken part. Kruger was thrice married, and had a large family. His second wife died in 1891. When he went to Europe he left his third wife in Lord Roberts's custody at Pretoria, but she gradually failed, and died there (July 1901). It was in her grave that the body of her husband was laid. It is recorded that when a statue to President Kruger at Pretoria was erected, it was by Mrs. Kruger's wish that the hat was left open at the top, in order that the rain-water might collect there for the birds to drink.

See J. F. van Oordt, *P. Kruger en de opkomst d. Zuid-Afrikaansche Republiek* (Amsterdam, 1898); the *Memoirs* already mentioned; F. R. Statham, *Paul Kruger and his Times* (1898); and, among works with a wider scope, G. M. Theal, *History of South Africa* (for events down to 1872 only); Sir J. P. Fitzpatrick, *The Transvaal from Within* (1899); *The Times History of the War in South Africa* (1900–9); and A. P. Hillier, *South African Studies* (1900).

KRUGERSDORP, a town of the Transvaal, 21 m. N.W. of Johannesburg by rail. Pop. (1904), 20,073, of whom 6946 were whites. It is built on the Witwatersrand at an elevation of 5709 ft. above the sea, and is a mining centre of some importance. It is also the starting-point of a railway to Zeerust and Mafeking. Krugersdorp was founded in 1887 at the time of the discovery of gold on the Rand and is named after President Kruger. Within the municipal area is the Paardekraal monument erected to commemorate the victory gained by the Boers under Andries Pretorius in 1838 over the Zulu king Dingaan, and on the 16th of December each year, kept as a public holiday, large numbers of Boers assemble at the monument to celebrate the event. Here in December 1880 a great meeting of Boers resolved again to proclaim the independence of the Transvaal. The formal proclamation was made on Dingaan's Day, and after the defeat of the British at Majuba Hill in 1881 that victory was also commemorated at Paardekraal on the 16th of December. The monument, which was damaged during the war of 1899–1902,

[1] Sir Percy Fitzpatrick, in *The Transvaal from Within*, ch. iii.

was restored by the British authorities. It was at Doornkop, near Krugersdorp, that Dr L. S. Jameson and his "raiders" surrendered to Commandant Piet Cronje on the 2nd of January 1896 (see TRANSVAAL: *History*). At Sterkfontein, 8 m. N.W. of Krugersdorp, are limestone caves containing beautiful stalactites.

KRUMAU (in Czech, *Krumlov*), is a town in Bohemia situated on the banks of the Moldau (Vitava). It has about 8000 inhabitants, partly of Czech, partly of German nationality. Krumau is principally celebrated because its ancient castle was long the stronghold of the Rosenberg family, known also as *pani z ruze*, the lords of the rose. Henry II. of Rosenberg (d. 1310) was the first member of the family to reside at Krumau. His son Peter I. (d. 1349) raised the place to the rank of a city. The last two members of the family were two brothers, William, created prince of Ursini-Rosenberg in 1556 (d. 1592), and Peter Vok, who played a very large part in Bohemian history. Their librarian was Wenceslas Brezan, who has left a valuable work on the annals of the Rosenberg family. Peter Vok of Rosenberg, a strong adherent of the Utraquist party, sold Krumau shortly before his death (1611), because the Jesuits had established themselves in the neighbourhood.

The lordship, one of the most extensive in the monarchy, was bought by the emperor Rudolph II. for his natural son, Julius of Austria. In 1622 the emperor Ferdinand II. presented the lordship to his minister, Hans Ulrich von Eggenberg, and in 1625 raised it to the rank of an hereditary duchy in his favour. From the Eggenberg family Krumau passed in 1719 to Prince Adam Franz Karl of Schwarzenberg, who was created duke of Krumau in 1723. The head of the Schwarzenberg family bears the title of duke of Krumau. The castle, one of the largest and finest in Bohemia, preserves much of its ancient character.

See W. Brezan, *Zivot Vilema z Rosenberka* (Life of William of Rosenberg), 1847; also *Zivot Petra Voka z Rosenberka* (Life of Peter Vok of Rosenberg), 1880.

KRUMBACHER, CARL (1856–1909), German Byzantine scholar, was born at Kürnach in Bavaria on the 23rd of September 1856. He was educated at the universities of Munich and Leipzig, and held the professorship of the middle age and modern Greek language and literature in the former from 1897 to his death. His greatest work is his *Geschichte der byzantinischen Litteratur* (from Justinian to the fall of the Eastern Empire, 1453), a second edition of which was published in 1897, with the collaboration of A. Ehrhard (section on theology) and H. Gelzer (general sketch of Byzantine history, A.D. 395–1453). The value of the work is greatly enhanced by the elaborate bibliographies contained in the body of the work and in a special supplement. Krumbacher also founded the *Byzantinische Zeitschrift* (1892) and the *Byzantinisches Archiv* (1898). He travelled extensively and the results of a journey to Greece appeared in his *Griechische Reise* (1886). Other works by him are: *Casia* (1897), a treatise on a 9th-century Byzantine poetess, with the fragments; *Michael Glykas* (1894); "Die griechische Litteratur des Mittelalters" in P. Hinneberg's *Die Kultur der Gegenwart*, i. 8 (1905); *Das Problem der neugriechischen Schriftsprache* (1902), in which he strongly opposed the efforts of the purists to introduce the classical style into modern Greek literature, and *Populäre Aufsätze* (1909).

KRUMEN (KROOMEN, KROOBOYS, KRUS, or CROOS), a negro people of the West Coast of Africa. They dwell in villages scattered along the coast of Liberia from below Monrovia nearly to Cape Palmas. The name has been wrongly derived from the English word "crew," with reference to the fact that Krumen were the first West African people to take service in European vessels. It is probably from Kraoh, the primitive name of one of their tribes. Under Krumen are now grouped many kindred tribes, the Grebo, Basa, Nifu, &c., who collectively number some 40,000. The Krus proper live in the narrow strip of coast between the Sino river and Cape Palmas, where are their five chief villages, Kruber, Little Kru, Settra Kru, Nana Kru and King William's Town. They are traditionally from the interior, but have long been noted as skilful seamen and daring fishermen. They are a stout, muscular, broad-chested race, probably the most robust of African peoples. They have true negro features—skin of a blue-black hue and woolly and abundant hair. The women are of a lighter shade than negro women generally, and in several respects come much nearer to a European standard. Morally as well as physically the Krumen are one of the most remarkable races in Africa. They are honest, brave, proud, so passionately fond of freedom that they will starve or drown themselves to escape capture, and have never trafficked in slaves. Politically the Krus are divided into small commonwealths, each with an hereditary chief whose duty is simply to represent the people in their dealings with strangers. The real government is vested in the elders, who wear as insignia iron rings on their legs. Their president, the head fetish-man, guards the national symbols, and his house is sanctuary for offenders till their guilt is proved. Personal property is held in common by each family. Land also is communal, but the rights of the actual cultivator cease only when he fails to farm it.

At 14 or 15 the Kru "boys" eagerly contract themselves for voyages of twelve or eighteen months. Generally they prefer work near at home, and are to be found on almost every ship trading on the Guinea coast. As soon as they have saved enough to buy a wife they return home and settle down. Krumen ornament their faces with tribal marks—black or blue lines on the forehead and from ear to ear. They tattoo their arms and mutilate the incisor teeth. As a race they are singularly intelligent, and exhibit their enterprise in numerous settlements along the coast. Sierra Leone, Grand Bassa and Monrovia all have their Kru towns. Dr Bleek classifies the Kru language with the Mandingo family, and in this he is followed by Dr R. G. Latham; Dr Kölle, who published a Kru grammar (1854), considers it as distinct.

See A. de Quatrefages and E. T. Hamy, *Crania ethnica*, ix. 363 (1878–1879); Schlagintweit-Sakunlunski, in the *Sitzungsberichte* of the academy at Munich (1875); Nicholas, in *Bull. de la Soc. d'Anthrop.* (Paris, 1872); J. Büttikofer, *Reisebilder aus Liberia* (Leiden, 1890); Sir H. H. Johnston, *Liberia* (London, 1906).

KRUMMACHER, FRIEDRICH ADOLF (1767–1845), German theologian, was born on the 13th of July 1767 at Tecklenburg, Westphalia. Having studied theology at Lingen and Halle, he became successively rector of the grammar school at Mörs (1793), professor of theology at Duisburg (1800), preacher at Crefeld, and afterwards at Kettwig, *Consistorialrath* and superintendent in Bernburg, and, after declining an invitation to the university of Bonn, pastor of the Ansgariuskirche in Bremen (1824). He died at Bremen on the 14th of April 1845. He was the author of many religious works, but is best known by his *Parabeln* (1805; 9th ed. 1876; Eng. trans. 1844).

A. W. Möller published his life and letters in 1849.

His brother GOTTFRIED DANIEL KRUMMACHER (1774–1837), who studied theology at Duisburg and became pastor successively in Bärl (1798), Wülfrath (1801) and Elberfeld (1816), was the leader of the "pietists" of Wupperthal, and published several volumes of sermons, including one entitled *Die Wanderungen Israels durch d. Wüste nach Kanaan* (1834).

FRIEDRICH WILHELM KRUMMACHER (1796–1868), son of Friedrich Adolf, studied theology at Halle and Jena, and became pastor successively at Frankfort (1819), Ruhrort (1823), Gemarke, near Barmen in the Wupperthal (1825), and Elberfeld (1834). In 1847 he received an appointment to the Trinity Church in Berlin, and in 1853 he became court chaplain at Potsdam. He was an influential promoter of the Evangelical Alliance. His best-known works are *Elias der Thisbiter* (1828–1833; 6th ed. 1874; Eng. trans. 1838); *Elisa* (1837) and *Das Passionsbuch, der leidende Christus* (1854, in English *The Suffering Saviour*, 1870). His *Autobiography* was published in 1869 (Eng. trans. 1871).

EMIL WILHELM KRUMMACHER (1798–1886), another son, was born at Mörs in 1798. In 1841 he became pastor in Duisburg. He wrote, amongst other works, *Herzensmanna aus Luthers*

Werken (1852). His son Hermann (1828–1890), who was appointed *Consistorialrath* in Stettin in 1877, was the author of *Deutsches Leben in Nordamerika* (1874).

KRUPP, ALFRED (1812–1887), German metallurgist, was born at Essen on the 26th of April 1812. His father, Friedrich Krupp (1787–1826), had purchased a small forge in that town about 1810, and devoted himself to the problem of manufacturing cast steel; but though that product was put on the market by him in 1815, it commanded but little sale, and the firm was far from prosperous. After his death the works were carried on by his widow, and Alfred, as the eldest son, found himself obliged, a boy of fourteen, to leave school and undertake their direction. For many years his efforts met with little success, and the concern, which in 1845 employed only 122 workmen, did scarcely more than pay its way. But in 1847 Krupp made a 3 pdr. muzzle-loading gun of cast steel, and at the Great Exhibition of London in 1851 he exhibited a solid flawless ingot of cast steel weighing 2 tons. This exhibit caused a sensation in the industrial world, and the Essen works sprang into fame. Another successful invention, the manufacture of weldless steel tires for railway vehicles, was introduced soon afterwards. The profits derived from these and other steel manufactures were devoted to the expansion of the works and to the development of the artillery with which the name of Krupp is especially associated (see ORDNANCE). The model settlement, which is one of the best-known features of the Krupp works, was started in the 'sixties, when difficulty began to be found in housing the increasing number of workmen; and now there are various "colonies," practically separate villages, dotted about to the south and south-west of the town, with schools, libraries, recreation grounds, clubs, stores, &c. The policy also was adopted of acquiring iron and coal mines, so that the firm might have command of supplies of the raw material required for its operations. Alfred Krupp, who was known as the "Cannon King," died at Essen on the 14th of July 1887, and was succeeded by his only son, Friedrich Alfred Krupp (1854–1902), who was born at Essen on the 17th of February 1854. The latter devoted himself to the financial rather than to the technical side of the business, and under him it again underwent enormous expansion. Among other things he in 1896 leased the "Germania" shipbuilding yard at Kiel, and in 1902 it passed into the complete ownership of the firm. In the latter year, which was also the year of his death, on the 22nd of November, the total number of men employed at Essen and its associated works was over 40,000. His elder daughter Bertha, who succeeded him, was married in October 1906 to Dr Gustav von Bohlen und Halbach, who on that occasion received the right to bear the name Krupp von Bohlen und Halbach. The enormous increase in the German navy involved further expansion in the operations of the Krupp firm as manufacturers of the armour plates and guns required for the new ships, and in 1908 its capital, then standing at £9,000,000, was augmented by £2,500,000.

KRUSENSTERN, ADAM IVAN (1770–1846), Russian navigator, hydrographer and admiral, was born at Haggud in Esthonia on the 19th of November 1770. In 1785 he entered the corps of naval cadets, after leaving which, in 1788, with the grade of midshipman, he served in the war against Sweden. Having been appointed to serve in the British fleet for several years (1793–1799), he visited America, India and China. After publishing a paper pointing out the advantages of direct communication between Russia and China by Cape Horn and the Cape of Good Hope, he was appointed by the emperor Alexander I. to make a voyage to the east coast of Asia to endeavour to carry out the project. Two English ships were bought, in which the expedition left Kronstadt in August 1803 and proceeded by Cape Horn and the Sandwich Islands to Kamchatka, and thence to Japan. Returning to Europe by the Cape of Good Hope, after an extended series of explorations, Krusenstern reached Kronstadt in August 1806, his being the first Russian expedition to circumnavigate the world. The emperor conferred several honours upon him, and he ultimately became admiral. As director of the Russian naval school Krusenstern did much useful work. He was also a member of the scientific committee of the marine department, and his contrivance for counteracting the influence of the iron in vessels on the compass was adopted in the navy. He died at Reval on the 24th of August 1846.

Krusenstern's *Voyage Round the World in 1803–1806* was published at St Petersburg in 1810–1814, in 3 vols., with folio atlas of 104 plates and maps (Eng. ed., 2 vols. 1813; French ed., 2 vols., and atlas of 30 plates, 1820). His narrative contains a good many important discoveries and rectifications, especially in the region of Japan, and the contributions made by the various savants were of much scientific importance. A valuable work is his *Atlas de l'Océan Pacifique*, with its accompanying *Recueil des mémoires hydrographiques* (St Petersburg, 1824–1827). See *Memoir* by his daughter, Madame Charlotte Bernhardi, translated by Sir John Ross (1856).

KRUSHEVATS (or KRUŠEVAC), a town of Servia, lying in a fertile region of hills and dales near the right bank of the Servian Morava. Pop. (1900), about 10,000. Krushevats is the capital of a department bearing the same name, and has an active trade in tobacco, hemp, flax, grain and livestock, for the sale of which it possesses about a dozen markets. It was in Krushevats that the last Servian tsar, Lazar, assembled his army to march against the Turks, and lose his empire, at Kosovo, in 1389. The site of his palace is marked by a ruined enclosure containing a fragment of the tower of Queen Militsa, whither, according to legend, tidings of the defeat were brought her by crows from the battlefield. Within the enclosure stands a church, dating from the reign of Stephen Dushan (1336–1356), with beautiful rose windows and with imperial peacocks, dragons and eagles sculptured on the walls. Several old Turkish houses were left at the beginning of the 20th century, besides an ancient Turkish fountain and bath.

KSHATTRIYA, one of the four original Indian castes, the other three being the Brahman, the Vaisya and the Sudra. The Kshattriya was the warrior caste, and their function was to protect the people and abstain from sensual pleasures. On the rise of Brahmin ascendancy the Kshattriyas were repressed, and their consequent revolt gave rise to Buddhism and Jainism, the founders of both these religions belonging to the Kshattriya caste. Though, according to tradition, the Kshattriyas were all exterminated by Parasurama, the rank is now conceded to the modern Rajputs, and also to the ruling families of native states. (See CASTE.)

KUBAN, a river of southern Russia, rising on the W. slope of the Elbruz, in the Caucasus, at an altitude of 13,930 ft., races down the N. face of the Caucasus as a mountain torrent, but upon getting down to the lower-lying steppe country S. of Stavropol it turns, at 1075 ft. altitude, towards the N.W., and eventually, assuming a westerly course, enters the Gulf of Kyzyl-tash, on the Black Sea, in the vicinity of the Straits of Kerch. Its lower course lies for some distance through marshes, where in times of overflow its breadth increases from the normal 700 ft. to over half a mile. Its total length is 500 m., the area of its basin 21,480 sq. m. It is navigable for steamers for 73 m., as far as the confluence of its tributary, the Laba (200 m. long). This, like its other affluents, the Byelaya (155 m.), Urup, and Great and Little Zelenchuk, joins it from the left. The Kuban is the ancient Hypanis and Vardanes and the Pshishche of the Circassians.

KUBAÑ, a province of Russian Caucasia, having the Sea of Azov on the W., the territory of Don Cossacks on the N., the government of Stavropol and the province of Terek on the E., and the government of Kutais and the Black Sea district on the S. and S.W. It thus contains the low and marshy lowlands on the Sea of Azov, the western portion of the fertile steppes of northern Caucasia, and the northern slopes of the Caucasus range from its north-west extremity to the Elbruz. The area is 36,370 sq. m. On the south the province includes the parallel ranges of the Black Mountains (Kara-dagh), 3000 to 6000 ft. high, which are intersected by gorges that grow deeper and wider as the main range is approached. Owing to a relatively wet climate and numerous streams, these mountains are densely clothed with woods, under the shadow of which a thick

undergrowth of rhododendrons, "Caucasian palms" (*Buxus sempervirens*), ivy, clematis, &c., develops, so as to render the forests almost impassable. These cover altogether nearly 20% of the aggregate area. Wide, treeless plains, from 1000 to 2000 ft. high, stretch north of the Kubañ, and are profusely watered by that river and its many tributaries—the Little and Great Zelenchuk, Urup, Laba, Byelaya, Pshish—mountain torrents that rush through narrow gorges from the Caucasus range. In its lower course the Kubañ forms a wide, low delta, covered with rushes, haunted by wild boar, and very unhealthy. The same characteristics mark the low plains on the east of the Sea of Azov, dotted over with numerous semi-stagnant lakes. Malaria is the enemy of these regions, and is especially deadly on the Tamañ Peninsula, as also along the left bank of the lower and middle Kubañ.

There is considerable mineral wealth. Coal is found on the Kubañ and its tributaries, but its extraction is still insignificant (less than 10,000 tons per annum). Petroleum wells exist in the district of Maikop, but the best are in the Tamañ Peninsula, where they range over 570 sq. m. Iron ores, silver and zinc are found; alabaster is extracted, as also some salt, soda and Epsom salts. The best mineral waters are at Psekup and Tamañ, where there are also numbers of mud volcanoes, ranging from small hillocks to hills 365 ft. high and more. The soil is very fertile in the plains, parts of which consist of black earth and are being rapidly populated.

The population reached 1,928,419 in 1897, of whom 1,788,622 were Russians, 13,926 Armenians, 20,137 Greeks and 20,778 Germans. There were at the same date 945,873 women, and only 156,486 people lived in towns. The estimated population in 1906 was 2,275,400. The aborigines were represented by 100,000 Circassians, 5000 Nogai Tatars and some Ossetes. The Circassians or Adyghe, who formerly occupied the mountain valleys, were compelled, after the Russian conquest in 1861, either to settle on the flat land or to emigrate; those who refused to move voluntarily were driven across the mountains to the Black Sea coast. Most of them (nearly 200,000) emigrated to Turkey, where they formed the Bashi-bazouks. Peasants from the interior provinces of Russia occupied the plains of the Kubañ, and they now number over 1,000,000, while the Kubañ Cossacks in 1897 numbered 804,372 (405,428 women). In point of religion 90% of the population were in 1897 members of the Orthodox Greek Church, 4% Raskolniks and other Christians and 5·4% Mahommedans, the rest being Jews.

Wheat is by far the chief crop (nearly three-quarters of the total area under crops are under wheat); rye, oats, barley, millet, Indian corn, some flax and potatoes, as also tobacco, are grown. Agricultural machinery is largely employed, and the province is a reserve granary for Russia. Livestock, especially sheep, is kept in large numbers on the steppes. Bee-keeping is general, and gardening and vine-growing are spreading rapidly. Fishing in the Black Sea and Sea of Azov, as also in the Kubañ, is important.

Two main lines of railway intersect the province, one running N.W. to S.E., from Rostov to Vladikavkaz, and another starting from the former south-westwards to Novorossiysk on the north coast of the Black Sea. The province is divided into seven districts, the chief towns of which, with their populations in 1897, are Ekaterinodar, capital of the province (65,697), Anapa (6676), Labinsk (6388), Batalpashinsk (8100), Maikop (34,191), Temryuk (14,476) and Yeisk (35,446).

The history of the original settlements of the various native tribes, and their language and worship before the introduction of Mahommedanism, remain a blank page in the legends of the Caucasus. The peninsula of Tamañ, a land teeming with relics of ancient Greek colonists, has been occupied successively by the Cimmerians, Sarmatians, Khazars, Mongols and other nations. The Genoese, who established an extensive trade in the 13th century, were expelled by the Turks in 1484, and in 1784 Russia obtained by treaty the entire peninsula and the territory on the right bank of the Kubañ, the latter being granted by Catherine II. in 1792 to the Cossacks of the Dnieper. Then commenced the bloody struggle with the Circassians, which continued for more than half a century. Not only domestic, but even field work, is conducted mostly by the women, who are remarkable for their physical strength and endurance. The native mountaineers, known under the general name of Circassians, but locally distinguished as the Karachai, Abadsikh, Khakuchy, Shapsugh, have greatly altered their mode of life since the pacification of the Caucasus, still, however, maintaining Mahommedanism, speaking their vernacular, and strictly observing the customs of their ancestors. Exports include wheat, tobacco, leather, wool, petroleum, timber, fish, salt and live cattle; imports, dry goods, grocery and hardware. Local industry is limited to a few tanneries, petroleum refineries and spirit distilleries. (P. A. K.; J. T. Be.)

KUBELIK, JAN (1880–), Bohemian violinist, was born near Prague, of humble parentage. He learnt the violin from childhood, and appeared in public at Prague in 1888, subsequently being trained at the Conservatorium by the famous teacher Ottakar Sevčik. From him he learnt an extraordinary technique, and from 1898 onwards his genius was acclaimed at concerts throughout Europe. He first appeared in London in 1900, and in America in 1901, creating a *furore* everywhere. In 1903 he married the Countess Czaky Szell.

KUBERA (or KUVERA), in Hindu mythology, the god of wealth. Originally he appears as king of the powers of evil, a kind of Pluto. His home is Alaka in Mount Kailasa, and his garden, the world's treasure-house, is Chaitraratha, on Mount Mandara. Kubera is half-brother to the demon Ravana, and was driven from Ceylon by the latter.

KUBLAI KHAN (or KAAN, as the supreme ruler descended from Jenghiz was usually distinctively termed in the 13th century) (1216–1294), the most eminent of the successors of Jenghiz (Chinghiz), and the founder of the Mongol dynasty in China. He was the second son of Tulē, youngest of the four sons of Jenghiz by his favourite wife. Jenghiz was succeeded in the khanship by his third son Okkodai, or Ogdai (1229), he by his son Kuyuk (1246), and Kuyuk by Mangu, eldest son of Tulē (1252). Kublai was born in 1216, and, young as he was, took part with his younger brother Hulagu (afterwards conqueror of the caliph and founder of the Mongol dynasty in Persia) in the last campaign of Jenghiz (1226–27). The Mongol poetical chronicler, Sanang Setzen, records a tradition that Jenghiz himself on his deathbed discerned young Kublai's promise and predicted his distinction.

Northern China, Cathay as it was called, had been partially conquered by Jenghiz himself, and the conquest had been followed up till the Kin or "golden" dynasty of Tatars, reigning at K'ai-fēng Fu on the Yellow River, were completely subjugated (1234). But China south of the Yangtsze-kiang remained many years later subject to the native dynasty of Sung, reigning at the great city of Lingan, or Kinsai (*King-sz'*, "capital"), now known as Hang-chow Fu. Operations to subdue this region had commenced in 1235, but languished till Mangu's accession. Kublai was then named his brother's lieutenant in Cathay, and operations were resumed. By what seems a vast and risky strategy, of which the motives are not quite clear, the first campaign of Kublai was directed to the subjugation of the remote western province of Yunnan. After the capture of Tali Fu (well known in recent years as the capital of a Mahommedan insurgent sultan), Kublai returned north, leaving the war in Yunnan to a trusted general. Some years later (1257) the khan Mangu himself entered on a campaign in west China, and died there, before Ho-chow in Szech'uen (1259).

Kublai assumed the succession, but it was disputed by his brother Arikbugha and by his cousin Kaidu, and wars with these retarded the prosecution of the southern conquest. Doubtless, however, this was constantly before Kublai as a great task to be accomplished, and its fulfilment was in his mind when he selected as the future capital of his empire the Chinese city that we now know as Peking. Here, in 1264, to the north-east of the old city, which under the name of Yenking had been an occasional residence of the Kin sovereigns, he founded his new

capital, a great rectangular plot of 18 m. in circuit. The (so-called) "Tatar city" of modern Peking is the city of Kublai, with about one-third at the north cut off, but Kublai's walls are also on this retrenched portion still traceable.

The new city, officially termed T'ai-tu ("great court"), but known among the Mongols and western people as Kaan-baligh ("city of the khan") was finished in 1267. The next year war against the Sung Empire was resumed, but was long retarded by the strenuous defence of the twin cities of Siang-yang and Fan-chēng, on opposite sides of the river Han, and commanding two great lines of approach to the basin of the Yangtsze-kiang. The siege occupied nearly five years. After this Bayan, Kublai's best lieutenant, a man of high military genius and noble character, took command. It was not, however, till 1276 that the Sung capital surrendered, and Bayan rode into the city (then probably the greatest in the world) as its conqueror. The young emperor, with his mother, was sent prisoner to Kaan-baligh; but two younger princes had been despatched to the south before the fall of the city, and these successively were proclaimed emperor by the adherents of the native throne. An attempt to maintain their cause was made in Fu-kien, and afterwards in the province of Kwang-tung; but in 1279 these efforts were finally extinguished, and the faithful minister who had inspired them terminated the struggle by jumping with his young lord into the sea.

Even under the degenerate Sung dynasty the conquest of southern China had occupied the Mongols during half a century of intermittent campaigns. But at last Kublai was ruler of all China, and probably the sovereign (at least nominally) of a greater population than had ever acknowledged one man's supremacy. For, though his rule was disputed by the princes of his house in Turkestan, it was acknowledged by those on the Volga, whose rule reached to the frontier of Poland, and by the family of his brother Hulagu, whose dominion extended from the Oxus to the Arabian desert. For the first time in history the name and character of an emperor of China were familiar as far west as the Black Sea and not unknown in Europe. The Chinese seals which Kublai conferred on his kinsmen reigning at Tabriz are stamped upon their letters to the kings of France, and survive in the archives of Paris. Adventurers from Turkestan, Persia, Armenia, Byzantium, even from Venice, served him as ministers, generals, governors, envoys, astronomers or physicians; soldiers from all Asia to the Caucasus fought his battles in the south of China. Once in his old age (1287) Kublai was compelled to take the field in person against a serious revolt, raised by Nayan, a prince of his family, who held a vast domain on the borders of Manchuria. Nayan was taken and executed. The revolt had been stirred up by Kaidu, who survived his imperial rival, and died in 1301. Kublai himself died in 1294, at the age of seventy-eight.

Though a great figure in Asiatic history, and far from deserving a niche in the long gallery of Asiatic tyrants, Kublai misses a record in the short list of the good rulers. His historical locus was a happy one, for, whilst he was the first of his race to rise above the innate barbarism of the Mongols, he retained the force and warlike character of his ancestors, which vanished utterly in the effeminacy of those who came after him. He had great intelligence and a keen desire for knowledge, with apparently a good deal of natural benevolence and magnanimity. But his love of splendour, and his fruitless expeditions beyond sea, created enormous demands for money, and he shut his eyes to the character and methods of those whom he employed to raise it. A remarkable narrative of the oppressions of one of these, Ahmed of Fenāket, and of the revolt which they provoked, is given by Marco Polo, in substantial accordance with the Chinese annals.

Kublai patronized Chinese literature and culture generally. The great astronomical instruments which he caused to be made were long preserved at Peking, but were carried off to Berlin in 1900. Though he put hardly any Chinese into the first ranks of his administration, he attached many to his confidence, and was personally popular among them. Had his endeavour to procure European priests for the instruction of his people, of which we know through Marco Polo, prospered, the Roman Catholic church, which gained some ground under his successors, might have taken stronger root in China. Failing this momentary effort, Kublai probably saw in the organized force of Tibetan Buddhism the readiest instrument in the civilization of his countrymen, and that system received his special countenance. An early act of his reign had been to constitute a young lama of intelligence and learning the head of the Lamaite Church, and eventually also prince of Tibet, an act which may be regarded as a precursory form of the rule of the "grand lamas" of Lassa. The same ecclesiastic, Mati Dhwaja, was employed by Kublai to devise a special alphabet for use with the Mongol language. It was chiefly based on Tibetan forms of Nagari; some coins and inscriptions in it are extant; but it had no great vogue, and soon perished. Of the splendour of his court and entertainments, of his palaces, summer and winter, of his great hunting expeditions, of his revenues and extraordinary paper currency, of his elaborate system of posts and much else, an account is given in the book of Marco Polo, who passed many years in Kublai's service.

We have alluded to his foreign expeditions, which were almost all disastrous. Nearly all arose out of a hankering for the nominal extension of his empire by claiming submission and tribute. Expeditions against Japan were several times repeated; the last, in 1281, on an immense scale, met with huge discomfiture. Kublai's preparations to avenge it were abandoned owing to the intense discontent which they created. In 1278 he made a claim of submission upon Champa, an ancient state representing what we now call Cochin China. This eventually led to an attempt to invade the country through Tongking, and to a war with the latter state, in which the Mongols had much the worst of it. War with Burma (or Mien, as the Chinese called it) was provoked in very similar fashion, but the result was more favourable to Kublai's arms. The country was overrun as far as the Irrawaddy delta, the ancient capital, Pagān, with its magnificent temples, destroyed, and the old royal dynasty overthrown. The last attempt of the kind was against Java, and occurred in the last year of the old khan's reign. The envoy whom he had commissioned to claim homage was sent back with ignominy. A great armament was equipped in the ports of Fu-kien to avenge this insult; but after some temporary success the force was compelled to re-embark with a loss of 3000 men. The death of Kublai prevented further action.

Some other expeditions, in which force was not used, gratified the khan's vanity by bringing back professions of homage, with presents, and with the curious reports of foreign countries in which Kublai delighted. Such expeditions extended to the states of southern India, to eastern Africa, and even to Madagascar.

Of Kublai's twelve legitimate sons, Chingkim, the favourite and designated successor, died in 1284/5; and Timur, the son of Chingkim, took his place. No great king arose in the dynasty after Kublai. He had in all nine successors of his house on the throne of Kaan-baligh, but the long and imbecile reign of the ninth, Toghon Timur, ended (1368) in disgrace and expulsion, and the native dynasty of Ming reigned in their stead. (H. Y.)

KUBUS, a tribe inhabiting the central parts of Sumatra. They are nomadic savages living entirely in the forests in shelters of branches and leaves built on platforms. It has been suggested that they represent a Sumatran aboriginal race; but Dr J. G. Garson, reporting on Kubu skulls and skeletons submitted to him by Mr. H. O. Forbes, declared them decidedly Malay, though the frizzle in the hair might indicate a certain mixture of negrito blood (*Jour. Anthrop. Instit.*, April 1884). They are of a rich olive-brown tint, their hair jet black and inclined to curl, and, though not dwarfs, are below the average height.

KUCHĀN, a fertile and populous district of the province Khorasan in Persia, bounded N. by the Russian Transcaspian territory, W. by Bujnurd, S. by Isfaraïn, and extending in the E. to near Radkan. Its area is about 3000 sq. m. and its

population, principally composed of Zafaranlu Kurds, descendants of tribes settled there by Shah Abbas I. in the 17th century, is estimated at 100,000. About 3000 families are nomads and live in tents. The district produces much grain, 25,000 to 30,000 tons yearly, and contains two towns, Kuchan and Shirvan (pop. 6000), and many villages.

KUCHAN, the capital of the district, has suffered much from the effects of earthquakes, notably in 1875, 1894 and 1895. The last earthquake laid the whole town in ruins and caused considerable loss of life. About 8000 of the survivors removed to a site 7½ m. E. and there built a new town named Nasseriyeh after Nasr-ud-din Shah, but known better as Kuchan i jadid, *i.e.* New Kuchan, and about 1000 remained in the ruined city in order to be near their vineyards and gardens. The geographical position of the old town is 37° 8′ N., 58° 25′ E., elevation 4100 ft. The new town has been regularly laid out with broad streets and spacious bazaars, and, situated as it is half-way between Meshed and Askabad on the cart-road connecting those two places, has much trade. Its population is estimated at 10,000. There are telegraph and post offices.

KUCH BEHAR, or COOCH BEHAR, a native state of India, in Bengal, consisting of a submontane tract, not far from Darjeeling, entirely surrounded by British territory. Area, 1307 sq. m. Pop. (1901), 566,974; estimated revenue, £140,000. The state forms a level plain of triangular shape, intersected by numerous rivers. The greater portion is fertile and well cultivated, but tracts of jungle are to be seen in the north-east corner, which abuts upon Assam. The soil is uniform in character throughout, consisting of a light, friable loam, varying in depth from 6 in. to 3 ft., superimposed upon a deep bed of sand. The whole is detritus, washed down by torrents from the neighbouring Himalayas. The rivers all pass through the state from north to south, to join the main stream of the Brahmaputra. Some half-dozen are navigable for small trading boats throughout the year, and are nowhere fordable; and there are about twenty minor streams which become navigable only during the rainy season. The streams have a tendency to cut new channels for themselves after every annual flood, and they communicate with one another by cross-country watercourses. Rice is grown on three-fourths of the cultivated area. Jute and tobacco are also largely grown for export. The only special industries are the weaving of a strong silk obtained from worms fed on the castor-oil plant, and of a coarse jute cloth used for screens and bedding. The external trade is chiefly in the hands of Marwari immigrants from Rajputana. Among other improvements a railway has been constructed, with the assistance of a loan from the British government. The earthquake of the 12th of June 1897 caused damage to public buildings, roads, &c., in the state to the estimated amount of £100,000.

The Koch or Rajbansi, from which the name of the state is derived, are a widely spread tribe, evidently of aboriginal descent, found throughout all northern Bengal, from Purnea district to the Assam valley. They are akin to the Indo-Chinese races of the north-east frontier; but they have now become largely hinduized, especially in their own home, where the appellation "Koch" has come to be used as a term of reproach. Their total number in all India was returned in 1901 as nearly 2½ millions.

As in the case of many other small native states, the royal family of Kuch Behar lays claim to a divine origin in order to conceal an impure aboriginal descent. The greatest monarch of the dynasty was Nar Narayan, the son of Visu Singh, who began to reign about 1550. He conquered the whole of Kamrup, built temples in Assam, of which ruins still exist bearing inscriptions with his name, and extended his power southwards over what is now part of the British districts of Rangpur and Purnea. His son, Lakshmi Narayan, who succeeded him in Kuch Behar, became tributary to the Mogul Empire. In 1772 a competitor for the throne, having been driven out of the country by his rivals, applied for assistance to Warren Hastings. A detachment of sepoys was accordingly marched into the state; the Bhutias, whose interference had led to this intervention, were expelled, and forced to sue for peace through the mediation of the lama of Tibet. By the treaty made on this occasion, April 1773, the raja acknowledged subjection to the Company, and made over to it one-half of his annual revenues. In 1863, on the death of the raja, leaving a son and heir only ten months old, a British commissioner was appointed to undertake the direct management of affairs during the minority of the prince, and many important reforms were successfully introduced. The maharaja Sir Nripendra Narayan, G.C.I.E., born in 1862, was educated under British guardianship at Patna and Calcutta, and became hon. lieutenant-colonel of the 6th Bengal Cavalry. In 1897–98 he served in the Tirah campaign on the staff of General Yeatman-Biggs, and received the distinction of a C.B. He was present at the Jubilee in 1887, the Diamond Jubilee of 1897, and King Edward's Coronation in 1902, and became a well-known figure in London society. In 1878 he married a daughter of Keshub Chunder Sen, the Brahmo leader. His eldest son was educated in England.

The town of Kuch Behar is situated on the river Tursa, and has a railway station. Pop. (1901), 10,458. It contains a college affiliated to the Calcutta University.

KUDU (*koodoo*), the native name for a large species of African antelope (*q.v.*), with large corkscrew-like horns in the male,

Male Kudu.

and the body marked with narrow vertical white lines in both sexes. The female is hornless. *Strepsiceros capensis* (or *S. strepsiceros*) is the scientific name of the true kudu, which ranges from the Cape to Somaliland; but there is also a much smaller species (*S. imberbis*) in East and North-East Africa.

KUENEN, ABRAHAM (1828–1891), Dutch Protestant theologian, the son of an apothecary, was born on the 16th of September 1828, at Haarlem, North Holland. On his father's death it became necessary for him to leave school and take a humble place in the business. By the generosity of friends he was educated at the gymnasium at Haarlem and afterwards at the university of Leiden. He studied theology, and won his doctor's degree by an edition of thirty-four chapters of Genesis from the Arabic version of the Samaritan Pentateuch. In 1853 he became professor extraordinarius of theology at Leiden, and in 1855 full professor. He married a daughter of W. Muurling, one of the founders of the Gröningen school, which made the first pronounced breach with Calvinistic theology in the Reformed Church of Holland. Kuenen himself soon became one of the main supports of the modern theology, of which J. N. Scholten (1811–1885) and Karel Willem Opzoomer (b. 1821) were the chief founders, and of which Leiden became the headquarters. His first great work, an historico-critical introduction to the Old Testament, *Historisch-kritisch onderzoek naar het onstaan en de verzameling van de boeken des Ouden Verbonds* (3 vols., 1861–1865; 2nd ed., 1885–1893; German by T. Weber and C. T. Müller, 1885–1894), followed the lines of the

dominant school of Heinrich Ewald. But before long he came under the influence of J. W. Colenso, and learned to regard the prophetic narrative of Genesis, Exodus, and Numbers as older than what was by the Germans denominated *Grundschrift* ("Book of Origins"). In 1869–1870 he published his book on the religion of Israel, *De godsdienst van Israël tot den ondergang van der Joodschen Staat* (Eng. trans., 1874–1875). This was followed in 1875 by a study of Hebrew prophecy, *De profeten en de profetie onder Israel* (Eng. trans., 1877), largely polemical in its scope, and specially directed against those who rest theological dogmas on the fulfilment of prophecy. In 1882 Kuenen went to England to deliver a course of Hibbert lectures, *National Religions and Universal Religion*; in the following year he presided at the congress of Orientalists held at Leiden. In 1886 his volume on the Hexateuch was published in England. He died at Leiden on the 10th of December 1891.

Kuenen was also the author of many articles, papers and reviews; a series on the Hexateuch, which appeared in the *Theologisch Tijdschrift*, of which in 1866 he became joint editor, is one of the finest products of modern criticism. His collected works were translated into German and published by K. Budde in 1894. Several of his works have been translated into English by Philip Wicksteed. See the article in Herzog-Hauck, *Realencyklopädie*.

KUEN-LUN, or KWEN-LUN, a term used to designate generally the mountain ranges which run along the northern edge of the great Tibetan plateau in Central Asia. In a wider application it means the succession of ranges which extend from the Pamirs on the W. to 113° E., until it strikes against or merges in the steep escarpments of the S.E. flank of the Mongolian plateau. In the narrower acceptation it applies only to those ranges which part the desert of Takla-makan on the N. from the Tibetan plateau on the S. between the Pamirs and the transverse glen of the Kara-muren, that is, nearly to the longitude of the town of Cherchen (about 85½° E.). Although the use of the name is thus restricted in geographical usage, the mountain system so designated does, as a fact, extend eastwards as far as the great depression of Tsaidam (say 95° E.), though it is uncertain whether its direct orographical continuation eastwards is to be identified with the Astin-tagh, or, as F. Grenard and K. Bogdanovich believe—and with them Sven Hedin is inclined to agree—with the parallel ranges of Kalta-alaghan and Arka-tagh, which lie S. of the Astin-tagh. At any rate the Astin-tagh, whether it is the principal continuation of the Kuen-lun or only a subsidiary flanking system, is itself the westward continuation of the Nan-shan or Southern Mountains, which reach down far into China (to 113° E.).

Taken in its widest meaning, the Kuen-lun Mountains thus stretch in a wavy line for nearly 2500 m. from E. to W., and while in the W. their constituent ranges are folded and squeezed by lateral compression into a breadth of some 150–200 m., their summits being forced up to correspondingly higher altitudes, in the E. they spread out to a breadth of some 600 m., the ranges being in that quarter less folded, and consequently both flatter and lower. In the tectonic structure of Asia the Kuen-lun forms, as it were, the backbone of the continent. In point of age it is very much older than either the Himalayas to the S. or the Tian-shan to the N. But although the crests of its component ranges reach altitudes of 21,500 to 22,000 ft., they are not as a rule overtopped by individual peaks of commanding and towering elevation, as the Himalayas are, but run on the whole tolerably uniform and relatively at little greater altitude than the lofty valleys which separate them one from another. It is a strikingly marked characteristic of the northern edge of the Tibetan plateau that its outermost border-range (*e.g.* Western Kuen-lun and Astin-tagh) is throughout double; and this "twinning" of the mountain-ranges, as also of the intermont lake-basins among the Kuen-lun ranges, is a peculiar feature of the Tibetan plateau.

The supreme orographic importance of this great Central Asian mountain system was recognized in a fashion even by the geographers of ancient Greece. They used to suppose that an immense range of mountains crossed Asia from west to east on the parallel of the island of Rhodes, extending through Asia Minor, the Kurdish highlands, the N. of Persia, the N. of Bactria (Afghanistan), the Hindu-kush, and so on into China. This long range they supposed to separate the waters which flow N. to the Arctic from those which flow S. to the Indian Ocean. K. Ritter (*Asien*, ii.) was the first of modern geographers to recognize the true character of the Kuen-lun as a border range of the Tibetan plateau; and Baron von Richthofen (*China*, i. 1876) still further defined and accentuated the conception of the system by representing it as a complex arrangement of several parallel ranges, running in wavy lines from the Pamirs (76° E.) eastwards to 118° E. But though von Richthofen's general conception of the Kuen-lun system was broadly sound and in accordance with facts, the details both of his description and of that of his pupil Wegener[1] require now very considerable revision, and need even to be in part recast, as a consequence of explorations and investigations made since they wrote by, amongst others, the Russian explorers N. M. Przhevalsky, M. V. Pyevtsov, V. I. Roborovsky, P. K. Kozlov, K. Bogdanovich, V. A. Obruchev, and (?) Skassi; by the Englishmen A. D. Carey, A. Dalgleish, St G. R. Littledale, H. Bower, H. H. P. Deasy and M. S. Wellby; by the American W. W. Rockhill; the Frenchmen J. L. Dutreuil de Rhins, F. Grenard, P. G. Bonvalot and Prince Henri d'Orléans; by the Hungarians L. von Loczy and Count Szechényi; and above all by the Swede Sven Hedin.

Western Kuen-lun.—On the east the Pamir highlands are fenced off from the East Turkestan lowlands by the double border-ridge of Sarik-kol (the Sarik-kol range and the Muztagh or Kashgar range), which has its eastern foot down in the Tarim basin (4000–4500 ft.) and its western up on the Pamirs at 10,500 to 13,000 ft. above sea-level, while its own summits, *e.g.* the Muztagh-ata (25,780 ft.), shoot up far above the limits of perpetual snow. This double border-ridge is continued east of the meridian of Yarkand or Yarkent (77° E.) by a succession of twin ranges, all running, though under different names, from the W.N.W. to the E.S.E. According to the investigations of F. Stoliczka and K. Bogdanovich, the same fossils occur in both sets of border ranges, in the Sarik-kol and in their eastward continuations, *e.g.* corals, *Stromatophorae*, *Bryozoa*, *Atrypa reticularis*, *A. latilinguis* and *A. aspera*, *Spirifer verneuili*, &c., and these the latter geologist assigns to the Devonian epoch. These eastward continuations of the double border-range of the Pamirs are the constituent ranges of the Kuen-lun proper. The names given to them are the Kilian or Kiliang, the Khotan and the Keriya Mountains in the more northerly range and the Raskem or Raskan, the Sughet and the Ullugh-tagh Mountains in the more southerly range. Although they all decrease in altitude from west to east, they nevertheless reach elevations of 19,000 ft., with individual peaks ascending some 2000–2500 ft. higher. From the East Turkestan lowlands on the north the ascent is very steep, and the passes across both sets of ranges lie at great altitudes; for example, the pass of Sanju-davan in the lower range is 16,325 ft. above sea-level, and the Kyzyl-davan, farther east, is 16,900 ft., while the Sughet-davan in the higher range is 17,825 ft. The latter range is separated from the Karakorum Mountains by the deeply trenched gorge of the Raskem or Yarkand-darya, while the deep glen of the Kara-kash or Khotan-darya intervenes between the upper (Sughet Mountains) and the lower (Kilian Mountains) border-ranges. Altogether this western extremity of the Kuen-lun system is a very rugged mountainous region, a consequence partly of the intricacy of the flanking ranges and spurs, partly of the powerful lateral compression to which they have been subjected, and partly of the great and abrupt differences in vertical elevation between the crests of the ranges and the bottoms of the deep, narrow, rugged glens between them. In the broad orographical disposition of the ranges there is considerable similarity between north Tibet and west Persia, in that in both cases the ranges are crowded together in the west, but spread out wider as they advance towards the east. To the two principal ranges in this part of the system F. Grenard, who accompanied J. L. Dutreuil de Rhins on his journey in 1890–1895, gives the names the Altyn-tagh and Ustun-tagh, though he names no less than six parallel ranges altogether. Now as Altyn-tagh[2] is an accepted, though in point of fact erroneous, name for Astin-tagh, it is clear that Grenard considers the main Kuen-lun ranges to be continued directly by the Astin-tagh.

From the transverse breach of the Keriya-darya (about 81½° E.) to that of the Kara-muren in the longitude of Cherchen (about 85½° E.) the parallel border-ranges of the Tibetan plateau trend to the E.N.E., and here occur in the lower or outer range the passes of Dalai-kurghan-art (14,290 ft.), Choka-davan, *i.e.* Littledale's Chokur Pass (9530 ft.) and others at altitudes ranging from 8600 to

[1] In "Orographie des Kwen-lun," in *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* (1891).

[2] It is used, for instance, on the map of "Inner-Asien" (No. 62) of *Stieler's Hand-atlas* (ed. 1905) and in the *Atlas* of the Russian General Staff. Etymologically the correct form is Astin-tagh or Astun-tagh, meaning the Lower or Nearer Mountains. Ustun-tagh, which appears on Stieler's map as an *alternative* name for Altyn-tagh, means Higher or Farther Mountains, and though not used locally of any specific range, would be appropriately employed to designate the higher and more southerly of the twin border-ranges of the Tibetan plateau.

11,500 ft., while in the upper range are the At-to-davan (16,600 ft.), Yapkak-lik-davan (15,550 ft.), Sarshu-davan (15,680 ft.) and others not named at 16,590 and 17,300 ft.

Middle Kuen-lun.—Between the upper transverse glens of the Kara-muren (or Mitt River) and the Cherchen-darya stretches the short range of Tokuz-davan. From it, on the east side of the Cher chen-daryt, in about 86° E., the component ranges of the middle Kuen-lun begin to diverge and radiate outwards (*i.e.* to north and to south) like the fingers of the outspread human hand. And here at least four principal ranges or groups of ranges admit of being discriminated, namely the Astin-tagh, the Chimen-tagh, the Kalta-alaghan and the Arka-tagh, all belonging to the mountainous country which borders on the north the actual plateau region of Tibet. Although these several ranges, or systems of ranges, differ considerably in their orographical characteristics, the following description will apply generally to the entire region from the Astin-tagh southwards to the Arka-tagh. The broad features of the surface configuration are a series of nearly parallel mountain-ranges, running from W.S.W. E.N.E. to W.N.W. E.S.E., and separated by high intermont valleys, which are choked with disintegrated material and divided into a chequered pattern of self-contained, shallow lacustrine basins. As a rule the crests of the ranges are worn down by aerial denudation and have the general appearance of rounded domes. Hard rock (mostly granite and crystalline schists, with red sandstone in places) appears only in the transverse glens, which are often choked with their débris in the form either of gravel-and-shingle or loose blocks of stone or both. The flanks of the mountains are so deeply buried in disintegrated material that the difference in vertical altitude between the floors of the valleys and the summits of the ranges is comparatively small. But as each successive range, proceeding south, represents a higher step in the terraced ascent from the desert of Gobi to the plateau of Tibet, the ranges when viewed from the north frequently appear like veritable upstanding mountain ranges, and this appearance is accentuated by the general steepness of the ascent; whereas, when viewed on the other hand from the south, these several ranges, owing to their long and gentle slope in that direction, have the appearance of comparatively gentle swellings of the earth's service rather than of well-defined mountain ranges. As a rule, the streams flow alternately east and west down the intermont latitudinal valleys, until they break through some transverse glen in the range on the northern side of the valley. In the western parts of the system they mostly go to feed the Kara-muren or the Cherchen-darya, while farther east they flow down into some larger self-contained basin of internal drainage, such as the Achik-kol, the two lakes Kara-kol, or the Ghaz-kol, and even yet farther east make their way, some of them into the lakes of the Tsaidam depression or become lost in its sands or in those of the Kum-tagh desert on the north, or go to feed the headstreams of the great rivers, the Hwang-ho (Yellow River) and the Yangtsze-kiang (Blue River) in the south. It appears to be a rule that the rivers which eventually terminate in the deserts of Gobi and Takla-makan grow increasingly larger in magnitude from east to west. Another law appears to distinguish the hydrography of at any rate the great latitudinal valleys of the Arka-tagh and the Chimen valley (north of the Chimen-tagh): the streams flow close under the foot of the range that shuts in each individual valley on the north. But in respect of precipitation there is a very marked difference between the valleys of the north and those of the south. Whereas both the mountains and valleys of the Astin-tagh and of the Akato-tagh (the next large range to the Astin-tagh on the south) are arid and desolate in the extreme, smitten as it were with the desiccating breath of the desert, those of the Arka-tagh and beyond are supersaturated with moisture, so that, at any rate in summer, the surface is in many parts little better than a quaking quagmire. Throughout vegetation is scanty and faunal life poor in species, though in some respects certain of the species, *e.g.* wild yaks, wild asses (*kulans*), antelopes (*orongo* and others), marmots, hares and partridges exist locally in large numbers. The wild camel approaches the north outliers of the Astin-tagh, but rarely, if ever, ventures to enter their fastnesses. Bears, wolves, foxes, goats (*kökmet*), wild sheep (*arkharis*), lizards, earth-rats, and a small rodent (*teshikan*), with ravens, eagles, wild ducks and wild geese are the other varieties principally encountered. The vegetation consists almost entirely of scrubby bushes of several varieties, including tamarisks and wild briers, of reeds (*kamish*), and of grass on the *yaylaks* (pasture-grounds) of the middle ranges. On the Arka-tagh even the moss, the last surviving representative of the flora, disappears entirely. In the eastern Astin-tagh a variety of wild tea (*chay*, mountain tea) is used by the Mongols. Gold is obtained in very small quantities in a few places in the Astin-tagh and the Kalta-alaghan. The nomenclature of the numerous ranges in this part of the Kuen-lun is extremely confusing, owing to different travellers having applied the same name to different ranges and to different travellers have applied different names to what is probably often identically the same range. In this article the nomenclature adopted is that employed by the latest, and probably the most thorough, explorer of this part of Central Asia, namely, Sven Hedin. Nevertheless, owing to the fact that nearly all the longer and more important crossings of Tibet and its northern montane region have been made from north to south, or vice versa, that is, transversely across the ranges, and comparatively few from east to west along the intermont latitudinal valleys, the identifications between ranges in the east and ranges in the west are in more than one instance more or less doubtful.

The *Astin-tagh*, although it occupies a similar position to the twin ranges of the Western Kuen-lun, in that it forms the outermost escarpment or border-ridge on the north of the Tibetan plateau, would appear in the opinion of the most competent judges (*e.g.* Grenard, Bogdanovich, Sven Hedin, Przhevalsky), to be only a branch or subsidiary range of the main range of the Kuen-lun. It is not however a single, long, continuous chain, as it is shown, for example, on the map of the Russian general staff, but consists of two parallel main ranges, and in the east of three, and even to the N.E. of Tsaidam of four, parallel main ranges, flanked throughout by several subsidiary chains, spurs and offshoots. Beyond that it swells out into the vast *massif* of Anambaruin-ula, which is traversed by at least three minor parallel chains. But on the east of the Anambaruin-ula it once more contracts to two main ranges, the more southerly being that which Przhevalsky called the Humboldt Range (crossed by a pass at 13,200 ft.). This branch is probably continued in the range which overhangs the Koko-nor on the south, namely, the south Koko-nor Range. The northern branch merges eastwards into the Nan-shan or Southern Mountains.[1] The passes in the Lower Astin-tagh range from altitudes of 10,150 to 10,700 ft., and in the Upper Astin-tagh at 11,770 to 15,680 ft. (Tash-davan), though one pass beside the Charkhlik-su is only 9660 ft. high. And as the relative altitudes of crest and pass remain approximately the same as in the Western Kuen-lun, it is evident how greatly the general elevation of the twin border ridge decreases towards the east. But there exists a striking difference between the crests of the Astin-tagh and those of the ranges which give rise to the gigantic ridge and furrow arrangement on the Tibetan plateau. "Here in the Astin-tagh the mountains, like those in the Kuruk-tagh,[2] are indeed severely weathered, but they always consist, from base to summit, of hard rock, bare and barren, most frequently piled up in eccentric, rugged masses, denticulated, pinnacled crests and peaks. On the Tibetan plateau, on the other hand, most of the ranges are distinguished by their rounded outlines and soft consistency, and their striking poverty in hard rock, which in the best cases only crops out near the summits. There too disintegration has been to a remarkable extent operative. This gives rise to the great morphological difference, that in the former regions, the Astin-tagh and the Kuruk-tagh, the products of disintegration are almost always carried away by the wind, and so disappear; no matter how powerful or how active the disintegration may be, none of the loosened material ever succeeds either in gathering amongst the mountains or in accumulating at their foot. The climate is so arid, and precipitation so extremely rare, that the fine powdery material falls a helpless prey to the winds. On the other hand, the precipitation on the Tibetan plateau is so copious, and so uniformly distributed, that it is able to retain the loosened material *in situ*, and causes it to heap itself up in rounded masses on the flanks of the mountains that are its primitive source of origin, these projecting in great part like skeletons from the midst of their own ruins."[3] The twin ranges of the Astin-tagh are fairly equivalent in point of magnitude and regularity; but while the Lower Range, on the north, sensibly decreases in altitude towards the east, the Upper Range, on the south, maintains its general altitude in a remarkable way, and is gapped by steep, wild, deeply incised transverse glens directed towards the north, and generally fenced in by dark precipitous walls of rock. The great valley between the two is "cut up into a series of self-contained basins, each serving as the gathering ground of the brooks that run down off the adjacent mountains. Outside the lower end of each large transverse glen there is a scree of sedimentary matter. These screes are however very flat and their lower edges generally reach all the way down to the central part of the basin, which is occupied by an expanse of yellow clay, perfectly flat and fairly hard, as well as dry and barren, often cracked into polygonal cakes and drawn out in the direction of the long axis of the valley. . . . But though the great morphological features of this latitudinal valley forcibly recall the latitudinal valleys of Tibet, the climatic differences give rise to differences between the basins corresponding to the differences between the mountain-ranges themselves. For while the self-contained basins of Tibet generally possess a salt lake in the middle, into which brooks and streams of greater or less magnitude gather, often from very considerable distances, these self-contained basins of the Astin-tagh are very small in area, and it is extremely seldom that their central parts receive any water at all, only in fact after copious rain. These terminal lakes, or more accurately sedimentary plains, are therefore almost always dry."[4]

The next parallel range on the south, the *Akato-tagh*, and the valley which separates it from the Astin-tagh, are equally arid and waterless. The valley, known by the general name of Kakir, meaning a "hard, dry, sterile expanse of clay," is chequered with shallow self-contained basins of the usual type and has remarkably gentle slopes

[1] The Northern Mountains are the Pe-shan in the desert of Gobi (see GOBI).

[2] On the opposite or north side of the desert of Lop (desert of Gobi).

[3] Sven Hedin, *Scientific Results*, iii. 308.

[4] Ibid. 310–311.

up to the mountains on both north and south. Its surface slopes from altitudes of 10,100 to 10,600 ft. in the west, where is the lake of Uzunshor (9650 ft.) to 9400 ft. in the east, in which direction it continues as far as the Anambaruin-ula (see below) and the plain or flat basin of Särtäng, a north extension of Tsaidam. This range of Akato-tagh, the Altun Range of Carey, is the same as that which on the map of the Russian general staff bears the name Chimen-tagh. Like the Astin-tagh it stretches towards the E.N.E., and, like it, appears to be built up of granite and schists, but its crest is greatly denuded, so that it is a mere crumbling skeleton protruding above the deep mantle of disintegrated material which masks its flanks. The slopes on both north and south are extremely gentle, but that on the south is eight to ten times as long as that on the north. In the east the range is mostly narrow, and dies away on the edge of the Tsaidam depression; but in the west it swells out into the lofty and imposing mass of the Ilve-chimen or Shia-manglay, which is capped with perpetual snow. This part of the range is crossed by the pass of Chopur-alik at an altitude of 16,160 ft., but farther east the passes lie at altitudes of 13,380 to 10,520 ft. The latitudinal valley that intervenes between the Akato-tagh and the next great range on the south, the Chimen-tagh, slopes for the most part eastwards, from 12,500 ft. down to the shallow salt lake of Ghaz-kol or Chimen-koli (9305 ft.). In the western part of this valley occurs the very important transverse water-divide of Gulcha-davan (14,150 ft.), which separates the basin of the Cherchen-darya that goes down into the Tarim basin from the area that drains down to the Ghaz-kol, which belongs to the Tsaidam depression. This, the Chimen valley, contains in places a good deal of drift-sand, which however is stationary in the mass and heaped up along the northern foot of the Chimen-tagh. Nevertheless the Akato-tagh is only of secondary importance in the general Kuen-lun system, being nothing more than a central ridge running along the broad Kakir valley that separates the Astin-tagh from the Chimen-tagh.

The latter range, the *Chimen-tagh*, is identical in its western parts with the Piazlik-tagh and in the east must be equated with the Tsaidam chain of Przhevalsky; and it is probably continued westwards by the range which the Russian explorers call the Moscow Range or the Achik-tagh, running north of the Achik-kol and, according to Przhevalsky, connecting on the west with the Tokuz-davan. The Chimen-tagh rises into imposing summits, some rounded, some pyramidal in outline, which are capped with snow, though the snow melts in summer. This range acts as a "breakwater" to the clouds, arresting and condensing the moisture which is carried northwards by the south winds. Hence its slopes are not so arid as those of the Akato-tagh and the Astin-tagh. Snow falls all the year round on the Chimen-tagh, even in July, and water is abundant everywhere. The southern slope of the range is gentle but short, the northern slope long and steep. Grass is able to grow, and animal life is more abundant. The range is crossed by passes at 13,970, 13,230 and 13,760 ft., and the Piazlik-tagh by a pass at an altitude of 13,640 ft.

The next important range, still going south, is the *Kalta-alaghan*, Carey's Chimen-tagh Range, Przhevalsky's Columbus Range and the range which is variously designated (*e.g.* by Pyevtsov) as the Ambal-ashkan, Kalga-lagan and Ara-tagh. This last is, however, properly the name of a short secondary range which rises along the middle (*ara* = middle) of the valley between the Chimen-tagh and the Kalta-alaghan. Not only is it of lower elevation than them both, but it dies away towards the west, the valleys on each side of it meeting round its extremity to form one broad, open valley, with an altitude of 11,790 to 13,725 ft. The Ara-tagh is crossed by a pass at an altitude of 14,345 ft. In the Kalta-alaghan, which is the culminating range of this part of the Kuen-lun, and is overtopped by towering, snow-clad peaks, the passes climb to considerably higher altitudes, namely, 14,560, 14,470, 14,430 and 14,190 ft., while the pass of Avraz-davan ascends to 15,700 ft. This range appears to be linked on to the Tokuz-davan by the Muzluk-tagh, in which there are passes at 16,870 and 15,450 ft. It is possible however that the Muzluk-tagh belongs more intimately to the Chimen-tagh system, that is, to the Moscow or Achik-kol ranges. Indeed Bogdanovich considers that the Tokuz-davan, the Muzluk-tagh, the Moscow Range and the Chimen-tagh form one single closely connected chain, in which he also places Przhevalsky's isolated peak of Mount Kreml (15,055 ft.). Sven Hedin, whilst agreeing that this may possibly be the true conception, inclines to the view that the Achik-kol Range dies away towards the E., and that the Chimen-tagh and the Kalta-alaghan merge westwards into the border-ranges that lie north of the Muzluk-tagh and the Tokuz-davan. Unlike most of the other parallel ranges of N. Tibet, the Kalta-alaghan does not decrease, but it increases in elevation towards the east, where, like the Chimen-tagh, it abuts upon and merges in the ranges that border Tsaidam on the south.

Immediately south of the Kalta-alaghan comes a relatively deep depression, the *Kum-kol valley*, forming a very well-marked feature in the physical conformation of this region. It is crossed transversely by a water-divide which separates the basin of the twin-lakes of Kum-kol (12,700 ft.) from the basin of Tsaidam, some 3500 ft. lower. The floor of the valley consequently slopes away in both directions, like the Chimen valley between the Akato-tagh and the Chimen-tagh; and in so far as it slopes westwards towards the Kum-kol lakes it differs from nearly all the other great latitudinal valleys that run parallel with it, because they slope generally towards the east. Not far from the Kum-kol lakes there is a drift-sand area, though the dunes are stationary. The upper lake of Kum-kol (Chon-kum-kol) (12,730 ft.), which contains fresh water, is of small area (8 sq. m.) and in depth nowhere exceeds 13 ft.; but the lower lake (Ayak-kum-kol) (12,685 ft.), which is salt, is much bigger (283 sq. m.) and goes down to depths of 64 and 79 ft. Farther west, lying between the Muzluk-tagh and the Arka-tagh, is the lake of Achik-kol (13,940 ft.), 16½ m. broad and 50 m. in circuit.

The next great parallel range is the lofty and imposing *Arka-tagh*, the Przhevalsky Range of the Russian geographers, which has its eastward continuations in the Marco Polo Range (general altitude 15,750–16,250 ft.) and Gurbu-naiji Mountains of Przhevalsky. The Arka-tagh[1] is the true backbone of the Kuen-lun system, and in Central Asia is exceeded in elevation only by the Tang-la, a long way farther south, this last being probably an eastern wing of the Karakorum Mountains of the Pamirs region. At the same time the Arka-tagh is the actual border-range of the Tibetan plateau properly so-called; to the south of it none of the long succession of lofty parallel ranges which ridge the Tibetan highlands seems to have any connexion with the Kuen-lun system. Of great length, the Arka-tagh, which is a mountain-system rather than a range, varies greatly in configuration in different parts, sometimes exhibiting a sharply defined main crest, with several lower flanking ranges, and sometimes consisting of numerous parallel crests of nearly uniform altitude. Amongst these it is possible to distinguish in the middle of the system four predominant ranges, of which the second from the north is probably the principal range, though the fourth is the highest. The passes across the first range (north) lie at altitudes of 15,675, 16,420, 17,320 and 18,300 ft.; across the second at 16,830, 17,020, 17,070 and 17,220 ft.; across the third at 16,800, 16,660, 17,065, 17,830 and 17,880 ft.; and across the fourth at 16,540, 16,765, 16,780, 18,100 and 18,110 ft. The crests of the ranges lie comparatively little higher than the valleys which separate them, the altitudes in the latter running at 14,940 to 16,700 ft., if not higher, and being only 500 to 1000 ft. lower than the crests of the accompanying ranges. The Arka-tagh ranges do not culminate in lofty jagged, pinnacled peaks, but in broad rounded, flattened domes, a characteristic feature of the system throughout. These Arka-tagh mountains are built up, at all events superficially, of sand and powdery, finely sifted disintegrated material. Where the hard rock does crop out on the surface, it is so excessively weathered as to be with difficulty recognized as rock at all. The culminating summits of the ranges generally present the appearance of a flat, rounded swelling, and when they are crowned with glaciers, as many of them are, these shape themselves into what may be described as a mantle, a breastplate, or a flat cap, from which lappets and fringes project at intervals; nowhere do there exist any of the long, narrow, winding glacier tongues which are so characteristic of the Alps of Europe. But not the slightest indication has been discovered that these mountains were ever panoplied with ice. The process of disintegration and levelling down has reached such an advanced stage that, if ever there did exist evidences of former glaciation, they have now become entirely obliterated, even to the complete pulverization of the erratic blocks, supposing there were any. The view that meets the eye southwards from the heights of the Kalta-alaghan is the picture of a chaos of mountain chains, ridges, crests, peaks, spurs, detached masses, in fact, montane conformations of every possible description and in every possible arrangement. Immediately north of the Arka-tagh the country is studded with three or four exceptionally conspicuous and imposing detached mountain masses, all capped with snow and some of them carrying small glaciers. Amongst them are Shapka Monomakha or the Monk's Cap; the Chulak-akkan, which may however be only Shapka Monomakha seen from a different point of view; Tömürlik-tagh[2] (*i.e.* the Iron Mountain); and farther west, Ullugh-muz-tagh, which, according to Grenard, reaches an altitude of 24,140 ft. But the relations in which these detached mountain-masses stand to one another and to the Arka-tagh behind them have not yet been elucidated. In the vicinity of the Ullugh-muz-tagh there exist numerous indications of former volcanic activity, the eminences and summits frequently being capped with tuff, and smaller fragments of tuff are scattered over other parts of the Arka-tagh ranges.

The next succeeding parallel range, the *Koko-shili*, which is continued eastwards by the Bayan-khara-ula, between the upper headstreams of the Hwang-ho or Yellow River and the Yangtsze-kiang, belongs orographically to the plateau of Tibet.

The succession of ranges which follow one another from the deserts of Takla-makan and Gobi up to the plateau proper of Tibet rise in steps or terraces, each range being higher than the range to the north of it and lower than the range to the south of it. The difference in altitude between the lowest, most northerly range, the Lower Astin-tagh, and the most southerly of the Arka-tagh ranges amounts to nearly 7500 ft. With one exception, namely the climb out of the Kum-kol valley to the Arka-tagh, the first three steps are

[1] This is the correct form, Arka-tagh meaning the Farther or Remoter Mountains. The form Akka-tagh is incorrect.

[2] The form Tumenlik-tagh is erroneous.

individually the biggest; whereas the Upper Astin-tagh exceeds the Lower Astin-tagh by an altitude of some 1350 ft., it is itself exceeded by the Akato-tagh to the extent of 1760 ft. There is also a considerable rise of 880 ft. from the Akato-tagh to the Chimen-tagh. But between the Chimen-tagh, the Ara-tagh and the Kalta-alaghan there is comparatively little difference in point of elevation, namely, 730 ft. in all. The biggest ascent is that from the Kalta-alaghan to the Arka-tagh, namely, nearly 1850 ft. The ranges of the Arka-tagh, again, run at pretty nearly the same absolute general altitudes, namely, 16,470 to 17,260 ft. When the altitudes of the intermont latitudinal valleys are compared, the significance orographically of the Chimen valley and of the Kum-kol valley is strikingly emphasized. Both are much more deeply excavated than all the other latitudinal valleys that run parallel to them, the Chimen valley being 875 ft. above the valley to the north of it, but no less than 2235 ft. below the valley to the south of it. The case of the Kum-kol valley is altogether exceptional, for it lies not higher, but 680 ft. lower, than the valley to the north of it, and consequently the climb up out of it to the first (on north) of the Arka-tagh valleys amounts to no less than 2900 ft. Hence these ten parallel ranges of the middle Kuen-lun system may be grouped in three divisions—(1) the more strictly border ranges of the Upper and Lower Astin-tagh and the Akato-tagh; (2) the three ranges of Chimen-tagh, Ara-tagh and Kalta-alaghan, which may be considered as forming a transitional system between the foregoing and the third division; (3) the Arka-tagh, which constitute the elevated rampart of the Tibetan plateau proper. (J. T. Be.)

The *Nan-shan Highlands* overlook Tsaidam on the N.E. They embrace a region 380 m. long and 260 m. wide, entirely occupied with parallel mountain ranges all running from the N.W. to the S.E. Broad, flat, longitudinal valleys, at altitudes of 12,000 to 14,000 ft. (9000 to 10,000 at the south-western border) and dotted with lakes (Koko-nor, 9970 ft.; Khara-nor, 13,285 ft.), fill up the space between these mountain ranges. In the S.E. the Nan-shan highlands abut upon the highlands of the Chinese province of Kan-suh, and near the great northward bend of the Hwang-ho they meet the escarpments by which the Great Khingan and the In-shan ranges are continued, and by which the Mongolian plateau steps down to the lowlands of China. On the N.E. the Nan-shan highlands have their foot on the Mongolian plateau (average altitude, 4000 ft.), *i.e.* in the Ala-shan. On the N.W. they are fringed by a border range, the Da-sue-shan, a continuation of the Astin-tagh, which rises to 12,200–13,000 ft. in its passes, and is pierced by several rivers flowing west to Lake Khala-chi or Khara-nor. This border-range, which continues on to the 97th meridian, separates the Nan-shan range from the Pe-shan range.

On the S.W. the Nan-shan mountains consist of short irregular chains, separated by broad plains, dotted with lakes, which differ but slightly in altitude from Tsaidam (8800–9000 ft.). Next a succession of narrow ranges intervene between this lower border terrace and the higher terrace (12,000–13,500 ft.). The first mountain range on this higher terrace is Ritter's range, covered in part with extensive snow-fields. The passes at both ends of this snow-clad *massif* lie at altitudes of 15,990 ft. and 14,680 ft. The next range is Humboldt or Ama-surgu range, which runs N.W. to S.E. from the Astin-tagh to about 38° N., and is perhaps continued by the southern Kuku (Koko)-nor range, which strikes the Hwang-ho with an elevation of 7440 ft. It includes, in fact, several other parallel ranges—*e.g.* the Mushketov, Semenov, Suess, Alexander III., Bain-sarlyk—the mutual relations of which are, however, not yet definitely settled.

Small lateral chains of mountains, rising some 2000 ft. above the general level of that plateau, connect the central Nan-shan with the next parallel ranges, namely, those of the eastern Nan-shan. The mutual relations of the latter, as well as the names of the several constituent chains, are equally unsettled. Thus, one of them is named indiscriminately Nan-shan, Richthofen Range and Momo-shan. In fact, the region is dominated by three ranges of nearly equal altitude, all lifting many of their peaks above the snow-line. Finally, there is a range of mountains, about 10,000 ft. high, named Lung-shan by Obruchev, which borders the Kan-chow and Lian-chow valley on the N.E., and belongs to the Nan-shan system. But the string of oases in Kan-suh province, which stretches between the towns named, lies on the lower level of the Mongolian plateau (4000 to 5000 ft.), so that the Lung-shan ought possibly to be regarded as a continuation of the Pe-shan mountains of the Gobi.

Generally speaking, the Nan-shan highlands are a region raised 12,000 to 14,000 ft. above the sea, and intersected by wild, stony and partly snow-clad mountains, towering another 4000 to 7000 ft. above its surface, and arranged in narrow parallel chains all running N.W. to S.E. The chains of mountains are severally from 8 to 17 m. wide, seldom as much as 35, while the broad, flat valleys between them attain widths of 20 to 27 m. As a rule the passes are at an altitude of 12,000 to 14,000 ft., and the peaks reach 18,000 to 20,000 ft. in the western portion of the highlands, while in the eastern portion they may be about 2000 ft. lower. The glaciers also attain a greater development in the western portion of the Nan-shan, but the valleys are dry, and the slopes of both the mountains and the valleys, furrowed by deep ravines, are devoid of vegetation. Good pasture grounds are only found near the streams. The soil is dry gravel and clay, upon which bushes of *Ephedra*, *Nitraria* and *Salsolaceae* grow sparsely. In the north-eastern Nan-shan, on the contrary, a stream runs through each gorge, and both the mountain slopes and the bottoms of the valleys are covered with vegetation. Forests of conifers (*Picea obovata*) and deciduous trees—Przhevalsky's poplar, birch, mountain ash, &c., and a variety of bushes—are common everywhere. Higher up, in the picturesque gorges, grow rhododendrons, willows, *Potentilla fruticosa*, *Spriaeae*, *Lonicereae*, &c., and the rains must evidently be more copious and better distributed. In the central Nan-shan it is only the north-eastern slopes that bear forests. In the south, where the Nan-shan enters Kan-suh province, extensive accumulations of loess make their appearance, and it is only the northern slopes of the hills that are clothed with trees. (P. A. K.)

Authorities.—An enumeration of the works published before 1890, and a map of itineraries, will be found in Wegener's *Versuch einer Orographie des Kuen-lun* (Marburg, 1891), but his map is only approximately correct. Of the books published since 1890 the most important are Sven Hedin's *Scientific Results of a Journey in Central Asia, 1899–1902* (Stockholm, 1905–1907, 6 vols.), with an elaborate atlas and a general map of Tibet on the scale of 1 : 1,000,000; H. H. P. Deasy's *In Tibet and Chinese Turkestan* (London, 1901), with a good map; F. Grenard's vol. (iii.) of J. L. Dutreuil de Rhins's *Mission scientifique dans la haute Asie, 1890–1895* (n.p., 1897), also with a very useful map; W. W. Rockhill's *Diary of a Journey through Mongolia and Tibet in 1891 and 1892* (Washington, 1894); M. S. Wellby's *Through Unknown Tibet* (London, 1898); P. G. Bonvalot's *De Paris au Tonkin à travers le Tibet inconnu* (Paris, 1892); St G. R. Littledale's "A Journey across Tibet," in *Geog. Journal* (May 1896); H. Bower's *Diary of a Journey across Tibet* (London, 1894); the *Izvestia* of the Russian Geog. Soc. and *Geog. Journal*, both *passim*.

KUFA, a Moslem city, situated on the shore of the Hindieh canal, about 4 m. E. by N. of Nejef (32° 4′ N., 44° 20′ E.), was founded by the Arabs after the battle of Kadesiya in A.D. 638 as one of the two capitals of the new territory of Irak, the whole country being divided into the *sawads*, or districts, of Basra and Kufa. The caliph 'Ali made it his residence and the capital of his caliphate. After the removal of the capital to Bagdad, in the middle of the following century, Kufa lost its importance and began to fall into decay. At the beginning of the 19th century, travellers reported extensive and important ruins as marking the ancient site. Since that time the ruins have served as quarries for bricks for the building of Nejef, and at the present time little remains but holes in the ground, representing excavations for bricks, with broken fragments of brick and glass strewn over a considerable area. A mosque still stands on the spot where 'Ali is reputed to have worshipped. (For history see Caliphate.)

KUHN, FRANZ FELIX ADALBERT (1812–1881), German philologist and folklorist, was born at Königsberg in Neumark on the 19th of November 1812. From 1841 he was connected with the Köllnisches Gymnasium at Berlin, of which he was appointed director in 1870. He died at Berlin on the 5th of May 1881. Kuhn was the founder of a new school of comparative mythology, based upon comparative philology. Inspired by Grimm's *Deutsche Mythologie*, he first devoted himself to German stories and legends, and published *Märkische Sagen und Märchen* (1842), *Norddeutsche Sagen, Märchen und Gebräuche* (1848), and *Sagen, Gebräuche und Märchen aus Westfalen* (1859). But it is on his researches into the language and history of the Indo-Germanic peoples as a whole that his reputation is founded. His chief works in this connexion are : *Zur älteslen Geschichte der Indogermanischen Völker* (1845), in which he endeavoured to give an account of the earliest civilization of the Indo-Germanic peoples before their separation into different families, by comparing and analysing the original meaning of the words and stems common to the different languages; *Die Herabkunft des Feuers und des Göttertranks* (1859; new ed. by E. Kuhn, under title of *Mythologische Studien*, 1886); and *Über Entwicklungsstufen der Mythenbildung* (1873), in which he maintained that the origin of myths was to be looked for in the domain of language, and that their most essential factors were polyonymy and homonymy. The *Zeitschrift für vergleichende Sprachforschung auf dem Gebiete der Indogermanischen Sprachen*, with which he was intimately connected, is the standard periodical on the subject.

See obituary notice by C. Bruchmann in Bursian's *Biographisches Jahrbuch* (1881) and J. Schmidt in the above *Zeitschrift*, xxvi. n.s. 6.

KÜHNE, WILLY (1837–1900), German physiologist, was born at Hamburg on the 28th of March 1837. After attending the gymnasium at Lüneburg, he went to Göttingen, where his master in chemistry was F. Wöhler and in physiology R. Wagner. Having graduated in 1856, he studied under various famous physiologists, including E. Du Bois-Reymond at Berlin, Claude Bernard in Paris, and K. F. W. Ludwig and E. W. Brücke in Vienna. At the end of 1863 he was put in charge of the chemical department of the pathological laboratory at Berlin, under R. von Virchow; in 1868 he was appointed professor of physiology at Amsterdam; and in 1871 he was chosen to succeed H. von Helmholtz in the same capacity at Heidelberg, where he died on the 10th of June 1900. His original work falls into two main groups—the physiology of muscle and nerve, which occupied the earlier years of his life, and the chemistry of digestion, which he began to investigate while at Berlin with Virchow. He was also known for his researches on vision and the chemical changes occurring in the retina under the influence of light. The visual purple, described by Franz Boll in 1876, he attempted to make the basis of a photochemical theory of vision, but though he was able to establish its importance in connexion with vision in light of low intensity, its absence from the retinal area of most distinct vision detracted from the completeness of the theory and precluded its general acceptance.

KUKA, or KUKAWA, a town of Bornu, a Mahommedan state of the central Sudan, incorporated in the British protectorate of Nigeria (see BORNU). Kuka is situated in 12° 55′ N. and 13° 34′ E., 4½ m. from the western shores of Lake Chad, in the midst of an extensive plain. It is the headquarters of the British administration in Bornu, and was formerly the residence of the native sovereign, who in Bornu bears the title of shehu.

The modern town of Kuka was founded *c.* 1810 by Sheikh Mahommed al Amin al Kanemi, the deliverer of Bornu from the Fula invaders. It is supposed to have received its name from the *kuka* or monkey bread tree (*Adansonia digitata*), of which there are extensive plantations in the neighbourhood. Kuka or Kaoukaou was a common name in the Sudan in the middle ages. The number of towns of this name gave occasion for much geographical confusion, but Idrisi writing in the 12th century, and Ibn Khaldun in the 14th century, both mention two important towns called Kaou Kaou, of which one would seem to have occupied a position very near to that of the modern Kuka. Ibn Khaldun speaks of it as the capital of Bornu and as situated on the meridian of Tripoli. In 1840 the present town was laid waste by Mahommed Sherif, the sultan of Wadai; and when it was restored by Sheikh Omar he built two towns separated by more than half a mile of open country, each town being surrounded by walls of white clay. It was probably owing to there being two towns that the plural *Kukawa* became the ordinary designation of the town in Kano and throughout the Sudan, though the inhabitants used the singular *Kuka*. The town became wealthy and populous (containing some 60,000 inhabitants), being a centre for caravans to Tripoli and a stopping-place of pilgrims from the Hausa countries going across Africa to Mecca. The chief building was the great palace of the sheikh. Between 1823 and 1872 Kuka was visited by several English and German travellers. In 1893 Bornu was seized by the ex-slave Rabah (*q.v.*), an adventurer from the Bahr-el-Ghazal, who chose a new capital, Dikwa, Kuka falling into complete decay. The town was found in ruins in 1902 by the British expedition which replaced on the throne of Bornu a descendant of the ancient rulers. In the same year the rebuilding of Kuka was begun and the town speedily regained part of its former importance. It is now one of the principal British stations of eastern Bornu. Owing, however, to the increasing importance of Maidugari, a town 80 m. S.S.W. of Kuka, the court of the shehu was removed thither in 1908.

For an account of Kuka before its destruction by Rabah, see the *Travels* of Heinrich Barth (new ed., London, 1890); and *Sahara und Sudan*, by Gustav Nachtigal (Berlin, 1879), i. 581–748.

KU KLUX KLAN, the name of an American secret association of Southern whites united for self-protection and to oppose the Reconstruction measures of the United States Congress, 1865–1876. The name is generally applied not only to the order of Ku Klux Klan, but to other similar societies that existed at the same time, such as the Knights of the White Camelia, a larger order than the Klan; the White Brotherhood; the White League; Pale Faces; Constitutional Union Guards; Black Cavalry; White Rose; The '76 Association; and hundreds of smaller societies that sprang up in the South after the Civil War. The object was to protect the whites during the disorders that followed the Civil War, and to oppose the policy of the North towards the South, and the result of the whole movement was a more or less successful revolution against the Reconstruction and an overthrow of the governments based on negro suffrage. It may be compared in some degree to such European societies as the Carbonara, Young Italy, the Tugendbund, the Confréries of France, the Freemasons in Catholic countries, and the Vehmgericht.

The most important orders were the Ku Klux Klan and the Knights of the White Camelia. The former began in 1865 in Pulaski, Tennessee, as a social club of young men. It had an absurd ritual and a strange uniform. The members accidentally discovered that the fear of it had a great influence over the lawless but superstitious blacks, and soon the club expanded into a great federation of regulators, absorbing numerous local bodies that had been formed in the absence of civil law and partaking of the nature of the old English neighbourhood police and the ante-bellum slave patrol. The White Camelia was formed in 1867 in Louisiana and rapidly spread over the states of the late Confederacy. The period of organization and development of the Ku Klux movement was from 1865 to 1868; the period of greatest activity was from 1868 to 1870, after which came the decline.

The various causes assigned for the origin and development of this movement were: the absence of stable government in the South for several years after the Civil War; the corrupt and tyrannical rule of the alien, renegade and negro, and the belief that it was supported by the Federal troops which controlled elections and legislative bodies; the disfranchisement of whites; the spread of ideas of social and political equality among the negroes; fear of negro insurrections; the arming of negro militia and the disarming of the whites; outrages upon white women by black men; the influence of Northern adventurers in the Freedmen's Bureau (*q.v.*) and the Union League (*q.v.*) in alienating the races; the humiliation of Confederate soldiers after they had been paroled—in general, the insecurity felt by Southern whites during the decade after the collapse of the Confederacy.

In organization the Klan was modelled after the Federal Union. Its Prescript or constitution, adopted in 1867, and revised in 1868, provided for the following organization: The entire South was the Invisible Empire under a Grand Wizard, General N. B. Forrest; each state was a Realm under a Grand Dragon; several counties formed a Dominion under a Grand Titan; each county was a Province under a Grand Giant; the smallest division being a Den under a Grand Cyclops. The staff officers bore similar titles, relics of the time when the order existed only for amusement: Genii, Hydras, Furies, Goblins, Night Hawks, Magi, Monks and Turks. The private members were called Ghouls. The Klan was twice reorganized, in 1867 and in 1868, each time being more centralized; in 1869 the central organization was disbanded and the order then gradually declined. The White Camelia with a similar history had a similar organization, without the queer titles. Its members were called Brothers and Knights, and its officials Commanders.

The constitutions and rituals of these secret orders have declarations of principles, of which the following are characteristic: to protect and succour the weak and unfortunate, especially the widows and orphans of Confederate soldiers; to protect members of the white race in life, honour and property from the encroachments of the blacks; to oppose the Radical Republican party and the Union League; to defend constitutional liberty, to prevent usurpation, emancipate the whites, maintain peace

and order, the laws of God, the principles of 1776, and the political and social supremacy of the white race—in short, to oppose African influence in government and society, and to prevent any intermingling of the races.

During the Reconstruction the people of the South were divided thus: nearly all native whites (the most prominent of whom were disfranchised) on one side irrespective of former political faith, and on the other side the ex-slaves organized and led by a few native and Northern whites called respectively scalawags and carpet-baggers, who were supported by the United States government and who controlled the Southern state governments. The Ku Klux movement in its wider aspects was the effort of the first class to destroy the control of the second class. To control the negro the Klan played upon his superstitious fears by having night patrols, parades and drills of silent horsemen covered with white sheets, carrying skulls with coals of fire for eyes, sacks of bones to rattle, and wearing hideous masks. In calling upon dangerous blacks at night they pretended to be the spirits of dead Confederates, "just from Hell," and to quench their thirst would pretend to drink gallons of water which was poured into rubber sacks concealed under their robes. Mysterious signs and warnings were sent to disorderly negro politicians. The whites who were responsible for the conduct of the blacks were warned or driven away by social and business ostracism or by violence. Nearly all southern whites (except "scalawags"), whether members of the secret societies or not, in some way took part in the Ku Klux movement. As the work of the societies succeeded, they gradually passed out of existence. In some communities they fell into the control of violent men and became simply bands of outlaws, dangerous even to the former members; and the anarchical aspects of the movement excited the North to vigorous condemnation.[1] The United States Congress in 1871–1872 enacted a series of "Force Laws" intended to break up the secret societies and to control the Southern elections. Several hundred arrests were made, and a few convictions were secured. The elections were controlled for a few years, and violence was checked, but the Ku Klux movement went on until it accomplished its object by giving protection to the whites, reducing the blacks to order, replacing the whites in control of society and state, expelling the worst of the carpet-baggers and scalawags, and nullifying those laws of Congress which had resulted in placing the Southern whites under the control of a party composed principally of ex-slaves.

AUTHORITIES.—J. C. Lester and D. L. Wilson, *Ku Klux Klan* (New York, 1905); W. L. Fleming, *Civil War and Reconstruction in Alabama* (New York, 1905), and *Documentary History of Reconstruction* (Cleveland, 1906); J. W. Garner, *Reconstruction in Mississippi* (New York, 1901); W. G. Brown, *Lower South in American History* (New York, 1901); J. M. Beard, *Ku Klux Sketches* (Philadelphia, 1876); J. W. Burgess, *Reconstruction and the Constitution* (New York, 1901). (W. L. F.)

KUKU KHOTO (Chinese *Kwei-hwa*), a city of the Chinese province of Shan-si, situated to the north of the Great Wall, in 40° 50′ N. and 111° 45′ E., about 160 m. W. of Kalgan. It lies in the valley of a small river which joins the Hwang-ho 50 m. to the south. There are two distinct walled towns in Kuku Khoto, at an interval of a mile and a half; the one is the seat of the civil governor and is surrounded by the trading town, and the other is the seat of the military governor, and stands in the open country. In the first or old town more especially there are strong traces of western Asiatic influence; the houses are not in the Chinese style, being built all round with brick or stone and having flat roofs, while a large number of the people are still Mahommedans and, there is little doubt, descended from western settlers. The town at the same time is a great seat of Buddhism—the lamaseries containing, it is said, no less than 20,000 persons devoted to a religious life. As the southern terminus of the routes across the desert of Gobi from Ulyasutai and the Tian Shan, Kuku Khoto is a great mart for the exchange of flour, millet and manufactured goods for the raw products of Mongolia. A Catholic and a Protestant mission are maintained in the town. Lieut. Watts-Jones, R.E., was murdered at Kwei-hwa during the Boxer outbreak in 1900.

Early notices of Kuku Khoto will be found in Gerbillon (1688–1698, in Du Halde (vol. ii., Eng. ed.), and in Astley's *Collection* (vol. iv.)

KULJA (Chinese, *Ili-ho*), a territory in north-west China; bounded, according to the treaty of St Petersburg of 1881, on the W. by the Semiryechensk province of Russian Turkestan, on the N. by the Boro-khoro Mountains, and on the S. by the mountains Khan-tengri, Muz-art, Terskei, Eshik-bashi and Narat. It comprises the valleys of the Tekez (middle and lower portion), Kunghez, the Ili as far as the Russian frontier and its tributary, the Kash, with the slopes of the mountains turned towards these rivers. Its area occupies about 19,000 sq. m. (Grum-Grzimailo). The valley of the Kash is about 160 m. long, and is cultivated in its lower parts, while the Boro-khoro Mountains are snow-clad in their eastern portion, and fall with very steep slopes to the valley. The Avral Mountains, which separate the Kash from the Kunghez, are lower, but rocky, naked and difficult of access. The valley of the Kunghez is about 120 m. long; the river flows first in a gorge, then amidst thickets of rushes, and very small portions of its valley are fit for cultivation. The Narat Mountains in the south are also very wild, but are covered with forests of deciduous trees (apple tree, apricot tree, birch, poplar, &c.) and pine trees. The Tekez flows in the mountains, and pierces narrow gorges. The mountains which separate it from the Kunghez are also snow-clad, while those to the south of it reach 24,000 ft. of altitude in Khan-tengri, and are covered with snow and glaciers—the only pass through them being the Muzart. Forests and alpine meadows cover their northern slopes. Agriculture was formerly developed on the Tekez, as is testified by old irrigation canals. The Ili is formed by the junction of the Kunghez with the Tekez, and for 120 m. it flows through Kulja, its valley reaching a width of 50 m. at Horgos-koljat. This valley is famed for its fertility, and is admirably irrigated by canals, part of which, however, fell into decay after 55,000 of the inhabitants migrated to Russian territory in 1881. The climate of this part of the valley is, of course, continental—frosts of − 22° F. and heats of 170° F. being experienced—but snow lasts only for one and a half months, and the summer heat is tempered by the proximity of the high mountains. Apricots, peaches, pears and some vines are grown, as also some cotton-trees near the town of Kulja, where the average yearly temperature is 48°·5 F. (January 15°, July 77°). Barley is grown up to an altitude of 6500 ft.

The population may number about 125,000, of whom 75,000 are settled and about 50,000 nomads (Grum-Grzimailo). The Taranchis from East Turkestan represent about 40 % of the population; about 40,000 of them left Kulja when the Russian troops evacuated the territory, and the Chinese government sent some 8000 families from different towns of Kashgaria to take their place. There are, besides, about 20,000 Sibos and Solons, 3500 Kara-kidans, a few Dungans, and more than 10,000 Chinese. The nomads are represented by about 18,000 Kalmucks, and the remainder by Kirghiz. Agriculture is insufficient to satisfy the needs of the population, and food is imported from Semiryechensk. Excellent beds of coal are

[1] The judgment of the historian William Garrott Brown, himself a Southerner, is worth quoting: "That violence was often used cannot be denied. Negroes were often whipped, and so were carpet-baggers. The incidents related in such stories as Tourgée's *A Fool's Errand* all have their counterparts in the testimony before congressional committees and courts of law. In some cases, after repeated warnings, men were dragged from their beds and slain by persons in disguise, and the courts were unable to find or to convict the murderers. Survivors of the orders affirm that such work was done in most cases by persons not connected with them or acting under their authority. It is impossible to prove or disprove their statements. When such outrages were committed, not on worthless adventurers, who had no station in the Northern communities from which they came, but on cultivated persons who had gone South from genuinely philanthropic motives—no matter how unwisely or tactlessly they went about their work—the natural effect was to horrify and enrage the North."

found in different places, especially about Kulja, but the fairly rich copper ores and silver ores have ceased to be worked.

The chief towns are Suidun, capital of the province, and Kulja. The latter (Old Kulja) is on the Ili river. It is one of the chief cities of the region, owing to the importance of its bazaars, and is the seat of the Russian consul and a telegraph station. The walled town is nearly square, each side being about a mile in length; and the walls are not only 30 ft. high but broad enough on the top to serve as a carriage drive. Two broad streets cut the enclosed area into four nearly equal sections. Since 1870 a Russian suburb has been laid out on a wide scale. The houses of Kulja are almost all clay-built and flat-roofed, and except in the special Chinese quarter in the eastern end of the town only a few public buildings show the influence of Chinese architecture. Of these the most noteworthy are the Taranchi and Dungan mosques, both with turned-up roofs, and the latter with a pagoda-looking minaret. The population is mainly Mahommedan, and there are only two Buddhist pagodas. A small Chinese Roman Catholic church has maintained its existence through all the vicissitudes of modern times. Paper and vermicelli are manufactured with rude appliances in the town. The outskirts are richly cultivated with wheat, barley, lucerne and poppies. Schuyler estimated the population, which includes Taranchis, Dungans, Sarts, Chinese, Kalmucks and Russians, at 10,000 in 1873; it has since increased.

New Kulja, Manchu Kulja, or Ili, which lies lower down the valley on the same side of the stream, has been a pile of ruins since the terrible massacre of all its inhabitants by the insurgent Dungans in 1868. It was previously the seat of the Chinese government for the province, with a large penal establishment and strong garrison; its population was about 70,000.

History.—Two centuries B.C. the region was occupied by the fair and blue-eyed Ussuns, who were driven away in the 6th century of our era by the northern Huns. Later the Kulja territory became a dependency of Dzungaria. The Uighurs, and in the 12th century the Kara-Khitai, took possession of it in turn. Jenghiz Khan conquered Kulja in the 13th century, and the Mongol Khans resided in the valley of the Ili. It is supposed (Grum-Grzimailo) that the Oirads conquered it at the end of the 16th or the beginning of the 17th century; they kept it till 1755, when the Chinese annexed it. During the insurrection of 1864 the Dungans and the Taranchis formed here the Taranchi sultanate, and this led to the occupation of Kulja by the Russians in 1871. Ten years later the territory was restored to China.

KULM (CULM). (1) A town of Germany, in the province of West Prussia, 33 m. by rail N.W. of Thorn, on an elevation above the plain, and 1 m. E. of the Vistula. Pop. (1905), 11,665. It is surrounded by old walls, dating from the 13th century, and contains some interesting buildings, notably its churches, of which two are Roman Catholic and two Protestant, and its medieval town-hall. The cadet school, founded here in 1776 by Frederick the Great, was removed to Köslin in 1890. There are large oil mills, also iron foundries and machine shops, as well as an important trade in agricultural produce, including fruit and vegetables. Kulm gives name to the oldest bishopric in Prussia, although the bishop resides at Pelplin. It was presented about 1220 by Duke Conrad of Masovia to the bishop of Prussia. Frederick II. pledged it in 1226 to the Teutonic order, to whom it owes its early development. By the second peace of Thorn in 1466 it passed to Poland, and it was annexed to Prussia in 1772. It joined the Hanseatic League, and used to carry on very extensive manufactures of cloth.

(2) A village of Bohemia about 3 m. N.E. of Teplitz, at the foot of the Erzgebirge, celebrated as the scene of a battle in which the French were defeated by the Austrians, Prussians and Russians on the 29th and 30th of August 1813 (see NAPOLEONIC CAMPAIGNS).

KULMBACH, or CULMBACH, a town of Germany, in the Bavarian province of Upper Franconia, picturesquely situated on the Weisser Main, and the Munich-Bamberg-Hof railway, 11 m. N.W. from Bayreuth. Pop. (1900), 9428. It contains a Roman Catholic and three Protestant churches, a museum and several schools. The town has several linen manufactories and a large cotton spinnery, but is chiefly famed for its many extensive breweries, which mainly produce a black beer, not unlike English porter, which is largely exported. Connected with these are malting and bottling works. On a rocky eminence, 1300 ft. in height, to the south-east of the town stands the former fortress of Plassenburg, during the 14th and 15th centuries the residence of the margraves of Bayreuth, called also margraves of Brandenburg-Kulmbach. It was dismantled in 1807, and is now used as a prison. Kulmbach and Plassenburg belonged to the dukes of Meran, and then to the counts of Orlamunde, from whom they passed in the 14th century to the Hohenzollerns, burgraves of Nuremberg, and thus to the margraves of Bayreuth.

See F. Stein, *Kulmbach und die Plassenburg in alter und neuer Zeit* (Kulmbach, 1903); Huther, *Kulmbach und Umgebung* (Kulmbach, 1886); and C. Meyer, *Quellen zur Geschichte der Stadt Kulmbach* (Munich, 1895).

KULMSEE, a town of Germany, in the Prussian province of West Prussia, on a lake, 14 m. by rail N. of Thorn and at the junction of railways to Bromberg and Marienburg. Pop. (1900), 8987. It has a fine Roman Catholic cathedral, which was built in the 13th, and restored in the 15th century, and an Evangelical church. Until 1823 the town was the seat of the bishops of Kulm.

KULP, a town of Russian Transcaucasia, in the government of Erivan, 60 m. W.S.W. from the town of Erivan and 2 m. S. of the Aras river. Pop. (1897), 3074. Close by is the Kulp salt mountain, about 1000 ft. high, consisting of beds of clay intermingled with thick deposits of rock salt, which has been worked from time immemorial. Regular galleries are cut in the transparent, horizontal salt layers, from which cubes of about 70 lb weight are extracted, to the amount of 27,500 tons every year.

KULU, a subdivision of Kangra district, Punjab, British India, which nominally includes the two Himalayan cantons or *waziris* of Lahul and Spiti. The *tahsil* of Kulu has an area of 1054 sq. m., of which only 60 sq. m. are cultivated; pop. (1901), 68,954. The Sainj, which joins the Beas at Largi, divides the tract into two portions, Kulu proper and Soraj. Kulu proper, north of the Sainj, together with inner Soraj, forms a great basin or depression in the midst of the Himalayan system, having the narrow gorge of the Beas at Largi as the only outlet for its waters. North and east the Bara Bangahal and mid-Himalayan ranges rise to a mean elevation of 18,000 ft., while southward the Jalori and Dhaoladhar ridges attain a height of 11,000 ft. The higher villages stand 9000 ft. above the sea; and even the cultivated tracts have probably an average elevation of 5000 ft. The houses consist of four-storeyed châlets in little groups, huddled closely together on the ledges or slopes of the valleys, picturesquely built with projecting eaves and carved wooden verandas. The Beas, which, with its tributaries, drains the entire basin, rises at the crest of the Rohtang pass, 13,326 ft. above the sea, and has an average fall of 125 ft. per mile. Its course presents a succession of magnificent scenery, including cataracts, gorges, precipitous cliffs, and mountains clad with forests of deodar, towering above the tiers of pine on the lower rocky ledges. It is crossed by several suspension bridges. Great mineral wealth exists, but the difficulty of transport and labour prevents its development. Hot springs occur at three localities, much resorted to as places of pilgrimage. The character of the hillmen resembles that of most other mountaineers in its mixture of simplicity, independence and superstition. Tibetan polyandry still prevails in Soraj, but has almost died out elsewhere. The temples are dedicated rather to local deities than to the greater gods of the Hindu pantheon. Kulu is an ancient Rajput principality, which was conquered by Ranjit Singh about 1812. Its hereditary ruler,

with the title of rai, is now recognized by the British government as *jagirdar* of Rupi.

KUM, a small province in Persia, between Teheran on the N. and Kashan on the S. It is divided into seven *bulūk* (districts): (1) Humeh, with town; (2) Kumrud; (3) Vazkerud; (4) Kinar Rud Khaneh; (5) Kuhistan; (6) Jasb; (7) Ardahal; has a population of 45,000 to 50,000, and pays a yearly revenue of about £8000. The province produces much grain and a fine quality of cotton with a very long staple.

KUM, the capital, in 34° 39′ N. and 50° 55′ E., on the Anarbar river, which rises near Khunsar, has an elevation of 3100 ft. It owes much of its importance to the fact that it contains the tomb of Imam Reza's sister Fatmeh, who died there A.D. 816, and large numbers of pilgrims visit the city during six or seven months of the year. The fixed population is between 25,000 and 30,000. A carriage road 92 m. in length, constructed in 1890–1893, connects the city with Teheran. It has post and telegraph offices.

See *Eastern Persian Irak*, R. G. S. suppl. (London, 1896).

KUMAIT IBN ZAID (679–743), Arabian poet, was born in the reign of the first Omayyad caliph and lived in the reigns of nine others. He was, however, a strong supporter of the house of Hāshim and an enemy of the South Arabians. He was imprisoned by the caliph Hishām for his verse in praise of the Hāshimites, but escaped by the help of his wife and was pardoned by the intercession of the caliph's son Maslama. Taking part in a rebellion, he was killed by the troops of Khālid ul-Qasrī.

His poems, the *Hāshimīyyāt*, have been edited by J. Horovitz (Leiden, 1904). An account of him is contained in the *Kitāb ul-Aghāni*, xv. 113–130. (G. W. T.)

KUMAON, or KUMAUN, an administrative division of British India, in the United Provinces, with headquarters at Naini Tal. It consists of a large Himalayan tract, together with two submontane strips called the Tarai and the Bhabhar; area 13,725 sq. m.; pop. (1901), 1,207,030, showing an increase of less than 2% in the decade. The submontane strips were up to 1850 an almost impenetrable forest, given up to wild animals; but since then the numerous clearings have attracted a large population from the hills, who cultivate the rich soil during the hot and cold seasons, returning to the hills in the rains. The rest of Kumaon is a maze of mountains, some of which are among the loftiest known. In a tract not more than 140 m. in length and 40 m. in breadth there are over thirty peaks rising to elevations exceeding 18,000 ft. (see HIMALAYA). The rivers rise chiefly in the southern slope of the Tibetan watershed north of the loftiest peaks, amongst which they make their way down valleys of rapid declivity and extraordinary depth. The principal are the Sarda (Kali), the Pindar and Kailganga, whose waters join the Alaknanda. The valuable timber of the yet uncleared forest tracts is now under official supervision. The chief trees are the *chir*, or three-leaved Himalayan pine, the cypress, fir, alder, *sāl* or iron-wood, and *saindan*. Limestone, sandstone, slate, gneiss and granite constitute the principal geological formations. Mines of iron, copper, gypsum, lead and asbestos exist; but they are not thoroughly worked. Except in the submontane strips and deep valleys the climate is mild. The rainfall of the outer Himalayan range, which is first struck by the monsoon, is double that of the central hills, in the average proportion of 80 in. to 40. No winter passes without snow on the higher ridges, and in some years it is universal throughout the mountain tract. Frosts, especially in the valleys, are often severe. Kumaon is occasionally visited by epidemic cholera. Leprosy is most prevalent in the east of the district. Goitre and cretinism afflict a small proportion of the inhabitants. The hill fevers at times exhibit the rapid and malignant features of plague.

In 1891 the division was composed of the three districts of Kumaon, Garhwal and the Tarai; but the two districts of Kumaon and the Tarai were subsequently redistributed and renamed after their headquarters, Naini Tal and Almora. Kumaon proper constituted an old Rajput principality, which became extinct at the beginning of the 19th century. The country was annexed after the Gurkha war of 1815, and was governed for seventy years on the non-regulation system by three most successful administrators—Mr Traill, Mr J. H. Batten and Sir Henry Ramsay.

KUMASI, or COOMASSIE, the capital of Ashanti, British West Africa, in 6° 34′ 50″ N., 2° 12′ W., 168 m. by rail N. of Sekondi and 120 m. by road N.N.W. of Cape Coast. Pop. (1906), 6280; including suburbs, over 12,000. Kumasi is situated on a low rocky eminence, from which it extends across a valley to the hill opposite. It lies in a clearing of the dense forest which covers the greater part of Ashanti, and occupies an area about 1½ m. in length and over 3 m. in circumference. The land immediately around the town, once marshy, has been drained. On the north-west is the small river Dah, one of the headstreams of the Prah. The name Kum-asi, more correctly Kum-ase (under the okum tree) was given to the town because of the number of those trees in its streets. The most imposing building in Kumasi is the fort, built in 1896. It is the residence of the chief commissioner and is capable of holding a garrison of several hundred men. There are also officers' quarters and cantonments outside the fort, European and native hospitals, and stations of the Basel and Wesleyan missions. The native houses are built with red clay in the style universal throughout Ashanti. They are somewhat richly ornamented, and those of the better class are enclosed in compounds within which are several separate buildings. Near the railway station are the leading mercantile houses. The principal Ashanti chiefs own large houses, built in European style, and these are leased to strangers.

Before its destruction by the British in 1874 the city presented a handsome appearance and bore many marks of a comparatively high state of culture. The king's palace, built of red sandstone, had been modelled, it is believed, on Dutch buildings at Elmina. It was blown up by Sir Garnet (subsequently Viscount) Wolseley's forces on the 6th of February 1874, and but scanty vestiges of it remain. The town was only partially rebuilt on the withdrawal of the British troops, and it is difficult from the meagre accounts of early travellers to obtain an adequate idea of the capital of the Ashanti kingdom when at the height of its prosperity (middle of the 18th to middle of the 19th century). The streets were numerous, broad and regular; the main avenue was 70 yds. wide. A large market-place existed on the south-east, and behind it in a grove of trees was the Spirit House. This was the place of execution. Of its population before the British occupation there is no trustworthy information. It appears not to have exceeded 20,000 in the first quarter of the 19th century. This is owing partly to the fact that the commercial capital of Ashanti, and the meeting-place of several caravan routes from the north and east, was Kintampo, a town farther north. The decline of Kumasi after 1874 was marked. A new royal palace was built, but it was of clay, not brick, and within the limits of the former town were wide stretches of grass-grown country. In 1896 the town again suffered at the hands of the British, when several of the largest and most ancient houses in the royal and priestly suburb of Bantama were destroyed by fire. In the revolt of 1900 Kumasi was once more injured. The railway from the coast, which passes through the Tarkwa and Obuassi gold-fields, reached Kumasi in September 1903. Many merchants at the Gold Coast ports thereupon opened branches in Kumasi. A marked revival in trade followed, leading to the rapid expansion of the town. By 1906 Kumasi had supplanted the coast towns and had become the distributing centre for the whole of Ashanti.

KUMISHAH, a district and town in the province of Isfahan, Persia. The district, which has a length of 50 and a breadth of 16 m., and contains about 40 villages, produces much grain. The town is situated on the high road from Isfahan to Shiraz, 52 m. S. of the former. It was a flourishing city several miles in circuit when it was destroyed by the Afghans in 1722, but is now a decayed place, with crumbled walls and mouldering towers and a population of barely 15,000. It has post and telegraph offices. South of the city and extending to the village Maksud-beggi, 16 m. away, is a level plain, which in 1835 (February 28) was the scene of a battle in which the army (2000 men, 16 guns)

of Mahommed Shah, commanded by Sir H. Lindsay-Bethune, routed the much superior combined forces (6000 men) of the shah's two rebellious uncles, Firman-Firma and Shuja es Saltana.

KUMQUAT (*Citrus japonica*), a much-branched shrub from 8 to 12 ft. high, the branches sometimes bearing small thorns, with dark green glossy leaves and pure white orange-like flowers standing singly or clustered in the leaf-axils. The bright orange-yellow fruit is round or ellipsoidal, about 1 in. in diameter, with a thick minutely tuberculate rind, the inner lining of which is sweet, and a watery acidulous pulp. It has long been cultivated in China and Japan, and was introduced to Europe in 1846 by Mr Fortune, collector for the London Horticultural Society, and shortly after into North America. It is much hardier than most plants of the orange tribe, and succeeds well when grafted on the wild species, *Citrus trifoliata*. It is largely used by the Chinese as a sweetmeat preserved in sugar.

KUMTA, or COOMPTA, a sea-coast town of British India, in the North Kanara district of Bombay, 40 m. S. of Karwar. Pop. (1901), 10,818. It has an open roadstead, with a considerable trade. Carving in sandal-wood is a speciality. The commercial importance of Kumta has declined since the opening of the Southern Mahratta railway system.

KUMYKS, a people of Turkish stock in Caucasia, occupying the Kumyk plateau in north Daghestan and south Terek, and the lands bordering the Caspian. It is supposed that Ptolemy knew them under the name of Kami and Kamaks. Various explorers see in them descendants of the Khazars. A. Vambéry supposes that they settled in their present quarters during the flourishing period of the Khazar kingdom in the 8th century. It is certain that some Kabardians also settled later. The Russians built forts in their territory in 1559 and under Peter I. Having long been more civilized than the surrounding Caucasian mountaineers, the Kumyks have always enjoyed some respect among them. The upper terraces of the Kumyk plateau, which the Kumyks occupy, leaving its lower parts to the Nogai Tatars, are very fertile.

KUNAR, a river and valley of Afghanistan, on the north-west frontier of British India. The Kunar valley (Khoaspes in the classics) is the southern section of that great river system which reaches from the Hindu Kush to the Kabul river near Jalalabad, and which, under the names of Yarkhun, Chitral, Kashkar, &c., is more extensive than the Kabul basin itself. The lower reaches of the Kunar are wide and comparatively shallow, the river meandering in a multitude of channels through a broad and fairly open valley, well cultivated and fertile, with large flourishing villages and a mixed population of Mohmand and other tribes of Afghan origin. Here the hills to the eastward are comparatively low, though they shut in the valley closely. Beyond them are the Bajour uplands. To the west are the great mountains of Kafiristan, called Kashmund, snow-capped, and running to 14,000 ft. of altitude. Amongst them are many wild but beautiful valleys occupied by Kafirs, who are rapidly submitting to Afghan rule. From 20 to 30 miles up the river on its left bank, under the Bajour hills, are thick clusters of villages, amongst which are the ancient towns of Kunar and Pashat. The chief tributary from the Kafiristan hills is the Pechdara, which joins the river close to Chagan Sarai. It is a fine, broad, swift-flowing stream, with an excellent bridge over it (part of Abdur Rahman's military road developments), and has been largely utilized for irrigation. The Pechdara finds its sources in the Kafir hills, amongst forests of pine and deodar and thick tangles of wild vine and ivy, wild figs, pomegranates, olives and oaks, and dense masses of sweet-scented shrubs. Above Chagan Sarai, as far as Arnawai, where the Afghan boundary crosses the river, and above which the valley belongs to Chitral, the river narrows to a swift mountain stream obstructed by boulders and hedged in with steep cliffs and difficult "parris" or slopes of rocky hill-side. Wild almond here sheds its blossoms into the stream, and in the dawn of summer much of the floral beauty of Kashmir is to be found. At Asmar there is a slight widening of the valley, and the opportunity for a large Afghan military encampment, spreading to both sides of the river and connected by a very creditable bridge built on the cantilever system. There are no apparent relics of Buddhism in the Kunar, such as are common about Jalalabad or Chitral, or throughout Swat and Dir. This is probably due to the late occupation of the valley by Kafirs, who spread eastwards into Bajour within comparatively recent historical times, and who still adhere to their fastnesses in the Kashmund hills. The Kunar valley route to Chitral and to Kafiristan is being developed by Afghan engineering. It may possibly extend ultimately unto Badakshan, in which case it will form the most direct connexion between the Oxus and India, and become an important feature in the strategical geography of Asia. (T. H. H.*)

KUNBIS, the great agricultural caste of Western India, corresponding to the Kurmis in the north and the Kapus in the Telugu country. Ethnically they cannot be distinguished from the Mahrattas, though the latter name is sometimes confined to the class who claim higher rank as representing the descendants of Sivaji's soldiers. In some districts of the Deccan they form an actual majority of the population, which is not the case with any other Indian caste. In 1901 the total number of both Kunbis and Mahrattas in all India was returned at nearly 8¾ millions.

KUNDT, AUGUST ADOLPH EDUARD EBERHARD (1839–1894), German physicist, was born at Schwerin in Mecklenburg on the 18th of November 1839. He began his scientific studies at Leipzig, but afterwards went to Berlin. At first he devoted himself to astronomy, but coming under the influence of H. G. Magnus, he turned his attention to physics, and graduated in 1864 with a thesis on the depolarization of light. In 1867 he became *privatdozent* in Berlin University, and in the following year was chosen professor of physics at the Zürich Polytechnic; then, after a year or two at Würzburg, he was called in 1872 to Strassburg, where he took a great part in the organization of the new university, and was largely concerned in the erection of the Physical Institute. Finally in 1888 he went to Berlin as successor to H. von Helmholtz in the chair of experimental physics and directorship of the Berlin Physical Institute. He died after a protracted illness at Israelsdorf, near Lübeck, on the 21st of May 1894. As an original worker Kundt was especially successful in the domains of sound and light. In the former he developed a valuable method for the investigation of aerial waves within pipes, based on the fact that a finely divided powder—lycopodium, for example—when dusted over the interior of a tube in which is established a vibrating column of air, tends to collect in heaps at the nodes, the distance between which can thus be ascertained. An extension of the method renders possible the determination of the velocity of sound in different gases. In light Kundt's name is widely known for his inquiries in anomalous dispersion, not only in liquids and vapours, but even in metals, which he obtained in very thin films by means of a laborious process of electrolytic deposition upon platinized glass. He also carried out many experiments in magneto-optics, and succeeded in showing, what Faraday had failed to detect, the rotation under the influence of magnetic force of the plane of polarization in certain gases and vapours.

KUNDUZ, a khanate and town of Afghan Turkestan. The khanate is bounded on the E. by Badakshan, on the W. by Tashkurghan, on the N. by the Oxus and on the S. by the Hindu Kush. It is inhabited mainly by Uzbegs. Very little is known about the town, which is the trade centre of a considerable district, including Kataghan, where the best horses in Afghanistan are bred.

KUNENE, formerly known also as Nourse, a river of South-West Africa, with a length of over 700 m., mainly within Portuguese territory, but in its lower course forming the boundary between Angola and German South-West Africa. The upper basin of the river lies on the inner versant of the high plateau region which runs southwards from Bihe parallel to the coast, forming in places ranges of mountains which give rise to many streams running south to swell the Kunene. The main stream rises in 12° 30′ S. and about 160 m. in a direct line from the sea

at Benguella, runs generally from north to south through four degrees of latitude, but finally flows west to the sea through a break in the outer highlands. A little south of 16° S. it receives the Kulonga from the east, and in about 16° 50′ the Kakulovar from the west. The Kakulovar has its sources in the Serra da Chella and other ranges of the Humpata district behind Mossamedes, but, though the longest tributary of the Kunene, is but a small river in its lower course, which traverses the arid region comprised within the lower basin of the Kunene. Between the mouths of the Kulonga and Kakulovar the Kunene traverses a swampy plain, inundated during high water, and containing several small lakes at other parts of the year. From this swampy region divergent branches run S.E. They are mainly intermittent, but the Kwamatuo, which leaves the main stream in about 15° 8′ E., 17° 15′ S., flows into a large marsh or lake called Etosha, which occupies a depression in the inner table-land about 3400 ft. above sea-level. From the S.E. end of the Etosha lake streams issue in the direction of the Okavango, to which in times of great flood they contribute some water. From the existence of this divergent system it is conjectured that at one time the Kunene formed part of the Okavango, and thus of the Zambezi basin. (See NGAMI.)

On leaving the swampy region the Kunene turns decidedly to the west, and descends to the coast plain by a number of cataracts, of which the chief (in 17° 25′ S., 14° 20′ E.) has a fall of 330 ft. The river becomes smaller in volume as it passes through an almost desert region with little or no vegetation. The stream is sometimes shallow and fordable, at others confined to a narrow rocky channel. Near the sea the Kunene traverses a region of sand-hills, its mouth being completely blocked at low water. The river enters the Atlantic in 17° 18′ S., 11° 40′ E. There are indications that a former branch of the river once entered a bay to the south.

KUNERSDORF, a village of Prussia, 4 m. E. of Frankfurt-on-Oder, the scene of a great battle, fought on the 12th of August 1759, between the Prussian army commanded by Frederick the Great and the allied Russians under Soltykov and Austrians under Loudon, in which Frederick was defeated with enormous losses and his army temporarily ruined. (See SEVEN YEARS' WAR.)

KUNGRAD, a trading town of Asiatic Russia, in the province of Syr-darya, in the delta of the Amu-darya, 50 m. S. of Lake Aral; altitude 260 ft. It is the centre of caravan routes leading to the Caspian Sea and the Uralsk province.

KUNGUR, a town of eastern Russia, in the government of Perm, on the highway to Siberia, 58 m. S.S.E. of the city of Perm. Pop. (1892), 12,400; (1897), 14,324. Tanneries and the manufacture of boots, gloves, leather, overcoats, iron castings and machinery are the chief industries. It has trade in boots, iron wares, cereals, tallow and linseed exported, and in tea imported direct from China.

KUNKEL (or KUNCKEL) **VON LOWENSTJERN, JOHANN** (1630–1703), German chemist, was born in 1630 (or 1638), near Rendsburg, his father being alchemist to the court of Holstein. He became chemist and apothecary to the dukes of Lauenburg, and then to the elector of Saxony, Johann Georg II., who put him in charge of the royal laboratory at Dresden. Intrigues engineered against him caused him to resign this position in 1677, and for a time he lectured on chemistry at Annaberg and Wittenberg. Invited to Berlin by Frederick William, in 1679 he became director of the laboratory and glass works of Brandenburg, and in 1688 Charles XI. brought him to Stockholm, giving him the title of Baron von Lowenstjern in 1693 and making him a member of the council of mines. He died on the 20th of March 1703 (others say 1702) at Dreissighufen, his country house near Pernau. Kunkel shares with Boyle the honour of having discovered the secret of the process by which Brand of Hamburg had prepared phosphorus in 1669, and he found how to make artificial ruby (red glass) by the incorporation of purple of Cassius. His work also included observations on putrefaction and fermentation, which he spoke of as sisters, on the nature of salts, and on the preparation of pure metals. Though he lived in an atmosphere of alchemy, he derided the notion of the alkahest or universal solvent, and denounced the deceptions of the adepts who pretended to effect the transmutation of metals; but he believed mercury to be a constituent of all metals and heavy minerals, though he held there was no proof of the presence of "sulphur comburens."

His chief works were *Oeffentliche Zuschrift von dem Phosphor Mirabil* (1678); *Ars vitriaria experimentalis* (1689) and *Laboratorium chymicum* (1716).

KUNLONG, the name of a district and ferry on the Salween, in the northern Shan States of Burma. Both are insignificant, but the place has gained notoriety from being the nominal terminus in British territory of the railway across the northern Shan States to the borders of Yunnan, with its present terminus at Lashio. In point of fact, however, this terminus will be 7 m. below the ferry and outside of Kunlong circle. At present Kunlong ferry is little used, and the village was burnt by Kachins in 1893. It is served by dug-outs, three in number in 1899, and capable of carrying about fifteen men on a trip. Formerly the trade was very considerable, and the Burmese had a customs station on the island, from which the place takes its name; but the rebellion in the great state of Theinni, and the southward movement of the Kachins, as well as the Mahommedan rebellion in Yunnan, diverted the caravans to the northern route to Bhamo, which is still chiefly followed. The Wa, who inhabit the hills immediately overlooking the Nam Ting valley, now make the route dangerous for traders. The great majority of these Wa live in unadministered British territory.

KUNZITE, a transparent lilac-coloured variety of spodumene, used as a gem-stone. It was discovered in 1902 near Pala, in San Diego county, California, not far from the locality which yields the fine specimens of rubellite and lepidolite, well known to mineralogists. The mineral was named by Dr C. Baskerville after Dr George F. Kunz, the gem expert of New York, who first described it. Analysis by R. O. E. Davis showed it to be a spodumene. Kunzite occurs in large crystals, some weighing as much as 1000 grams each, and presents delicate hues from rosy lilac to deep pink. It is strongly dichroic. Near the surface it may lose colour by exposure. Kunzite becomes strongly phosphorescent under the Röntgen rays, or by the action of radium or on exposure to ultra-violet rays. (See SPODUMENE.)

KUOPIO, a province of Finland, which includes northern Karelia, bounded on the N.W. and N. by Uleåborg, on the E. by Olonets, on the S.E. by Viborg, on the S. by St Michel and on the W. by Vasa. Its area covers 16,500 sq. m., and the population (1900) was 313,951, of whom 312,875 were Finnish-speaking. The surface is hilly, reaching from 600 to 800 ft. of altitude in the north (Suomenselkä hills), and from 300 to 400 ft. in the south. It is built up of gneisso-granites, which are covered, especially in the middle and east, with younger granites, and partly of gneisses, quartzite, and talc schists and augitic rocks. The whole is covered with glacial and later lacustrine deposits. The soil is of moderate fertility, but often full of boulders. Large lakes cover 16% of surface, marshes and peat bogs over 29% of the area, and forests occupy 2,672,240 hectares. Steamers ply along the lakes as far as Joensuu. The climate is severe, the average temperature being for the year 36° F., for January 13° and for July 63°. Only 2·3% of the whole surface is under cultivation. Rye, barley, oats and potatoes are the chief crops, and in good years these meet the needs of the population. Dairy farming and cattle breeding are of rapidly increasing importance. Nearly 38,800 tons of iron ore are extracted every year, and nearly 12,000 tons of pig iron and 6420 tons of iron and steel are obtained in ten iron-works. Engineering and chemical works, tanneries, saw-mills, paper-mills and distilleries are the chief industrial establishments. The preparation of carts, sledges and other wooden goods is an important domestic industry. Timber, iron, butter, furs and game are exported. The chief towns of the government are Kuopio (13,519), Joensuu (3954) and Iisalmi (1871).

KUOPIO, capital of the Finnish province of that name, situated on Lake Kalla-vesi, 180 m. by rail from the Kuivola junction of the St Petersburg-Helsingfors main line. Pop. (1904), 13,519. It is picturesquely situated, is the seat of a bishop, and has a cathedral, two lyceums and two gymnasia (both for boys and girls), a commercial and several professional schools. There is an agricultural school at Leväis, close by. Kuopio, in consequence of its steamer communication with middle Finland and the sea (via Saima Canal), is a trading centre of considerable importance.

KUPRILI, spelt also KÖPRILI, KOEPRULU, KEUPRULU, &c., the name of a family of Turkish statesmen.

1. MAHOMMED KUPRILI (*c.* 1586–1661) was the grandson of an Albanian who had settled at Kupri in Asia Minor. He began life as a scullion in the imperial kitchen, became cook, then purse-bearer to Khosrev Pasha, and so, by wit and favour, rose to be master of the horse, "pasha of two tails," and governor of a series of important cities and sanjaks. In 1656 he was appointed governor of Tripoli; but before he had set out to his new post he was nominated to the grand vizierate at the instance of powerful friends. He accepted office only on condition of being allowed a free hand. He signalized his accession to power by suppressing an *émeute* of orthodox Mussulman fanatics in Constantinople (Sept. 22), and by putting to death certain favourites of the powerful Valide Sultana, by whose corruption and intrigues the administration had been confused. A little later (January 1657) he suppressed with ruthless severity a rising of the spahis; a certain Sheik Salim, leader of the fanatical mob of the capital, was drowned in the Bosporus; and the Greek Patriarch, who had written to the voivode of Wallachia to announce the approaching downfall of Islam, was hanged. This impartial severity was a foretaste of Kuprili's rule, which was characterized throughout by a vigour which belied the expectations based upon his advanced years, and by a ruthlessness which in time grew to be almost blood-lust. His justification was the new life which he breathed into the decaying bones of the Ottoman empire.

Having cowed the disaffected elements in the state, he turned his attention to foreign enemies. The victory of the Venetians off Chios (May 2, 1657) was a severe blow to the Turkish sea-power, which Kuprili set himself energetically to repair. A second battle, fought in the Dardanelles (July 17–19), ended by a lucky shot blowing up the Venetian flag-ship; the losses of the Ottoman fleet were repaired, and in the middle of August Kuprili appeared off Tenedos, which was captured on the 31st and reincorporated permanently in the Turkish empire. Thus the Ottoman prestige was restored at sea, while Kuprili's ruthless enforcement of discipline in the army and suppression of revolts, whether in Europe or Asia, restored it also on land. It was, however, due to his haughty and violent temper that the traditional friendly relations between Turkey and France were broken. The French ambassador, de la Haye, had delayed bringing him the customary gifts, with the idea that he would, like his predecessors, speedily give place to a new grand vizier; Kuprili was bitterly offended, and, on pretext of an abuse of the immunities of diplomatic correspondence, bastinadoed the ambassador's son and cast him and the ambassador himself into prison. A special envoy, sent by Louis XIV., to make inquiries and demand reparation, was treated with studied insult; and the result was that Mazarin abandoned the Turkish alliance and threw the power of France on to the side of Venice, openly assisting the Venetians in the defence of Crete.

Kuprili's restless energy continued to the last, exhibiting itself on one side in wholesale executions, on the other in vast building operations. By his orders castles were built at the mouth of the Don and on the bank of the Dnieper, outworks against the ever-aggressive Tatars, as well as on either shore of the Dardanelles. His last activity as a statesman was to spur the sultan on to press the war against Hungary. He died on the 31st of October 1661. The advice which, on his death-bed, he is said to have given to the sultan is characteristic of his Machiavellian statecraft. This was: never to pay attention to the advice of women, to allow nobody to grow too rich, to keep his treasury well filled, and himself and his troops constantly occupied. Had he so desired, Kuprili might have taken advantage of the revolts of the Janissaries to place himself on the throne; instead, he recommended the sultan to appoint his son as his successor, and so founded a dynasty of able statesmen who occupied the grand vizierate almost without interruption for half a century.

2. FAZIL AHMED KUPRILI (1635–1676), son of the preceding, succeeded his father as grand vizier in 1661 (this being the first instance of a son succeeding his father in that office since the time of the Chenderélis). He began life in the clerical career, which he left, at the age of twenty-three, when he had attained the rank of *muderris*. Usually humane and generous, he sought to relieve the people of the excessive taxation and to secure them against unlawful exactions. Three years after his accession to office Turkey suffered a crushing defeat at the battle of St Gothard and was obliged to make peace with the Empire. But Kuprili's influence with the sultan remained unshaken, and five years later Crete fell to his arms (1669). The next war in which he was called upon to take part was with Poland, in defence of the Cossacks, who had appealed to Turkey for protection. At first successful, Kuprili was defeated by the Poles under John Sobieski at Khotin and Lemberg; the Turks, however, continued to hold their own, and finally in October 1676 consented to honourable terms of peace by the treaty of Zurawno (October 16, 1676), retaining Kaminiec, Podolia and the greater part of the Ukraine. Three days later Ahmed Kuprili died. His military capacity was far inferior to his administrative qualities. He was a liberal protector of art and literature, and the kindliness of his disposition formed a marked contrast to the cruelty of his father; but he was given to intemperance, and the cause of his death was dropsy brought on by alcoholic abuse.

3. ZADE MUSTAFA KUPRILI (1637–1691), surnamed Fazil, son of Mahommed Kuprili, became grand vizier to Suleiman II. in 1689. Called to office after disaster had driven Turkey's forces from Hungary and Poland and her fleets from the Mediterranean, he began by ordering strict economy and reform in the taxation; himself setting the example, which was widely followed, of voluntary contributions for the army, which with the navy he reorganized as quickly as he could. His wisdom is shown by the prudent measures which he took by enacting the *Nizam-i-jedid*, or new regulations for the improvement of the condition of the Christian rayas, and for affording them security for life and property; a conciliatory attitude which at once bore fruit in Greece, where the people abandoned the Venetian cause and returned to their allegiance to the Porte. He met his death at the battle of Salankamen in 1691, when the total defeat of the Turks by the Austrians under Prince Louis of Baden led to their expulsion from Hungary.

4. HUSSEIN KUPRILI (surnamed AMUJA-ZADE) was the son of Hassan, a younger brother of Mahommed Kuprili. After occupying various important posts he became grand vizier in 1697, and owing to his ability and energy the Turks were able to drive the Austrians back over the Save, and Turkish fleets were sent into the Black Sea and the Mediterranean. The efforts of European diplomacy succeeded in inducing Austria and Turkey to come to terms by the treaty of Carlowitz, whereby Turkey was shorn of her chief conquests (1699). After this event Hussein Kuprili, surnamed "the Wise," devoted himself to the suppression of the revolts which had broken out in Arabia, Egypt and the Crimea, to the reduction of the Janissaries, and to the institution of administrative and financial reform. Unfortunately the intrigues against him drove him from office in 1702, and soon afterwards he died.

5. NUMAN KUPRILI, son of Mustafa Fazil, became grand vizier in 1710. The expectations formed of him were not fulfilled, as although he was tolerant, wise and just like his father, he injudiciously sought to take upon himself all the details of administration, a task which proved to be beyond his powers. He failed to introduce order into the administration and was dismissed from office in less than fourteen months after his appointment.

6. Abdullah Kuprili, a son of Mustafa Fazil Kuprili, was appointed Kaimmakam or *locum tenens* of the grand vizier in 1703. He commanded the Persian expedition in 1723 and captured Tabriz in 1725, resigning his office in 1726. In 1735 he again commanded against the Persians, but fell at the disastrous battle of Bagaverd, thus emulating his father's heroic death at Selankamen.

KURAKIN, BORIS IVANOVICH, Prince (1676–1727), Russian diplomatist, was the brother-in-law of Peter the Great, their wives being sisters. He was one of the earliest of Peter's pupils. In 1697 he was sent to Italy to learn navigation. His long and honourable diplomatic career began in 1707, when he was sent to Rome to induce the pope not to recognize Charles XII.'s candidate, Stanislaus Leszczynski, as king of Poland. From 1708 to 1712 he represented Russia at London, Hanover, and the Hague successively, and, in 1713, was the principal Russian plenipotentiary at the peace congress of Utrecht. From 1716 to 1722 he held the post of ambassador at Paris, and when, in 1724, Peter set forth on his Persian campaign, Kurakin was appointed the supervisor of all the Russian ambassadors accredited to the various European courts. "The father of Russian diplomacy," as he has justly been called, was remarkable throughout his career for infinite tact and insight, and a wonderfully correct appreciation of men and events. He was most useful to Russia perhaps when the Great Northern war (see Sweden, *History*) was drawing to a close. Notably he prevented Great Britain from declaring war against Peter's close ally, Denmark, at the crisis of the struggle. Kurakin was one of the best-educated Russians of his day, and his autobiography, carried down to 1709, is an historical document of the first importance. He intended to write a history of his own times with Peter the Great as the central figure, but got no further than the summary, entitled *History of Tsar Peter Aleksievich and the People Nearest to Him* (1682–1694) (Rus.).

See *Archives of Prince A. Th. Kurakin* (Rus.) (St Petersburg, 1890); A. Brückner, *A Russian Tourist in Western Europe in the beginning of the XVIIIth Century* (Rus.) (St Petersburg, 1892). (R. N. B.)

KURBASH, or Kourbash (from the Arabic *qurbash*, a whip; Turkish *qirbach*; and French *courbache*), a whip or strap about a yard in length, made of the hide of the hippopotamus or rhinoceros. It is an instrument of punishment and torture used in various Mahommedan countries, especially in the Turkish empire. "Government by kurbash" denotes the oppression of a people by the constant abuse of the kurbash to maintain authority, to collect taxes, or to pervert justice. The use of the kurbash for such purposes, once common in Egypt, has been abolished by the British authorities.

KŪRDISTĀN, in its wider sense, the "country of the Kūrds" (Koords), including that part of Mount Taurus which buttresses the Armenian table-land (see Armenia), and is intersected by the Batman Su, the Bohtan Su, and other tributaries of the Tigris; and the wild mountain district, watered by the Great and Little Zab, which marks the western termination of the great Iranian plateau.

Population.—The total Kūrd population probably exceeds two and a half millions, namely, Turkish Kūrds 1,650,000, Persian 800,000, Russian 50,000, but there are no trustworthy statistics. The great mass of the population has its home in Kūrdistān. But Kūrds are scattered irregularly over the country from the river Sakarīa on the west to Lake Urmia on the east, and from Kars on the north to Jebel Sinjar on the south. There is also an isolated settlement in Khorasan. The tribes, *ashiret*, into which the Kūrds are divided, resemble in some respects the Highland clans of Scotland. Very few of them number more than 10,000 souls, and the average is about 3000. The sedentary and pastoral Kūrds, *Yerli*, who live in villages in winter and encamp on their own pasture-grounds in summer, form an increasing majority of the population. The nomad Kūrds, *Kocher*, who always dwell in tents, are the wealthiest and most independent. They spend the summer on the mountains and high plateaus, which they enter in May and leave in October; and pass the winter on the banks of the Tigris and on the great plain north of Jebel Sinjar, where they purchase right of pasturage from the Shammar Arabs. Each tribe has its own pasture-grounds, and trespass by other tribes is a fertile source of quarrel. During the periodical migrations Moslem and Christian alike suffer from the predatory instincts of the Kūrd, and disturbances are frequent in the districts traversed. In Turkey the sedentary Kūrds pay taxes; but the nomads only pay the sheep tax, which is collected as they cross the Tigris on their way to their summer pastures.

Character.—The Kūrd delights in the bracing air and unrestricted liberty of the mountains. He is rarely a muleteer or camel-man, and does not take kindly to handicrafts. The Kūrds generally bear a very indifferent reputation, a worse reputation perhaps, than they really deserve. Being aliens to the Turks in language and to the Persians in religion, they are everywhere treated with mistrust, and live as it were in a state of chronic warfare with the powers that be. Such a condition is not of course favourable to the development of the better qualities of human nature. The Kūrds are thus wild and lawless; they are much given to brigandage; they oppress and frequently maltreat the Christian populations with whom they are brought in contact, —these populations being the Armenians in Diarbekr, Erzerum and Van, the Jacobites and Syrians in the Jebel-Tūr, and the Nestorians and Chaldaeans in the Hakkāri country.

Perhaps the most distinguishing characteristic of the Kūrdish chief is pride of ancestry. This feeling is in many cases exaggerated, for in reality the present tribal organization does not date from any great antiquity. In the list indeed of eighteen principal tribes of the nation which was drawn up by the Arabian historian Masudi, in the 10th century, only two or three names are to be recognized at the present day. A 14th-century list, however, translated by Quatremère,[1] presents a great number of identical names, and there seems no reason to doubt that certain Kūrdish families can trace their descent from the Omayyad caliphs, while only in recent years the Babān chief of Suleimania, representing the old Sohrans, and the Ardelān chief of Sinna,[2] representing an elder branch of the Gurāns, each claimed an ancestry of at least five hundred years. There was up to a recent period no more picturesque or interesting scene to be witnessed in the east than the court of one of these great Kūrdish chiefs, where, like another Saladin, the bey ruled in partriarchal state, surrounded by an hereditary nobility, regarded by his clansmen with reverence and affection, and attended by a bodyguard of young Kūrdish warriors, clad in chain armour, with flaunting silken scarfs, and bearing javelin, lance and sword as in the time of the crusades.

Though ignorant and unsophisticated the Kūrd is not wanting in natural intelligence. In recent years educated Kūrds have held high office under the sultan, including that of grand vizier, have assisted in translating the Bible into Turkish, and in editing a newspaper. The men are lithe, active and strong, but rarely of unusual stature. The women do not veil, and are allowed

[1] See *Notices et Extraits des MSS.*, xiii. 305. Of the tribes enumerated in this work of the 14th century who still retain a leading place among the Kūrds, the following names may be quoted: *Guranieh* of Dartang, modern Gurans; *Zengeneh*, in Hamadan hills, now in Kermānshāh; *Hasnani* of Kerkuk and Arbil, now in the Dersim mountains, having originally come from Khorāsān according to tradition; *Sohrīeh* of Shekelabad and Tel-Haftūn, modern Sohrān, from whom descend the Babān of Suleimanieh; *Zerzari* of Hinjarīn mountains, modern Zerzas of Ushnu (cuneiform pillars of Kel-i-shīn and Sidek noticed by author); *Julamerkīeh*, modern Julamerik, said to be descended from the caliph Merwān-ibn-Hakam; *Hakkarīeh*, Hakkāri inhabiting *Zuzan* of Arab geography; *Bokhtieh*, modern Bohtān. The *Rowadi*, to whom Saladin belonged, are probably modern Rawendi, as they held the fortress of Arbil (Arbela). Some twenty other names are mentioned, but the orthography is so doubtful that it is useless to try to identify them.

[2] The *Sheref-nama*, a history of the Kūrds dating from the 16th century, tells us that "towards the close of the reign of the Jenghizians, a man named Baba Ardilān, a descendant of the governors of Diarbekr, and related to the famous Ahmed-ibn-Merwān, after remaining for some time among the Gurāns, gained possession of the country of Shahrizor" and the Ardelān family history, with the gradual extension of their power over Persian Kūrdistān, is then traced down to the Saffavid period.

great freedom. The Kūrds as a race are proud, faithful and hospitable, and have rude but strict feelings of honour. They are, however, much under the influence of dervishes, and when their fanaticism is aroused their habitual lawlessness is apt to degenerate into savage barbarity. They are not deficient in martial spirit, but have an innate dislike to the restraints of military service. The country is rich in traditions and legends, and in lyric and in epic poems, which have been handed down from earlier times and are recited in a weird melancholy tone.

Antiquities.—Kūrdistān abounds in antiquities of the most varied and interesting character. But it has been very little opened up to modern research. A series of rock-cut cuneiform inscriptions extend from Malatia on the west to Miandoāb (in Persia) on the east, and from the banks of the Aras on the north to Rowanduz on the south, which record the glories of a Turanian dynasty, who ruled the country of Nairi during the 8th and 7th centuries, B.C., contemporaneously with the lower Assyrian empire. Intermingled with these are a few genuine Assyrian inscriptions of an earlier date; and in one instance, at Van, a later tablet of Xerxes brings the record down to the period of Grecian history. The most ancient monuments of this class, however, are to be found at Holwān and in the neighbourhood, where the sculptures and inscriptions belong probably to the Guti and Luli tribes, and date from the early Babylonian period.

In the northern Kūrdish districts which represent the Arzanene, Intilene, Anzitene, Zabdicene, and Moxuene of the ancients, there are many interesting remains of Roman cities, *e.g.* at Arzen, Miyafarikin (anc. *Martyropolis*), Sisauronon, and the ruins of Dunisir near Dara, which Sachau identified with the Armenian capital of Tigranocerta. Of the Macedonian and Parthian periods there are remains both sculptured and inscribed at several points in Kūrdistān; at Bisitun or Behistun (*q.v.*), in a cave at Amadīa, at the Mithraic temple of Kereftū, on the rocks at Sir Pūl-o-Zohab near the ruins of Holwān, and probably in some other localities, such as the Bālik country between Lahijān and Koi-Sanjāk; but the most interesting site in all Kūrdistān, perhaps in all western Asia, is the ruined fire temple of Pāī Kūlī on the southern frontier of Suleimanīa. Among the débris of this temple, which is scattered over a bare hillside, are to be found above one hundred slabs, inscribed with Parthian and Pahlavi characters, the fragments of a wall which formerly supported the eastern face of the edifice, and bore a bilingual legend of great length, dating from the Sassanian period. There are also remarkable Sassanian remains in other parts of Kūrdistān—at Salmūs to the north, and at Kermānshāh and Kasr-i-Shīrīn on the Turkish frontier to the south.

Language.—The Kūrdish language, Kermānjī, is an old Persian patois, intermixed to the north with Chaldaean words and to the south with a certain Turanian element which may not improbably have come down from Babylonian times. Several peculiar dialects are spoken in secluded districts in the mountains, but the only varieties which, from their extensive use, require to be specified are the Zaza and the Gurān. The Zaza is spoken throughout the western portion of the Dersim country, and is said to be unintelligible to the Kermānjī-speaking Kūrds. It is largely intermingled with Armenian, and may contain some trace of the old Cappadocian, but is no doubt of the same Aryan stock as the standard Kūrdish. The Gurān dialect again, which is spoken throughout Ardelān and Kermānshāh[1] chiefly differs from the northern Kūrdish in being entirely free from any Semitic intermixture. It is thus somewhat nearer to the Persian than the Kermānjī dialect, but is essentially the same language. It is a mistake to suppose that there is no Kūrdish literature. Many of the popular Persian poets have been translated into Kūrdish, and there are also books relating to the religious mysteries of the Ali-Illāhis in the hands of the Dersimlis to the north and of the Gurāns of Kermānshāh to the south. The New Testament in Kurdish was printed at Constantinople in 1857. The Rev. Samuel Rhea published a grammar and vocabulary of the Hakkāri dialect in 1872. In 1879 there appeared, under the auspices of the imperial academy of St Petersburg a French-Kūrdish dictionary compiled originally by Mons. Jaba, many years Russian consul at Erzerum, but completed by Ferdinand Justi by the help of a rich assortment of Kurdish tales and ballads, collected by Socin and Prym in Assyria.

Religion.—The great body of the nation, in Persia as well as in Turkey, are Sunnis of the Shafi'ite sect, but in the recesses of the Dersim to the north and of Zagros to the south there are large half-pagan communities, who are called indifferently Ali-Illahi and Kizjil-bāsh, and who hold tenets of some obscurity, but of considerable interest. Outwardly professing to be Shi'ites or "followers of Ali," they observe secret ceremonies and hold esoteric doctrines which have probably descended to them from very early ages, and of which the essential condition is that there must always be upon the earth a visible manifestation of the Deity. While paying reverence to the supposed incarnations of ancient days, to Moses, David, Christ, Ali and his tutor Salmān-ul-Farisi, and several of the Shi'ite imams and saints, they have thus usually some recent local celebrity at whose shrine they worship and make vows; and there is, moreover, in every community of Ali-Illahis some living personage, not necessarily ascetic, to whom, as representing the godhead, the superstitious tribesmen pay almost idolatrous honours. Among the Gurāns of the south the shrine of Baba Yadgār, in a gorge of the hills above the old city of Holwān, is thus regarded with a supreme veneration. Similar institutions are also found in other parts of the mountains, which may be compared with the tenets of the Druses and Nosairis in Syria and the Ismailites in Persia.

History.—With regard to the origin of the Kūrds, it was formerly considered sufficient to describe them as the descendants of the Carduchi, who opposed the retreat of the Ten Thousand through the mountains, but modern research traces them far beyond the period of the Greeks. At the dawn of history the mountains overhanging Assyria were held by a people named *Gūtū*, a title which signified "a warrior," and which was rendered in Assyrian by the synonym of *Gardu* or *Kardu*, the precise term quoted by Strabo to explain the name of the Cardaces (Κάρδακες). These *Gūtū* were a Turanian tribe of such power as to be placed in the early cuneiform records on an equality with the other nations of western Asia, that is, with the Syrians and Hittites, the Susians, Elamites, and Akkadians of Babylonia; and during the whole period of the Assyrian empire they seem to have preserved a more or less independent political position. After the fall of Nineveh they coalesced with the Medes, and, in common with all the nations inhabiting the high plateaus of Asia Minor, Armenia and Persia, became gradually Aryanized, owing to the immigration at this period of history of tribes in overwhelming numbers which, from whatever quarter they may have sprung, belonged certainly to the Aryan family.

The *Gūtū* or Kūrdu were reduced to subjection by Cyrus before he descended upon Babylon, and furnished a contingent of fighting men to his successors, being thus mentioned under the names of Saspirians and Alarodians in the muster roll of the army of Xerxes which was preserved by Herodotus.

In later times they passed successively under the sway of the Macedonians, the Parthians, and Sassanians, being especially befriended, if we may judge from tradition as well as from the remains still existing in the country, by the Arsacian monarchs, who were probably of a cognate race. Gotarzes indeed, whose name may perhaps be translated "chief of the *Gūtū*," was traditionally believed to be the founder of the Gurāns, the principal tribe of southern Kūrdistān,[2] and his name and titles are still preserved in a Greek inscription at

[1] The Gurān are mentioned in the *Mesalik-el-Absār* as the dominant tribe in southern Kūrdistān in the 14th century, occupying very much the same seats as at present, from the Hamadan frontier to Shahrizor. Their name probably signifies merely "the mountaineers," being derived from *gur* or *giri*, "a mountain," which is also found in Zagros, *i.e. za-giri*, "beyond the mountain," or *Pusht-i-koh*, as the name is translated in Persian. They are a fine, active and hardy race, individually brave, and make excellent soldiers, though in appearance very inferior to the tribal Kūrds of the northern districts. These latter indeed delight in gay colours, while the Gurāns dress in the most homely costume, wearing coarse blue cotton vests, with felt caps and coats. In a great part of Kūrdistān the name Gurān has become synonymous with an agricultural peasantry, as opposed to the migratory shepherds.

[2] "The Kalhūr tribe are traditionally descended from Gudarz-ibn-Gīo, whose son Roham was sent by Bahman Keiāni to destroy Jerusalem and bring the Jews into captivity. This Roham is the individual usually called Bokht-i-nasser (Nebuchadrezzar) and he ultimately succeeded to the throne. The neighbouring country has ever since remained in the hands of his descendants, who are called Gurāns" (*Sheref-Nama*, Persian MS.). The same popular tradition still exists in the country, and ΓΩΤΑΡΖΗΟ ΓΕΟΠΟΟΡΟΣ is found on the rock at Behistun, showing that Gudarz-ibn-Gīo was really an historic personage. See *Journ. Roy. Geog. Soc.* ix. 114.

Behistun near the Kurdish capital of Kermānshāh. Under the caliphs of Bagdad the Kūrds were always giving trouble in one quarter or another. In A.D. 838, and again in 905, there were formidable insurrections in northern Kūrdistān; the amir, Adod-addaula, was obliged to lead the forces of the caliphate against the southern Kūrds, capturing the famous fortress of Sermāj, of which the ruins are to be seen at the present day near Behistun, and reducing the province of Shahrizor with its capital city now marked by the great mound of Yassin Teppeh. The most flourishing period of Kūrdish power was probably during the 12th century of our era, when the great Saladin, who belonged to the Rawendi branch of the Hadabāni tribe, founded the Ayyubite dynasty of Syria, and Kūrdish chiefships were established, not only to the east and west of the Kūrdistān mountains, but as far as Khorāsān upon one side and Egypt and Yemen on the other. During the Mongol and Tatar domination of western Asia the Kūrds in the mountains remained for the most part passive, yielding a reluctant obedience to the provincial governors of the plains.

When Sultan Selīm I., after defeating Shah Ismail, 1514, annexed Armenia and Kūrdistān, he entrusted the organization of the conquered territories to Idris, the historian, who was a Kūrd of Bitlis. Idris found Kūrdistān bristling with castles, held by hereditary tribal chiefs of Kūrd, Arab, and Armenian descent, who were practically independent, and passed their time in tribal warfare or in raiding the agricultural population. He divided the territory into sanjaks or districts, and, making no attempt to interfere with the principle of heredity, installed the local chiefs as governors. He also resettled the rich pastoral country between Erzerūm and Erivan, which had lain waste since the passage of Timūr, with Kūrds from the Hakkiari and Bohtan districts. The system of administration introduced by Idris remained unchanged until the close of the Russo-Turkish War of 1828–29. But the Kūrds, owing to the remoteness of their country from the capital and the decline of Turkey, had greatly increased in influence and power, and had spread westwards over the country as far as Angora. After the war the Kūrds attempted to free themselves from Turkish control, and in 1834 it became necessary to reduce them to subjection. This was done by Reshid Pasha. The principal towns were strongly garrisoned, and many of the Kūrd beys were replaced by Turkish governors. A rising under Bedr Khān Bey in 1843 was firmly repressed, and after the Crimean War the Turks strengthened their hold on the country. The Russo-Turkish War of 1877–78 was followed by the attempt of Sheikh Obaidullah, 1880–81, to found an independent Kūrd principality under the protection of Turkey. The attempt, at first encouraged by the Porte, as a reply to the projected creation of an Armenian state under the suzerainty of Russia (see ARMENIA), collapsed after Obaidullah's raid into Persia, when various circumstances led the central government to reassert its supreme authority. Until the Russo-Turkish War of 1828–29 there had been little hostile feeling between the Kūrds and the Armenians, and as late as 1877–1878 the mountaineers of both races had got on fairly well together. Both suffered from Turkey, both dreaded Russia. But the national movement amongst the Armenians, and its encouragement by Russia after the last war, gradually aroused race hatred and fanaticism. In 1891 the activity of the Armenian Committees induced the Porte to strengthen the position of the Kūrds by raising a body of Kūrdish irregular cavalry, which was well armed and called Hamidieh after the Sultan. The opportunities thus offered for plunder and the gratification of race hatred brought out the worst qualities of the Kūrds. Minor disturbances constantly occurred, and were soon followed by the massacre of Armenians at Sasūn and other places, 1894–96, in which the Kūrds took an active part.

AUTHORITIES.—Rich, *Narrative of a Residence in Koordistan* (1836); Wagner, *Reise nach Persien und dem Lande der Kurden* (Leipzig, 1852); Consul Taylor in *R. G. S. Journal* (1865); Millingen, *Wild Life among the Koords* (1870); Von Luschan, "Die Wandervölker Kleinasiens," in *Vh. d. G. für Anthropologie* (Berlin, 1886); Clayton, "The Mountains of Kūrdistān," in *Alpine Journal* (1887); Binder, *Au Kūrdistan* (Paris, 1887); Naumann, *Vom Goldnen Horn zu den Quellen des Euphrat* (Munich, 1893); Murray, *Handbook to Asia Minor, &c.* (1895); Lerch, *Forschungen über die Kurden* (St Petersburg, 1857–58); Jaba, *Dict. Kurde-Français* (St Petersburg, 1879); Justi, *Kurdische Grammatik* (1880); Prym and Socin, *Kurdische Sammlungen* (1890); Makas, *Kurdische Studien* (1901); Earl Percy, *Highlands of Asiatic Turkey* (1901); Lynch, *Armenia* (1901); A. V. Williams Jackson, *Persia, Past and Present* (1906). (C. W. W.; H. C. R.)

KŪRDISTĀN, in the narrower sense, a province of Persia, situated in the hilly districts between Azerbaïjan and Kermanshah, and extending to the Turkish frontier on the W., and bounded on the E. by Gerrus and Hamadan. In proportion to its size and population it pays a very small yearly revenue —only about £14,000—due to the fact that a great part of the population consists of wild and disorderly nomad Kūrds. Some of these nomads pass their winters in Turkish territory, and have their summer pasture-grounds in the highlands of Kūrdistān. This adds much to the difficulty of collecting taxation. The province is divided into sixteen districts, and its eastern part, in which the capital is situated, is known as Ardelan. The capital is Senendij, usually known as Sinna (not Sihna, or Sahna, as some writers have it), situated 60 m. N.W. of Hamadan, in 35° 15′ N., 47° 18′ E., at an elevation of 5300 ft. The city has a population of about 35,000 and manufactures great quantities of carpets and felts for the supply of the province and for export. Some of the carpets are very fine and expensive, rugs 2 yards by 1½ costing £15 to £20. Post and telegraph offices have been established since 1879.

KURGAN, a town (founded 1553) of West Siberia, in the government of Tobolsk, on the Siberian railway, 160 m. E. of Chelyabinsk, and on the left bank of the Tobol, in a wealthy agricultural district. Pop. (1897), 10,579. Owing to its position at the terminus of steam navigation up the river Tobol, it has become second only to Tyumeñ as a commercial centre. It has a public library and a botanic garden. There is a large trade in cattle with Petropavlovsk, and considerable export of grain, tallow, meat, hides, butter, game and fish, there being three large fairs in the year. In the vicinity are a great number of prehistoric kurgans or burial-mounds.

KURIA MURIA ISLANDS, a group of five islands in the Arabian Sea, close under the coast of Arabia, belonging to Britain and forming a dependency of Aden. They are lofty and rocky, and have a total area of 28 sq. m., that of the largest, Hallania, being 22 sq. m. They are identified with the ancient *Insulae Zenobii*, and were ceded by the sultan of Muscat to Britain in 1854 for the purposes of a cable station. They are inhabited by a few families of Arabs, who however speak a dialect differing considerably from the ordinary Arabic. The islands yield some guano.

KURILES (Jap. *Chishima*, "thousand islands"), a chain of small islands belonging to Japan, stretching in a north-easterly direction from Nemuro Bay, on the extreme east of the island of Yezo, to Chishima-kaikyo (Kuriles Strait), which separates them from the southernmost point of Kamchatka. They extend from 44° 45′ to 50° 56′ N. and from 145° 25′ to 156° 32′ E. Their coasts measure 1496 m.; their area is 6159 sq. m.; their total number is 32, and the names of the eight principal islands, counting from the south, are Kunashiri, Shikotan, Etorofu (generally called Etorop, and known formerly to Europe as Staten Island), Urup, Simusir, Onnekotan, Paramoshiri (Paramusir) and Shumshiri. From Noshapzaki (Notsu-no-sake or Notsu Cape), the most easterly point of Nemuro province, to Tomari, the most westerly point in Kunashiri, the distance is 7⅛ m., and the Kuriles Strait separating Shumshiri from Kamchatka is about the same width. The name "Kurile" is derived from the Russian *kuril* (to smoke), in allusion to the active volcanic character of the group. The dense fogs that envelop these islands, and the violence of the currents in their vicinity, have greatly hindered exploration, so that little is known of their physiography. They lie entangled in a vast net of sea-weed; are the resort of innumerable birds, and used to be largely frequented by seals and sea-otters, which, however, have been

almost completely driven away by unregulated hunting. Near the south-eastern coast of Kunashiri stands a mountain called Rausu-nobori (3005 ft. high), round whose base sulphur bubbles up in large quantities, and hot springs as well as a hot stream are found. On the west coast of the same island is a boiling lake, called Ponto, which deposits on its bed and round its shores black sand, consisting almost entirely of pure sulphur. This island has several lofty peaks; Ponnobori-yama near the eastcoast, and Chachanobori and Rurindake in the north. Chachanobori (about 7382 ft.) is described by Messrs Chamberlain and Mason as "a cone within a cone, the inner and higher of the two being—so the natives say—surrounded by a lake." The island has extensive forests of conifers with an undergrowth of ferns and flowering plants, and bears are numerous. The chief port of Kunashiri is Tomari, on the south coast. The island of Shikotan is remarkable for the growth of a species of bamboo (called Shikotan-chiku), having dark brown spots on the cane. Etorofu has a coast-line broken by deep bays, of which the principal are Naibo-wan, Rubetsu-wan and Bettobuwan on the northern shore and Shitokap-wan on the southern. It is covered almost completely with dense forest, and has a number of streams abounding with salmon. Shana, the chief port, is in Rubetsu Bay. This island, the principal of the group, is divided into four provinces for administrative purposes, namely, Etorofu, Furubetsu, Shana and Shibetoro. Its mountains are Atosha-nobori (4035 ft.) in Etorofu; Chiripnupari (5009 ft.) in Shana; and Mokoro-nobori (3930 ft.) and Atuiyadake (3932 ft.) in Shibetoro. Among the other islands three only call for notice on account of their altitudes, namely, Ketoi-jima, Rashua-jima and Matua-jima, which rise to heights of 3944, 3304 and 5240 ft. respectively.

Population.—Not much is known about the aborigines. By some authorities Ainu colonists are supposed to have been the first settlers, and to have arrived there via Yezo; by others, the earliest comers are believed to have been a hyperborean tribe travelling southwards by way of Kamchatka. The islands themselves have not been sufficiently explored to determine whether they furnish any ethnological evidences. The present population aggregates about 4400, or 0·7 per sq. m., of whom about 600 are Ainu (*q.v.*). There is little disposition to emigrate thither from Japan proper, the number of settlers being less than 100 annually.

History.—The Kurile Islands were discovered in 1634 by the Dutch navigator Martin de Vries. The three southern islands, Kunashiri, Etorofu, and Shikotan, are believed to have belonged to Japan from a remote date, but at the beginning of the 18th century the Russians, having conquered Kamchatka, found their way to the northern part of the Kuriles in pursuit of fur-bearing animals, with which the islands then abounded. Gradually these encroachments were pushed farther south, simultaneously with aggressions imperilling the Japanese settlements in the southern half of Sakhalin. Japan's occupation was far from effective in either region, and in 1875 she was not unwilling to conclude a convention by which she agreed to withdraw altogether from Sakhalin provided that Russia withdrew from the Kuriles.

An officer of the Japanese navy, Lieut. Gunji, left Tokyo with about forty comrades in 1892, his intention being to form a settlement on Shumshiri, the most northerly of the Kurile Islands. They embarked in open boats, and for that reason, as well as because they were going to constitute themselves their country's extreme outpost, the enterprise attracted public enthusiasm. After a long struggle the immigrants became fairly prosperous.

See Capt. H. J. Snow, *Notes on the Kurile Islands* (London, 1896).

KURISCHES HAFF, a lagoon of Germany, on the Baltic coast of East Prussia, stretching from Labiau to Memel, a distance of 60 m., has an area of nearly 680 sq. m. It is mostly shallow and only close to Memel attains a depth of 23 ft. It is thus unnavigable except for small coasting and fishing boats, and sea-going vessels proceed through the Memeler Tief (Memel Deep), which connects the Baltic with Memel and has a depth of 19 ft. and a breadth of 800 to 1900 ft. The Kurisches Haff is separated from the Baltic by a long spit, or tongue of land, the so-called Kurische Nehrung, 72 m. in length and with a breadth of 1 to 2 miles. The latter is fringed throughout its whole length by a chain of dunes, which rise in places to a height of nearly 200 ft. and threaten, unless checked, to be pressed farther inland and silt up the whole Haff.

See Berendt, *Geologie des Kurischen Haffs* (Königsberg, 1869); Sommer, *Das Kurische Haff* (Danzig, 1889); A. Bezzenberger, *Die Kurische Nehrung und ihre Bewohner* (Stuttgart, 1889); and Lindner, *Die Preussische Wüste einst und jetzt, Bilder von der Kurischen Nehrung* (Osterwieck, 1898).

KURNOOL, or KARNUL, a town and district of British India, in the Madras presidency. The town is built on a rocky soil at the junction of the Hindri and Tungabhadra rivers 33 m. from a railway station. The old Hindu fort was levelled in 1865, with the exception of one of the gates, which was preserved as a specimen of ancient architecture. Cotton cloth and carpets are manufactured. Pop. (1901), 25,376, of whom half are Mussulmans.

The DISTRICT OF KURNOOL has an area of 7578 sq. m., pop. (1901), 872,055, showing an increase of 6% in the decade. Two long mountain ranges, the Nallamalais and the Yellamalais, extend in parallel lines, north and south, through its centre. The principal heights of the Nallamalai range are Biranikonda (3149 ft.), Gundlabrahmeswaram (3055 ft.), and Durugapukonda (3086 ft.). The Yellamalai is a low range, generally flat-topped with scarped sides; the highest point is about 2000 ft. Several low ridges run parallel to the Nallamalais, broken here and there by gorges, through which mountain streams take their course. Several of these gaps were dammed across under native rule, to form tanks for purposes of irrigation. The principal rivers are the Tungabhadra and Kistna, which bound the district on the north. When in flood, the Tungabhadra averages 900 yards broad and 15 ft. deep. The Kistna here flows chiefly through uninhabited jungles, sometimes in long smooth reaches, with intervening shingly rapids. The Bhavanasi rises on the Nallamalais, and falls into the Kistna at Sungameswaram, a place of pilgrimage. During the 18th century Kurnool formed the *jagir* of a semi-independent Pathan Nawab, whose descendant was dispossessed by the British government for treason in 1838. The principal crops are millets, cotton, oil-seeds, and rice, with a little indigo and tobacco. Kurnool suffered very severely from the famine of 1876–1877, and to a slight extent in 1896–1897. It is the chief scene of the operations of the Madras Irrigation Company taken over by government in 1882. The canal, which starts from the Tungabhadra river near Kurnool town, was constructed at a total cost of two millions sterling, but has not been a financial success. A more successful work is the Cumbum tank, formed under native rule by damming a gorge of the Gundlakamma river. Apart from the weaving of coarse cotton cloth, the chief industrial establishments are cotton presses, indigo vats, and saltpetre refineries. The district is served by the Southern Mahratta railway.

KUROKI, ITEI, COUNT (1844–), Japanese general, was born in Satsuma. He distinguished himself in the Chino-Japanese War of 1894–95. He commanded the I. Army in the Russo-Japanese War (1904–5), when he won the opening battle of the war at the Yalu river, and afterwards advanced through the mountains and took part with the other armies in the battles of Liao-Yang, Shaho and Mukden (see RUSSO-JAPANESE WAR). He was created baron for his services in the former war, and count for his services in the latter.

KUROPATKIN, ALEXEI NIKOLAIEVICH (1848–), Russian general, was born in 1848 and entered the army in 1864. From 1872 to 1874 he studied at the Nicholas staff college, after which he spent a short time with the French troops in Algiers. In 1875 he was employed in diplomatic work in Kashgaria and in 1876 he took part in military operations in Turkistan, Kokan and Samerkand. In the war of 1877–78 against Turkey he earned a great reputation as chief of staff to the younger Skobelev, and after the war he wrote a detailed and critical history of the operations which is still regarded as the classical work on the subject and is available for other nations in the German translation by Major Krahmer. After the war he served again on the south-eastern borders in command of the Turkestan Rifle Brigade,

and in 1881 he won further fame by a march of 500 miles from Tashkent to Geok-Tēpē, taking part in the storming of the latter place. In 1882 he was promoted major-general, at the early age of 34, and he henceforth was regarded by the army as the natural successor of Skobelev. In 1890 he was promoted lieutenant-general, and thirteen years later, having acquired in peace and war the reputation of being one of the foremost soldiers in Europe, he quitted the post of minister of war which he then held and took command of the Russian army then gathering in Manchuria for the contest with Japan. His ill-success in the great war of 1904–5, astonishing as it seemed at the time, was largely attributable to his subjection to the superior command of Admiral Alexeiev, the tsar's viceroy in the Far East, and to internal friction amongst the generals, though in his history of the war (Eng. trans., 1909) he frankly admitted his own mistakes and paid the highest tribute to the gallantry of the troops who had been committed to battle under conditions unfavourable to success. After the defeat of Mukden and the retirement of the whole army to Tieling he resigned the command to General Linievich, taking the latter officer's place at the head of one of the three armies in Manchuria. (See Russo–Japanese War.)

KURO SIWO, or Kuro Shio (literally blue salt), a stream current in the Pacific Ocean, easily distinguishable by the warm temperature and blue colour of its waters, flowing north-eastwards along the east coast of Japan, and separated from it by a strip of cold water. The current persists as a stream to about 40 N., between the meridians of 150° E. and 160° E., when it merges in the general easterly drift of the North Pacific. The Kuro Siwo is the analogue of the Gulf Stream in the Atlantic.

KURRAM, a river and district on the Kohat border of the North-West Frontier province of India. The Kurram river drains the southern flanks of the Safed Koh, enters the plains a few miles above Bannu, and joins the Indus near Isa-Khel after a course of more than 200 miles. The district has an area of 1278 sq. m.; pop. (1901), 54,257. It lies between the Miranzai Valley and the Afghan border, and is inhabited by the Turis, a tribe of Turki origin who are supposed to have subjugated the Bangash Pathans five hundred years ago. It is highly irrigated, well peopled, and crowded with small fortified villages, orchards and groves, to which a fine background is afforded by the dark pine forests and alpine snows of the Safed Koh. The beauty and climate of the valley attracted some of the Mogul emperors of Delhi, and the remains exist of a garden planted by Shah Jahan. Formerly the Kurram valley was under the government of Kabul, and every five or six years a military expedition was sent to collect the revenue, the soldiers living meanwhile at free quarters on the people. It was not until about 1848 that the Turis were brought directly under the control of Kabul, when a governor was appointed, who established himself in Kurram. The Turis, being Shiah Mahommedans, never liked the Afghan rule. During the second Afghan War, when Sir Frederick Roberts advanced by way of the Kurram valley and the Peiwar Kotal to Kabul, the Turis lent him every assistance in their power, and in consequence their independence was granted them in 1880. The administration of the Kurram valley was finally undertaken by the British government, at the request of the Turis themselves, in 1890. Technically it ranks, not as a British district, but as an agency or administered area. Two expeditions in the Kurram valley also require mention: (1) The Kurram expedition of 1856 under Brigadier Chamberlain. The Turis on the first annexation of the Kohat district by the British had given much trouble. They had repeatedly leagued with other tribes to harry the Miranzai valley, harbouring fugitives, encouraging resistance, and frequently attacking Bangash and Khattak villages in the Kohat district. Accordingly in 1856 a British force of 4896 troops traversed their country, and the tribe entered into engagements for future good conduct. (2) The Kohat-Kurram expedition of 1897 under Colonel W. Hill. During the frontier risings of 1897 the inhabitants of the Kurram valley, chiefly the Massozai section of the Orakzais, were infected by the general excitement, and attacked the British camp at Sadda and other posts. A force of 14,230 British troops traversed the country, and the tribesmen were severely punished. In Lord Curzon's reorganization of the frontier in 1900–1901, the British troops were withdrawn from the forts in the Kurram valley, and were replaced by the Kurram militia, reorganized in two battalions, and chiefly drawn from the Turi tribe.

KURSEONG, or Karsiang, a sanatorium of northern India, in the Darjeeling district of Bengal, 20 m. S. of Darjeeling and 4860 ft. above sea-level; pop. (1901), 4469. It has a station on the mountain railway, and is a centre of the tea trade. It also contains boys' and girls' schools for Europeans and Eurasians.

KURSK, a government of middle Russia, bounded N. by the government of Orel, E. by that of Voronezh, S. by Kharkov and W. by Chernigov. Area, 17,932 sq. m. It belongs to the central plateau of middle Russia, of which it mostly occupies the southern slope, the highest parts being in Orel and Kaluga, to the north of Kursk. Its surface is 700 to 1100 ft. high, deeply trenched by ravines, and consequently assumes a hilly aspect when viewed from the river valleys. Cretaceous and Eocene rocks prevail, and chalk, iron-stone, potters' clay and phosphates are among the economic minerals. No fewer than four hundred streams are counted within its borders, but none of them is of any service as waterways. A layer of fertile loess covers the whole surface, and Kursk belongs almost entirely to the black-earth region. The flora is distinct from that of the governments to the north, not only on account of the black-earth flora which enters into its composition, but also of the plants of south-western Russia which belong to it, a characteristic which is accentuated in the southern portion of the government. The climate is milder than that of middle Russia generally, and winds from the south-east and the south-west prevail in winter. The average temperatures are—for the year 42° F., for January 14° F. and for July 67° F. The very interesting magnetic phenomenon, known as the Byelgorod anomaly, covering an oval area 20 m. long and 12 m. wide, has been studied near the town of this name. The population, 1,893,597 in 1862, was 2,391,091 in 1897, of whom 1,208,488 were women and 199,676 lived in towns. The estimated pop. in 1906 was 2,797,000. It is thoroughly Russian (76 % Great Russians and 24 % Little Russians), and 94 % are peasants who own over 59% of the land, and live mostly in large villages. Owing to the rapid increase of the peasantry and the small size of the allotments given at the emancipation of the serfs in 1861, emigration, chiefly to Siberia, is on the increase, while 80,000 to 100,000 men leave home every summer to work in the neighbouring governments. Three-quarters of the available land is under crops, chiefly rye, other crops being wheat, oats, barley, buckwheat, millet, potatoes, sugar-beets, hemp, flax, sunflowers and fruits. Grain is exported in considerable quantities. Bees are commonly kept, as also are large numbers of livestock. Factories (steam flour-mills, sugar-factories, distilleries, wool-washing, tobacco factories) give occupation to about 23,000 workers. Domestic and petty trades are on the increase in the villages, and new ones are being introduced, the chief products being boots, ikons (sacred images) and shrines, toys, caps, vehicles, baskets, and pottery. About 17 m. from the chief town is held the Korennaya fair, formerly the greatest in South Russia, and still with an annual trade valued at £900,000. The Kursk district contains more than sixty old town sites; and barrows or burial mounds (*kurgans*) are extremely abundant. Notwithstanding the active efforts of the local councils (*zemstvos*), less than 10% of the population read and write. The government is crossed from north to south and from west to south by two main lines of railway. The trade in grain, hemp, hemp-seed oil, sheepskins, hides, tallow, felt goods, wax, honey and leather goods is very brisk. There are fifteen districts, the chief towns of which, with their populations in 1897, are Kursk (*q.v.*) Byelgorod (21,850), Dmitriev (7315), Fatezh (4959), Graivoron (7669), Korocha (14,405), Lgov (5376), Novyi Oskol (2762), Oboyañ (11872), Putivl (8965), Rylsk (11,415), Staryi Oskol (16,662), Shchigry (3329), Suja (12,856) and Tim (7380). There are more than twenty villages which have from 5000 to 12,000 inhabitants each. (P. A K.; J. T. Be.)

KURSK, a town of Russia, capital of the government of the same name, at the junction of the railways from Moscow, Kiev and Kharkov, 330 m. S.S.W. from Moscow. Pop. (1897), 52,896. It is built on two hills (750 ft.), the slopes of which are planted with orchards. The environs all round are well wooded and the woods are famous for their nightingales. Among the public buildings the more noticeable are a monastery with an image of the Virgin, greatly venerated since 1295; the Orthodox Greek cathedral (18th century); and the episcopal palace, Kursk being a bishopric of the national church. It is essentially a provincial town, and is revered as the birthplace of Theodosius, one of the most venerated of Russian saints. It has a public garden, and has become the seat of several societies (medical, musical, educational and for sport). Its factories include steam flour-mills, distilleries, tobacco-works, hemp-crushing mills, tanneries, soap-works and iron-works. It has a great yearly fair (*Korennaya*), and an active trade in cereals, linen, leather, fruit, horses, cattle, hides, sheepskins, furs, down, bristles, wax, tallow and manufactured goods.

Kursk was in existence in 1032. It was completely destroyed by the Mongols in 1240. The defence of the town against an incursion of the Turkish Polovtsi (or Comans or Cumani) is celebrated in *The Triumph of Igor*, an epic which forms one of the most valuable relics of early Russian literature. From 1586 to the close of the 18th century the citadel was a place of considerable strength; the remains are now comparatively few.

KURTZ, JOHANN HEINRICH (1809–1890), German Lutheran theologian, was born at Montjoie near Aix la Chapelle on the 13th of December 1809, and was educated at Halle and Bonn. Abandoning the idea of a commercial career, he gave himself to the study of theology and became religious instructor at the gymnasium of Mitau in 1835, and ordinary professor of theology (church history, 1850; exegesis, 1859) at Dorpat. He resigned his chair in 1870 and went to live at Marburg, where he died on the 26th of April 1890. Kurtz was a prolific writer, and many of his books, especially the *Lehrbuch der heiligen Geschichte* (1843), became very popular. In the field of biblical criticism he wrote a *Geschichte des Alten Bundes* (1848–1855), *Zur Theologie der Psalmen* (1865) and *Erklärung des Briefs an die Hebräer* (1869). His chief work was done in church history, among his productions being *Lehrbuch der Kirchengeschichte für Studierende* (1849), *Abriss der Kirchengeschichte* (1852) and *Handbuch der allgemeinen Kirchengeschichte* (1853–1856). Several of his books have been translated into English.

KURUMAN, a town in the Bechuanaland division of Cape Colony, 120 m. N.W. of Kimberley and 85 m. S.W. of Vryburg. It is a station of the London Missionary Society, founded in 1818, and from 1821 to 1870 was the scene of the labours of Robert Moffat (*q.v.*) who here translated the Bible into the Bechuana tongue. In the middle period of the 19th century Kuruman was the rendezvous of all travellers going north or south. Of these the best known is David Livingstone. The trunk railway line passing considerably to the east of the town, Kuruman is no longer a place of much importance. It is pleasantly situated on the upper course of the Kuruman river, being beautified by gardens and orchards, and presents a striking contrast to the desert conditions of the surrounding country. Its name is that of the son and heir of Mosilikatze, the founder of the Matabele nation. Kuruman disappeared during his father's lifetime and the succession passed to Lobengula (see RHODESIA: *History*). In November 1899 the town was besieged by a Boer force. The garrison, less than a hundred strong, held out for six weeks against over 1000 of the enemy, but was forced to surrender on the 1st of January 1900. In June following it was reoccupied by the British.

KURUMBAS and **KURUBAS,** aboriginal tribes of southern India, by some thought to be of distinct races. There are two types of Kurumbas, those who live on the Nilgiri plateau, speak the Kurumba dialect and are mere savages; and those who live in the plains, speak Kanarese and are civilized. The former are a small people, with wild matted hair and scanty beard, sickly-looking, pot-bellied, large-mouthed, with projecting jaws, prominent teeth and thick lips. Their villages are called *mottas*, groups of four or five huts, built in mountain glens or forests. At the 1901 census the numbers were returned at 4083.

See James W. Breeks, *An Account of Primitive Tribes of the Nilgiris* (1873); Dr John Shortt, *Hill Ranges of Southern India*, pt. i. 47–53; Rev. F. Metz, *Tribes Inhabiting the Neilgherry Hills* (Mangalore, 1864).

KURUNEGALA, the chief town in the north-western province of Ceylon. Pop. of the town, 6483; of the district, 249,429. It was the residence of the kings of Ceylon from A.D. 1319 to 1347, and is romantically situated under the shade of Adagalla (the rock of the Tusked Elephant), which is 600 ft. high. It was in 1902 the terminus of the Northern railway (59 m. from Colombo, which has since been extended 200 m. farther, to the northernmost coast of the Jaffna Peninsula. Kurunegala is the centre of rice, coco-nut, tea, coffee and cocoa cultivation.

KURUNTWAD, or KURANDVAD, a native state of India, in the Deccan division of Bombay, forming part of the Southern Mahratta jagirs. Originally created in 1772 by a grant from the peshwa, the state was divided in 1811 into two parts, one of which, called Shedbal, lapsed to the British government in 1857. In 1855 Kuruntwad was further divided between a senior and a junior branch. The territory of both is widely scattered among other native states and British districts. Area of the senior branch, 185 sq. m.; pop. (1901), 42,474; revenue, £13,000. Area of junior branch, 114 sq. m.; pop. (1901), 34,003; revenue, £9000. The joint tribute is £640. The chiefs are Brahmans by caste, of the Patwardhan family. The town of Kuruntwad, in which both branches have their residence, is on the right bank of the Panchganga river near its junction with the Kistna. Pop. (1901), 10,451.

KURZ, HERMANN (1813–1873), German poet and novelist, was born at Reutlingen on the 30th of November 1813. Having studied at the theological seminary at Maulbronn and at the university of Tübingen, he was for a time assistant pastor at Ehningen. He then entered upon a literary career, and in 1863 was appointed university librarian at Tübingen, where he died on the 10th of October 1873. Kurz is less known to fame by his poems, *Gedichte* (1836) and *Dichtungen* (1839), than by his historical novels, *Schillers Heimatjahre* (1843, 3rd ed., 1899) and *Der Sonnenwirt* (1854, 2nd ed., 1862), and his excellent translations from English, Italian and Spanish. He also published a successful modern German version of Gottfried von Strassburg's *Tristan und Isolde* (1844). His collected works were published in ten volumes (Stuttgart, 1874), also in twelve volumes (Leipzig, 1904).

His daughter, ISOLDE KURZ, born on the 21st of December 1853 at Stuttgart, takes a high place among contemporary lyric poets in Germany with her *Gedichte* (Stuttgart, 1888, 3rd ed. 1898) and *Neue Gedichte* (1903). Her short stories, *Florentiner Novellen* (1890, 2nd ed. 1893), *Phantasien und Märchen* (1890), *Italienische Erzählungen* (1895) and *Von Dazumal* (1900) are distinguished by a fine sense of form and clear-cut style.

KUSAN ("lake" or "inland bay"), a small group of North American Indian tribes, formerly living on the Coos river and the coast of Oregon. They call themselves Anasitch, and other names given them have been Ka-us or Kwo-Kwoos, Kowes and Cook-koo-oose. They appear to be in no way related to their neighbours. The few survivors, mostly of mixed blood, are on the Siletz reservation, Oregon.

KUSHALGARH, a village in the Kohat district of the North-West Frontier province of India. It is only notable as the point at which the Indus is bridged to permit of the extension of the strategic frontier railway from Rawalpindi to the Miranzai and Kurram valleys.

KUSHK, a river of Afghanistan, which also gives its name to the chief town in the Afghan province of Badghis, and to a military post on the border of Russian Turkestan. The river Kushk, during a portion of its course, forms the boundary between Afghan and Russian territory; but the town is some 20 m. from the border. Kushk, or Kushkinski Post, is now a fourth-class Russian fortress, on a Russian branch railway from Merv, the

terminus of which is 12 m. to the south, at Chahil Dukteran. It is served by both the Transcaspian and the Orenburg-Tashkent railways. The terminus is only 66 m. from Herat, and in the event of war would become an important base for a Russian advance. Some confusion has arisen through the popular application of the name of Kushk to this terminus, though it is situated neither at the Russian post nor at the old town. (T. H. H.*)

KUSTANAISK, a town of Asiatic Russia, in the province of Turgai, on the Tobol river, 410 m. E.N.E. of Orenburg, in a very fertile part of the steppes. Pop. (1897), 14,065. The first buildings were erected in 1871, and it has since grown with American-like rapidity. The immigrants from Russia built a large village, which became the centre of the district administration in 1884, and a town in 1893, under the name of Nicolaevsk, changed later into Kustanaisk. It is an educational centre, and a cathedral has been built. There are tanneries, tallow works, potteries, and a fair for cattle, while its trade makes it a rival to Orenburg and Troitsk.

KÜSTENLAND (coast-land or littoral), a common name for the three crown-lands of Austria, Görz and Gradisca, Istria and Trieste. Their combined area is 3084 sq. m., and their population in 1900 was 755,183. They are united for certain administrative purposes under the governor of Trieste, the legal and financial authorities of which also exercise jurisdiction over the entire littoral.

KUTAIAH, KUTAYA, or KIUTAHIA, the chief town of a sanjak in the vilayet of Brusa (Khudavendikiar), Asia Minor, is situated on the Pursaksu, an affluent of the Sakaria (anc. *Sangarius*). The town lies at an important point of the great road across Asia Minor from Constantinople to Aleppo, and is connected by a branch line with the main line from Eski-shehr to Afium Kara-Hissar, of the Anatolian railway. It has a busy trade; pop. estimated at 22,000. Kutaiah has been identified with the ancient Cotiaeum.

See V. Cuinet, *Turquie d'Asie*, vol. iv. (Paris, 1894).

KUTAIS, a government of Russian Transcaucasia, situated between the Caucasus range on the N. and the Black Sea on the W., the government of Tiflis on the E. and the province of Kars on the S. Area, 14,313 sq. m. The government includes the districts of Guria, Mingrelia, Imeretia, Abkhasia and Svanetia, and consists of four distinct parts: (1) the lowlands, drained by the Rion, and continued N.W. along the shore of the Black Sea; (2) the southern slopes of the main Caucasus range; (3) the western slopes of the Suram mountains, which separate Kutais from Tiflis; and (4) the slopes of the Armenian highlands, as well as a portion of the highlands themselves, drained by the Chorokh and its tributary, the Ajaris-tskhali, which formerly constituted the Batum province. Generally speaking, the government is mountainous in the north and south. Many secondary ridges and spurs shoot off the main range, forming high, narrow valleys (see CAUCASUS). The district of Batum and Artvin in the S.W., which in 1903 were in part separated for administration as the semi-military district of Batum, are filled up by spurs of the Pontic range, 9000 to 11,240 ft. high, the Arzyan ridge separating them from the plateau of Kars. Deep gorges, through which tributaries of the Chorokh force their passage to the main river, intersect these highlands, forming most picturesque gorges. The lowlands occupy over 2400 sq. m. They are mostly barren in the littoral region, but extremely fertile higher up the Rion.

The climate is very moist and warm. The winters are often without frost at all in the lowlands, while the lowest temperatures observed are 18° F. at Batum and 9° at Poti. The mountains condense the moisture brought by the west winds, and the yearly amount of rain varies from 50 to 120 in. The chief rivers are the Rion, which enters the Black Sea at Poti; the Chorokh, which enters the same sea at Batum; and the Ingur, the Kodor and the Bzyb, also flowing into the Black Sea in Abkhasia. The vegetation is extremely rich, its character suggesting the sub-tropic regions of Japan (see CAUCASIA). The population belongs almost entirely to the Kartvelian or Georgian group, and is distributed as follows: Imeretians, 41·2%; Mingrelians and Lazes, 22·5%; Gurians, 7·3%; Ajars, 5·8%; Svanetians, 1·3%; of other nationalities there are 6% of Abkhasians, 2·6% of Turks, 2·3% of Armenians, besides Russians, Jews, Greeks, Persians, Kurds, Ossetes and Germans. By religion 87% of the population are Greek Orthodox and only 10% Mussulmans. The total population was 933,773 in 1897, of whom 508,468 were women and 77,702 lived in towns. The estimated population in 1906 was 924,800. The land is excessively subdivided, and, owing to excellent cultivation, fetches very high prices. The chief crops are maize, wheat, barley, beans, rye, hemp, potatoes and tobacco. Maize, wine and timber are largely exported. Some cotton-trees have been planted. The vine, olive, mulberry and all sorts of fruit trees are cultivated, as also many exotic plants (eucalyptus, cork-oak, camellia, and even tea). Manganese ore is the chief mineral, and is extracted for export to the extent of 160,000 to 180,000 tons annually, besides coal, lead and silver ores, copper, naphtha, some gold, lithographic stone and marble. Factories are still in infancy, but silk is spun. A railway runs from the Caspian Sea, via Tiflis and the Suram tunnel, to Kutais, and thence to Poti and Batum, and from Kutais to the Tkvibuli coal and manganese mines. The export of both local produce and goods shipped by rail from other ports of Transcaucasia is considerable, Batum and Poti being the two chief ports of Caucasia. Kutais is divided into seven districts, of which the chief towns, with their populations in 1897, are Kutais, capital of the province (*q.v.*); Lailashi (834), chief town of Lechgum, of which Svanetia makes a separate administrative unit; Ozurgeti (4694); Oni, chief town of Racha; Senaki (101); Kvirili, of Sharopan district; Zugdidi; and two semi-military districts—Batum (28,512) with Artvin (7000) and Sukhum-kaleh (7809). (P. A. K.—J. T. BE.)

KUTAIS, a town of Russian Caucasia, capital of the government of the same name, 60 m. by rail E. of Poti and 5 m. from the Rion station of the railway between Poti and Tiflis. Pop. (1897), 32,492. It is one of the oldest towns of Caucasia, having been the ancient capital (Aea or Kutaea) of Colchis, and later the capital of Imeretia (from 792); Procopius mentions it under the name of Kotatision. Persians, Mongols, Turks and Russians have again and again destroyed the town and its fortress. In 1810 it became Russian. It is situated on both banks of the Rion river, which is spanned by three bridges. Its most remarkable building is the ruined cathedral, erected in the 11th century by the Bagratids, the ruling dynasty of Georgia, and destroyed by the Turks in 1692; it is the most important representative extant of Georgian architecture. The fort, mentioned by Procopius, is now a heap of ruins, destroyed by the Russians in 1770. The inhabitants make hats and silks, and trade in agricultural produce and wine. On the right bank of the Rion is a government model garden, with a model farm.

KUT-EL-AMARA, a small town in Turkish Asia, on the east bank of the Tigris (32° 29′ 19″ N., 44° 45′ 37″ E.) at the point where the Shatt-el-Haï leaves that stream. It is a coaling station of the steamers plying between Basra and Bagdad, and an important Turkish post for the control of the lower Tigris.

KUTENAI (Kutonaga), a group of North-American Indian tribes forming the distinct stock of Kitunahan. Their former range was British Columbia, along the Kootenay lake and river. They were always friendly to the whites and noted for their honesty. In 1904 there were some 550 in British Columbia; and in 1908 there were 606 on the Flathead Agency, Montana.

KUTTALAM, or COURTALLUM, a sanatorium of southern India, in the Tinnevelly district of Madras; pop. (1901), 1197. Though situated only 450 ft. above sea-level, it possesses the climate of a much higher elevation, owing to the breezes that reach it through a gap in the Ghats. It has long been a favourite resort for European visitors, the season lasting from July to September; and it has recently been made more accessible by the opening of the railway from Tinnevelly into Travancore. The scenery is most picturesque, including a famous waterfall.

KUTTENBERG (Czech, *Kutná Hora*), a town of Bohemia, Austria, 45 m. E. by S. of Prague. Pop. (1900), 14,799, mostly

Czech. Amongst its buildings are the Gothic five-naved church of St Barbara, begun in 1368, the Gothic church of St Jacob (14th century) and the Late Gothic Trinity church (end of 15th century). The Wälscher Hof, formerly a royal residence and mint, was built at the end of the 13th century, and the Gothic Steinerne Haus, which since 1849 serves as town-hall, contains one of the richest archives in Bohemia. The industry includes sugar-refining, brewing, the manufacture of cotton and woollen stuffs, leather goods and agricultural implements.

The town of Kuttenberg owes its origin to the silver mines, the existence of which can be traced back to the first part of the 13th century. The city developed with great rapidity, and at the outbreak of the Hussite troubles, early in the 14th century, was next to Prague the most important in Bohemia, having become the favourite residence of several of the Bohemian kings. It was here that, on the 18th of January 1419, Wenceslaus IV. signed the famous decree of Kuttenberg, by which the Bohemian nation was given three votes in the elections to the faculty of Prague University as against one for the three other "nations." In the autumn of the same year Kuttenberg was the scene of horrible atrocities. The fierce mining population of the town was mainly German, and fanatically Catholic, in contrast with Prague, which was Czech and utraquist. By way of reprisals for the Hussite outrages in Prague, the miners of Kuttenberg seized on any Hussites they could find, and burned, beheaded or threw them alive into the shafts of disused mines. In this way 1600 people are said to have perished, including the magistrates and clergy of the town of Kauřim, which the Kuttenbergers had taken. In 1420 the emperor Sigismund made the city the base for his unsuccessful attack on the Taborites; Kuttenberg was taken by Žižka, and after a temporary reconciliation of the warring parties was burned by the imperial troops in 1422, to prevent its falling again into the hands of the Taborites. Žižka none the less took the place, and under Bohemian auspices it awoke to a new period of prosperity. In 1541 the richest mine was hopelessly flooded; in the insurrection of Bohemia against Ferdinand I. the city lost all its privileges; repeated visitations of the plague and the horrors of the Thirty Years' War completed its ruin. Half-hearted attempts after the peace to repair the ruined mines failed; the town became impoverished, and in 1770 was devastated by fire. The mines were abandoned at the end of the 18th century; one mine was again opened by the government in 1874, but the work was discontinued in 1903.

KUTUSOV [Golenishchev-Kutusov], **MIKHAIL LARIONOVICH,** Prince of Smolensk (1745–1813), Russian field marshal, was born on the 16th of September 1745 at St Petersburg, and entered the Russian army in 1759 or 1760. He saw active service in Poland, 1764–69, and against the Turks, 1770–74; lost an eye in action in the latter year; and after that travelled for some years in central and western Europe. In 1784 he became major-general, in 1787 governor-general of the Crimea; and under Suvorov, whose constant companion he became, he won considerable distinction in the Turkish War of 1788–91, at the taking of Ochakov, Odessa, Benda and Ismail, and the battles of Rimnik and Mashin. He was now (1791) a lieutenant-general, and successively occupied the positions of ambassador at Constantinople, governor-general of Finland, commandant of the corps of cadets at St Petersburg, ambassador at Berlin, and governor-general of St Petersburg. In 1805 he commanded the Russian corps which opposed Napoleon's advance on Vienna (see Napoleonic Campaigns), and won the hard-fought action of Dürrenstein on the 18th–19th of November.

On the eve of Austerlitz (*q.v.*) he tried to prevent the Allied generals from fighting a battle, and when he was overruled took so little interest in the event that he fell asleep during the reading of the orders. He was, however, present at the battle itself, and was wounded. From 1806 to 1811 Kutusov was governor-general of Lithuania and Kiev, and in 1811, being then commander-in-chief in the war against the Turks, he was made a prince. Shortly after this he was called by the unanimous voice of the army and the people to command the army that was retreating before Napoleon's advance. He gave battle at Borodino (*q.v.*), and was defeated, but not decisively, and after retreating to the south-west of Moscow, he forced Napoleon to begin the celebrated retreat. The old general's cautious pursuit evoked much criticism, but at any rate he allowed only a remnant of the Grand Army to regain Prussian soil. He was now field marshal and prince of Smolensk—this title having been given him for a victory over part of the French army at that place in November 1812. Early in the following year he carried the war into Germany, took command of the allied Russians and Prussians, and prepared to raise all central Europe in arms against Napoleon's domination, but before the opening of the campaign he fell ill and died on the 25th of March 1813 at Bunzlau. Memorials have been erected to him at that place and at St Petersburg.

Mikhailovsky-Danilevski's life of Kutusov (St Petersburg, 1850) was translated into French by A. Fizelier (Paris, 1850).

KUWĒT (Kuweit, Koweit), a port in Arabia at the north-western angle of the Persian Gulf in 29° 20′ N. and 48″ E., about 80 m. due S. of Basra and 60 m. S.W. of the mouth of the Shat el Arab. The name Kuwēt is the diminutive form of Kut, a common term in Irāk for a walled village; it is also shown in some maps as Grane or Grain, a corruption of Kurēn, the diminutive of Karn, a horn. It lies on the south side of a bay 20 m. long and 5 m. wide, the mouth of which is protected by two islands, forming a fine natural harbour, with good anchorage in from 4 to 9 fathoms of water. The town has 15,000 inhabitants and is clean and well built; the country around being practically desert, it depends entirely on the sea and its trade, and its sailors have a high reputation as the most skilful and trustworthy on the Persian Gulf; while its position as the nearest port to Upper Nejd gives it great importance as the port of entry for rice, piece goods, &c., and of export for horses, sheep, wool and other products of the interior. Kuwēt was recommended in 1850 by General F. R. Chesney as the terminus of his proposed Euphrates Valley railway, and since 1898, when the extension of the Anatolian railway to Bagdad and the Gulf has been under discussion, attention has again been directed to it. An alternative site for the terminus has been suggested in Um Khasa, at the head of the Khor 'Abdallah, where a branch of the Shat el Arab formerly entered the sea; it lies some 20 m. N.E. of Kuwēt and separated from it by the island of Bubiān, which has for some time been in Turkish occupation. An attempt by Turkey to occupy Kuwēt in 1898 was met by a formal protest from Great Britain against any infringement of the *status quo*, and in 1899 Sheikh Mubārak of Kuwēt placed his interests under British protection.

The total trade passing through Kuwēt in 1904–1905 was valued at £160,000. The imports include arms and ammunition, piece goods, rice, coffee, sugar, &c.; and the exports, horses, pearls, dates, wool, &c. The steamers of the British India Steamship Company call fortnightly. (R. A. W.)

KUZNETSK, two towns of Russia. (1) A town in the government of Saratov, 74 m. by rail east of Penza. It has grown rapidly since the development of the railway system in the Volga basin. It has manufactures of agricultural machinery and hardware, in a number of small factories and workshops, besides tanneries, rope-works, boot and shoe making in houses, and there is considerable trade in sheepskins, grain, salt and wooden goods exported to the treeless regions of south-east Russia. Pop. (1897), 21,740. (2) A town in West Siberia, in the government of Tomsk, 150 m. E.N.E. of Barnaul, on the Upper Tom river, at the head of navigation. It has trade in grain, cattle, furs, cedarwood, nuts, wax, honey and tallow, and is the centre of a coal-mining district. Pop. (1897), 3141.

KVASS, or Kwass (a Russian word for "leaven"), one of the national alcoholic drinks of Russia, and popular also in eastern Europe. It is made, by a simultaneous acid and alcoholic fermentation, of wheat, rye, barley and buckwheat meal or of rye-bread, with the addition of sugar or fruit. It has been a universal drink in Russia since the 16th century. Though in the large towns it is made commercially, elsewhere it is frequently an article of domestic production. Kvass is of very low alcoholic content (0·7 to 2·2 %). There are, beside the ordinary kind, superior forms of the drink, such as apple or raspberry kvass.

KWAKIUTL, a tribe of North-American Indians of Wakashan stock. They number about 2000. Formerly the term was used of the one tribe in the north-east of Vancouver, but now it is the collective name for a group of Wakashan peoples. The Kwakiutl Indians are remarkable for their conservatism in all matters and specially their adherence to the custom of Potlatch, which it is sometimes suggested originated with them. Tribal government is in the hands of secret societies. There are three social ranks, hereditary chiefs, middle and third estates, most of the latter being slaves or their descendants. Entry to the societies is forbidden the latter, and can only be obtained by the former after torture and fasting. The *hamatsa* or cannibal society is only open to those who have been members of a lower society for eight years.

KWANGCHOW BAY (Kwangchow Wan), a coaling station on the south coast of China, acquired, along with other concessions, by the French government in April 1898. It is situated on the east side of the peninsula of Lienchow, in the province of Kwangtung, and directly north of the island of Hainan. It is held on lease for 99 years on similar terms to those by which Kiaochow is held by Germany, Port Arthur by Japan and Wei-hai-wei by Great Britain. The cession includes the islands lying in the bay; these enclose a roadstead 18 m. long by 6 m. wide, with admirable natural defences and a depth at no part of less than 33 ft. The bay forms the estuary of the Ma-Ts'e river, navigable by the largest men-of-war for 12 m. from the coast. The limits of the concession inland were fixed in November 1899. On the left bank of the Ma-Ts'e France gained from Kow Chow Fu a strip of territory 11 m. by 6 m., and on the right bank a strip 15 m. by 11 m. from Lei Chow Fu. The country is well populated; the capital and chief town is Lei Chow. The cession carries with it full territorial jurisdiction during the continuance of the lease. In January 1900 it was placed under the authority of the governor-general of Indo-China, who in the same month appointed a civil administrator over the country, which was divided into three districts. The population of the territory is about 189,000. A mixed tribunal has been instituted, but the local organization is maintained for purposes of administration. In addition to the territory acquired, the right has been given to connect the bay by railway with the city and harbour of Ompon, situated on the west side of the peninsula, and in consequence of difficulties which were offered by the provincial government on the occasion of taking possession, and which compelled the French to have recourse to arms, the latter demanded and obtained exclusive mining rights in the three adjoining prefectures. Two lines of French steamships call at the bay. By reason of the great strategical importance of the bay, and the presence of large coal-beds in the near neighbourhood, much importance is attached by the French to the acquirement of Kwangchow Wan.

KWANG-SI, a southern province of China, bounded N. by Kwei-chow and Hu-nan, E. and S. by Kwang-tung, S.W. and W. by French Indo-Chino and Yun-nan. It covers an area of 80,000 sq. m. It is the least populous province of China, its inhabitants numbering (1908) little over 5,000,000. The Skias, an aboriginal race, form two-thirds of the population. The provincial capital is Kwei-lin Fu, or City of the Forest of Cinnamon Trees, and there are besides ten prefectural cities. The province is largely mountainous. The principal rivers are the Si-kiang and the Kwei-kiang, or Cinnamon River, which takes its rise in the district of Hing-gan, in the north of the province, and in the neighbourhood of that of the Siang river, which flows northward through Hu-nan to the Tung-t'ing Lake. The Kwei-kiang, on the other hand, takes a southerly course, and passes the cities of Kwei-lin, Yang-so Hien, P'ing-lē Fu, Chao-p'ing Hien, and so finds its way to Wu-chow Fu, where it joins the waters of the Si-kiang. Another considerable river is the Liu-kiang, or Willow River, which rises in the mountains inhabited by the Miao-tsze, in Kwei-chow. Leaving its source it takes a south-easterly direction, and enters Kwang-si, in the district of Hwai-yuen. After encircling the city of that name, it flows south as far as Liu-ch'ēng Hien, where it forms a junction with the Lung-kiang, or Dragon River. Adopting the trend of this last-named stream, which has its head-waters in Kwei-chow, the mingled flow passes eastward, and farther on in a south-easterly direction, by Lai-chow Fu, Wu-suan Hien, and Sin-chow Fu, where it receives the waters of the Si-kiang, and thenceforth changes its name for that of its affluent. The treaty ports in Kwang-si are Wuchow Fu, Lung-chow and Nanning Fu.

KWANG-TUNG, a southern province of China, bounded N. by Hu-nan, Kiang-si and Fu-kien, S. and E. by the sea, and W. by Kwang-si. It contains an area, including the island of Hainan, of 75,500 sq. m., and is divided into nine prefectures; and the population is estimated at about 30,000,000. Its name, which signifies "east of Kwang," is derived, according to Chinese writers, from the fact of its being to the east of the old province of Hu-kwang, in the same way that Kwang-si derives its name from its position to the west of Hu-kwang. Kwang-tung extends for more than 600 m. from east to west, and for about 420 from north to south. It may be described as a hilly region, forming part as it does of the Nan Shan ranges. These mountains, speaking generally, trend in a north-east and south-westerly direction, and are divided by valleys of great fertility. The principal rivers of the province are the Si-kiang, the Pei-kiang, or North River, which rises in the mountains to the north of the province, and after a southerly course joins the Si-kiang at San-shui Hien; the Tung-kiang, or East River, which, after flowing in a south-westerly direction from its source in the north-east of the province, empties itself into the estuary which separates the city of Canton from the sea; and the Han River, which runs a north and south course across the eastern portion of the province, taking its rise in the mountains on the western frontier of Fu-kien and emptying itself into the China Sea in the neighbourhood of Swatow. Kwang-tung is one of the most productive provinces of the empire. Its mineral wealth is very considerable, and the soil of the valleys and plains is extremely fertile. The principal article of export is silk, which is produced in the district forming the river delta, extending from Canton to Macao and having its apex at San-shui Hien. Three large coal-fields exist in the province, namely, the Shao-chow Fu field in the north; the Hwa Hien field, distant about 30 m. from Canton; and the west coast field, in the south-west. The last is by far the largest of the three and extends over the districts of Wu-ch'uen, Tien-pai, Yang-kiang, Yang-ch'un, Gan-p'ing, K'ai-p'ing, Sin-hing, Ho-shan, Sin-hwang, and Sin-ning. The coal from the two first-named fields is of an inferior quality, but that in the west coast field is of a more valuable kind. Iron ore is found in about twenty different districts, notably in Ts'ing-yuen, Ts'ung-hwa, Lung-mēn, and Lu-fēng. None, however, is exported in its raw state, as all which is produced is manufactured in the province, and principally at Fat-shan, which has been called the Birmingham of China. The Kwang-tung coast abounds with islands, the largest of which is Hainan, which forms part of the prefecture of K'iung-chow Fu. This island extends for about 100 m. from north to south and the same distance from east to west. The southern and eastern portions of Hainan are mountainous, but on the north there is a plain of some extent. Gold is found in the central part; and sugar, coco-nuts, betel-nuts, birds' nests, and agar agar, or sea vegetable, are among the other products of the island. Canton, Swatow, K'iung-chow (in Hainan), Pakhoi, San-shui are among the treaty ports. Three ports in the province have been ceded or leased to foreign powers—Macao to Portugal, Hong-Kong (with Kowloon) to Great Britain, and Kwangchow to France.

KWANZA (Coanza or Quanza), a river of West Africa, with a course of about 700 m. entirely within the Portuguese territory of Angola. The source lies in about 13° 40′ S., 17° 30′ E. on the Bihe plateau, at an altitude of over 5000 ft. It runs first N.E. and soon attains fairly large dimensions. Just north of 12° it is about 60 yds. wide and 13 to 16 ft. deep. From this point to 10° it flows N.W., receiving many tributaries,

especially the Luando from the east. In about 10°, and at intervals during its westerly passage through the outer plateau escarpments, its course is broken by rapids, the river flowing in a well-defined valley flanked by higher ground. The lowest fall is that of Kambamba, or Livingstone, with a drop of 70 ft. Thence to the sea, a distance of some 160 m., it is navigable by small steamers, though very shallow in the dry season. The river enters the sea in 9° 15′ S., 13° 20′ E., 40 m. S. of Loanda. There is a shifting bar at its mouth, difficult to cross, but the river as a waterway has become of less importance since the fertile district in its middle basin has been served by the railway from Loanda to Ambaca (see ANGOLA).

KWEI-CHOW, a south-western province of China, bounded N. by Sze-ch'uen, E. by Hu-nan, S. by Kwang-si, and W. by Yun-nan. It contains 67,000 sq. m., and has a population of about 8,000,000. Kwei-yang Fu is the provincial capital, and besides this there are eleven prefectural cities in the province. With the exception of plains in the neighbourhood of Kwei-yang Fu, Ta-ting Fu, and Tsun-i Fu, in the central and northern regions, the province may be described as mountainous. The mountain ranges in the south are largely inhabited by Miao-tsze, who are the original owners of the soil and have been constantly goaded into a state of rebellion by the oppression to which they have been subjected by the Chinese officials. To this disturbing cause was added another in 1861 by the spread of the Mahommedan rebellion in Yun-nan into some of the south-western districts of the province. The devastating effects of these civil wars were most disastrous to the trade and the prosperity of Kwei-chow. The climate is by nature unhealthy, the supply of running water being small, and that of stagnant water, from which arises a fatal malaria, being considerable. The agricultural products of the province are very limited, and its chief wealth lies in its minerals. Copper, silver, lead, and zinc are found in considerable quantities, and as regards quicksilver, Kwei-chow is probably the richest country in the world. This has been from of old the chief product of the province, and the belt in which it occurs extends through the whole district from south-west to north-east. One of the principal mining districts is K'ai Chow, in the prefecture of Kwei-yang Fu, and this district has the advantage of being situated near Hwang-p'ing Chow, from which place the products can be conveniently and cheaply shipped to Hankow. Cinnabar, realgar, orpiment and coal form the rest of the mineral products of Kwei-chow. Wild silk is another valuable article of export. It is chiefly manufactured in the prefecture of Tsun-i Fu.

KYAUKPYU, a district in the Arakan division of Lower Burma, on the eastern coast of the Bay of Bengal. It consists of, first, a strip of mainland along the Bay of Bengal, extending from the An pass, across the main range, to the Ma-ī River, and, secondly, the large islands of Ramree and Cheduba, with many others to the south, lying off the coast of Sandoway. The mainland in the north and east is highly mountainous and forest-clad, and the lower portion is cut up into numerous islands by a network of tidal creeks. Between the mainland and Ramree lies a group of islands separated by deep, narrow, salt-water inlets, forming the north-eastern shore of Kyaukpyu harbour, which extends for nearly 30 m. along Ramree in a south-easterly direction, and has an average breadth of 3 m. The principal mountains are the Arakan Yomas, which send out spurs and sub-spurs almost to the sea-coast. The An pass, an important trade route, rises to a height of 4664 ft. above sea-level. The Dha-let and the An rivers are navigable by large boats for 25 and 45 m. respectively. Above these distances they are mere mountain torrents. Large forests of valuable timber cover an area of about 650 sq. m. Kyaukpyu contains numerous "mud volcanoes," from which marsh gas is frequently discharged, with occasional issue of flame. The largest of these is situated in the centre of Cheduba island. Earth-oil wells exist in several places in the district. The oil when brought to the surface has the appearance of a whitish-blue water, which gives out brilliant straw-coloured rays, and emits a strong pungent odour. Limestone, iron and coal are also found. Area 4387 sq. m.; pop. (1901), 168,827, showing an increase in the decade of 2·3%.

The chief town, Kyaukpyu, had a population in 1901 of 3145. It has a municipal committee of twelve members, three *ex officio* and nine appointed by the local government, and there is a third-class district gaol. Kyaukpyu is a port under the Indian Ports Act (X. of 1889), and the steamers of the British India Navigation Company call there once a week going and coming between Rangoon and Calcutta.

KYAUKSĒ, a district in the Meiktila division of Upper Burma, with an area of 1274 sq. m., and a population in 1901 of 141,253. It is also known as the *Ko-kayaing*, so called from the original nine canals of the district. It consists of a generally level strip running north and south at the foot of the Shan Hills, and of a hilly region rising up these hills to the east, and including the Yeyaman tract, which lies between 21° 30′ and 21° 40′ N. and 96° 15′ and 96° 45′ E., with peaks rising to between 4500 and 5000 ft. This tract is rugged and scored by ravines, and is very sparsely inhabited. The Panlaung and Zawgyi rivers from the Shan States flow through the district and are utilized for the numerous irrigation canals. Notwithstanding this, much timber is floated down, and the Panlaung is navigable for small boats all the year round. Rain is very scarce, but the canals supply ample water for cultivation and all other purposes. They are said to have been dug by King Nawrahtā in 1092. He is alleged to have completed the system of nine canals and weirs in three years' time. Others have been constructed since the annexation of Upper Burma. At that time many were in serious disrepair, but most of them have been greatly improved by the construction of proper regulators and sluices. Two-thirds of the population are dependent entirely on cultivation for their support, and this is mainly rice on irrigated land. In the Yeyaman tract the chief crop is rice. The great majority of the population is pure Burmese, but in the hills there are a good many Danus, a cross between Shans and Burmese. The railway runs through the centre of the rice-producing area, and feeder roads open up the country as far as the Shan foot-hills. The greater part of the district consists of state land, the cultivators being tenants of government, but there is a certain amount of hereditary freehold.

KYAUKSĒ town is situated on the Zawgyi River and on the Rangoon-Mandalay railway line, and is well laid out in regular streets, covering an area of about a square mile. It has a population (1901) of 5420, mostly Burmese, with a colony of Indian traders. Above it are some bare rocky hillocks, picturesquely studded with pagodas.

KYD, THOMAS (1558–1594), one of the most important of the English Elizabethan dramatists who preceded Shakespeare. Kyd remained until the last decade of the 19th century in what appeared likely to be impenetrable obscurity. Even his name was forgotten until Thomas Hawkins about 1773 discovered it in connexion with *The Spanish Tragedy* in Thomas Heywood's *Apologie for Actors*. But by the industry of English and German scholars a great deal of light has since been thrown on his life and writings. He was the son of Francis Kyd, citizen and scrivener of London, and was baptized in the church of St Mary Woolnoth, Lombard Street, on the 6th of November 1558. His mother, who survived her son, was named Agnes, or Anna. In October 1565 Kyd entered the newly founded Merchant Taylors' School, where Edmund Spenser and perhaps Thomas Lodge were at different times his school-fellows. It is thought that Kyd did not proceed to either of the universities; he apparently followed, soon after leaving school, his father's business as a scrivener. But Nashe describes him as a "shifting companion that ran through every art and throve by none." He showed a fairly wide range of reading in Latin. The author on whom he draws most freely is Seneca, but there are many reminiscences, and occasionally mistranslations of other authors. Nashe contemptuously said that "English Seneca read by candlelight yeeldes many good sentences," no doubt exaggerating his indebtedness to Thomas Newton's translation. John Lyly had a more marked influence on his manner than any of his contemporaries. It is believed that he produced his famous play, *The Spanish Tragedy*, between 1584

and 1589; the quarto in the British Museum (which is probably earlier than the Göttingen and Ellesmere quartos, dated 1594 and 1599) is undated, and the play was licensed for the press in 1592. The full title runs, *The Spanish Tragedie containing the Lamentable End of Don Horatio and Bel-imperia; with the Pitiful Death of Old Hieronimo*, and the play is commonly referred to by Henslowe and other contemporaries as *Hieronimo*. This drama enjoyed all through the age of Elizabeth and even of James I. and Charles I. so unflagging a success that it has been styled the most popular of all old English plays. Certain expressions in Nashe's preface to the 1589 edition of Robert Greene's *Menaphon* may be said to have started a whole world of speculation with regard to Kyd's activity. Much of this is still very puzzling; nor is it really understood why Ben Jonson called him "sporting Kyd." In 1592 there was added a sort of prologue to *The Spanish Tragedy*, called *The First Part of Jeronimo, or The Warres of Portugal*, not printed till 1605. Professor Boas concludes that Kyd had nothing to do with this melodramatic production, which gives a different version of the story and presents Jeronimo as little more than a buffoon. On the other hand, it becomes more and more certain that what German criticism calls the *Ur-Hamlet*, the original draft of the tragedy of the prince of Denmark, was a lost work by Kyd, probably composed by him in 1587. This theory has been very elaborately worked out by Professor Sarrazin, and confirmed by Professor Boas; these scholars are doubtless right in holding that traces of Kyd's play survive in the first two acts of the 1603 first quarto of *Hamlet*, but they probably go too far in attributing much of the actual language of the last three acts to Kyd. Kyd's next work was in all probability the tragedy of *Soliman and Perseda*, written perhaps in 1588 and licensed for the press in 1592, which, although anonymous, is assigned to him on strong internal evidence by Mr Boas. No copy of the first edition has come down to us; but it was reprinted, after Kyd's death, in 1599. In the summer or autumn of 1590 Kyd seems to have given up writing for the stage, and to have entered the service of an unnamed lord, who employed a troop of "players." Kyd was probably the private secretary of this nobleman, in whom Professor Boas sees Robert Radcliffe, afterwards fifth earl of Sussex. To the wife of the earl (Bridget Morison of Cassiobury) Kyd dedicated in the last year of his life his translation of Garnier's *Cornelia* (1594), to the dedication of which he attached his initials. Two prose works of the dramatist have survived, a treatise on domestic economy, *The Householder's Philosophy*, translated from the Italian of Tasso (1588); and a sensational account of *The Most Wicked and Secret Murdering of John Brewer, Goldsmith* (1592). His name is written on the title-page of the unique copy of the last-named pamphlet at Lambeth, but probably not by his hand. That many of Kyd's plays and poems have been lost is proved by the fact that fragments exist, attributed to him, which are found in no surviving context. Towards the close of his life Kyd was brought into relations with Marlowe. It would seem that in 1590, soon after he entered the service of this nobleman, Kyd formed his acquaintance. If he is to be believed, he shrank at once from Marlowe as a man "intemperate and of a cruel heart" and "irreligious." This, however, was said by Kyd with the rope round his neck, and is scarcely consistent with a good deal of apparent intimacy between him and Marlowe. When, in May 1593, the "lewd libels" and "blasphemies" of Marlowe came before the notice of the Star Chamber, Kyd was immediately arrested, papers of his having been found "shuffled" with some of Marlowe's, who was imprisoned a week later. A visitation on Kyd's papers was made in consequence of his having attached a seditious libel to the wall of the Dutch churchyard in Austin Friars. Of this he was innocent, but there was found in his chamber a paper of "vile heretical conceits denying the deity of Jesus Christ." Kyd was arrested and put to the torture in Bridewell. He asserted that he knew nothing of this document and tried to shift the responsibility of it upon Marlowe, but he was kept in prison until after the death of that poet (June 1, 1593). When he was at length dismissed, his patron refused to take him back into his service. He fell into utter destitution, and sank under the weight of "bitter times and privy broken passions." He must have died late in 1594, and on the 30th of December of that year his parents renounced their administration of the goods of their deceased son, in a document of great importance discovered by Professor Schick.

The importance of Kyd, as the pioneer in the wonderful movement of secular drama in England, gives great interest to his works, and we are now able at last to assert what many critics have long conjectured, that he takes in that movement the position of a leader and almost of an inventor. Regarded from this point of view, *The Spanish Tragedy* is a work of extraordinary value, since it is the earliest specimen of effective stage poetry existing in English literature. It had been preceded only by the pageant-poems of Peele and Lyly, in which all that constitutes in the modern sense theatrical technique and effective construction was entirely absent. These gifts, in which the whole power of the theatre as a place of general entertainment was to consist, were supplied earliest among English playwrights to Kyd, and were first exercised by him, so far as we can see, in 1586. This, then, is a more or less definite starting date for Elizabethan drama, and of peculiar value to its historians. Curiously enough, *The Spanish Tragedy*, which was the earliest stage-play of the great period, was also the most popular, and held its own right through the careers of Shakespeare, Ben Jonson, and Fletcher. It was not any shortcoming in its harrowing and exciting plot, but the tameness of its archaic versification, which probably led in 1602 to its receiving "additions," which have been a great stumbling-block to the critics. It is known that Ben Jonson was paid for these additional scenes, but they are extremely unlike all other known writings of his, and several scholars have independently conjectured that John Webster wrote them. Of Kyd himself it seems needful to point out that neither the Germans nor even Professor Boas seems to realize how little definite merit his poetry has. He is important, not in himself, but as a pioneer. The influence of Kyd is marked on all the immediate predecessors of Shakespeare, and the bold way in which scenes of violent crime were treated on the Elizabethan stage appears to be directly owing to the example of Kyd's innovating genius. His relation to *Hamlet* has already been noted, and *Titus Andronicus* presents and exaggerates so many of his characteristics that Mr Sidney Lee and others have supposed that tragedy to be a work of Kyd's touched up by Shakespeare. Professor Boas, however, brings cogent objections against this theory, founding them on what he considers the imitative inferiority of *Titus Andronicus* to *The Spanish Tragedy*. The German critics have pushed too far their attempt to find indications of Kyd's influence on later plays of Shakespeare. The extraordinary interest felt for Kyd in Germany is explained by the fact that *The Spanish Tragedy* was long the best known of all Elizabethan plays abroad. It was acted at Frankfort in 1601, and published soon afterwards at Nuremberg. It continued to be a stock piece in Germany until the beginning of the 18th century; it was equally popular in Holland, and potent in its effect upon Dutch dramatic literature.

Kyd's works were first collected and his life written by Professor F. S. Boas in 1901. Of modern editions of *The Spanish Tragedy* may be mentioned that by Professor J. M. Manly in *Specimens of the Pre-Shakespearean Drama*, vol. ii. (Boston, 1897), and by J. Schick in the *Temple Dramatists* (1898). See also *Cornelia* (ed. H. Gassner, 1894); C. Markscheffel, *T. Kyd's Tragödien* (1885); Gregor Sarrazin, *Thomas Kyd und sein Kreis* (1892); G. O. Fleischer, "Bemerkungen über Thomas Kyd's Spanish Tragedy" (*Jahresbericht der Drei-Königschule zu Dresden-Neustadt* (1896); J. Schick, "T. Kyd's Spanish Tragedy" (*Literarhistorische Forschungen*, vol. 19, 1901); and R. Koppel, in Prölss, *Altengl. Theater* (vol. i., 1904). (E. G.)

KYFFHÄUSER, a double line of hills in Thuringia, Germany. The northern part looks steeply down upon the valley of the Goldene Aue, and is crowned by two ruined castles, Rothenburg (1440 ft.) on the west, and Kyffhausen (1542 ft.) on the east. The latter, built probably in the 10th century, was frequently the residence of the Hohenstaufen emperors, and was finally destroyed in the 16th century. The existing ruins are those of the Oberburg with its tower, and of the Unterburg with its chapel. The hill is surmounted by an imposing monument to the emperor William I., the equestrian statue of the emperor being 31 ft.

high and the height of the whole 210 ft. This was erected in 1896. According to an old and popular legend, the emperor Frederick Barbarossa sits asleep beside a marble table in the interior of the mountain, surrounded by his knights, awaiting the destined day when he shall awaken and lead the united peoples of Germany against her enemies, and so inaugurate an era of unexampled glory. But G. Vogt has advanced cogent reasons (see *Hist. Zeitschrift*, xxvi. 131–187) for believing that the real hero of the legend is the other great Hohenstaufen emperor, Frederick II., not Frederick I. Around him gradually crystallized the hopes of the German peoples, and to him they looked for help in the hour of their sorest need. But this is not the only legend of a slumbering future deliverer which lives on in Germany. Similar hopes cling to the memory of Charlemagne, sleeping in a hill near Paderborn; to that of the Saxon hero Widukind, in a hill in Westphalia; to Siegfried, in the hill of Geroldseck; and to Henry I., in a hill near Goslar.

See Richter, *Das deutsche Kyffhäusergebirge* (Eisleben, 1876); Lemcke, *Der deutsche Kaisertraum und der Kyffhäuser* (Magdeburg, 1887); and *Führer durch das Kyffhäusergebirge* (Sangerhausen, 1891); Baltzer, *Das Kyffhäusergebirge* (Rudolstadt, 1882); A. Fulda, *Die Kyffhäusersage* (Sangerhausen, 1889); and Anemüller, *Kyffhäuser und Rothenburg* (Detmold, 1892).

KYNASTON, EDWARD (*c.* 1640–1706), English actor, was born in London and first appeared in Rhodes's company, having been, like Betterton, a clerk in Rhodes's book-shop before he set up a company in the Cockpit in Drury Lane. Kynaston was probably the last and certainly the best of the male actors of female parts, for which his personal beauty admirably fitted him. His last female part was Evadne in *The Maid's Tragedy* in 1661 with Killigrew's company. In 1665 he was playing important male parts at Covent Garden. He joined Betterton at Lincoln's Inn Fields in 1695, after which he received less important rôles, retiring in 1699. He died in 1706, and was buried on the 18th of January.

KYNETON, a town of Dalhousie county, Victoria, Australia, on the river Campaspe, 56 m. by rail N.N.W. of Melbourne. Pop. (1901), 3274. It is the centre of a prosperous agricultural and pastoral district. Important stock sales and an annual exhibition of stock are held. There are, moreover, some rich gold quartz reefs in the neighbourhood. Kyneton lies at an elevation of 1687 ft., and the scenery of the district, which includes some beautiful waterfalls, attracts visitors in summer.

KYŌSAI, SHO-FU (1831–1889), Japanese painter, was born at Koga in the province of Shimotsuke, Japan, in 1831. After working for a short time, as a boy, with Kuniyoshi, he received his artistic training in the studio of Kanō Dōhaku, but soon abandoned the formal traditions of his master for the greater freedom of the popular school. During the political ferment which produced and followed the revolution of 1867, Kyōsai attained a considerable reputation as a caricaturist. He was three times arrested and imprisoned by the authorities of the shogunate. Soon after the assumption of effective power by the mikado, a great congress of painters and men of letters was held, at which Kyōsai was present. He again expressed his opinion of the new movement in a caricature, which had a great popular success, but also brought him into the hands of the police—this time of the opposite party. Kyōsai must be considered the greatest successor of Hokusai (of whom, however, he was not a pupil), and as the first political caricaturist of Japan. His work—like his life—is somewhat wild and undisciplined, and "occasionally smacks of the *sakē* cup." But if he did not possess Hokusai's dignity, power and reticence, he substituted an exuberant fancy, which always lends interest to draughtsmanship of very great technical excellence. In addition to his caricatures, Kyōsai painted a large number of pictures and sketches, often choosing subjects from the folk-lore of his country. A fine collection of these works is preserved in the British Museum; and there are also good examples in the National Art Library at South Kensington, and the Musée Guimet at Paris. Among his illustrated books may be mentioned *Yehon Taka-kagami*, Illustrations of Hawks (5 vols., 1870, &c.); *Kyōsai Gwafu* (1880); *Kyōsai Dongwa*; *Kyōsai Raku-gwa*; *Kyōsai Riaku-gwa*; *Kyōsai Mangwa* (1881); *Kyōsai Suigwa* (1882); and *Kyōsai Gwaden* (1887). The latter is illustrated by him under the name of Kawanabe Tōyoku, and two of its four volumes are devoted to an account of his own art and life. He died in 1889.

See Guimet (É.) and Regamey (F.), *Promenades japonaises* (Paris, 1880); Anderson (W.), *Catalogue of Japanese Painting in the British Museum* (London, 1886); Mortimer Menpes, "A Personal View of Japanese Art: A Lesson from Kyōsai," *Magazine of Art* (1888). (E. F. S.)

KYRIE (in full *kyrie eleison*, or *eleeson*, Gr. *κύριε ἐλέησον*; cf. Ps. cxxii. 3, Matt. xv. 22, &c., meaning "Lord, have mercy"), the words of petition used at the beginning of the Mass and in other offices of the Eastern and Roman Churches. In the Anglican Book of Common Prayer the Kyrie is introduced into the orders for Morning and Evening Prayer, and also, with an additional petition, as a response made by the congregation after the reading of each of the Ten Commandments at the opening of the Communion Service. These responses are usually sung, and the name Kyrie is thus also applied to their musical setting. In the Lutheran Church the Kyrie is still said or sung in the original Greek. "Kyrielle," a shortened form of *Kyrie eleison*, is applied to eight-syllabled four-line verses, the last line in each verse being repeated as a refrain.

KYRLE, JOHN (1637–1724), "the Man of Ross," English philanthropist, was born in the parish of Dymock, Gloucestershire, on the 22nd of May 1637. His father was a barrister and M.P., and the family had lived at Ross, in Herefordshire, for many generations. He was educated at Balliol College, Oxford, and having succeeded to the property at Ross took up his abode there. In everything that concerned the welfare of the little town in which he lived he took a lively interest—in the education of the children, the distribution of alms, in improving and embellishing the town. He delighted in mediating between those who had quarrelled and in preventing lawsuits. He was generous to the poor and spent all he had in good works. He lived a great deal in the open air working with the labourers on his farm. He died on the 7th of November 1724, and was buried in the chancel of Ross Church. His memory is preserved by the Kyrle Society, founded in 1877, to better the lot of working people, by laying out parks, encouraging house decoration, window gardening and flower growing. Ross was eulogized by Pope in the third *Moral Epistle* (1732), and by Coleridge in an early poem (1794).

KYSHTYM, a town of Russia, in the government of Perm, 56 m. by rail N.N.W. of Chelyabinsk, on a river of the same name which connects two lakes. Pop. (1897), 12,331. The official name is Verkhne-Kyshtymskiy-Zavod, or Upper Kyshtym Works, to distinguish it from the Lower (Nizhne) Kyshtym Works, situated two miles lower down the same river.

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